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## COMMON CORE STATE STANDARDS TOOLKIT

## Advocacy Training Materials

PITH

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## Grassroots Advocacy Trainer's Manual

## Module 1: Advocacy



GOALS
By the end of this module, participants should be able to understand:

- The rich advocacy history of National PTA.
- The specific niche of grassroots advocacy National PTA holds in comparison to other service-minded organizations.
- The process for turning a problem into a grassroots issue campaign.



## TIME

## Total: 45 minutes

- Presentation: 35 minutes
- Video: 10 minutes


## OVERVIEW

In this section, participants will learn about the advocacy history of PTA, the various types of service organizations working to improve social issues, and the early stages of launching a grassroots advocacy campaign.


## MATERIALS NEEDED

- Easel paper
- Masking tape
- Dark markers
- Video: PTA Advocacy - A Legacy in Leadership. If your training room has access to wifi you can access the video directly on YouTube: Youtube.com/watch? $\mathbf{v = V P f 1 \_ o j a j l c .}$ If you are unsure, you should download the video from PTA's website prior to the training: PTA.org/advocacy/content.cfm?ItemNumber=2720.



## HANDOUTS

- PowerPoint Printout
- Advocate for PTA
- Strategy Chart Blank
- Strategy Chart Sample
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## EQUIPMENT NEEDED

- Easel/flipchart
- If you have elected to develop your own PowerPoint presentation to suit your specific training audience for this module, you will need:
- Computer with PowerPoint software
- LCD projector
- All cords and cable needed to connect computer with LCD projector, and extension cord to connect computer and LCD projector with electrical outlet
- AV stand or tab (if you will be using PowerPoint in this module)
- Portable speakers for videos


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## Introduction

## WELCOME TO MODULE 1: ADVOCACY HISTORY



SAY
By the end of this module, you should be able to understand:

- The rich advocacy history of National PTA.
- The specific niche of grassroots advocacy National PTA holds in comparison to other service-minded organizations.
- The process for turning a problem into a grassroots issue campaign.


ASK
How many of you have met someone who thought PTA was all about bake sales and fundraisers?


SAY
Nearly everyone! This is a perception that is absolutely incorrect. National PTA was founded by advocates, and has a strong history of impacting education policy and advocating - NOT fundraising - for children. We are going to kick off this training with a brief video about PTA's history of advocacy, and the concrete improvements now realized for children as a result of our work.

PLAY VIDEO:
PTA Advocacy - A Legacy in Leadership

DISPLAY ON A FLIPCHART OR POWER POINT:
National PTA Public Policy Priorities

- General education
- Special education
- Early childhood education
- Education funding
- Child health and nutrition
- Juvenile justice and delinquency prevention
- School safety


## SAY

As you saw in the video, PTA is the oldest and largest volunteer child advocacy association in the United States. Founded in 1897, PTA has a long, successful history of influencing federal policy to promote the education, health, and well-being of all children - resulting in kindergarten classes, child labor laws, school lunch programs, a juvenile justice system, and strengthened parent-teacher relationships. PTA continues that legacy today by fighting for change under its federal public policy priorities:

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Family engagement and general education - Reauthorization of Elementary and Secondary Education Act-No Child Left Behind (ESEA-NCLB) remains a top goal for National PTA, including improvements that prioritize capacity building for the implementation of systemic and sustainable family engagement practices that increase student achievement. In addition, PTA is fighting for improvements to ESEA-NCLB, including access to well-rounded curricula, equity protections for disadvantaged populations, and accountability to parents and the community.

Special education - Through the reauthorization of ESEA-NCLB and implementation of the Individuals with Disabilities Education Act (IDEA), PTA will continue to advocate to ensure that all students graduate college and are career-ready, that family engagement remains a fundamental principle of IDEA, and that the rights of children with special needs and their parents are fully protected.

Early childhood education - PTA supports federal and state incentives for high-quality child care and preschool programs that are affordable and accessible, coordinated at all levels, characterized by high standards for teaching, training, health and safety, and able to incorporate strong family engagement components.

Education funding - Federal investment in quality education is critical to our nation's longterm success. PTA supports the need to safeguard vital education investments in all federal deficit reduction efforts, secure dedicated funding for family engagement in Education, increase funding for IDEA, and maintain or increase investments in quality early learning programs.

Child health and nutrition - National PTA strongly supports continued implementation of the Healthy, Hunger-Free Kids Act of 2010. This includes implementation of federal guidelines for minimum nutrition standards for all foods sold to students in school; guidance and technical assistance on local wellness policies, and the continued support for improved nutrition standards for meals served as part of the National School Lunch Program.

Juvenile justice and delinquency prevention - Protecting the rights of children and youth involved in the justice system continues to be an area of focus for PTA. In 2013, PTA will advocate to ensure that youth who are truant are kept out of secure juvenile corrections facilities by elimination of the Valid Court Order exception to the Deinstitutionalization of Status Offenders Core Requirements in federal legislation. PTA will also work to ensure that Jail Removal and Sight and Sound Separation core protections are extended to all children less than 18 years of age.

School safety - School safety is a crucial component of effective learning, and a core tenet of the National PTA. PTA believes that the safety of children and faculty in all school settings is a fundamental right, and has made it the utmost priority for our programmatic and advocacy work. In 2013, PTA will work to support federal programming and policies related to safe routes to school, bullying prevention, and the protection of children from gun violence.

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## GRASSROOTS ADVOCACY 101



DISPLAY ON A FLIPCHART OR POWERPOINT (GRAPHIC)
Organizing Forms:

- Service
- Education
- Speaking out for others
- Grassroots

SAY
We can keep putting Band-Aids over the holes in the dam, but until we repair the dam itself, it will keep leaking. This is where advocacy comes in. Advocacy is required to achieve significant reform in education. This section will introduce the four basic forms of organizing, but our entire training focuses on grassroots advocacy. I want to be clear about what we mean by the term grassroots advocacy in this session because it can have different meanings to different people.

There are many ways to achieve social change, and all have their uses. PTA even utilizes all these forms of social change in our overall advocacy efforts. An example of direct service organizing would be a PTA unit purchasing new computers for a school that cannot afford them. This temporarily addresses the issue today and provides a direct service to students and the school.

A second form is research and education on an issue. PTA produces issue briefs from time to time on pressing education issues, like family engagement or local wellness policies. The purpose is to collect information on a specific topic and educate members and the public on that particular issue.

Thirdly, there is the concept of speaking out on behalf of other people. PTA does this all the time: speaking up for every child with one voice. All of these forms of advocacy are important in their own right, but all are different from the kind of social change that will be the subject of this workshop.

The type of social change we are talking about here is called grassroots advocacy. What we mean by grassroots advocacy is that the people directly affected by a problem take action to win a solution. Here is an example of how grassroots advocacy is different from the other kinds of social change work I just mentioned:

Suppose that I am living in a community where homelessness is a problem.

- If I set up a volunteer group to open a soup kitchen or a shelter, that would be an example of a service approach.
- If I studied homelessness and tried to count the number of people without homes and then widely distributed the information, then that is an education approach.


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- If I go to city hall and lobby for more shelter beds, that would be speaking out on behalf of others. The people without homes would not necessarily be involved or even know that I was doing it. I would be advocating for others.
- However, if I organize a large number of homeless people to first decide on the solution that they want, and then THEY pressure the city to win it, that would be a grassroots advocacy approach.

The people directly affected by the problem take action to win a solution. They might decide to fight for more shelter beds or they might join together with other groups to make the city allocate money to build affordable housing. The solution can be whatever the group decides. When the people directly affected by a problem take action to solve it, that is what we are calling grassroots advocacy. Grassroots advocacy in this sense is based on the power of the people with the problem to take collective action on their own behalf.


## DISPLAY ON A FLIPCHART OR POWERPOINT

## Three Principles of Grassroots Advocacy:

- Win solid improvements.
- Make people aware of their own power.
- Alter the relationships of power.


## SAY

There are three fundamental principles of grassroots advocacy. First, you want to win concrete improvements in people's lives. We will talk more about how to set short-term, intermediate and long-term goals in the strategy module. You should always have a concrete goal that you are working toward.


## TRAINER NOTE

If you are not conducting the Strategy Module in your training, distribute the "Strategy Charts" (blank and sample) so they will have access to this important resource.

## SAY

Second, you want to make people aware of their own power by achieving these goals. The short term goals are smaller stepping stones, and something to keep your members motivated for the long haul of education reform. And third, you want to alter the relations of power between people and the government by building strong, permanent, local, state and national organizations. PTAs that have participated in this training and used the skills for their issue campaigns have all reported that they have significantly improved their status in the education community. They are now players where they may not have been before.

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## MAKING THE LEAP INTO GRASSROOTS ADVOCACY



SAY
Until now, your PTA may have been involved in a some or all of the different types of advocacy, depending on what you were working on. But for issue campaigns and addressing the underlying causes of the problems in your state, district or school, grassroots advocacy is the most powerful approach. How do you make the leap from plugging that leak to fixing the dam?

DISPLAY ON A FLIPCHART OR POWERPOINT:
Creating your Grassroots Advocacy Campaign
Step 1 - Identify the problem
Step 2 - Turn the problem into an issue campaign
Step 3 - Create your strategy
Step 4 - Advocate!

Step 1 - Identify the problem - What is the problem that your PTA can address? Did your state cut school funding? Did your district cut bus service? Does your school have safety problems during drop-offs or pickups?


## ASK

Can someone provide an example of a problem that your state/local PTA is facing?

## TRAINER NOTE

Get a few examples, and use one problem to walk through this step-by-step process. Look for a problem that all attendees can relate to like school funding cuts.

## SAY

So let's look a little closer at Joe's problem of school funding being cut. If we were solely a service association, we might only do a fundraiser for our school to help close the budget gap. If we were solely an education association, we might only conduct a study that identifies the impacts of funding cuts on students. If we were solely speaking for others, we might only pay for a lobbyist to head to the capital and lobby for more school funding. But we are also a grassroots advocacy association, so we will create an issue campaign that families will rally behind and address for themselves.

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STEP 2 - Turn the problem into an issue campaign by identifying the solution. In this instance, our campaign might be called the PTA campaign to adequately fund public schools. Taking a look at some of National PTA's policy priorities: the problem of childhood obesity was turned into the issue campaign of improving school lunch nutrition.

So you have your issue, but now is not the time to start your picket lines or meetings with your governor. Any successful campaign needs a plan or a strategy.

Step 3 - Create your strategy using the Strategy Chart. Each column of the strategy chart builds upon the last so it is important to work through the columns in order, as best as possible. We have provided you a blank chart that you can use as your template, and a sample strategy that explains each of the components.

Step 4 - Launch your campaign! Make sure that you celebrate the small victories along the way to keep your members inspired and energized. Some of these issues are short and some will take years to accomplish - so it is vital to constantly grow your team.


ADVOCATING FOR STATE POLICY
State laws can have a major impact. Involving PTA members in state and local advocacy can play a pivotal role in securing adequate state laws, funding and policy for the education and well-being of our children.

## WAYS TO ADVOCATE

Child advocates work with policy makers at the federal, state, and local levels to ensure sound policies that promote the interests of all children. Here are a few ways PTA members can influence policy:

- Educate members of Congress and their staff on PTA's
federal public policy priorities.
- Sign up for the PTA Takes Action Network at www.pta.org/ takeaction and respond to action alerts to reach your
-Work with the school to implement a strong family engagement policy, as required by federal law.







- Online Advocacy Toolkit: How-to's for building relationCongress and the Administration
 key issues.

 our children:

 ADVOCACY RESOURCES 'uо!џеэпрә u! ұиәшәб́ебиә - Write a letter to the editor about the importance of family
 - Work with school leaders and state education officials to


arts and mathematics.


 - Common Core State Standards Initiative (CCSSI):



 $\forall$ : uо! ranging from education funding to safe school environments.



Sign up at PTA.org/TakeAction

## Join the pta Takes action

policy and advocacy initiatives.


 states' responses to PTA action alerts. To get in touch with your

 priorities and lead members in speaking on behalf of children and - PTA federal legislative chairs: these state leaders ensure
that all members have information about PTA's federal policy on the district, state, or federal level to engage and educate parent advocates at every level, whether National PTA also hosts advocacy training of trainers workshops Conference, offer federal and state policy workshops each year. - Policy workshops \& Training of Trainers: National and support in the form of training and leadership. Through the PTA network, you also have access to advocacy
MIDWEST ACADEMY STRATEGY CHART
After choosing your issue, fill in this chart as a guide to developing strategy. Be specific. List all the possibilities. Develop a timeline.

| GOALS | ORGANIZATIONAL CONSIDERATIONS | CONSTITUENTS, Allies \& Opponents | TARGETS <br> (Decision Makers) | TACTICS |
| :---: | :---: | :---: | :---: | :---: |
| Goals are what we want to WIN! <br> 1. List the long-term goals of your campaign. <br> 2. State the intermediate goals for this issue campaign. What constitutes victory? <br> How will the campaign: <br> - Win concrete improvements in people's lives? <br> - Give people a sense of their own power? <br> - Alter the relations of power? <br> 3. What short-term or partial victories can you win as steps toward your longterm goal? | 1. List the resources that your organization brings to the campaign. Include: money, number of staff, facilities, reputation, canvass, etc. <br> What is the budget, including in-kind contributions, for this campaign? <br> 2. List the specific things you need to do to develop the campaign and ways in which the campaign will strengthen your organization. Fill in numbers for each. <br> - Expand leadership group <br> - Increase experience of existing leadership <br> - Build membership base <br> - Expand into new constituencies <br> - Develop Issue Campaign Message <br> - Develop Media Plan <br> - Develop a Fundraising plan - how can you raise money for and through this campaign? <br> 3. List the internal (organizational) problems, that must be considered if the campaign is to succeed. | 1. Who cares about this issue enough to join or help the organization? <br> - Whose problem is it? <br> - Into what groups are they already organized? <br> - What do they gain if they win? <br> - What risks are they taking? <br> - What power do they have over the target? <br> 2. Who are your opponents? <br> - What will your victory cost them? <br> - What will they do/spend to oppose you? <br> - How strong are they? <br> - What power do they have over the target? | 1. Primary Targets <br> A target is always a person. It is never an institution or an elected body. There can be more than one target but each need a separate strategy chart as your relationships of power differs with each target. <br> - Who has the power to give you what you want? <br> - What power do you have over them? <br> 2. Secondary Targets (You don't always have or need secondary targets) <br> - Who has power over the people with the power to give you what you want? <br> - What power do you have over them (the secondary target)? | 1. For each target, list tactics that each constituent group can best use to put pressure on the target to win your intermediate and/or shortterm goals. <br> Tactics must be: <br> - In context <br> - Directed at a specific target <br> - Backed up by a specific form of power <br> - Flexible and creative <br> - Make sense to members <br> Tactics include: <br> - Phone, email, petitions, LTE, OP ED, <br> - Media events <br> - Actions for information <br> - Public Hearings <br> - Non-Partisan Voter Registration and Education <br> - Non-Partisan GOTV <br> - Accountability Sessions <br> - Negotiations <br> - Elections <br> - Law Suits <br> - Strikes |



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## Module 2: Strategy



GOALS
By the end of this module, participants should be able to:

- See that organizing is logical and systematic.
- Think strategically, not tactically.
- Understand that strategy is about power relationships.
- Use the Midwest Academy Strategy Chart to plan PTA activities and incorporate ways to build PTA into each activity.


## TIME

## Total: 60 minutes

- Presentation: 30 minutes
- Exercise: 20 minutes
- Debrief: 10 minutes



## OVERVIEW

This is the main part of the training, all other pieces flow from it. Starting with a blank strategy chart on a black/white board or wall, the trainer goes through the five columns: Goals, Organizational Considerations, Constituencies, Decision-makers, and Tactics. Next, show how each plays a vital role in developing a workable, winning issue campaign strategy that builds the organization. The objective is to get the participants to think strategically whenever they think about working on an issue. The natural tendency is to think tactically (i.e., "What event or demonstration can we conduct to dramatize our situation?"). The job of the trainer is to get the participants to hold all thoughts of tactics until the end of the process.

Space needs to be identified for small groups of up to eight people each. There is only time for one trainer to debrief three charts. If you have more than 24 people then it is best to create six groups of four people each. After the groups work on their charts for 20 minutes each, the trainer then debriefs three groups in separate rooms. If the main training room is very large, several small groups can meet in it. Others will need breakout rooms or space where six-to-eight people can meet, hear each other, and fill out the chart.


## MATERIALS NEEDED

- Easel paper (five sheets per small group)
- Masking tape
- Dark markers
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## HANDOUTS

- PowerPoint Printout
- Strategy Chart Blank
- Strategy Chart Sample
- Strategy Exercise (Federal, State or Local from Exercise Kit)


## EQUIPMENT NEEDED

- Easel/flipchart
- If you have elected to develop your own PowerPoint presentation to suit your specific training audience for this module, you will need:
- Computer with PowerPoint software
- LCD projector
- All cords and cable needed to connect computer with LCD projector, and extension cord to connect computer and LCD projector with electrical outlet
- AV stand or tab (if you will be using PowerPoint in this module)
- Portable speakers for videos


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## Introduction

## WELCOME TO MODULE 2: STRATEGY



## SAY

By the end of this module, you should be able to:

- See that organizing is logical and systematic.
- Think strategically, not tactically.
- Understand that strategy is about power relationships.
- Use the "Strategy Chart" to plan PTA activities and incorporate ways to build PTA into each activity.



## INSTRUCTOR NOTE

Strategy charts should never be displayed on an easel. Always show all five columns at once. This is also true when you debrief the group's charts. A chart can't be debriefed a page at a time, you must always be able to see the whole chart and how the columns relate.


## SAY

The strategy chart is one of the most useful tools that we have found for consistently doing good planning. The value of the chart is that it poses the right questions in the right order. Learn how to use it for planning individually, but also for leading group discussions. It prevents people from going on too many tangents, and it provides an outline for the discussion.

At first glance, the chart appears to be a series of lists. Actually, it works like a spread sheet. All five columns need to be wired together, so that if anything changes in one column, you must make appropriate changes in the others. As in a spreadsheet, there are certain mathematical relationships in the chart. Your demands have to be equal to your power, and your tactics must have a direct cost to your target. I'll explain all of this in a moment, but first:


ASK
Who remembers the difference between a strategy and a tactic?
[Answer: The strategy is the overall plan. A tactic is something you do to carry out the plan. It is a step in carrying out the plan.]

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## DISPLAY ON A FLIPCHART OR POWERPOINT:

The chart consists of five columns which correspond to the five basic elements of strategy:

1. Goals: The victory you want to win.
2. Considerations: What you have to put into the fight, and what you want to get out of it organizationally.
3. Constituents: The answer to the question, who else cares about this problem enough to join us in doing something about it?
4. Decision-Makers: Those who can give you what you want.
5. Tactics: The things that you and your constituents do to the decision-makers to make the target give you what you want.


## INSTRUCTOR NOTE

Remind the group of the difference between a problem and an issue that was mentioned in the introduction.

- The problem is what is wrong.
- The issue is the solution for which you are working.

SAY
Let's go over these, one column at a time.

## 1. GOALS

The Goals column can be divided into three categories: long-term, intermediate, and short-term goals. This is done to encourage you to think of organizing as a process that goes on over a period of time, rather than a one-shot episode for a limited objective. It helps to break larger issues down into smaller winnable components, which in turn, gives you a chance to build the organization.

- Long-term goals: These may extend beyond the particular campaign on which you are presently working. For example, a local PTA may have a long-term goal of improving the health and lowering the obesity rates of children in their school.
- Intermediate goals: The intermediate goals are the issues you want to win in this campaign. For the local PTA in the example above, it might be to require that physical education programs be restored to all schools in the district.
- Short-term goals: Short-term goals are steps towards your intermediate goals. The local PTA might request that the school board hold a community hearing on the physical condition of school children in the district. The hearing will give you a local activity around which to build the campaign, and create a forum in which to present the adverse effects of cutting the Physical Education program and demonstrating your power. If you are in a large city, you might request several hearings to organize people in different neighborhoods.
- To survive, particularly in a long campaign, a group must move from victory to victory. Always build in some small but quick victories, if for no other reason than it builds morale.


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- Once you have done a chart for the overall campaign, go back and do others for each of the short-term and intermediate goals. An actual working strategy chart only applies to one level of goals, the goal on which the group is about to take action, but it is necessary to see where this fits into the larger campaign.
- Remember that we use the word "goals" a bit differently than in everyday language. In the chart, a goal can only be something that you intend to win from someone. If you want to build your membership, that isn't considered a goal here, it goes in the next column, Organizational Considerations. If you want to educate people about an issue, that also isn't a goal in the strategy chart, it is tactic, and goes in the last column. Goals are always what you want to win in an issue campaign.



## INSTRUCTOR NOTE

Occasionally, someone questions this definition of the word "goal," or says that according to the dictionary there is really no difference between goals and objectives. Do not get into an argument about this, or any other use of language definition. Simply say that they are right, but that we are using the words a little differently. In this case, we want to make a distinction between issue goals and organizational goals.


SAY
Let's look at the second column.

## 2. ORGANIZATIONAL CONSIDERATIONS

We are going to look at the three elements of organizational considerations:

- Resources
- Organizational gains
- Internal problems



## INSTRUCTOR NOTE

Separate the column for organizational considerations into three parts.

- First - list the resources that the organization has to invest in the campaign.
- Second - list the gains the organization hopes to realize from the campaign. Stress the importance of asking "How will this campaign build the organization?"
- Third - list internal problems.



## SAY

## First, Resources

What is the organization going to invest in this campaign? How much volunteer time? How much money and leadership time? What additional resources does it bring: members, reputation, physical facilities, press contacts, allied groups, or research ability? This is the place to put the campaign budget. Every campaign ought to have its own budget. This is also where staff time allocations are made if there is any staff and volunteer allocations. Don't count people or resources twice. If someone is doing another task within PTA, put down a realistic fraction of their time for this campaign.

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## Next, Organizational Gains

What do you want the organization to look like after the campaign? How many new PTA members? How many new members can be added to particular committees? Put in the number. How many people will take on greater leadership responsibility? Name them if you can. How much money can be raised during the campaign? What new allies do you want to make? Don't say, "more" or "better." Give specific names and numbers! These organizational gains are often confused with issue goals, and people put them in the first column by mistake.

## Finally, Internal Problems

List any problems internal to your organization that are going to get in the way of the success of the campaign. By internal problems we mean things like budget problems, racial and ethnic tension, personality clashes among leaders, too few volunteers, etc.

Develop plans for eliminating or dealing with them.
SAY
Let's move on to the third column. Now we are going to look closer at the subject of constituents, allies, and opponents.

## 3. CONSTITUENTS, ALLIES, AND OPPONENTS

## Constituents

The Constituency column is where you list all the people and organizations that can be activated in some way to support you. The level of activity may vary from signing a petition to actually attending an event. This column is the answer to the question, "Who cares about this issue?" List everyone who cares, why they care and how many of them there are. Is there some reason why the target would be worried by their participation in your campaign?

The point here is to list the way people are organized or grouped. It isn't helpful to say that "everyone" cares, or "all the transit riders care," because you usually can't reach everybody one by one. You can best reach people who are organized, live in certain places, belong to certain churches, community groups or unions, read certain publications in which you can advertise or get a story, or are on certain mailing lists, etc. If you need to mobilize a lot of people quickly, or build a multi-organization campaign, then think of how people are already organized. If your unit wants to develop its own membership, then think about how the issue affects people as individuals, and where to find the most strongly affected people.

When listing people and groups that might be interested in, or affected by, the issues be as expansive as possible, even far-fetched. Then, separate out those you really want to be a part of the organization or campaign, those you want as allies, those you want to neutralize, and those you want to keep away. Think outside the box. Often, stronger communities

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(e.g., stronger communities may have a very active PTA unit, strong community organization, active NAACP branch, strong education coalition, etc.) already have school board members, city council members or legislators who support our positions. The problem is that there are not enough of them and we need to get additional support from other communities.

## Allies

Allies are people who support us, but who, for whatever reason, are not potential members of our organization. For example, the Latino Action Network might work very closely with us on some issues but must maintain its own organizational identity for a variety of reasons. We'll talk more about this when we discuss building coalitions. Individual policy-makers can also move from target to ally and vice-versa.

## Opponents

List the groups or individuals who will actively oppose you. You may not be able to do anything about them, but it is useful to anticipate who will be on the other side. Do not get sidetracked into fighting with your opponents. They do not have the power to make the decision. Our job is to show the target that we have more power than the opposition.

## SAY

Let's take a look at our fourth column, targets (decision-makers).

## 4. TARGETS (DECISION-MAKERS)

There are two types of targets: primary decision-makers and secondary targets.


DRAW ON CHART


SAY

## First, let's consider the primary decision-maker.

The primary decision-maker is the person who can give us what we want and is not necessarily a bad person. A person becomes the target of the campaign just by virtue of having the power to make (or not make) the decision we want. If there is no clear target, we are unlikely to have a successful campaign. The decision-maker is always a "who." It is always a person or persons who have the power to give us what we want. A target is

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not a department such as the Board of Education. However, the specific, individual board members can be targets. It is not the legislature, or a building (city hall). It is one or more individuals who are in a position to say "Yes" or "No" to our demands. Individuals are the weak link in any institution. As an institution, our legislators may have a mutually agreed upon policy. But, as individuals, each one has a different set of fears, likes, dislikes, ambitions, rivalries, business interests or political connections. We can win over individuals by appealing to their personal self-interest.

- Our ability to get a decision-maker to give us what we want is a function of our power over him or her, not a function of how polite or impolite we might be, how smart we are, or how much research we did, although all that helps. In dealing with decision-makers, we have to demonstrate our power.
- When the primary decision-maker is the head of a corporation, power is usually measured in the dollars that might be lost by the company, or in our ability to bring regulatory agencies into the situation. When the primary decision-maker is an elected official, power is measured in votes. Do we hold the balance of power? Will our members really vote on the basis of this issue? Is there someone else to vote for? An elected official usually knows if our constituents have never voted for him and never will, in which case we have very little power, and we need to find ways to cut the issue so as to get support from a broader range of people.
- Determining the basis of our power over a primary decision-maker is critical to our overall strategy. A misjudgment here can negate the best of all other plans.


## Next, there is the secondary target or indirect power person.

- Remember, we just finished discussing primary targets/decision-makers: The people who can give you what you want.
- Secondary targets: People over whom you have more power than you have over your primary target/decision-maker. They, in turn, have more power over the primary decision-maker than you do. For example, in the Physical Education campaign that I mentioned earlier, let's say that the superintendent of schools is an appointed official. The local PTA has no direct power over this individual. However, let's say that the school board is appointed and the superintendant is appointed by the mayor (who is elected). Citizens vote for the mayor, and the mayor is responsible for the actions of those he or she appoints. You target the mayor as the primary decision-maker. If you are unable to get a meeting with the mayor, you might look for a secondary target who can pressure the mayor to meet with you. For example, a major contributor to the mayor's campaign over whom we have some power such as a local storeowner, or award leader who turns out a big vote for the mayor and has many active PTA members in the ward. There is not always a secondary target. If your target is an elected official and large numbers of your constituents register to vote, and if your campaign is a popular one, then you will have direct power over the politician. When listing decision-makers, clearly label them primary and secondary targets, and indicate who is useful in putting pressure on whom.


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- To repeat, because primary decision-maker are often elected officials, it is important that you understand the political context in which you will be operating. The PTA is nonpartisan and does not endorse candidates. However, we still need to know the electoral process, the electoral numbers and the dates of the primary and general elections. When was the primary decision-maker's last election? Is the school board election at the same time as other local elections or is it a stand-alone election? Are members elected by district or at large? How long has she or he been in office? How many people voted in the last election? How many votes did the target get?
- By finding out these numbers, we will be able to determine how many people we need to organize to effectively influence the primary decision-maker.


SAY
Let's take a look at our fifth column, tactics.

## 5. TACTICS



## INSTRUCTOR NOTE

Dramatically point to the appropriate columns of the Strategy Chart as you say the words below.

## SAY

- Tactics are what the people in the Constituents column do to the people in the Targets (Decision-Maker) column to apply pressure to them and make them give us the things in the Goals column in such a way that it builds the organization as in the Organizational Considerations column. For every tactic, there must be someone to do it, someone to whom it is done, and some reason why the person to whom it is done doesn't want it done and will make a concession to us to get us to stop doing it.
- This is the fun part. Develop clever tactics that demonstrate and build power and make sense to your members. Be as creative as possible while remembering to go through the other four steps in the strategy first.
- The main point in tactics is that any tactic has to have an element of real power behind it. It is not just something to show how you feel about an issue. Tactics are chosen in relationship to how much power the organization has. We often say that a good tactic is like standing on the decision $\neg$ maker's foot until s/he pays you to go away. Hearings, rallies, petitions, meetings with the target and leafleting are all tactics, and all require the organization to have some measure of power. For example, bringing off a successful community meeting at which a state legislator is held accountable requires a more powerful group to organize it. We are simply making it clear that we cannot support people whose actions are opposed to ours and our children's best interests. There was a suburban group that was unhappy with a position taken by the area's state representative. They invited him to a gathering and served coffee, cake and cookies. It was very proper, but everyone in the room had either worked in, or given money to, his campaign. There could not have been a stronger show of power. When they expressed their displeasure with his stand on the legislative issue with which they were concerned, he clearly understood the power they had. It did not need to be said.


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- Tactics such as holding signs outside an elected official's office have symbolic value and can be a good media kickoff for a campaign, but they are not a substitute for a strong voting bloc. Another element in choosing tactics is that they are outside the experience of the target and within the experience of the people we are organizing. Our members need to be comfortable with the tactics.
- If your PTA unit conducts voter registration drives make sure that you include voter registration as one of your tactics and incorporate it into as many activities as possible. For instance, at community forums, candidate forums, accountability sessions, or any large action, encourage everyone to register to vote and have registrars present. Do this in a very visible way to indicate that you are building the power of your unit.

Please note, however, that although you can inform an official that you are doing nonpartisan voter registration drives, you may not in any way discuss how we do it, get suggestions from the official as to how you should do it, or otherwise coordinate the activity with any elected official or his/her representative.

## INSTRUCTOR NOTE

After going through the chart once, pointing out the appropriate questions, go through it again quickly using a campaign from your own experience as a model.

## THIS IS ESSENTIAL FOR THE GROUP TO REALLY UNDERSTAND HOW TO USE THE CHART!

Make sure that your example is on the right scale for the group. Don't tell a group with a very local issue, the details of how you won the fight for some large national issue. Indicate actual goals, organizational considerations, constituency, who the decision-makers were, why they were chosen and tactics that were used. If you have clippings from the campaign, make a packet and pass it around for all to see.

After presenting your chart, add a timeline. Talk here about how a campaign needs to fit into the organization's calendar. Holidays, seasons (weather), the school calendar, elections, all have to be factored in.

## INSTRUCTOR NOTE

On the pages that follow are directions for a Strategy Exercise.
There are three case studies available. Each illustrates advocacy at the local, state, or federal level. You should have selected the level you believe to be the most appropriate and relevant to your group, and copied the handouts for that level's case study to use in the following exercise.

Reminder, the design of this course is for the level addressed to remain consistent throughout. That is, if you work the local level case study in this module, you should work the local level case studies in all the other modules.

## Strategy Exercise

## THE CAMPAIGN TO RESTORE BUS SERVICE TO ST. FINBAR MAGNET SCHOOLS

## OVERVIEW

Participants practice creating a strategy chart for an issue advocacy campaign using a hypothetical scenario involving a local school district.

TIME
Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

St. Finbar is a fictitious city in the U.S. The school system, including charter schools, serves 135,000 students distributed between 119 elementary schools, 24 middle schools and 30 high schools. The annual school budget is $\$ 1.2$ billion, which was inadequate before the economic downturn and has typically become less adequate as costs have risen. At the same time income from taxes has declined. The students are majority non-White. Latinos make up 44\% of the student population, followed by nonHispanic White students at 25\%, African Americans at 13\% and the remaining 15\% are largely Asian.

## THE PROBLEM

The school board has announced, in a moment of ill-advised budgeting frenzy that to save $\$ 10$ million dollars, school bus service for all 25 magnet schools will be eliminated starting in September. The board's vote was unanimous. It is now February. The absence of bus service will be a major blow to your school as $57 \%$ of the students now ride the bus and many families can't afford to bring their children to school by other means.

The school board, which has final decision-making power over the budget, consists of five members who are elected to four-year terms on a staggered basis. The at-large school board election takes place at the same time as the City Council election. While almost 800,000 (54\%) voted in the last City Council election, only 500,000 of those voted in the school board race (lower down on the ballot).

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## YOUR ORGANIZATION

You are members of the PTA at the Linguistic Institute, an elementary magnet school devoted to graduating truly bilingual students. Your school has over 800 students. Slightly more than half of them qualify for free or reduced-cost lunches, indicating that the school has diversity of income as well as race. The Institute is known as a $100 \%$ magnet, meaning that none of the students attend because it is their local school. All are in the magnet program.

Your PTA has four officers and five board members plus a class parent in each class. Usually not more than 30 people show up for PTA meetings but since the bus cuts were announced, more than 100 people, have been coming.

## THE SCHOOL BOARD

\(\left.$$
\begin{array}{|l|l|}\hline \text { Name } & \text { Notes } \\
\hline \text { Hubert Gonzalez } & \begin{array}{l}\text { Mr. Gonzalez has a background as a community organizer, working } \\
\text { Wo revitalize low-income neighborhoods and creating networks } \\
\text { By 72\% } \\
\text { for parents of pre-school aged children. He served five years as } \\
\text { president of the Relational Organizing Institute and has also } \\
\text { worked for the Local Efforts Support Corporation, the Vomer } \\
\text { science and Education Foundation, and as a consultant for the } \\
\text { Running in Next } \\
\text { Election: Yes } \\
\text { Washington Heights Community Development Corporation. } \\
\text { In the field of labor relations, he has served as St. Finbar regional } \\
\text { organizer for both the United Domestic Workers and United } \\
\text { Healthcare Workers. Mr. Gonzalez serves as a board member of } \\
\text { the St. Finbar Cooperative Charter School. }\end{array} \\
\hline \text { Jack Gotham } & \begin{array}{l}\text { Jack Gotham, Ph.D., was elected to the Board in 2008. He earned } \\
\text { a Bachelor of Arts in Psychology at Sitzer College and a Masters } \\
\text { in Psychology and Ph.D. in Clinical Psychology at U.S. National }\end{array} \\
\text { by 54\% Election } \\
\text { University. } \\
\text { Running in Next } & \begin{array}{l}\text { Once in St. Finbar, Dr. Gotham taught Spanish at a language institute } \\
\text { where he later became director. Dr. Gotham is currently a clinical } \\
\text { psychologist in private practice, working with children, adolescents }\end{array}
$$ <br>
and adults. As a parent, Dr. Gotham has been a member of the <br>
Larson Elementary School Site Council, a classroom and PTA <br>

volunteer at Sprack Elementary. He and his wife live in Multiversity\end{array}\right\}\)| City, a subdivision of St. Finbar. Their three grown children all |
| :--- |
| attended St. Finbar Unified schools. |

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| Name | Notes |
| :--- | :--- |
| Eldridge Knowles | Eldridge Knowles was first elected directly from the classroom to the <br> board to represent District C in 1990. He served as board president <br> and vice-president during his first term. Reelected in 1994, 1998, <br> By 59\%. |
| Running in Next <br> Election: Yes <br> Finbar County School Boards Astive delegate to both the St. <br> Boards Association. On the national level, Mr. Knowles State School served <br> as the board's representative on the Council of Great City Schools. <br> Mr. Knowles attended St. Finbar City Schools in Point Loma and <br> he received his bachelor's and master's degrees in business from <br> St. Finbar State University. He has taught for more than 36 years. <br> He also served as a counselor, resource teacher, and curriculum <br> administrator, and he taught business at St. Finbar City College for |  |
| 10 years. |  |

## Strategy Exercise

## ASSIGNMENT

TIME
Total: 30 minutes
From the above list of elected officials, choose one to be the initial decision-maker whose support you will first attempt to win and whom you think can persuade others to get on board. Be prepared to justify your choice. Make a strategy chart on easel paper, one column to a sheet. The chart should show how you intend to put pressure on the decision maker you have chosen. When you are finished with the Tactics column, number the tactics in the order in which you will use them. Choose someone to report to the whole group.

You can make up any additional information you need as long as it is both possible and probable.

## PTA <br> Strategy Exercise

## THE CAMPAIGN TO INVEST IN NEW LEIF'S CHILDREN

OVERVIEW
Participants practice creating a strategy chart for an issue advocacy campaign using a hypothetical scenario involving an issue before the state legislature.

## TIME

Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

New Leif is a mythical state in the United States named after the Norse explorer Leif Erickson. Like most states, it has been hit hard by the current recession. Over the last three years, the state legislature has repeatedly cut the education budget. It is January and the legislature has proposed cutting $\$ 2$ billion more from the state budget. The legislature will be voting on the cuts in April.

All 59 school districts in the state have been affected by the cuts, which have reached directly into the classroom (e.g., cuts in staffing including teachers, teacher's aides, and hall monitors; enrichment programs including music, art, field trips, etc; transportation; health and nutrition programs; summer and after school programs).

Currently, New Leif is near the bottom of the ladder in funding education and children's services. The New Leif state PTA is concerned that further cuts will continue to erode the already lean budget for education. The failure of the legislature to act on a longterm solution to identify a stable source of funding for education will continue the downward spiral, making it even more difficult to recover lost ground.

At its last convention, the New Leif state PTA voted to develop a statewide campaign to "Invest in New Leif's Children" and stop the cuts to this year's budget. The PTA is also calling for the legislature to develop a plan for a long-term solution to education funding. The PTA has assumed a leadership role in coordinating the campaign. They have succeeded in getting the New Leif Education Association (the teachers' union) and the State School Board Association to join the campaign and are working on getting more organizations to join. While all PTA units have been asked to pressure their legislators, the state PTA has done an analysis of the Legislature and targeted some key districts where more intense pressure will be necessary.

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The NLPTA knows that to be successful it must demonstrate and unleash the power of their grassroots membership and organize others to participate in the campaign. They want to use this campaign to build the organization and develop a model advocacy infrastructure that can be used for other issues. In so doing, they also want to increase the power and membership of the PTA so that they are a force to be reckoned with the state.

This week, your PTA County Council told you that your State Senator, Olivia Rosten, is a key target. Your unit is in the Freemont School District, which lies in Assembly District 13. The Freemont School District has 10 K-6 elementary schools and three junior high schools. You have been asked to take the lead in coordinating the campaign in Assembly District 13.

## STATE SENATOR OLIVIA ROSTEN

Your immediate task is to plan a campaign to get Republican Senator Olivia Rosten to oppose the state budget cuts. Sen. Rosten is a career politician. She was elected to the Assembly in 1990 and was reelected thereafter until she resigned to run for the State Senate in 1998. She has been reelected every term since then. Her committee assignments include: budget, human services and aging, health \& education, utilities, and military and veterans affairs. She has a B.A. in anthropology from the state university, has six grandchildren, and once worked as the director of community services for a local hospital.

## RESULTS OF OLIVIA ROSTEN'S LAST ELECTION:

Republican Incumbent Rosten ..............................................................................................................................

Senators serve staggered four-year terms. Half of the Senate is up for election every two years. Assembly members serve two-year terms and the whole assembly is up for election each time. Sen. Rosten had no primary opposition in the last election. She is up for reelection this year.

## THE FIFTH DISTRICT

Sen. Rosten's Fifth District takes in a portion of the state's largest city. The district then goes straight south to include parts of two wealthy suburban counties. The Senate district includes all parts of three assembly districts -the 13th, 14th, and 15th. Freemont School District lies in Assembly District 13.

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|  |  | 芴 | 烒 | 蜽 |  |  | 易 | 㐫 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SD－ 5 | 143，690 | 102，229 | 32，555 | 3，051 | 1，010 | 78 | 4，088 | 291 |
| AD－13 | 49，241 | 25，668 | 19，863 | 1，349 | 332 | 27 | 1，568 | 147 |
| AD－14 | 47，275 | 38，939 | 6，105 | 1，104 | 191 | 34 | 813 | 68 |
| AD－15 | 47，174 | 37，622 | 6，587 | 598 | 487 | 17 | 1，707 | 76 |

Voting Figures for the State Assembly races in Senate District 5：
－\＃ 13 Incumbent Dem＝20，080．Unopposed．
－\＃ 14 Incumbent Rep＝20，268．Unopposed．
－\＃ 15 Incumbent Dem＝15，489．Libertarian＝2，174．（No Republican ran．）
In an initial discussion with your county Council staff，Sen．Rosten said that she was inclined to support the cuts as the state＂．．．just has no more money＂！Sen．Rosten went on to say that she respects the PTA and cares deeply about all children，but has a responsibility to see that the state has a balanced budget．She also said that she has been hearing from many people in her district that taxes are way out of control and they want tax cuts．

## ASSIGNMENT

## TIME

Total： 20 minutes

Make a strategy chart for a campaign to get Sen．Rosten to agree to vote against the budget cuts．Choose one person to present the chart to the whole group．You can make up any information you need as long as it is realistic and probable．For your Organizational Considerations column，make an educated guess about the actual budget，staffing，desired outcomes and internal problems of the campaign based on the situation in your own state／ district．Consider resources that are available to you from all levels of the PTA．

Choose someone to lead your group through the chart．Write the chart on easel paper with one column on each sheet．The chart should be in presented by the person who wrote it．（It is easier for the presenter to read his／her own handwriting．）

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## Strategy Exercise

## THE CAMPAIGN TO IMPROVE FOODS SOLD OUTSIDE SCHOOL MEAL PROGRAMS

## OVERVIEW

Participants practice creating a strategy chart for an issue advocacy campaign using a hypothetical scenario involving an issue before the U.S. Congress.

## TIME

Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

Nutrition standards for foods sold outside school meal programs but in schools (competitive foods) have not been updated since 1979. Such foods include those sold in vending machines, cafeteria a la carte menus, and school stores. The only nutritional criteria for school foods sold outside of meals are that "foods of minimal nutritional value" (FMNV) may not be sold in the food service area during meal times.

This year, the U.S. House Committee on Education and Labor has introduced the Child Nutrition Reauthorization Act (H.R. 789). This bill, reauthorized every five years, has jurisdiction over school meal programs. In the past, Congress has considered nutrition standards for competitive foods, but has not put them into law. Members from both parties have supported and opposed these standards.

National PTA, representing the wishes of its members, has asked Congress to amend the Child Nutrition Reauthorization Act to include a minimum federal protective nutrition standard for foods sold outside of school meals. National PTA public policy staff has done an analysis to determine which members of Congress need to be targeted to pass the amendment and the final bill.

## REP. ETHAN CHARLES <br> (D, New Leif- CD 2)

In 1997 Rep. Ethan Charles (a purely fictional Congressman from the equally fictional state of New Leif) was appointed Assistant State's Attorney in the county and served until 2001. Active in the Young Democrats, he was elected to the American Council of Young Political Leaders' delegation to Taiwan. In 2003, at the age of 34, he was the elected State's Attorney (youngest) for the county. He was on the Governor's transition team.

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Elected to his first term in Congress in 2008, Charles has tended to vote more with the "moderates" believing that his margin of victory came from conservatives and independents. He voted against the House health care bill on the grounds that it is too big and too costly - a view that some of his constituents share.

Rep. Charles is a member of the House Committee on Education \& Labor. Two members of the State PTA recently met with Rep. Charles. He told them that while he was concerned about the health of children, he thought that the PTA was going a bit overboard. "Kids will be kids" he said, "... and they will buy junk food anyway - that's what kids do. At least when they buy it from school vending machines, a percentage of the sales goes to support school sports programs." National PTA public policy staff has determined that Rep. Charles' vote for the amendment in committee is essential to its passage. He could be the deciding vote! In addition, they think getting his support will also help in getting other members on board.

In a conference call with state presidents, National PTA public policy staff have laid out the strategy to pass the Child Nutrition Reauthorization Act. Your state president in turn has called your County Council to ask that you develop a campaign to get Rep. Charles to vote for the amendment, as well as the final bill. The vote is expected to take place in three months. During his campaign, Charles supported the concept of "Healthy Schools". He now says that he is getting a lot of pressure from conservatives and libertarians in his district to oppose any federal legislation that preempts state and local control of nutrition standards.

Rep. Charles' district is just outside a major metropolitan area. It touches the city and takes in suburbs and tourist regions. It then extends into rural areas (with some small farms) until it reaches the city of Wellsboro, the regional center of food production and processing (including snack foods) and the Super Cola bottling plant.

The PTA County Council has assigned one staff person to work half-time on this issue. In addition, there are two interns from a local community college in the district, who are available three afternoons a week. Besides salaries and travel expenses, the Council has only $\$ 1000$ for work in the Charles district. Any more will have to be raised.

The district is considered $64 \%$ urban. In this district, $13 \%$ of the population is over the age of 65 which is about the national average. By actual count that comes to 89,000 people. An additional 59,000 people are between the ages of 55 and 65 . The largest minority group in this district is African-American (9\%). Other groups total only $2 \%$. The median family income in the district is $\$ 52,000$ a year, which is about ten thousand over the national average.

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In the four elections prior to 2008, this district went Republican, and was considered a safe seat for Millard Gilpeak although there was always the possibility of a primary challenge from the right wing of the party. This occurred in the 2008 primary and Gilpeak was ousted by a conservative Republican. Once off the Republican ticket, Gilpeak endorsed the Democrat, Charles, who won by a very narrow margin. Gilpeak's voting record on social issues showed him split between liberal and conservative positions. In fact, his National Journal rating was $56 \%$ liberal and $44 \%$ conservative on social issues and about the reverse on economic issues. He was endorsed by the Sierra Club and League of Conservation Voters. He supported gun control, equalization of school funding, and DC statehood. He recently voted for the minimum wage increase but against card check recognition to help union organizing.

## REP. CHARLES' POSITIONS

- On federal budget issues, he is a deficit hawk. He supports adding a balanced budget amendment to the Constitution and strict spending caps for Congress.
- Unlike his Republican predecessor, he opposes gun control.
- He is for strict enforcement of immigration laws.
- During this first term, he voted for the stimulus package, and the Clean Energy Bill.


## DISTRICT VOTING DATA

The actual voting data shows some potentially useful patterns.

| Total Vote in 2000 | Gilpeak (R) | Rosterman (D) |
| :--- | :--- | :--- |
|  | $165,293 \quad 64 \%$ | $91,022 \quad 35 \%$ |
|  | Bush | Gore |
|  | $160,402 \quad 57 \%$ | $111,807 \quad 40 \%$ |
| Total Vote in 2002 | Gilpeak (R) | Fishbine (D) |
|  | $245,149 \quad 76 \%$ | $77,872 \quad 24 \%$ |
| Total Vote in 2004 | Gilpeak (R) | Schwartz (D) |
|  | $245,149 \quad 76 \%$ | $77,872 \quad 24 \%$ |
|  | Bush | Kerry |
|  | $213,144 \quad 62 \%$ | 124,163 |
| Total Vote in 2006 | Gilpeak (R) | Gronoffski (D) |
|  | $185,353 \quad 69 \%$ | 83,817 |
| Total Vote in 2008 | Marris (R) | Charles (D) |
|  | $173,478 \quad 48.4 \%$ | 176,052 |
|  | Bixbe (Libertarian) |  |
|  | $9,1902.5 \%$ |  |
|  | McCain (R) | Obama (D) |
|  | 216,896 | 148,029 |
|  |  |  |

Voter Registration and Turnout in Charles's District

|  | Registered 2008 | Voted in 2008 | Percent Voted 2008 |
| :--- | :--- | :--- | :--- |
| Republicans | 193,584 | 161,330 | $83 \%$ |
| Democrats | 200,216 | 160,753 | $80 \%$ |
| Unaffiliated | 71,443 | 50,310 | $74 \%$ |
| Libertarian | 1,141 | 784 | $69 \%$ |

There are parts of 12 counties in this district. Of those, Obama carried only two, the second largest county and the smallest. Charles carried in seven counties of the ten that also went for McCain.

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## POSSIBLE OPPOSING ORGANIZATIONS

Voter Registration and Turnout in Charles's District

| Name | Notes |
| :--- | :--- |
| National School Board <br> Association (NSBA) | NSBA supports state and local control of <br> nutrition standards, but does not support <br> federal regulations. |
| Snack Food Association | The Snack Food Association supports the <br> snack food industry and represents snack <br> manufacturers and suppliers. They are <br> wary of federal restrictive nutrition <br> standards and have concerns that their <br> products won't meet these standards. If <br> federal standards were passed, they prefer <br> these standards to preempt state standards <br> so that their products don't have to meet <br> both state and federal standards. |

## ASSIGNMENT

TIME
20 Minutes

From the point of view of the Campaign to Improve Foods Sold Outside School Meal Programs, prepare a strategy chart showing how you would set up a campaign to get Congressman Charles to vote "Yes" on the amendment to the Child Nutrition Reauthorization Act. Put the chart on easel paper one column to a sheet. Add a four-month time line. Choose someone to present it to the whole group. If you need additional information you may pretend you did the research and make it up. Just keep it within the realm of the possible and plausible.

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MIDWEST ACADEMY STRATEGY CHART
After choosing your issue, fill in this chart as a guide to developing strategy. Be specific. List all the possibilities. Develop a timeline.

| GOALS | ORGANIZATIONAL CONSIDERATIONS | CONSTITUENTS, Allies \& Opponents | TARGETS <br> (Decision Makers) | TACTICS |
| :---: | :---: | :---: | :---: | :---: |
| Goals are what we want to WIN! <br> 1. List the long-term goals of your campaign. | 1. List the resources that your organization brings to the campaign. Include: money, number of staff, facilities, reputation, canvass, etc. | 1. Who cares about this issue enough to join or help the organization? <br> - Whose problem is it? <br> - Into what groups are they | 1. Primary Targets <br> A target is always a person. It is never an institution or an elected body. There can be more than one target but | 1. For each target, list tactics that each constituent group can best use to put pressure on the target to win your intermediate and/or shortterm goals. |
| 2. State the intermediate goals for this issue campaign. What constitutes victory? | What is the budget, including in-kind contributions, for this campaign? <br> 2. List the specific things you need to do to develop the campaign and ways in which the campaign will strengthen your organization. Fill | already organized? <br> - What do they gain if they win? <br> - What risks are they taking? <br> - What power do they have over the target? | each need a separate strategy chart as your relationships of power differs with each target. <br> - Who has the power to give you what you | Tactics must be: <br> - In context <br> - Directed at a specific target <br> - Backed up by a specific form of power <br> - Flexible and creative |
| How will the campaign: | in numbers for each. | 2. Who are your opponents? | want? <br> - What power do you | - Make sense to members |
| improvements in people's lives? <br> - Give people a sense of their own power? <br> - Alter the relations of power? | - Increase experience of existing leadership <br> - Build membership base <br> - Expand into new constituencies <br> - Develop Issue Campaign Message <br> - Develop Media Plan | - What will your victory cost them? <br> - What will they do/spend to oppose you? <br> - How strong are they? <br> - What power do they have over the target? | have over them? <br> 2. Secondary Targets (You don't always have or need secondary targets) | Tactics include: <br> - Phone, email, petitions, LTE, OP ED, <br> - Media events <br> - Actions for information <br> - Public Hearings <br> - Non-Partisan Voter |
| 3. What short-term or partial victories can you win as steps toward your longterm goal? | - Develop a Fundraising plan - how can you raise money for and through this campaign? <br> 3. List the internal (organizational) problems, that must be considered if the campaign is to succeed. |  | the people with the power to give you what you want? <br> - What power do you have over them (the secondary target)? | Registration and Education <br> - Non-Partisan GOTV <br> - Accountability Sessions <br> - Negotiations <br> - Elections <br> - Law Suits <br> - Strikes |



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## Module 3: Coalition



GOALS
By the end of this module, participants should be able to understand:

- That coalition building is actually harder than building a single organization.
- Organizational self-interest.
- Specific guidelines for success and how to analyze potential allies.


TIME

## Total: 60 minutes

- Presentation: 30 minutes
- Exercise: 20 minutes
- Debrief: 10 minutes



## OVERVIEW

Coalition building is often one of the most frustrating parts of organizing. The problem is made more difficult because organizers expect coalition building to be easy and don't give it the special attention it deserves. The more coalition experience the group has, the more discussion there will be.


## MATERIALS NEEDED

- Easel paper (five sheets per small group)
- Masking tape
- Dark markers



## HANDOUTS

- PowerPoint Printout
- Coalitions Exercise (Federal, State or Local from Exercise Kit)
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## EQUIPMENT NEEDED

- Easel/flipchart
- If you have elected to develop your own PowerPoint presentation to suit your specific training audience for this module, you will need:
- Computer with PowerPoint software
- LCD projector
- All cords and cable needed to connect computer with LCD projector, and extension cord to connect computer and LCD projector with electrical outlet
- AV stand or tab (if you will be using PowerPoint in this module)
- Portable speakers for videos


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## Introduction

## WELCOME TO MODULE 3: COALITIONS - BUILDING AND JOINING

## SAY

By the end of this module, you should understand the following concepts:

- Building a coalition is actually harder than building a single organization.
- Organizational self-interest.
- Specific guidelines for success and how to analyze potential allies.


## COALITIONS DEFINED

Let's start with a definition of coalitions. When we use the word coalition we mean: An organization of organizations that is actively working on an issue campaign.

A coalition is not:

- An organization of individuals who are different from each other.
- An organization of individuals who happen to belong to other organizations as well.

Many groups that call themselves coalitions aren't coalitions. In Grassroots Organizing when we use the word coalition, we mean an organization of organizations. In real life, most coalitions are a mixture of individuals, representatives from organizations and people who happen to belong to organizations but who weren't sent to the coalition by their group. The main difficulty with coalitions of this type is that the people in them have different needs.

## Example:

Every organization knows that it must get some public recognition for its work if it is to recruit members, develop a base, and keep its funding. Individuals who are not faced with the problem of maintaining an organization often don't understand this and consider the organizational representatives to be "power hungry" or "domineering." In a coalition where everyone is a formal organizational representative, they might be more competitive, but they at least understand each other's motives.

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There are three basic types of relations between organizations, all of which are often referred to as coalitions. It helps to sort them out.

- Formal Coalitions - Coalitions exist when groups enter into a formal agreement to work together toward a specific, long-term objective. Some coalitions are permanent or are expected to last for many years.
- Issue Campaigns - Groups that get together for an ongoing effort; for example, to pass specific legislation. It is often more useful to say "campaign" rather than "coalition," when the expectation is that a campaign will go out of existence when the issue is over and not live on to compete with its own members. The key understanding in a legislative campaign is to agree on not only what will go into the bill, but what is the least that the coalition will accept.
- Informal Coalitions - Groups work together from time to time, often on a specific event, but without formal agreement or rules.

Building a coalition is one of the hardest parts of organizing. The hard part isn't getting groups to join, but getting the coalition to work and keeping the groups in it. Often we expect a coalition to function the way a group of friends does, but this is seldom the case. Organizations in a coalition have institutional needs and self-interests that are different from the needs of individual people.

- To make coalitions work, we must identify these institutional needs and work to meet them.
- The job is sometimes complicated because the people who represent groups in a coalition may not be experienced enough to articulate their institutional needs. They just know that something isn't going well, and they feel that their organization is getting weaker instead of stronger.


## ADVANTAGES AND DISADVANTAGES OF COALITIONS



ASK
What has been your experience working in coalitions?
Possible responses:

- We got sidetracked from our own program.
- Others didn't do their share.
- Too many compromises required.
- Problems with who got credit.
- We felt ripped off.
- The activities were dull.
- Too many meetings.

SAY
It sounds like you have had some very interesting experiences. And not all positive. Let's talk about them. What have been some of the disadvantages of working in coalitions?

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## INSTRUCTOR NOTE

Make a mental note of who responds. If a lot of people raise hands, there will be much discussion. You need to watch the time here and limit discussion if necessary. If there are a lot of negative comments and bad experiences, start with the disadvantages.
Below are examples of negative experiences:

- We got sidetracked from our own program.
- Others didn't do their share.
- Too many compromises required.
- Problems with who got credit.
- We felt ripped off.
- The activities were dull.
- Too many meetings.

Again, get the story right. You will refer back to these comments when you give the coalition guidelines. For example, "Now Michelle might not have had the problem she mentioned if her local PTA had chosen a unifying issue..." Get five or six comments. Don't spend a lot of time on this.


ASK
So, if working as a coalition is so hard, why do it? What are some of the advantages of working in coalition?


## DISPLAY ON A FLIPCHART OR POWERPOINT:

Write down some of the advantages. Again, don't spend a lot of time (just get some advantages written down). Below are examples of advantages if no one says them:

- Able to win something that couldn't be won alone.
- Increases power.
- Increases resources (staff, money, members).
- Broadens the scope of our work.
- Able to get better/more media coverage.


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## GUIDELINES FOR COALITION BUILDING

As you go through these guidelines, relate them to the problems you just listed from members' experiences. List them on easel paper or PowerPoint.

SAY
So, your PTA council knows what the problem is and what the issue is. It also knows that there are other organizations that are concerned. In order to increase your power and resources, and to win something you couldn't win alone, you decide to build a coalition. Here are tried and true guidelines for successful coalition building.

## 1. Choose Unifying Issues.

Avoid shopping lists. When coalitions form to work on a specific issue, it is a relatively easy structure to organize, because those who aren't interested just don't join.

- When an organization is a permanent ongoing coalition that moves from issue to issue, then the choice of issue needs to be made more carefully. This is the key. The issue needs to be one that is important to all groups in the coalition. It should not be the main issue of any one group. This avoids having some groups feel that they are being co-opted to work on someone else's issue.
- Avoid coalitions based on groups agreeing to exchange help, "We'll help you fight the utility rate increase if you help us win funding for an after school program." Organizations can rarely deliver their members to work on some other group's program, and no group feels that it gets enough out of the coalition. Coalitions in which groups put their issues on the table and try to work on all of them are called shopping list coalitions.


## 2. Coalitions are Rarely the Road to Diversity.

Don't create coalitions in the hope of bringing greater diversity to your efforts. Diversity will only be achieved if the coalition partners are really interested in similar issues and need each other in order to win.

## 3. Avoid Contorting your Program to Suit Some Other Group.

Likewise, don't expect them to change their program just so that everyone can be friends.

## 4. Understand and Respect Each Group's Self-Interest.

Every organization needs to:

- Gain new members.
- Raise money.
- Be seen as powerful by administrators or politicians.
- Get publicity.
- Build relationships with other groups.
- Provide an exciting activity for its members.
- Build internal morale.
- Have a public role for its leaders.


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These are good things to do. Experienced leaders can use a coalition to achieve them. Inexperienced leaders neglect them and their groups dwindle. The coalition should help its members accomplish these things.

## 5. Respect the Group's Internal Process.

Every group has its own way of making decisions. Don't rush them. If you don't like the answer from the group's chair, don't go around the chair to someone else in the leadership.

- Don't get involved in another group's factionalism or worse, cause it.
- Don't use the work of the coalition to draw the members of another group into your own group.


## 6. Agree to Disagree.

Not everyone has to agree on everything. The coalition can only function within the areas of agreement.

## 7. Play to the Center With Tactics.

All groups should be comfortable with the tactics. There are sometimes advantages to encouraging the more confrontational groups to go off and do their thing independently. However, it should be part of the overall strategy.

## 8. Recognize that Contributions Vary.

Some groups are better at conducting research; others can turn out a large number of people, or may have good community contacts.

A coalition should have a budget, even if everything is contributed. Put down the cash value of contributed items. This allows the member groups to better understand the importance of their respective contributions.

## 9. Structure Decision-Making Carefully.

One group, one vote. This method only works if the groups are of equal strength. The small groups should not be able to out-vote the large just because there are more of small groups. Individuals should not be able to out-vote organizations. It is often better to recognize that in some coalitions, everyone is not equal. The program won't work if the strongest groups don't support it, and it is acceptable for marginal organizations and individuals to stay out of a particular activity in which they don't feel comfortable participating.

When faced with these problems, many groups turn to consensus decision-making, in which everyone has to agree on everything. This is fine if you can do it, but recognize that it excludes people who can't spend long hours at meetings. The decision-making process is often smoother when the coalition is composed strictly of organizations that can make more or less the same level of contribution to the work. The decision-making process should be clear from the outset. So should the ground rules.

There is no such thing as the "democratic right" to join a coalition. You can allow in, and keep out, whichever groups you wish, including sectarians and disrupters. Don't be guilt tripped.

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## 10. Urge Stable and Senior Representation at Meetings.

The same people should represent a group at each coalition meeting, and they should have the power to commit the group to, or approve, the coalition program. Otherwise, the coalition can't move without long delays.

## 11. Distribute Credit Fairly.

The coalition itself needs to get the larger share of publicity or credit. Otherwise the whole isn't greater than the sum of the parts.

Try to distribute the remainder of the credit, media attention or spokesperson positions among the individual members fairly, but with an eye to the contribution that each makes.

## 12. If There is Staff, It Should be Neutral.

Problems develop when the staff is contributed by one member organization of a coalition. If there is staff, they should be people with no other loyalties, whose main job is to build the coalition as a whole. For coalitions that do not have paid staff, this also applies to leadership and facilitation roles.


## INSTRUCTOR NOTE

Ask for discussion as time allows.

## GUIDELINES FOR JOINING COALITIONS



SAY
Suppose another organization approaches you, as the leader of your PTA unit, to join a coalition. There are several things that your group must first assess before agreeing to join. Here are some guidelines for joining and participating in coalitions.


DISPLAY ON A FLIPCHART OR POWERPOINT:

## Guidelines for joining coalitions:

1. Know what you want to get out of it.
2. Know who is behind the coalition.
3. Maintain an independent program.
4. Evaluate your role carefully.

## SAY

## 1. Know What You Want To Get Out of It.

Of course you want to win on the issue, but you are also building the PTA. How will participation in the coalition help you do that? Will it:

- Expose you to more potential members?
- Allow you to win more significant victories?
- Share the burden of organizing large activities?
- Get you publicity?


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## Example

A student association at a large state university was fighting cuts to the state education budget. Another statewide organization was fighting tax cuts for corporations that were forcing cuts to the state public programs budget. Naturally, the groups were interested in working together when they found out about each other's campaigns. Before joining a coalition, however, the student group set the following conditions:

- Opposition to education budget cuts had to be a major demand of the new coalition.
- Other students on the campus who wanted to get involved in the coalition would be told to join through the association.
- The student association's leaders would be frequently used as spokespeople for the whole coalition.
- A major coalition turnout event, a speakout on the state budget, would be held in an auditorium on campus.

Did this arrangement strengthen the student association? Of course it did, but it also strengthened the whole coalition. The speakout drew more than 900 people, and half of them came as a direct result of the student group's efforts.

## 2. Know Who is Behind the Coalition.

- Who is funding it?
- What are you expected to contribute?


## 3. Maintain an Independent Program.

A group that is only strong enough to do one thing at a time shouldn't join a coalition. If you have no program outside the coalition, you won't develop your own identity or membership. It may not seem to matter, but where the coalition goes; your group will go with it. Use the three-fourths rule: three-quarters of your energy and resources should go into your own organization.

## 4. Evaluate your Role Carefully.

Is it really necessary for the leaders of your group to play a large role in the leadership and decision-making of the coalition, or is it enough to get your members to show up for occasional coalition activities?

The coalition can absorb all of your time and energy just as easily as your own organization can. If three-quarters of your effort doesn't go into building your own group, your members will be drawn into the activities of the coalition or be recruited away by other groups.

Discussion as time allows.
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## INSTRUCTOR NOTE

On the pages that follow are directions for a Coalition Exercise.
There are three case studies available. Each illustrates advocacy at the local, state, or federal level. You should have selected the level you believe to be the most appropriate and relevant to your group, and copied the handouts for that level's case study to use in the following exercise.

Reminder, the design of this course is for the level addressed to remain consistent throughout. That is, if you work the local level case study in this module, you should work the local level case studies in all the other modules.

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## Coalition Exercise

## FORMING THE ST. FINBAR EDUCATION COALITION

## OVERVIEW

Participants practice evaluating possible coalition partners to work together on a local issue.

TIME
Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

In the campaign to get the bus service restored to all magnet schools in the district the Linguistic Institute PTA has decided that it must involve other organizations to build enough power to be successful. School Board Member Hubert Gonzalez has agreed to introduce the proposal. You are the leaders of the PTA, and have decided to form the St. Finbar Education Coalition. You are considering asking the following groups to join:

- The Greater St. Finbar Small Business and Manufacturers Association
- St. Finbar chapter of the State Senior Citizen Federation
- St. Finbar Interfaith Committee
- The St. Finbar branch of the NAACP


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## Coalition Exercise

## ASSIGNMENT

TIME
Total: 20 minutes
You have 20 minutes to answer the questions below. From the perspective of the newly formed St. Finbar Education Coalition, consider why the group that you have been assigned (one of the four above) would want to be a part of the coalition, and the resources and liabilities they would bring to the coalition. Choose one person to record the answers on easel paper and present them to the larger group.

1. Why would the organization be interested in joining the St. Finbar Education Coalition?
2. What might prevent the organization from joining the Coalition?
3. What resources could the organization bring to the Coalition?
4. What liabilities might the organization bring to the Coalition?
5. Who would you contact? Who from the PTA should make the contact?

NOTE: Do not role play the planning meeting. Answer the questions from the perspective of the Linguistics Institute PTA.

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## Coalition Exercise

## FREMONT PTAS ORGANIZE A COALITION

## OVERVIEW

Participants practice evaluating possible coalition partners to work together on a statewide issue.

## TIME

Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

In the campaign to stop the $\$ 2$ billion in cuts to the state budget, the New Leif PTA has asked PTA units that have not received a commitment from their state senator to vote against the cuts to invite other organizations into the campaign to increase their power. A few members from PTAs in Fremont met with Sen. Rosten and asked her to vote against the cuts. Sen. Rosten says that she is getting a lot of pressure from some of her constituents to vote for the cuts. Several of the Fremont PTAs have decided that to win they must form a coalition. In addition to recruiting all the PTAs in the area, you are considering asking the following groups to join the coalition:

- The Fremont Retail Merchant Association
- The Fremont chapter of the State Senior Citizen Federation
- The Fremont Interfaith Committee
- The Fremont branch of the NAACP


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## Coalition Exercise

## ASSIGNMENT

TIME
Total: 20 minutes
You have 20 minutes to answer the questions below. From the perspective of the newly formed Coalition, consider why the group that you have been assigned (one of the four above) would want to be a part of the coalition, and the resources and liabilities they would bring to the coalition. Choose one person to record the answers on easel paper and present them to the larger group.

1. Why would the organization be interested in joining the Coalition?
2. What might prevent the organization from joining the Coalition?
3. What resources could the organization bring to the Coalition?
4. What liabilities might the organization bring to the Coalition?
5. Who would you contact? Who from the PTA should make the contact?

NOTE: Do not role play the planning meeting. Answer the questions from the perspective of the Fremont PTAs.

## Coalition Exercise

# REAUTHORIZATION OF THE CHILDHOOD NUTRITION ACT 

## OVERVIEW

Participants practice evaluating possible coalition partners to work together on a federal issue.

## TIME

Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

In the campaign to pass the Reauthorization of the Childhood Nutrition Act, the National PTA has asked your county council to get Congressman Ethan Charles to vote "YES" on an amendment to include a minimum federal protective nutrition standard for foods sold outside of school meals. PTA leaders met with Rep. Charles and asked him to vote for the amendment and the reauthorization. Rep. Charles was quite friendly. He said that he totally respected the PTA and all its good work, but he thinks that trying to "regulate what is in a school vending machine is just not the role of the federal government." Your PTA has decided that to win it must form a coalition. You are considering asking the following groups to join:

- The County Medical Association
- The Interfaith Committee
- Local 123 of the State Education Association
- The County Branch of the NAACP


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## Coalition Exercise

## ASSIGNMENT

TIME
Total: 30 minutes
You have 20 minutes to answer the questions below. From the perspective of the newly formed Coalition, consider why the group that you have been assigned (one of the four above) would want to be a part of the coalition, and the resources and liabilities they would bring to the coalition. Choose one person to record the answers on easel paper and present them to the larger group.

1. Why would the organization be interested in joining the Coalition?
2. What might prevent the organization from joining the Coalition?
3. What resources could the organization bring to the Coalition?
4. What liabilities might the organization bring to the Coalition?
5. Who would you contact? Who from the PTA should make the contact?

NOTE: Do not role play the planning meeting. Answer the questions from the perspective of the PTA County Council.

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## Module 4: Media As A Tactic



GOALS
By the end of this module, participants should be able to understand:

- How to use the media to advance an issue campaign.
- Kinds of media coverage.
- Self-interest of the media.
- Planning to use the media.


## TIME

## Total: 60 minutes

- Presentation: 30 minutes
- Exercise: 20 minutes
- Debrief: 10 minutes


## OVERVIEW

The focus of this session is to help people think more strategically about how to use the media. The exercise will give participants practice in crafting a focused message that states a demand and conveys the real power of the organization.

Media plays a huge role in our society by helping shape public opinion. Getting media coverage can be a huge asset to raising awareness and educating members of the community about any news, stories, or programs you might be working on. A few things you will want to keep in mind when working with members of the media:

- Always read or watch their coverage before reaching out to them. It is important to know what type of stories they tend to cover and it will help you to get a sense of their reporting style.
- Reporters are busy and media resources are dwindling these days. Reporters rely more and more on public relations professionals to give them a complete story with up-to-date facts and statistics that they will not need to double-check.
- Email is your best approach unless you have a great working relationship with a particular reporter and feel comfortable picking up the phone to call directly.

As you carry out your own community-based programs, you can develop positive working relationships with print and broadcast professionals and organizations in your community.

This advocacy training module is structured to help PTA members use the media to reflect the power of the association.

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## MATERIALS NEEDED

- Easel paper (five sheets per small group)
- Masking tape
- Dark markers



## HANDOUTS

- PowerPoint Printout
- Checklist for Media Events
- Media Exercise (Federal, State or Local from Exercise Kit)



## EQUIPMENT NEEDED

- Easel/flipchart
- If you have elected to develop your own PowerPoint presentation to suit your specific training audience for this module, you will need:
- Computer with PowerPoint software
- LCD projector
- All cords and cable needed to connect computer with LCD projector, and extension cord to connect computer and LCD projector with electrical outlet
- AV stand or tab (if you will be using PowerPoint in this module)
- Portable speakers for videos


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## Introduction

## WELCOME TO MODULE 4: MEDIA AS A TACTIC

## SAY

By the end of this module, you should understand:

- How to use the media to advance an issue campaign.
- Kinds of media coverage.
- Self-interest of the media.
- Planning your use of the media.
- Guidelines for using the media.

Here are some key points to keep in mind:

- Good media coverage reflects a powerful issue campaign strategy.
- In this session, we are going to discuss how to use the media to advance an issue campaign. That is, not just getting good coverage, but using the media strategically to build power.
- It is crucial to begin with a solid strategy for each issue campaign. This means that we have carefully defined what we want to win, and evaluated our own organizational power in relationship to the power of the decision-maker we are trying to persuade.

Let's say we want State Rep. Eunice Smith to vote "Yes" on increasing state school funding. By how many votes did she win the last election? How many PTA members do we have in her district? Can we mobilize them to write letters, make phone calls, and meet with her?

Our use of the media in this effort is another tactic to convey to Rep. Smith that we have organized a lot of people who want her to vote "Yes." Of course, we will mention along the way the outdated textbooks, classrooms without teachers, and overcrowded conditions. In addition to talking about the problem, it is essential to communicate who is doing the asking, that is, large numbers of PTA members with the power to vote "Yes" or "No" on the question of continuing Eunice Smith as their elected representative.

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## KINDS OF MEDIA COVERAGE

## There Are Several Kinds Of Media Coverage We Can Aim For

If we hold a large rally at the offices of our local school board, we may try to get the media to cover what we are doing. However, if enough people show up to talk to the members of their school board, we may consider the event a success whether or not we get on television or in the newspapers. In this case, the media is important, but secondary to our purpose.

At other times, we may do something for the sole purpose of getting media coverage, to put pressure on the decision-makers who will be mentioned. We may release a report which shows that our state's schools receive less funding than 46 other states; we may announce that the school board president received a large campaign contribution from the contractor who is about to be hired to build a new school. In these cases, if we make the announcement, but no one from the media is there to hear, it is as if the announcement never happened. Like the proverbial tree in the forest, if it falls and no one hears, it made no noise and it did not serve the intended purpose.

A third situation occurs when the media asks us for comment for the newspaper or for a TV news program, or to participate in a radio talk show. Here, we have less control of the agenda. Sometimes we are caught by surprise and have to think on our feet. It is very important, therefore, to understand how the media thinks, what they are likely to be looking for, and exactly what we want to convey to move our agenda forward strategically, even if we only have a 15 -second sound bite to do so. We need to be prepared to get our most important points across whether the media ask the right questions or not.

This brings us back to the point that our use of the media is a tactic that should fit with our larger strategy. Activities designed to garner media coverage go in the Tactics column of the strategy chart along with such other tactics as petition drives. This means that a media event has the characteristics of any other tactic.

## ASK

Who remembers from the Strategy discussion the three common characteristics of all tactics? For every tactic there must be:

- Someone who does it.
- Someone to whom it is done.
- Some reason why the person to whom it is done doesn't want it done.

Groups so often say that they have adopted a "media strategy" to win a campaign. This elevates the use of media from the level of a tactic to that of a strategy; the media becomes the whole plan. Sometimes a media strategy is possible, but it usually requires hundreds of thousands, or millions, of dollars of paid media time to accomplish. Media coverage of an event doesn't cost anything. It is covered because it is news. This is sometimes referred to as "earned media" to distinguish it from "paid media."

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## SELF-INTEREST OF THE MEDIA



## SAY

How does the media choose what to cover? There are a few cities where there is so much major news happening that it's easy to get drowned out, no matter how hard you try. New York, Washington DC, and Los Angeles are examples, but there aren't many others. There are also a few places where media outlets are owned by individuals who are often ideologically opposed to some of the legislation we support, and often won't allow it to be covered.

To help ensure that we get media coverage, the first thing is to understand the self-interest of the media.

Timing and substance are everything. Reporters are pushing out stories faster than ever before as the media evolves into a much more digital-friendly landscape. A typical TV reporter is likely also writing for his/her outlet's blog. If you have a story that is timely and relevant, try to measure up your "assets" against the outlet. Do you have a ton of photos or video? It might be a great online/blog piece. Do you have a very media savvy spokesperson that can talk on camera about a newsworthy program or story?

Let the reporter know! He/she is always scanning her email for the next "hot" story. Any assets you have will help your story stand out from the rest.

## INSTRUCTOR NOTE

See more at: http://www.ptakit.org/Communications/Working-with-the-Media/ Identifying-Newsworthy-Items.aspx\#sthash.gw35MSZ0.dpuf

## PLANNING YOUR USE OF THE MEDIA



## SAY

Planning starts with the strategy chart. You have already identified the decision-maker. You are clear on what you want him or her to do, and you have looked at the electoral numbers and voter registration figures and know what your base of power is. Use of the media is another way of applying your power.

Start planning by writing a headline. Of course, the newspaper editors rarely use the headline you write, but the point of doing it is to help you focus. Ask, "if a reporter saw what we are about to do, what headline would she write?"

Once you have your headline, the whole media event should be designed to suggest that one line to the viewer. Be sure your line expresses your main demand and your power! An example might be, "State Representative Smith, 500 parents want you to vote to support our children's education!" A less useful line would be, "Kids Need Books!" because there is no power reflected, and the decision-maker is not mentioned. It would be possible to agree that kids need books and not vote for more money.

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## GUIDELINES FOR USING THE MEDIA



## SAY

We have six guidelines that will help you use the media to advance your issue campaign:

1. There must be hard news.
2. Think pictures.
3. Have a quotable quote.
4. Help reporters do their work.
5. Know the media staff.
6. Include human interest.

## DISPLAY ON A FLIPCHART OR POWERPOINT <br> Guidelines For Using The Media:

1. There must be hard news.
2. Think pictures.
3. Have a quotable quote.
4. Help reporters do their work.
5. Know the media staff.
6. Include human interest.


SAY

## 1. There Must Be Hard News

Unless you are the president, a rock star, or the head of the mafia, your opinion isn't news. You can't call a media event just to say how upset you are about something. There must be news. News can be any of the following:


## DISPLAY ON A FLIPCHART OR POWERPOINT

There Must Be Hard News:

1. Large numbers of people do something interesting.
2. Someone who is news says it.
3. A new program is launched.
4. New information is revealed.
5. The unexpected happens.
6. New treatment of an old story.
7. A tie-in with a breaking story.


SAY

## 1. Large numbers of people do something interesting.

The media thinks that if a large number of people want to do it, then a larger number of people will want to read about it.

## 2. Someone who is news says it.

The downside of using celebrities is that it deprives your leaders of the experience and risks your message getting sidetracked in a discussion of the latest divorce or the Academy Awards.

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## 3. A new program is launched.

The media is often more interested in announcing a new activity than following up on an old one. For example, an organization once used its annual conference to launch a new campaign for national health care. A year later, when conference time came again, the group realized that a press release saying, "The campaign continues," wouldn't make much of a story. Instead, they announced the launching of a new campaign for national health care. They got good coverage each time. Make ongoing campaigns sound new.

## 4. New information is revealed.

While a story is running, you can keep it in the headlines longer by adding new information. For example, the state representative who opposes the smoking ban took big contributions from the gaming industry.

## 5. The unexpected happens.

"High school students demand tougher school standards."

## 6. New treatment of an old story.

Taxes are an old story. Each year on April 15th, every TV station has a shot of people running to mail their tax returns. If, at the same time, a large number of people were mailing letters to the President of the United States asking for more tax money to support school reading programs, it would probably be picked up as well.

## 7. A tie-in with a breaking story.

A tie-in with a breaking story makes your event more newsworthy. Whatever is on the morning TV news is likely to be in the evening paper. If you can call the paper with a local angle on a national story they will often thank you.

## DISPLAY ON A FLIPCHART OR POWERPOINT



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## SAY

## 2. Think Pictures.

Even the print media is increasingly visual in its writing. Ask yourself how this event will look. The media hates talking heads. Move the event outdoors and produce interesting visuals and exciting people. Even if a newspaper doesn't run a photo, they will describe the event in visual terms. Put a prominent sub-head in the media advisory that says, "Photo Opportunity." Then say what the opportunity is.

## Examples:

- Two-block-long living fence. A group that wanted an elected official to get off the fence and take a position marched in front of his office with sections of picket fence from the garden store.
- Popsicle sticks for the state legislature. In order to bring attention to the need to fund school nurses, the Georgia State PTA collected and sent popsicle sticks/tongue depressors to their state legislators.
- Giant estimated dice. A group protesting the utility company practice of sending estimated bills instead of actually reading the meter went to the company with dice made from cardboard cartons. They rolled the dice and made "estimated payments" of their estimated bills.
- World's largest monopoly board. Don't play monopoly with our community. A neighborhood organization took a huge Monopoly board to city hall. The street names were from their own neighborhood. They were protesting the elimination of affordable housing and conversion to high-priced condos.
- Utility rates balloon up. A consumer organization protesting rising utility rates made a graph of rate increases over the last 10 years. The last bar was a long black ribbon that was taken up into the air with a helium balloon.
- Use visuals. Good visuals include a large sign with a slogan and a chart or graph that makes the point if statistics are involved.
- The most important visual is the one with the name of the organization. Put it right on the podium if you use one. An $8 \times 11$-inch, boldly lettered sign is better than a fivefoot banner which won't fit in the picture and is hung so high that only the bottom of the letters shows. If there are resources, having a repeating logo as the backdrop is also effective, especially if you have a VIP speaker taking up your issue. People can also wear stickers with the organization's name. The visual needs to work as a still photo. It can't be an activity that takes time to unfold.

DISPLAY ON A FLIPCHART OR POWERPOINT
Quotable Quote:

- Captures the meaning of the event.
- Each speaker repeats it.
- Put it on signs.
- If nothing else, spell it right.


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## SAY

## 3. Have A Quotable Quote.

Have a quotable quote, a consistent theme that runs throughout the event and is reflected in the visuals. Each speaker should use the same quote. For example, a campaign to get a local supermarket to carry organic food used the quote, "Let us choose safe food."

Think of some of the all-time famous quotes. Who said:

- "We have nothing to fear but fear itself." (Franklin Delano Roosevelt)
- "Ask not what your country can do for you, but what you can do for your country." (John F. Kennedy)

The interesting thing about these quotes is that they aren't exactly true. We did have something to fear other than fear itself, and why not also ask what our country can do for us? But true or not, these quotes will live forever.


## DISPLAY ON A FLIPCHART OR POWERPOINT

## Help Reporters:

- Write release as a news article.
- Who, what, when, where and why in first paragraph.
- Length of typical news story, or a bit longer.
- Factual, well-written and accurate.
- Put opinions in quotes.


## SAY

## 4. Help Reporters Do Their Work.

- Like everyone else, reporters are overworked and underpaid. If they can take your release and run it as their article, they are more likely to use the story than if they have to take notes and write something. Study the length and style of stories in the local paper and learn to write that way. Develop a reputation for factual, well-written material. Remember that your media event is competing with dozens, even hundreds, of other activities that people are trying to get the media to cover. The easier you make it, the more successful you will be.
- Write your press release as if it were a news article. Study the local paper and learn its style of reporting. What kind of sentence structure does it use? What education level is it written for? Try to give them copy that is as much like what they print as you can.
- Write a lead paragraph that tells who, what, when, where, why and how. This way, if the story is cut to just one paragraph you still have all the information.
- Make your release the length of the average story or a bit longer to save editing.
- Develop a reputation as a source that doesn't need a great deal of fact-checking.
- Put opinions in quotes. The reporter doesn't want to be responsible for the accuracy of what you say, only the fact that you said it. By using quotes you make it clear that it is your opinion, not the reporter's.


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## SAY

## 5. Know The Staff.

Finding the right reporters is critical to getting started with building a contact list. The best way to build a list of local reporters is to first read and watch the news outlets in your market. This will help you identify which reporters are covering specific topics. For example, is there a local news reporter that you have seen cover news of school or education programs? Note his/her name and do a quick scan of the outlet's website for a phone number or email. This might take a bit of digging and time in the beginning, but you will find that building a targeted media list will be well-worth the investment.

Maintaining good relationships with these reporters will be what helps you place your story. Try to be selective about what you are taking to each reporter. Make sure you are being strategic - there is a fine line between staying on the radar and bombarding contacts with too many non-newsy updates. Reporters appreciate resources - and that means you!

Only pitch stories to them that you know they would have interest in covering. And if they do not cover your story, thank them anyway. Or perhaps point them to another resource where they can get the information they are looking for. They will remember that you helped them and that will make the difference for next time.

When you do have a relationship with reporters, remember that nothing is ever really confidential or off-the-record. If you don't want it printed, don't say it. If you don't want it on TV, don't do it. (This last point applies to every aspect of your life.)

## 6. Include Human Interest.

A study about toxic emissions is boring. A statement from a family whose child was exposed to the emissions is human interest. Every media event should have a human interest element, with real people telling their own stories. Local PTAs have many good stories that can be used to illustrate the points that we are trying to make. Just remember that each story needs to end with a demand on the decision-maker. Stories do not replace the need to show power, but they help draw attention.

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## THE MEDIA ADVISORY

## SAY

To attract the media to your event, send out a Media Advisory a week ahead of time. This can be done by mail or fax. Email is also acceptable, but it is too easily lost or ignored. The advisory includes a few lines telling reporters what the event will include, but don't give them enough information that they can write a story without coming. Include information on the place and time of the event and the name of someone to contact for further information, along with a mobile phone number.

Add a heading that says, "Notice of Photo Opportunity" and tell them what visual device you will use to make the event more appealing to TV and news photographers. It might be a two-block-long living petition or five pounds of cigarette butts collected from local school yards. The visual needs to support the theme of the media event, which you have created in order to put pressure on a decision-maker. So it can't be just a clever stunt. Three dogs dressed as walnuts probably will get on TV, but if it has nothing to do with the issue, it won't be the kind of coverage you want.

Three days before the event, start calling all the media outlets and speaking to the assignment editors (TV) and city editors (print). Tell them about the event and ask if they are coming. Mention that you sent an advisory but don't expect them to remember it or even to have read it. Call again the night before the event to remind them and again the next morning to make sure. Remember that competition for the attention of the media is very stiff and there may be dozens or hundreds of events on the same day. Only two or three will get covered.

At the event, have a press release to hand out. Again, give all the contact information. Write the headline you would like to see on the story, although your headline won't be used. Then open with a lead paragraph that answers the questions: "who," "what," "when," "where," "why" and "how". "Who" is your organization, and "what" is the pressure you are putting on the decision-maker. The rest follows from that. In the second paragraph, quote a leader or volunteer. In the third, give more background. Two pages are the most for a release. If there is an accompanying report or study, attach it to the release, but don't try to incorporate it in the body of the release. The release should be able to stand on its own as a story would appear in the newspaper.

Here is an example of a media release.


INSTRUCTOR NOTE
Use the following release to point out the important elements.

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## ST. FINBAR PTA

424 S. Finbar Street
St. Finbar, New State 09031

FOR MORE INFORMATION:
Jane Mayer, PTA President 777-666-2121
janemayer@stfinbarpta.org
June 24, 2010

## FOR IMMEDIATE RELEASE

Today, members of the St. Finbar PTA released a report showing that high school graduates who speak a second language have an employment rate twice that of graduates who speak only one language. They demanded that School Board Member Linda Nagashima vote to continue funding the school buses which make the magnet schools of St. Finbar possible.
"The School Board is saving pennies now, and depriving our children of dollars later," said Jane Mayer, president of the St. Finbar PTA. "Programs like the one at the Linguistic Academy prepare our children for the jobs of the future. Why do Linda Nagashima and the other school board members want to jeopardize our children's future employment?"

Ten children were on hand to wrap Ms. Nagashima's office (at 1833 Office Way, St. Finbar) with a huge paperchain, on which they and their parents had written, "Please save our school" in 27 languages. The chain had 10,000 links and reached around the office five times.
"Quiero aprender español," said Jackie Hoong." Por favor, guarde nuestra escuela."

Professor Luiz Martinez, of St. Finbar College, author of the report, said, "Today's children need these schools for tomorrow's jobs. I can't imagine what the school board and Linda Nagashima are thinking. The employment data clearly shows children need this program. The large numbers of parents involved shows that everyone appreciates, except maybe the school board, the importance of funding transportation so our children can get to their school."

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## INSTRUCTOR NOTE

On the pages that follow are directions for a Media Exercise.
There are three case studies available. Each illustrates advocacy at the local, state, or federal level. You should have selected the level you believe to be the most appropriate and relevant to your group, and copied the handouts for that level's case study to use in the following exercise.

Reminder, the design of this course is for the level addressed to remain consistent throughout. That is, if you work the local level case study in this module, you should work the local level case studies in all the other modules.

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## Checklist For Media Events

## All Levels

$\square$ Have the date, time, and place been cleared with all the speakers?
$\square \quad$ Are there other media conflicts (e.g., another major event or press conference)?
$\square$ Is the room large enough?
$\square \quad$ Will you need a public address system?
$\square$ Have volunteers been recruited to set up and clean up the room before and after the event?
$\square$ Do you plan to serve refreshments? If so, have people been asked to bring them?
$\square \quad$ Who is sending the media advisory?
$\square \quad$ Who is making follow-up phone calls?
$\square \quad$ Is there a script available for those making follow-up phone calls to the media?
$\square$ Are visuals, charts, or graphs needed at the press conference?
$\square \quad$ Who is writing each person's presentation? Are there good quotable sound bites?
$\square \quad$ Do you need translators?
$\square \quad$ Is a time set for speakers to rehearse their presentations and answers to the anticipated questions?
$\square \quad$ Are materials being prepared for the press kit?
O Press release
O Background information on speakers
O Fact sheet
O Organizational background
O Copies of speakers' statements
$\square \quad$ Is someone drafting a question and answer sheet for anticipated questions at the press conference?
$\square$ Will your organization's name be projected well through signs, posters, buttons, and so forth?
$\square \quad$ Is someone assigned to hang the banner? This can take a while.
$\square$ Is there a podium sign?
$\square \quad$ Who will greetthe media and staff the sign-in table?
$\square \quad$ Is someone in your group going to take photos \& videos?
$\square \quad$ Who is assigned toassist the speakers with details at the press conference?
$\square \quad$ Who will send releasesto those who don't attend the press conference?
$\square \quad$ Who will call reporters who don't attend, but will needthe information immediately in order to use it? Are volunteers assigned to watch for stories in various media?
$\square \quad$ Will thank you notes be sent to all spokespersons and volunteers?
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## Media Exercise

# MEDIA AND THE CAMPAIGN TO RESTORE BUS SERVICE TO ST. FINBAR MAGNET SCHOOLS 

## OVERVIEW

Participants practice focusing their message in the face of questions from the media.
TIME
Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

Everyone will use the same scenario below, but each person will be assigned to do either Exercise 1 or Exercise 2. Everyone will have 15 minutes to prepare, and then we will begin the interviews.

You are a leader of the PTA at the Linguistic Academy in St. Finbar, working to save the busing program for magnet schools. Your PTA unit and others brought a large group of parents to the school board meeting, and a number of them were able to give testimony about how their children would be impacted if the busing were eliminated. The school board just ended their meeting without making any decision. The board members are clearly nervous about so many parents showing up, but they keep saying there just is not enough money. They postponed the decision for one month.

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## Media Exercise

## ASSIGNMENT

## Exercise 1

As you leave the school board meeting, a reporter thrusts a microphone at you and asks for a comment.

What will you say? What is the main point you want to make? How will you respond to questions? Remember that your time with the reporter is likely to be very brief! If you appear on the evening news program, it is not likely to be more than a 15 -second clip.

## Exercise 2

The morning after the school board meeting, you and three or four other parents are on a public affairs talk show on the local public radio station.

The president of the school board was on just before you, and he said that there simply is not enough money. What will you say? What are your main points? How will you handle questions? Your segment on the show will last 10 minutes.

## Media Exercise

# MEDIA AND CAMPAIGN TO INVEST IN NEW LEIF'S CHILDREN 

## OVERVIEW

Participants practice focusing their message in the face of questions from the media.
TIME
Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

Everyone will use the same scenario below, but each person will be assigned to do either Exercise 1 or Exercise 2. Everyone will have 15 minutes to prepare, and then we will begin the interviews.

You are a leader of the PTA in the Fremont School District, working to save school funding which the state legislature is proposing to cut. Your PTA unit and others brought a large group of parents to the state capitol to talk with State Senator Olivia Rosten, as a part of a much larger rally organized by the New Leif State PTA and its allies. Your PTA unit president was one of the speakers at the rally on the capitol steps, and then a delegation from your unit went to Sen. Rosten's office and met with her. She listened, but refused to commit to vote against the funding cuts. She is still undecided, she says. She wants to cast a vote that will be fiscally responsible and balance the state budget. The actual vote is still a month away.

## Media Exercise

## ASSIGNMENT

## Exercise 1

As you leave the state capitol building, a reporter thrusts a microphone at you and asks for a comment.

What will you say? What is the main point you want to make? How will you respond to questions? Remember that your time with the reporter is likely to be very brief! If you appear on the evening news program, it is not likely to be more than a 15 -second clip.

## Exercise 2

The morning after the rally and meeting with Sen. Rosten, you and three or four other parents are on a public affairs talk show on the local public radio station.

The State Senate Finance Committee Chairman was on just before you, and he said that there simply is not enough money. What will you say? What are your main points? How will you handle questions? Your segment on the show will last 10 minutes.

## Media Exercise

## REAUTHORIZATION OF THE CHILDHOOD NUTRITION ACT

## OVERVIEW

Participants practice focusing their message in the face of questions from the media.

## TIME

Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

Everyone will use the same scenario below, but each person will be assigned to do either Exercise 1 or Exercise 2. Everyone will have 15 minutes to prepare, and then we will begin the interviews.

You are a leader of the PTA county council in the district of Congressman Ethan Charles, working to get federal nutrition standards for competitive foods. Your PTA unit met with Rep. Ethan Charles at his district office to ask him to vote yes for nutrition standards. He says that he needs more time to study the issue; he is reluctant to have the federal government tell children and their parents and their local schools what to do. The actual vote is still a month away.

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## Media Exercise

## ASSIGNMENT

## Exercise 1

As you leave the district office building, a reporter thrusts a microphone at you and asks for a comment. What will you say? What is the main point you want to make? How will you respond to questions? Remember that your time with the reporter is likely to be very brief! If you appear on the evening news program, it is not likely to be more than a 15 -second clip.

## Exercise 2

The morning after your meeting with Rep. Charles, you and three or four other parents are on a public affairs talk show on the local public radio station.

The president of the Snack Food Association was on just before you, and he said that they are being blamed, when they are doing everything they can to produce healthy snacks. Besides, it is up to parents to teach their children what to eat. The money from the soda machines pays for lots of extras at local schools, like uniforms for sports teams. What will you say? What are your main points? How will you handle questions? Your segment on the show will last 10 minutes.

## Grassroots Advocacy Trainer's Manual

## Module 5: Social Media



GOALS
By the end of this module, participants should be able to understand:

- Today's social media outlets and their potential and power in an issue campaign.
- How to use social media to increase PTA awareness and exposure.
- Best practices in using the most popular social media outlets.
- Tools to build an effective social media campaign.



## TIME

Total: 60 minutes

- Presentation: 30 minutes
- Exercise: 20 minutes
- Debrief: 10 minutes



## OVERVIEW

This session requires trainers to have a working knowledge of social media. They must also be able to lead discussion about why people participate in social media and how it applies to the issue at hand. This session will educate activists on best practices and ideas for effective social media campaigns.


## MATERIALS NEEDED

- Easel paper (five sheets per small group)
- Masking tape
- Dark markers
- PowerPoint presentation
- Prepared examples of highly effective advocates on social media, such as celebrities, politicians, musicians, pop-icons, etc.



## HANDOUTS

- PowerPoint Printout
- Social Media Tipsheets


## EQUIPMENT NEEDED

- Easel/flipchart
- If you have elected to develop your own PowerPoint presentation to suit your specific training audience for this module, you will need:
- Computer with PowerPoint software
- LCD projector
- All cords and cable needed to connect computer with LCD projector, and extension cord to connect computer and LCD projector with electrical outlet
- AV stand or tab (if you will be using PowerPoint in this module)
- Portable speakers for videos


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## Grassroots Advocacy Trainer's Manual



## Introduction

## WELCOME TO MODULE 5: SOCIAL MEDIA



## SAY

By the end of this module, you should understand the following concepts:

- Today's social media outlets and their potential and power in an issue campaign.
- How to use social media to increase PTA awareness and exposure.
- Best practices in using the more popular social media outlets.

This training assumes that you have a basic understanding of social media, including proper terminology, how to set up an account, and how to use the basic functions of each platform.

## I. SOCIAL MEDIA OUTLETS AND STATISTICS



## SAY

Before discussing how to use social media, let's take a brief look at how social media is currently used in the U.S. and around the world.

## INSTRUCTOR NOTE

This section accomplishes two objectives:

1. It lets participants know that social media is for everyone, everywhere-not just teenagers. Point out that people age 50+ are the fastest growing demographic on Twitter. Social media is a viable means of communication for everyone and heavily used throughout the world.
2. It conveys to participants that the world of social media is huge and it is imperative to use these platforms to reach more people as part of their advocacy campaigns.


ASK
How many of you in this room use some form of social media like Facebook, Twitter, or YouTube?


SAY
Great, almost everyone here! Today, we are going to discuss the various social media outlets and provide some practical ideas to get you started. In order to be effective with limited time, you must reach your audience where they already are. Let's take a look at a few of the larger social media outlets.

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DISPLAY ON A FLIP CHART OR POWERPOINT:

- Facebook
- Twitter
- Google+
- YouTube
- LinkedIn
- Instagram
- Flickr
- Pinterest


## SAY

Facebook is a social networking site which allows its users to set up personal profiles to connect to family, friends, businesses, and organizations. Facebook has more than 1.1 billion active users. Currently, more than 350 million active users currently access Facebook through their mobile devices. Each user has an average of 130 friends and is connected to 80 community pages, groups, or events. More than 700 billion minutes are spent per month on Facebook, so you can see that it is a great use of your time to use this outlet in your social media campaign. Facebook should be your primary social media outlet.

Twitter is what people refer to as a "microblogging" social media outlet. Twitter allows users to send and receive text-based messages known as "tweets." Twitter has more than 300 million users who average over 300 million tweets per day. Just a fun fact, it took 3 years, 2 months and 1 day to go from the first tweet to the billionth tweet. One billion tweets are now sent every week. There are over 1.6 billion search queries per day on Twitter. Twitter is a great way to supplement your activity on Facebook, and using these two outlets together will expand the reach and power of your PTA and/or issue campaign.

Google+ surpassed Twitter as the second largest social networking site in 2013. Google+ boasts 500 million users. This platform offers a broad range of features, including friend circles, news streams, hangouts, messenger, and games. It also has pages for companies and brands, similar to a fan page on Facebook.

YouTube is a video sharing website and the second largest search engine in the world. Every minute, users upload 24-hours worth of videos.

LinkedIn is a social network that allows professionals to connect. More than 225 million members in over 200 countries and territories use LinkedIn. New professionals are joining at a rate of two users per second. Of all the companies that use social media for recruitment, more than 95 percent of them use LinkedIn.

Instagram is a social media outlet that allows users to upload, edit, and share pictures and videos on Instagram's platform, as well as other social media outlets, including Facebook and Twitter. Instagram has over 100 million active users.

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Flickr is an online image and video hosting site operated by Yahoo. Flickr has more than 50 million registered members, hosts more than 6 billion images, and offers members one terabyte of free cloud storage space.

Pinterest is a digital "bulletin board" where users can "pin" and share articles, pictures, ideas, recipes, quotes, etc. with friends and followers. Pinterest has over 48 million members, and is most popular among women.

## II. WHERE SOCIAL MEDIA AND PTA COLLIDE

## SAY

Conversations are happening all the time on social media. Conversations are shared with others. Because of the respective sharing capabilities of each social network, conversations and discussions can be shared with large groups of people in a short period of time. This accomplishes a number of things, but two of the most important for your PTA are awareness and exposure.

## PTA Awareness through Social Media

The social media platforms we discussed can serve as a "conversation catalyst" for education reform and child advocacy. Simply bringing awareness to PTA efforts could be very effective for membership growth, member participation, volunteer development, and most importantly, strategically advancing your issue campaign.

## PTA Exposure through Social Media

Social media makes significant exposure of your PTA and your issue campaigns possible. More than 90 percent of people trust peer recommendations, while only 33 percent trust messages from brands and organizations. The PTA implications run deep here. If we can get folks to talk and share information about PTA and issue campaigns, their friends are more likely to respond more favorably than they would to a message directly from National PTA.
"Virality." What does this word mean to you? By definition, a virus is able to induce some agents to replicate it, resulting in many copies being produced and spread around. How does this relate to social media and the PTA?

World-renowned author and marketing guru Seth Godin talks about the "ideavirus," a good idea that is worth spreading. He goes on to say that an "ideavirus" needs "sneezers," people who spread this "ideavirus." The more sneezers we have the more the ideavirus spreads. Keeping in mind that, and remembering that on average, every Facebook user has 130 friends, the potential for virality on Facebook is limitless. Good ideas spread, it is as simple as that. In a little bit, we'll talk about practical ways to get PTA ideas to spread throughout social media.

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People on social media gravitate toward causes that they can get behind, support and promote. The PTA is no different than these causes:

- Invisible Children - fighting to free child soldiers in Africa - Nearly 500,000 fans on Facebook
- Focus on the Family - with nearly 300,000 fans on Facebook
- Feeding America - with nearly 200,000 fans
- Salvation Army - with nearly 70,000 fans

National PTA has approximately 30,000 fans. That is pretty good, but not good enough. How is your PTA doing on Facebook? People want to be a part of life-giving, culture-shifting, game-changing causes and organizations on social media, and PTA can be that outlet. Why?

People want the good ideas to be their ideas. If it's something worth sharing - an inspiring video, a new way of thought, an exciting new idea in the world of advocacy for children most people want to be the first of their friends to share it. Everyone has a circle of influence. That means in every circle there are influencers. These folks want to be the ones who share the best content first. Every viral video on YouTube becomes viral because people want to be the first of their friends to share it. But it all goes back to the content of the "idea virus" that makes people want to share it. If the quality of the content is fresh and exciting, then the number of shares will increase.

## ?

## ASK

Does anyone have an example of a Facebook post that received a large number of likes? What about an example of a Facebook post that flopped? These examples are a great transition into the next part of this training: best practices in social media and finding ways to increase your effectiveness and maximize your returns.

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## III. SOCIAL MEDIA BEST PRACTICES



D - Designated Responsibility<br>I - Integrated Approach<br>C - Content Creation Methods<br>E-Editorial Calendar

DISPLAY ON A FLIPCHART OR POWERPOINT:
Create Your Social Media Process by "Rolling the Dice"

## SAY

Every good social media strategy must begin with a content strategy. I like to break down a social media content strategy like this...D.I.C.E. It's time to roll the DICE!

- D is for "designated responsibility." Who will be posting the content? One person? A team? This needs to be cleared up first so it's not fuzzy as to how it will get done.

Your PTA also needs to identify the workflow and the process of approval that is appropriate for your structure and agreed upon by your PTA leadership. You should also consider creating a policy for dealing with negative comments. Many experts encourage allowing a real dialogue, and that means allowing comments that you don't necessarily like or agree with. Don't feel like you have to address every comment during a debate on an issue. You can restate your opinion or policy, but allow your other followers to have your back. You should always delete vulgar or inappropriate comments.

- I is for "integrated approach." This content should go to different social outposts, Facebook, Twitter, YouTube, Flickr, Google+, etc. However, don't over commit yourself. If you can't manage to post fresh content daily, you want to take a step back and reevaluate your plan. Make sure that your team is set up to publish content on these different platforms. An integrated approach will help to broaden your reach as well.
- C is for "content creation methods." As a local unit, what systems are you putting into place to capture noteworthy stories? Is it a spreadsheet? An email thread? Anything you can put into place to capture stories before they are yesterday's news will help you stay relevant in the social media world.
- $\mathbf{E}$ is for "editorial calendar." If you're like me, it won't get done unless it's written down and this piece ties in every other point. On a calendar, you can note who is posting, where they are posting, and how you identify your content topics. This is the final piece to a successful social media strategy.


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DISPLAY ON A FLIPCHART OR POWERPOINT:

## Social Media Best Practices:

- Variety
- Tone
- Timing


## SAY

## Facebook Best Practices

Variety. Be sure to publish different types of posts. A good social media engagement plan integrates multiple types of posts, not just status updates and not only pictures. Here is a list of post types to work into your social media plan: general status updates, "click like" posts, photos, events, links to websites, links to articles, quotes, questions, calls-to-action, videos, testimonials, announcements, breaking news, and how-to posts.

Tone. Be sure to consider your tone and know that your audience may be perceive your tone differently, as in any electronic communication. Try to use a personal tone, tap into emotion, and stir debate among your audience.

Timing. Shoot to post during peak hours. Facebook and other social media outlets are most active in the early morning (around 9:00 am), at the end of work (around 5:00 pm), and late at night (around 11:00 pm). If your usage peaks during these time periods, you will increase the odds that your target audience will see your content.

## Twitter Best Practices

Respond quickly. This is particularly important when dealing with customer service comments and concerns. You should stay current with Twitter mentions and respond to concerns within two hours.

Space out tweets. Tweets should be spaced throughout the day so that they ideally reach your followers' feeds at periodic times. If you only tweet at one time of day, you lose a lot of visibility. Third-party applications, such as Hootsuite, allow you to schedule your tweets and allow multiple users to access the same account to help spread out the workload.

Too much self-promotion can be a bad thing. When an organization does nothing but promote its message, people won't listen and they won't follow. Thirty percent of tweets should be related to PTA, while the other 70 percent of tweets should be about related topics that provide value to your followers. Include a link to a website, blog post, article, etc. Not only is this a great way to leverage your other platforms, it also gives you credibility as being a source of great content.

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Choose who you follow. Certain Twitter directories, such as WeFollow or Tweepz, allow you to locate users to follow based on their interests and geography. Follow people who either mention you, or are interested in the services or products you offer. Follow people who are retweeting you or mentioning your name. However, if you follow too many people too quickly, you can lose credibility.

Build a relationship with users. Make sure to thank people for mentioning you, following you, or just comment on something they said that was interesting. If they post interesting content, feel free to retweet it. Generally, people will follow you if you genuinely reach out to them.

Join the conversation. If people are talking about things that matter to you, feel free to join the conversation! This gives your brand a human voice and shows that you care.

## Facebook Fan Page Best Practices

Respond quickly. Just like Twitter, you should respond to comments/ inquiries within two hours.

Join the conversation. It's okay to respond to conversations within a response thread from a post. You can respond directly to several individuals within one comment too. Just make sure to identify who you are responding for each statement you make.

Develop relationships. Get to know the people who are frequently commenting on the page. Engage in conversation with them by asking questions and responding to posts. Developing these relationships is crucial when developing a strong base of "super fans." These relationships can be effectively leveraged in future campaigns.

We're all in this together. Try to avoid "I" statements. Brands are all about "we", "us" and "our" and your voice and communication strategy should reflect this mentality.

Find a voice that works for your PTA and issue and use it! For easy usability, you should adopt a voice for PTA. Every administrator with access to the page should be familiar with the voice. This will allow multiple people to actively respond to comments and concerns, while creating a consistent voice.

Make your page "sticky." A potential fan has arrived on your page, now what? It is important to maximize their experience; the more engaging the better! You want them to stay there as long as they can and enjoy their time on the page. Try to have links back to your website. Clearly delineate who you are and what you stand for. Make it easy for users to find more information.

Check it twice! Be sure to double and triple check spelling and grammar. Nothing shows you care like proper grammar and punctuation, especially in PTA.
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## Grassroots Advocacy Trainer's Manual

## Social Media Exercises

## All Levels

Participants will practice several aspects of using social media in small groups.

## TIME

Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## SOCIAL MEDIA EXERCISE INSTRUCTIONS

Split the attendees into three small groups. Assign each group one of these four topics:

- Facebook - Create a week's worth of ideas for Facebook posts on an issue of your choice, including topic, post type, tone and timing.
- Twitter - Create a week's worth of ideas for twitter posts on an issue of your choice, including topic, post type, tone and timing.
- PTA Process - Create the guidelines that a PTA might need to implement a social media strategy: a workflow, approval process, comments policy, color schemes, logo, etc.

Give the group a five-minute warning before the end of the 20 minutes, and then call them back to order to report when the 20 minutes are up.

## SOCIAL MEDIA DEBRIEF

Call the class back to order. Have each group present their ideas, provide feedback, and open the dialogue for all attendees to add more ideas for each topic.

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## National PTA ${ }^{\circledR}$ Social Media: Blogging Tip Sheet

## National PT/F

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> Blogging allows your local PTAs to have a consistent stream of fresh, timely new content to tweet, share on Facebook, use in your e-newsletter, and so on. Blogs allow PTAs to tell their stories, break news, comment on breaking news, and share resources quickly. While there are no set rules for creating a blog and writing blog content, here are some guidelines to make your PTA blog effective.
> Reference: Mansfield, Heather (2011)A How to Guide for NonProfits: Social Media for Social Good. usA:McGraw-Hill

1. Blogs need to make a strong first impression. When designing a blog the template should be simple, visually powerful, and spacious. Too much clutter and multiple columns can easily overwhelm the reader.
2. Feature the ability to subscribe to your e-newsletter and join your social networking communities. The upper right corner of your blog is the most valuable section of the page in terms of visibility and impact. Feature the ability to subscribe to your newsletter, a campaign, and any social networking icons in that spot. As blog traffic increases so will new subscribers, friends, followers and fans.
3. Blog titles are priority. Make sure the blog title is bold and engaging. It should also include key terms and words relating to your subject matter.
4. Emphasize quality content. The length of blog posts is not as important as the quality and relevance of the blog posts. Content should be important and useful to your audience. The content should engage readers and make it worth their time. Word use should be efficient-don't waste words. Only add words that support your points. Avoid fluff.
5. Optimize content for web reading. People tend to scan online articles rather than read them word for word. Use bullet lists whenever possible. Boldface keywords (or people's names) to break up long sentences and paragraphs.
6. Allow comments but moderate them. All blogging platforms have a notification system that allows you to moderate comments before they go live. You should allow comments but you don't have to approve them all, particularly if they are rude and disrespectful in tone.
7. Add share and search functionality buttons. Make sure the blog platform you choose automatically comes with share and search functionality or that you have the ability to add a share plug in.
8. Use photos/videos in all blog posts. Blog posts with images tend to get more traction. Post at least one photo per blog post if possible. You can also do a quick Google Image or Flickr Creative Commons search if you have nothing in-house to use.
9. Create "Top Ten" posts. Posting a blog about the top ten reasons your PTA is awesome is a great way to showcase your organization in a short, concise and interesting way. Use top tens or top fives to give people information on your PTA.
10. Be consistent. Try to blog once a week and at the same time every week. Followers appreciate consistency and routine. Even if you just describe what you are working on this week, share it with the people who have invested time in your blog.
11. Share your blog content. Cross promote your blog content on your other social networks like Facebook and Twitter.
12. Solicit engagement from readers. Ask people to comment and email ideas. Post polls to survey ideas. Keeping readers engaged will keep them returning.

If you want more information about how your PTA can best utilize social media, please contact our Communications Department. This tip sheet is one of many resources that National PTA offers members. Go to PTA.org for more!

## National PTA Social Media

Facebook - www.facebook.com/ParentTeacherAssociation Twitter - @NationalPTA
YouTube - Youtube.com/nationalpta PTA Great Idea Bank - www.ptagreatideabank.org

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## National PTA ${ }^{\circledR}$ Social Media: Facebook Tip Sheet

## National PT/

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Facebook is a great way to do Social Media marketing for your PTA. Facebook is perfect for brand awareness because it is free advertising and promotion for your local PTA, it allows you to share information with your members, it will enable you to start conversations on various topics, and it gives them the chance to share with their friends as well.

Reference: Mansfield, Heather (2011) A How to Guide for NonProfits: Social Media for Social Good. USA:McGraw-Hill

1. Create Your Voice. Your voice will often be found in the status updates of your fans, which means it is very important to find content that engages your fans and encourages them to want to engage with you. A great way to help you gauge this will be by the number of likes, shares, and comments you receive on your posts.
2. Fun and Informative. A great place to get started with content is to share success stories, breaking news, grant deadlines, calls to action, events, and information shared by National PTA.
3. Professional vs. Personal. While adding personality and flair is important, keep in mind that there is a difference between a personal Facebook page and your PTA's professional one. Set up rules of etiquette for your PTA's Facebook page so that everyone knows the rules and can help make it a safe place for sharing information.
4. More Than One. Be sure to have at least two people (although three would be best) as administrators of your PTA Facebook page. This way if someone is sick, traveling, unreachable or has to leave for any reason there are multiple people with access to the page. This also helps spread the responsibility for posting and sharing content, lessening the pressure on everyone.
5. Posting Limits. Be sure to limit the number of posts. Too many posts will cause people to hide or un-Like your Facebook page. Ideally, four to six posts per week is best, though you should not post more than twice a day.
6. Content Sharing. Be sure to share links, videos, and pictures whenever possible in your posts. This will help increase your PTA's visibility and activity. Facebook is all about sharing information.
7. Tagging Gold. Tag sponsors and supporters whenever possible; this will help them to keep up with what you are doing and engage them more. Plus, it gives them greater visibility among your PTA members and supporters.
8. Events. Create events and send them to the fans of your page. It will remind them about your unit and your events, and it will help you engage them in a new way.
9. Do Not Automate. It is always tempting to automatically sync several social media platforms to Facebook so you only have to send one status update. However, avoid doing this as much as possible because each social media platform is unique in the culture of the community and the way content is shared.
10. Encourage. Do not forget to encourage your PTA board members, volunteers, students (if you are a PTSA), teachers, and families to engage and be active on your PTA page. This will help create a flow of information and sharing that will encourage everyone! Most of all, do not forget to have fun, learn a lot, and remember that social media is just another resource for you, your members, and the parents and teachers that will give every child one voice!

If you want more information about how your PTA can best utilize social media, please contact our Communications Department. This tip sheet is one of many resources that National PTA offers members. Go to PTA.org for more!

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PTA Great Idea Bank - www.ptagreatideabank.org

# National PTA ${ }^{\circledR}$ Social Media: Twitter Tip Sheet 

## National

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Companies and organizations use Twitter primarily for sharing about a product, brand or a program.
It is also used to make announcements and share breaking news. All updates on Twitter should be 140 characters or less. The tips below will help increase your followers and enable you to get your message to a larger audience.

Reference: Mansfield, Heather (2011) A How to Guide for NonProfits: Social Media for Social Good. USA:McGraw-Hill

1. Develop Your Twitter Voice. The kind of content and the tone your members and followers respond to will help you give your Twitter voice personality. Your ultimate goal should be to inspire action and reaction from your followers.
2. Track Your Links!!! Use a Twitter app like Bit.ly or Ow.ly to track your links. They shrink your long links which allows more characters for tweeting. It also provides useful statistics on the number of people that click on your links.
3. Tweet your Content as Well as the Content of Others. Master the art of both retweeting and responding. Tweet articles or blog posts from your favorite newspapers, bloggers, and partner organizations. These practices will encourage your followers to retweet your content and information.
4. Follow on a $1: 1$ Ratio. If you have 1,000 followers, then you should follow 1,000 Twitterers in return. This will help your visibility and let your followers know that you are vested in them.
5. Follow People with Similar Interests. Help increase your visibility and understanding of your audience by following users with similar interests that are relevant to your goals and objectives. Do not forget to tag them in your messages by using the @ symbol.
6. Integrate. To maximize the success of your Twitter efforts, integrate into other online and offline materials. Incorporate a Twitter feed on your website, add a link to follow Twitter into direct mail pieces, and include a "share" button or Twitter link in an e-mail or e-newsletter.
7. Drive Website Traffic. 140 characters does not provide much room for detail. Offer a hook and lead your followers to your website or PTA.org for more information.
8. Tweet Often. Experts recommend tweeting four to six times per day. For some local units that may be too overwhelming. Twitter is most active from 9 am to 12 pm in any given time zone so focus your attention on tweeting during that time span.
9. Use Hashtags Strategically. Hashtags (\#) allow Twitterers to discuss issues and events on Twitter in real time. They also help to organize tweets, spread information and find new friends. Tweets should not have more than one or two hashtags.
10. Design your Twitter Profile to Match Your Local PTA logo. Try to blog once a week and at the same time every week. Followers appreciate consistency and routine. Even if you just describe what you are working on this week, share it with the people who have invested time in your blog.

If you want more information about how your PTA can best utilize social media, please contact our Communications Department. This tip sheet is one of many resources that National PTA offers members. Go to PTA.org for more!

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## National

YouTube is the social web site that lets people upload online videos and participate in free videosharing, commenting, liking, and re-posting. YouTube allows registered users to put their videos and share video clips online and share with others.
Reference: Mansfield, Heather (2011) A How to Guide for NonProfits: Social Media for Social Good. USA:McGraw-Hill

1. Create Your Story. The main goal of YouTube is to tell a story with video, music, pictures, etc. This can then be shared with your PTA members, parents, teachers, school administrators, and your community.
2. Fun and Informative. Storytelling on YouTube is meant to be fun, creative, and informative.
3. Searchable. Be sure to tag your videos so they can be searched and found by PTA members, parents, teachers, and anyone interested in the PTA mission.
4. Comments. Social media is about engaging and creating a conversation, so be sure to enable comments on your videos.
5. Content Sharing. Some of the best and more engaging aspects of YouTube is the ability to share among other platforms. Do not forget to share your own videos on other PTA platforms and encourage your members and followers to share as well.
6. Tagging Gold. Tag sponsors and supporters whenever possible; this will help them to keep up with what you are doing and engage them more. Plus it gives them greater visibility among your PTA members and supporters.
7. Channels. YouTube has the ability to create a space that holds all the videos uploaded by your PTA group. Go to youtube.com/create_account. Be sure the username you sign up with is the one you want included on your channel.
8. Descriptions. The description you give your channel should be short and simple. No one wants to read on YouTube; they want to watch a story of some sort.
9. Thank You. Do not forget to do a "Thank you" video or a year in review video to promote your accomplishments and let volunteers know how much their work is appreciated. The shout outs are always a great way to get additional shares.
10. Encourage. Do not forget to encourage your PTA board members, volunteers, students (if you are a PTSA), teachers, and families to engage and be active on your PTA page. This will help create a flow of information and sharing that will encourage everyone!

Most of all, do not forget to have fun, learn a lot, and remember that social media is just another resource for you, your members, and the parents and teachers that will help your members speak for every child with one, powerful voice!

If you want more information about how your PTA can best utilize social media, please contact our Communications Department. This tip sheet is one of many resources that National PTA offers members. Go to PTA.org for more!

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## Grassroots Advocacy Trainer's Manual

## Module 6: Recruitment And Organization Building



GOALS
By the end of this module, participants should be able to understand:

- The concept of self-interest and how it is used to recruit and retain volunteers.
- The Six-Step Process of Recruitment.


## TIME

## Total: $\mathbf{6 0}$ minutes

- Presentation: 30 minutes
- Exercise: 20 minutes
- Debrief: 10 minutes



## OVERVIEW

This session relies more on the experience of the trainer than the other session do. It raises questions about leadership development that are difficult to answer unless you have actually done it. It also requires skill in both guiding the discussion of why people participate in organizations, and critiquing the role plays.


MATERIALS NEEDED

- Easel paper (five sheets per small group)
- Masking tape
- Dark markers



## HANDOUTS

- PowerPoint Printout
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## EQUIPMENT NEEDED

- Easel/flipchart
- If you have elected to develop your own PowerPoint presentation to suit your specific training audience for this module, you will need:
- Computer with PowerPoint software
- LCD projector
- All cords and cable needed to connect computer with LCD projector, and extension cord to connect computer and LCD projector with electrical outlet
- AV stand or tab (if you will be using PowerPoint in this module)
- Portable speakers for videos


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## Introduction

## WELCOME TO MODULE 6: RECRUITMENT AND ORGANIZATION BUILDING



SAY
By the end of this module, you should understand:

- The concept of self-interest and how it is used to recruit and retain volunteers.
- The six steps for successful recruitment.
- Self-interest of the media.
- Planning your use of the media.
- Guidelines for using the media.


## MOTIVATION OF LEADERS AND MEMBERS



## ASK

We're going to start by talking about how you got involved in PTA. Think back to when you first decided to take an active role in the PTA. Tell us why and how it came about.

Write the following headers on two flipchart easels:
Easel 1
WHY?
-
-

Easel 2
HOW?
-
-
-

## ?

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## INSTRUCTOR NOTE

When hands go up, do as follows: Recognize four or five people, and write their responses on the chart paper in two columns. What you are looking for is, first, that someone got them involved, and second, that there was an element of self-interest in their involvement.


## ASK

The language is important. Ask, "How and why did your involvement come about?" If you ask the question differently, you will get a different kind of answer. "Why" will bring out the self-interest reasons for involvement. "How" will bring out the way it happened. You are looking for: "someone asked me to join," "to come to an event," or "to come to a meeting."

Push people if need be. If everyone is saying that they just felt that they should become a leader, ask how they got into a leadership position instead of asking why. How did it happen that you actually started to take more responsibility?

What was the first thing you did? How did you come to do it? It usually turns out that there was someone who made a point of involving them.


## INSTRUCTOR NOTE

The second point you want to uncover in these stories is the presence of self-interest. It can be:

- Specific - "I was sick and tired of the number of kids not reading at grade level."
- General - "I felt angry and wanted to do something."
- Social - "This looked like a good way to make new friends."
- Professional - "I thought it might help me find a job."
- Recreational - "My kids were in school and I wanted to get out of the house."

Usually it is some combination of these, but people are often reluctant to say anything other than the first two. Try to get them to say it.

As you write the responses on the charts separate them onto the two charts. On the "Why" chart list the self-interest reasons people give.

On the "How" chart write the name of the recruiter: "my friend," "Rev. Nelson," or "my father."
When you have several good examples up on the board, stop and go back over the answers.
Point out the self-interest responses and write "Self-Interest" next to "Why."
Then, point to the list of recruiters. Next to "How" write "Recruiter." Again, make the point that most of us in this room joined for very different, but specific, reasons involving our own self-interest. What usually motivates people to join an organization or take a more active leadership role is self-interest.

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## ASK

Ask the group for a definition of "selfishness."
[Possible Response: Being concerned only about self; everything is about me. Note that everybody can agree that selfishness is bad.]

Ask for a definition of "selflessness" or "altruism."
[Possible Response: Only being concerned about others, not paying attention to one's own needs.]

Ask if being totally selfless is always good? Are there examples of selflessness leading to problems?
[Possible Response: Generally someone will point to two problems with selflessness:

1) it leads to burnout if you don't take care of your own needs and
2) some people act like martyrs and want special recognition. Mothers usually have good examples from their own experience as moms, wives, and daughters!]

SAY
By self-interest we don't mean being selfish. The word interest comes from a Latin word meaning "between or among." So self-interest means self-among-others, or how we are aware of ourselves and our own needs in the context of our relationships with others.

As we have just seen, people joined organizations or took more responsibility, not just because it was the right thing to do, not just because they were concerned about the issue, but because they also got something else out of it. Learning a new skill, making new friends, or the feeling of satisfaction that comes from fighting the good fight.

We need to help new members identify their self-interest in joining our organization, whether it is directly to impact an issue, or to meet new people, or gain new skills. Naturally, we won't do this by asking directly, "So what is your self-interest?" People would think we are crazy! But we can ask people about their preferences and take the time to get to know them and what they get satisfaction from. We can let them know that it is good to think about what particularly interests you, what gives you energy and keeps you motivated. We can't meet everyone's self-interest, but if we don't look for self-interest, we are likely to lose volunteers or burn them out.

Meeting self-interest helps with recruiting new people, but it helps even more with retaining volunteers! If people feel that their participation in the organization is fulfilling, they are far more likely to stay involved. Of course, what brings a new person in may not be what keeps them, because self-interest changes and develops. A person might join because she is upset about school funding cutbacks, but stays because she likes the PTA members and wants to spend more time with them. She gets a chance to develop skills in running a meeting and begins to get recognition as a leader.

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In this room, we are highly motivated leaders in PTA. Yet, many of us did not become active because we got a flyer or heard about the organization through a public service announcement. Someone asked us to get more involved. People may pay dues, but the average person waits to be asked to do more than that. We have to be the person who recruits others, by personally asking.

We also saw that when people joined or moved up in an organization, there was another person helping it to happen. Someone was actively trying to get each of these people more involved.

## RECRUITMENT GUIDELINES - THE SIX-STEP PROCESS OF RECRUITMENT

SAY
Each of you needs to become that person who gets others involved. We will list six steps to successful recruiting. They are useful for getting an individual to join your organization and getting members to take on more responsibility.

## The Six-Step Process of Recruitment is:

1. Be prepared.
2. Legitimize yourself.
3. Listen.
4. Agitate.
5. Get a commitment.
6. Follow-up.

## DISPLAY ON A FLIPCHART OR POWERPOINT:

Write the steps of the Six-Step Process of Recruitment at the top of a flipchart, and then write each step on the flipchart one at a time as you cover each.

## SAY

## 1. Be Prepared.

- Learn as much as you can about the person.
- Set specific objectives for what you want the person to do, and think of something else in case they say no. For example:
- I want this person to join the committee.
- I want this person to volunteer for the voter registration drive.
- I want this person to be the newsletter editor.


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## 2. Legitimize Yourself.

- Get a "license to operate." This is a statement that establishes the legitimacy of the organization or connects you to the person you are recruiting. It particularly applies to recruiting people who don't know you. Find a common interest, for example:
- I am part of PTA in your child's school.
- Our children are both in Mrs. Espinosa's class.
- Our friend Ruth suggested that I talk with you.
- Have an appropriate image.
- We would all like to think that appearance and language don't matter, but, in reality, they send a message that can be different from what we actually want to say. For example, suppose a member is working on the problem of school funding. The member has been working with policy analysts and, during a discussion, uses acronyms and numbers that make him or her sound very knowledgeable. What can come across to a new person is that s/he won't fit in unless s/he learns to talk like that.


## 3. Listen.

- Draw the person out. Ask open-ended questions! Get them to talk about their concerns related to the issue at hand. Having them state the problem is much more powerful than you telling them what the problem is. You can add facts and figures to document their concern.
- Identify self-interest. Listen for what excites, angers, or motivates them. What do they care about in regard to the issue? What potential organizational positions might they fill?
- Build rapport/trust. Share a little of your own story. Express concern. Do not promise that joining the organization or participating in the campaign will solve all the problems, because they will never believe you.
- Establish personal connection beyond the issue. Talking about children is most natural for PTA members. Be sure to ask about their kids. Are their children on sports teams with your children, in the same class, or in the same clubs? If their children are younger than your kids, you can share useful information you wish someone had shared with you. Hobbies, books, sports, movies, and pets also make good points of connection.
- Hear and answer reservations. Do not promise all problems will go away. Sometimes, the problems just need to be acknowledged.
- Listen for networks you can organize. To what other groups does this person belong?


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4. Agitate.

- The goal is to help the person to see that this is his/her issue, as well as your issue. Discuss the issue in a way that makes the person mad at the primary decision-maker.


## Examples:

- Did you know that every month the school is sprayed with pesticide? When we asked the principal how long it took the chemicals to lose their toxicity, he said he didn't know. Our children's health is at stake here.
- The state has cut funding for schools every year for the past three years. The politicians are always talking about how important children are, and how parents should be helping them learn, but when it comes time to support our schools, all they say is that there isn't any money. But there was money for the governor's pet projects, wasn't there?
- Solution equals organization. Give examples of how a similar problem was solved, either here or elsewhere, through organization - large numbers of people can do what one person can't. Match the organization's need to the individual's self-interest.


## 5. Get A Commitment.

- Ask, "Will you come?"; "Will you do it?"; or "Will you leaflet your building Thursday?"
- Clarify next steps. For example, "I will call you tomorrow with the exact information on when the bus is leaving, and you need to get the $\$ 30.00$ in by Tuesday, October 2nd."


## 6. Follow-Up.

- Keep commitments.
- "I'll call to remind you."
- Help integrate the person into the organization.

There is nothing worse than making a big effort to recruit someone, and then ignoring them when they finally do show up.

The steps we most often forget are Listening and Follow-Up. Circle them with marker.

## INSTRUCTOR NOTE

There are no handouts for this exercise.

On the pages that follow are directions for a Recruitment Exercise.
In the case of this exercise, there is only one "level." This exercise is to be used regardless of the level to which you have tailored your presentation, whether it be local, state, or federal.

## Grassroots Advocacy Trainer's Manual

## Recruitment Exercise

## All Levels

Participants practice recruiting volunteers for an issue advocacy campaign.

## TIME

## Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes

In order to give more people a chance to do role plays, divide the group between the trainers and hold two sessions in different rooms. If you have more trainers, you can make more groups.

- Place two chairs in a spot where everyone can easily see them and hear what is being said.
- There will be one or two one-on-one role plays in front of the whole group. Repeat the sequence if time allows. You should only spend a total of 15 minutes here and save the rest of the time ( 35 minutes) to do more recruitment in small groups.
- Recruit an individual or inactive member to get active in the local unit or county council.
- Recruit someone who is already an active member, to take responsibility for some project, or run for a county council office.
- Announce the two topics and then pick a person who you think will do a good job (balance for gender, age, race, etc.). Say that the role plays should each last about five minutes.
- Step out in the hall with the volunteer and ask her to think of a real life person she wants to recruit and describe the person to you in a sentence. What are the person's name, age, occupation and interests? Ask if this is someone she knows or a cold contact? Where is the recruitment taking place?
- Pick someone to be recruited, who could more or less match the description (e.g., an older woman, a student, a father of three small children, etc.).


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## RECRUITMENT INSTRUCTIONS - SETTING UP THE ROLE PLAYS

Quickly take the person you picked to be recruited out in the hall and tell them who they are to play. Help the person think up some realistic objections to being recruited. Then say, "The goal isn't to be impossible. If the recruiter can find your self-interest, and can describe an activity that is specific, time-limited, and that you could imagine yourself doing, then say yes. If not, try to lead the recruiter to your self-interest and to ways of overcoming your objections."

- Call the group back to order. Say something like, "Kim is going to recruit John to the school budget campaign."
- Let the role play run about five minutes or longer if a conclusion seems about to occur. Then debrief.


## RECRUITMENT INSTRUCTIONS — DEBRIEFING THE ROLE PLAYS

- Ask the recruiter how $\mathrm{s} / \mathrm{he}$ thought it went. What was his/her strategy?
- Ask the recruitee how it went.
- Say to the group, "What did you like best about the job Kim did recruiting John?" Get all positive comments. Cut off negative ones by saying, "I'm looking for what you like best - we'll talk about what could be improved in a minute."
- Ask the group, "What did you think could be improved in what Kim did?" Get suggestions for improvement.
- Add your own comments on improvements.
- End by saying a couple of other things that Kim did that were good. Save a good point or two from before and use them now.
- Ask that everyone move their chairs into groups of three. When they have done that, ask one person in each group of three to raise their hand. It doesn't matter who it is. Say, "You will be the first recruiter. You will recruit the person sitting to your right. The third person will critique the recruitment and then you will switch and that person will recruit you. If there is time, switch again."


## INSTRUCTOR NOTE

While the recruitments are progressing, walk around and make sure all is going smoothly.
Variation: If you have enough trainers and time, each trainer can take 10 to 15 people and do one role play (two people) at a time in front of the small group - as explained above.

## Module 7: Meetings To Pressure Decision-Makers



GOALS
By the end of this module, participants should be able to understand:

- Grassroots organizing.
- Examples of power that an action can have.
- That every action must have its power component.
- Secondary targets.
- The importance of selecting the right tone for an action.
- Benefits of regular actions.
- Four steps of planning an action.


## TIME

## Total: 60 minutes

- Presentation: 30 minutes
- Exercise: 20 minutes
- Debrief: 10 minutes



## OVERVIEW

Participants should learn that meetings are necessary when "being right" is not getting you what you want. They should understand how to leverage power in a meeting, understand the types of targets, and understand the four steps to a successful meeting.


## MATERIALS NEEDED

- Easel paper (five sheets per small group)
- Masking tape
- Dark markers



## HANDOUTS

- PowerPoint printout
- Checklist for Meetings with Decision Makers
- Meeting with Decision Makers Exercise (Federal, State, or Local from Exercise Kit)



## EQUIPMENT NEEDED

- Easel/flipchart
- If you have elected to develop your own PowerPoint presentation to suit your specific training audience for this module, you will need:
- Computer with PowerPoint software
- LCD projector
- All cords and cable needed to connect computer with LCD projector, and extension cord to connect computer and LCD projector with electrical outlet
- AV stand or tab (if you will be using PowerPoint in this module)
- Portable speakers for videos


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## INSTRUCTOR NOTE

A meeting with a decision-maker is a brief face-to-face meeting between an organized group of PTA members and a decision-maker or target who can give us what we want. The event is usually held on the decision-maker's turf, often their office, and a specific demand is made by our group. The group expects to get an answer, and expects the answer to be, "Yes."

A meeting is a tactic in the context of a larger campaign. It is also fun. A meeting is one of the tactics we might list in the last column of the strategy chart.

A meeting isn't a symbolic event. To succeed, it must have real power behind it. The hardest thing about planning a meeting is figuring out what power we do have and how to show it at the meeting.


## Introduction

## WELCOME TO MODULE 7: MEETINGS TO PRESSURE DECISION-MAKERS



## SAY

By the end of this module, you should understand:

- Direct action organizing.
- Examples of power that an action could have.
- Every action must have its power component.
- Secondary targets.
- Tone of the action.
- Benefits of regular action.
- Four steps to planning the action.



## INSTRUCTOR NOTE

Review the difference between a tactic and a strategy:

- A strategy is the overall plan and it always involves changing power relationships.
- A tactic is one step in carrying out the plan or the strategy.



## ASK

Has anyone participated in a meeting to pressure a decision-maker? Pick someone to describe the meeting she/he was in. Look for a clue about who to ask when you do introductions and people tell about their victories.

Be prepared to differentiate between a meeting, a media event, and a lobby visit. If you ask two or three participants to describe actions they have been in, you will probably get more media events and lobby visits than true meetings. By lobby visit we mean a smaller number of people bringing information to an elected official or asking about the official's position, but not applying much pressure. Stress that the point is not that one is better than another. They are all useful tools, and it is important to be clear about which tool is being used at any given time.

Share your own example of the power analysis behind a meeting in which you were involved.

Examples of Power That a Meeting Could Have:

- A politician is made to look unresponsive to voters.
- A school superintendent is shown to be losing the confidence of parents and/or teachers BUT only if the bad publicity will lead to the board directing the superintendent to do what you want. Or, if warranted, replacing him/her.
- A store manager is made to look unreasonable either to consumers or to the manager of the chain. (The more a business spends in advertising, the more vulnerable it is to having its image attacked.)


## Every Action Must Have Its Power Component

- It is not simply asking, nor is it trying to convince by logic. We have tried those things and failed long before we get to the action stage of the campaign. If, in the beginning of a campaign, we ask for something and get it easily, we assume that we asked for too little. Much later, after the organization has built up a large base and has a reputation for using power, more issues can be settled by negotiations.


## Secondary Targets

A meeting is a tactic of medium power. Actions are often used to get to our target in a roundabout way by going after a secondary target, or someone who can make your real target do what you want but over whom you have more power.


DISPLAY ON A FLIPCHART OR POWERPOINT


## INSTRUCTOR NOTE

Give a personal example of a meeting you had with a secondary target.

SAY

## The Tone of the Action

The purpose of the action is to showcase your power, which usually comes from your numbers and your ability to reach even more people who aren't in the room. Often, you can boost your power and have more fun if you go outside of the established channels and do something that is not in the experience of the target. Every institution has its channels for dealing with dissatisfaction. Usually, we are supposed to fill out forms or write letters and wait for answers; that is within the target's experience.

The concept of getting outside the decision-maker's experience is an important one. There is some purely psychological value in making the decision-maker feel uncomfortable. Sometimes elected officials will make a concession just to get rid of us, because we are bothering them. Unfortunately, we can never make them as uncomfortable as thousands of people will become if the government does not adopt the measures PTA says are necessary.

But beyond discomfort there is the principle of changing the rules. If the old rules don't work for us, we have to change them. Under the old rules, our lobbyist or one or two volunteers showed up in the decision-maker's office, had a brief conversation, a lobby visit, and left. If that works, don't change it, but if it isn't working, try getting PTA members to sign 1,000 postcards to the decision-maker in support of the issue you are working on and bring them to your next meeting.

Changing the rules can bring factors into play that we didn't even know existed. It shows that having tried pure logic to convince elected officials we are now going to rely more on the power of numbers. It makes elected officials worry because they don't know what we might do next. If the rules are working for you, then don't change them, but if they aren't working, then don't feel that all you can do is the same thing over and over.

## EXAMPLES: WHAT IS OUTSIDE THE TARGET'S EXPERIENCE?

- When you show up in person instead of writing a letter.
- When you make something public that is usually internal, that is outside the target's experience. A consumer advocate was appointed to a state utility policy study commission. At the first meeting, it was announced that the proceedings were strictly confidential. The consumer advocate said, "I represent the public, and it is my duty to repeat every word said here." After that, commission members knew that there would have to be a real debate; they couldn't just cave into industry demands.
- When you pressure individuals and not the institution as a whole, the individuals may realize that they are personally accountable for policies that they can't justify, and they may be more willing to change them. Don't let them say, "Look, I just work here."
- When you demand that a new person or entity assert jurisdiction over an issue, you may be able to bring in someone fresh who isn't publicly committed to a failed policy. When a community group couldn't get the city council to order the cleanup of an area where hazardous materials were stored, they got the area declared a dump and got the zoning board to say the area wasn't zoned for a dump.
- When you play one administrator or politician off against another, you break up the "clubby" atmosphere in which they are used to operating. For example, members of a legislative committee had an unwritten policy of voting with the committee chair. When citizens held the members of the committee individually accountable, the committee members had to justify their votes on the merits of the issue not on tradition.
- When you work with a decision-maker's office it is important to work both with staff and the decision-maker himself/herself. Often we can change policy by working through the staff. Other times we may need to get a meeting with a decision-maker before the staff will begin to take us and our issues seriously.


## GET OUTSIDE THE EXPERIENCE OF THE TARGET



## INSTRUCTOR NOTE

Share your example of going outside the experience of the target.

SAY
The more you can get outside of the way things are supposed to work, the better chance you have to gain a victory. But-and this is important-what we do must always be within the experience of our own group, otherwise we lose the advantage. For example, when a group of parents, who wanted a city daycare program, brought a large number of children to a meeting with a top city official it really helped them. The official, who was expecting an orderly meeting for which he had prepared all sorts of excuses, was totally thrown off by the kids running around his office. The parents, however, were perfectly comfortable with it. They were used to having the kids play at home, because there was no daycare. The point is to get outside the experience of the target but to stay inside your own experience.

The tone of a meeting needs to be firm enough so that the target knows that the matter won't soon be forgotten. If the target is elected, he or she will be counting the months until election day and wondering how long anyone will remember this meeting and if anyone will actually vote on the basis of this particular issue. How people act during a meeting is a planned tactic. The point is to show that we feel strongly enough that this won't soon be forgotten. Getting angry often will not advance our cause. Instead, it is probably better to keep control of a meeting or do a low-key action that shows the media that our people are more reasonable than the public official.

Whatever the tone of the action is, it should be discussed in advance, and there should be a reason for it.

## BUT BEWARE! THE TARGET IS ALSO TRYING TO GET OUTSIDE OUR EXPERIENCE.

In one experience a city hall staffer took a group of community people into a Victorian era conference room that was so large, so richly detailed, so deeply carpeted and so beautifully furnished that they were all afraid to speak above a whisper.

Their organizer had to suggest that the meeting be moved to the person's private office where the furniture had been made by the Department of Corrections.

## WHAT THE ORGANIZATION GETS OUT OF REGULAR MEETINGS

- Victories - Celebrate them!
- Commitment - Our volunteers can see the organization working for them and understand what it does.
- Relations of power become clearer - In the course of using this tactic, we gain experience, and we learn just what is important to a particular decision-maker. This helps us to win in the future. Some people think that their problems with elected, appointed, or corporate officials stem simply from misunderstandings or typing errors in their letters. Others think that what is important to the decision-maker is that we show that we are right and that we have good research and information. Still others think that the decision-maker gives us what we want, because we are so polite and have such a good relationship with them. Actions give us a chance to test these ideas in practice. What it often comes down to is this: PTA volunteers go as a group to ask for some thing that seems perfectly reasonable and is clearly in the interest of children. We are then refused for bad reasons. This helps to clarify that it wasn't a misunderstanding at all. There really is someone making decisions about our children's lives who is not accountable to us.
- Elected officials are demystified - Often, people ask, "What can we do when institutions like the Congress, the legislature, city council or the school board are made up of individuals who have so much power." By using this tactic, meeting with a decision-maker, we can show our members that, yes, the other side has power to be sure, but they can be influenced by us as well as our opponents.
- Frequent actions keep our organization healthy - An organization, which is regularly engaging decision-makers, planning strategy, and doing turnout, grows and gains the ability to take on more difficult issues, which is just what we want to do.
- Publicity - We often get publicity, which builds membership and fundraising potential.
- Leadership - Actions are a good opportunity to build our leadership.
- Demonstrate power - Actions allow the organization to demonstrate its power. This is important both for relations with elected officials and administrators, as well as with other organizations.


## FOUR STEPS TO PLANNING THE ACTION

There are four steps to planning the action.


DISPLAY ON A FLIPCHART OR POWERPOINT Four Steps To Planning The Action:

1. Preparing for the meeting.
2. The meeting itself.
3. The fallback.
4. The follow-up

## 1. PREPARING FOR THE MEETING

## SAY

## Power Analysis

Start with power analysis and everything we have learned from our research.
Get an appointment. We can learn a lot about how we are regarded by how easy or difficult it is to get an appointment. Ask the question, why did this person agree to meet with us? If we don't have the power to get the appointment, we will probably lose anyway.

Avoid the situation in which someone says, "Oh, the senator is an old school friend. I'll just invite him for coffee, and you can drop in and talk to him." If the meeting is obtained through a personal connection, you won't be able to estimate your strength, and you will be restrained by politeness from saying anything forceful or even requesting direct answers to your questions. The local leader who knows absolutely everyone and can get you in is a great person to have on board when you have no organization, but such people are often the biggest obstacle to grassroots organizing because they can never sort out their personal relationships from their public relationships and want to treat all elected officials as if they were family members.


## INSTRUCTOR NOTE

At a recent training session for another organization, someone said, "Our state rep. would never meet with as many as 10 people."

The trainer responded. "He probably knows that 10 people are all you really have. Try asking him to meet with 50 people and see if he refuses."

The person said, "Oh, we could never get anywhere close to 50 people."

# WHAT DO WE HAVE THAT THE DECISION-MAKER WANTS? 



ASK
Ask what do we have that the decision-maker wants? What can we do or get someone else to do or stop doing so that the decision-maker will make a concession to us?

For example, we can call off our media release if we get our demands now. We can say that if the committee doesn't issue its school discipline report, then we will issue our own report and make them look as if they are trying to hide the problem. Based on our power as an organization, what can we realistically demand and win?

SAY

## Get the People Out

Are there special people to have along though not necessarily speaking? If the target is an elected official, perhaps people who made contributions or worked in the campaign should be seen supporting you. If everyone in our group voted for the other candidate and will again, then what would the target gain by giving us anything?

The people who come should be largely from within our own organization or coalition. Everyone should understand the nature of the event. Be careful about outside people who have their own agenda or who may even end up siding with the target.

## Press

Will having the media present help or hurt? If the focus of the action is to threaten to make something public, then obviously we don't want media present or the threat is gone.

On the other hand, if refusing our demand will put the target in a bad light with people who matter to the target, then the media can be essential to the success of the tactic. For example, if you say, "Senator Jones, do you mean to say that you think healthy snacks in schools are a luxury? Does that have anything to do with the large campaign contribution you received from Snack PAC the political arm of the Junk Food Association?" Whatever the answer, it will have greater repercussions for him/her if made before the media.

## 2. THE MEETING ITSELF

## Case the Place

Make a floor plan showing where the room to which you are going is located in relation to entrances, stairs, elevators, and bathrooms. Check that the building is accessible. There is nothing worse than going in for a meeting and not knowing where to go, or starting for the bathroom and getting lost.

## Rehearse

The spokesperson (there is only one) should role play the meeting with another volunteer or staff person. Try to anticipate what the target will say and have responses ready. PTA leaders, members or other leaders who have spoken with the target in the past can be helpful. Remember, have your facts right, but facts alone won't win it. Always be aware of the source of your power and make it clear during the meeting.

## Showcase Power, Not Frustration

You want to be able to say things like, "Representative Jones, we have 1,500 members in your district, twice the number of votes that elected you to office." Then, tell him/her that voters know you are right about this issue. This is how being right really gives you power.

## Supporting Lines

Participants in a meeting can support the spokesperson by picking up and repeating key lines from the exchange with the target.

## Example:

Spokesperson: "Representative Jones, you won't talk about the dismal rate of graduation in our city schools, why not?"

Group: "Yes, why not?"
The group comes back to that theme several more times, but they need to be alerted in advance.

## Assign Organizers

Two people should act as organizers for this (and every) event. One stays in front with the spokesperson to keep our leader calm and focused.

## INSTRUCTOR NOTE

Give an account of your experience getting extremely nervous in a public speaking situation. The point is to help the volunteers see that it happens to everyone.

The other organizer stays in the back to ensure that the group is saying supporting lines and hasn't drifted off into acting as if they were watching all of this on TV.
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## SAY

## Agree on a Signal to Leave

It should come from the spokesperson or the front organizer. It can be a word or a gesture. Once it is given, the whole group must leave. No one is to stay behind to shake hands with the target or discuss the problem of stray cats, no matter how serious that problem is.

## Assign a Note Taker

Write down concessions, refusals and quotable quotes. "My job isn't to worry about how children get to school. My job is to balance the budget." Try to get the target to sign an agreement on the spot if a concession is made.

When you get a concession, make sure that it is specific. Ask:

- When will it be done?
- How much will be done?
- Who will do it?
- Does anyone else have to approve this decision?
- Don't accept. "We'll take care of it, don't worry."


## Call

Call everyone the night before. Make sure of your turnout.

## 3. THE FALLBACK

There are two parts to the fallback. Both must be planned in advance.

- What to do when the target doesn't show up.
- What to do when target says no.


## When the Target Doesn't Show Up

- It is always better that the target shows up. Make an appointment and expect that it will be kept. Often the decision-maker is not far away. Go look in other offices or bathrooms.
- Sitting down and saying that you will wait until she/he comes back sometimes speeds thing up.
- Post demands on the wall mainly for the TV. Having called the media, we need to have something visual.


## INSTRUCTOR NOTE

Give an example from your experience of a time when a target didn't show up but was nearby and was brought out in response to something that the group did.

SAY
When the Target Says No:

- We need an agreed upon fallback position, which means asking for less while getting more forceful. (Everyone must agree in advance on what less is. This is where factionalism and wars start.) We say to our city council member, "Please pick up the phone and get us an appointment with the mayor." She/he says, "No!" We say, "O.K., will you write a letter to the mayor and send us a copy?" A fallback is also a face-saver for the target.
- Try saying, "Don't you have the authority to make this decision?" Sometimes they grab at that one, and it gets us an appointment with someone else. (Obviously this is not for use with elected officials when we are discussing how they will vote.)
- Suggest talking it over at the target's house.
- Try to get the target to put the refusal in writing. The idea that their response will be publicized may get you something.

If we don't win, it means that we made a miscalculation. We asked for too much given the amount of real power we had or we didn't make our power explicit. We need to regroup and come up with new demands, more power, or both. Grassroots organizing assumes that the target is rational and will make decisions in his/her self-interest. If the target starts making irrational responses, we both lose. In that case, it might be better to come back another time.

## 4. THE FOLLOW-UP

## Hold a Quick Meeting Outside

Regroup, explain what happened, deal with press, and announce next steps.

## Check on Media Coverage

- See if we can maximize it.
- Carry or email a release to papers. Call radio and TV stations.


## Put the Agreement In Writing

If an agreement was reached, quickly state it in a letter to the target. "Thank you for your agreement to the following terms." Deliver the letter to the target's office. If the content of the letter isn't disputed by the target, it is almost as good as a signed agreement.

## Celebrate Together

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## Later Call and Thank Everyone

Follow-up on no-shows. Thank new people for coming. Congratulate other leaders.

## Hold a Formal Debriefing

Do it within the next week. Critique the meeting. This is how we improve the advocacy skills of our organization. We will discuss the soundness of our strategy, how well the individual tactics moved the strategy forward, and how well we implemented the tactics.
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## INSTRUCTOR NOTE

On the pages that follow are directions for a Decision-Maker Meeting Exercise.
There are three case studies available. Each illustrates advocacy at the local, state, or federal level. You should have selected the level you believe to be most appropriate and relevant to your group, and copied the handouts for that level's case study to use in the following exercise.

Reminder, the design of this course is for the level addressed to remain consistent throughout. That is, if you work the local level case study in this module, you should work the local level case studies in all the other modules.

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## Checklist For Planning a Meeting With an Official (At His or Her Office or "Turf")

## All Levels

Will your action be based on real power? Will it be fun?$\square \quad$ Is everyone in your group comfortable with the plan? (Is it within the experience of your group?)
$\square \quad$ Will the plan be outside the experience of the target?
$\square \quad$ Are your demands clear and simple?
$\square \quad$ Do you have several fallback demands?
$\square \quad$ Do you have an appointment?
$\square$ Have you scouted the building and made a floor plan? Do you know where to find:
O Elevators and stairs
○ Bathrooms?
O Parking or nearest transit stops?
O The target's office?
○ "Hot spot" where your cell phone works - or a pay phone?
$\square \quad$ Can the site accommodate disabled members?
$\square \quad$ Has the group selected who will present information at the meeting? Are people prepared for their roles?
$\square \quad$ Has the group selected who its spokesperson for the action?
$\square$ Have you held a dress rehearsal for the spokesperson and the participants?
$\square \quad$ Have you calculated how you will demonstrate your power? Do you plan to have symbols with you (letters, petitions)?
$\square \quad$ Do you have a good turnout plan for the action, including last-minute reminder phone calls?
$\square$ If you want the media, have they been notified? Have you...
O Sent a press release, including a notice of your photo opportunity, a week ahead of time?
O Called the daybook a week ahead of time?
O Called and emailed the assignment editors the day before the action?
O Prepared a release for distribution on the day of the action?
O Assigned someone to talk with the media at the event? (your spokesperson may be busy)
$\square \quad$ Have you selected someone to take notes during the meeting and write the confirmation letter to the target?
$\square$ Do you know who will debrief the action with participants and where the debriefing will occur?
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## Meetings Exercise

## THE ST. FINBAR EDUCATION COALITION MEETS WITH LINDA NAGASHIMA

OVERVIEW
Participants practice winning the support of an elected official.

TIME
Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes

The St. Finbar Education Coalition has been conducting a campaign to reverse the decision to cut bus transportation to all magnet schools in the district. After meeting with individual school board members, you have determined that Hubert Gonzalez is in favor of reversing the decision to cut the bus service and is willing to make the proposal to the school board. At this point two board members are opposed and two are undecided.

Linda Nagashima is undecided. She has agreed to meet with a delegation from the St. Finbar Education Coalition to discuss the issue. Nagashima is very concerned about her next race, which is in November.

## POSITION OF ST. FINBAR MEMBERS ON REINSTATING BUS SERVICE

|  | School Board Member | Position |
| :---: | :--- | :--- |
| 1 | Hubert Gonzalez | In Favor |
| 2 | Jack Gotham | Opposed |
| 3 | Eldridge Knowles | Undecided |
| 4 | Carol Johnson | Opposed |
| 5 | Linda Nagashima | Undecided |

## Grassroots Advocacy Trainer's Manual

## ASSIGNMENT

You have 20 minutes to plan your meeting with School Board Member Linda Nagashima who has agreed to meet at the school district office in one week. Determine whom you will send from the coalition and who will be the spokespeople at the meeting. What power do you have over Ms. Nagashima?

After planning, you will have a mock meeting with Board Member Nagashima in which you must convince her that she has more to gain by supporting the proposal than opposing it.

You may make up whatever information you need but keep it within the realm of the possible.
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## Grassroots Advocacy Trainer's Manual

## Meetings Exercise

## THE FREMONT PTA MEETS WITH SENATOR OLIVIA ROSTEN

## OVERVIEW

Participants practice winning the support of an elected official.

TIME
Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

The Fremont PTA and its coalition partners have been conducting a campaign to stop the funding cuts to public schools in the state. At a recent meeting with a few PTA members, State Senator Rosten refused to take a position on the funding cuts. She claims she is torn about what to do. She wants to uphold her reputation for being fiscally responsible.

State Senator Rosten is truly undecided. She has agreed to meet with a delegation from the campaign to discuss the issue. Rosten is very concerned about her next race, which is in November. You have been informed that the vote will take place in one month.

## ASSIGNMENT

You have 20 minutes to plan your meeting with Sen. Rosten who has agreed to meet in her district office in two weeks. Determine who you will send from the coalition and who will be the spokespeople at the meeting. What power do you have over Sen. Rosten?

Use the Checklist For Planning a Meeting With an Official pages of this handout to help your preparation.

After planning, you will have a mock meeting with Sen. Rosten in which you must convince her that she has more to gain by supporting the PTA and its allies and opposing the funding cuts.

If there is information you need but don't have, pretend you did the research and make it up. But keep it within the realm of the possible.

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## THE PTA COUNTY COUNCIL MEETS WITH CONGRESSMAN ETHAN CHARLES

OVERVIEW
Participants practice winning the support of an elected official.

## TIME

Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

The county council and its coalition partners have been conducting a campaign to amend and pass the Reauthorization of the Childhood Nutrition Act. At a recent meeting with PTA members, Representative Charles said even if he voted for the Reauthorization Act he is concerned that the amendment to regulate competitive foods would be an example of government getting involved in something in which it should not be involved. He repeated the comment he made recently on a radio show that parents should be teaching their children how to make nutritious choices.

While Rep. Charles has been indicating that he will not vote for the amendment, you have heard that he is really worried about his upcoming election. He has said that he has to pay attention to libertarians in the district as he thinks they were the margin of victory in his election. He has agreed to meet with a delegation from the PTA and others in the coalition to discuss the issue. Charles is very concerned about his next race, which is in November. You have been informed that the vote on the amendment will take place in one month.

## ASSIGNMENT

You have 20 minutes to plan your meeting with Rep. Charles who has agreed to meet in his district office in two weeks. Determine who you will send from the coalition and who will be the spokespeople at the meeting. What power do you have over Rep. Charles?

Use the Checklist For Planning a Meeting With an Official to help your preparation.

After planning, you will have a mock meeting with Rep. Charles in which you must convince him that he has more to gain by supporting the PTA and its allies and voting for the amendment.

If there is information you need but don't have, pretend you did the research and make it up. But keep it within the realm of the possible.

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## Module 8: Volunteer Management and Development



GOALS
By the end of this module, participants should be able to understand:

- Strategies for successful volunteer management in the PTA setting.

TIME

## Total: 90 minutes

- Presentation: 60 minutes
- Exercise: 15 minutes
- Debrief: 15 minutes


## MATERIALS NEEDED:

- Easel paper (five sheets per small group)
- Masking tape
- Dark markers
- Handouts
- Flip Chart
- Projector (PPT)



## HANDOUTS

- PowerPoint printout
- Sample Parent Interest Survey
- Volunteer Development Exercise
- Sample Event Planning and Evaluation
- Sample Attendee Event Evaluation
- Volunteer Self-Evaluation


## Grassroots Advocacy Trainer's Manual



## EQUIPMENT NEEDED

- Easel/flipchart
- If you have elected to develop your own PowerPoint presentation to suit your specific training audience for this module, you will need:
- Computer with PowerPoint software
- LCD projector
- All cords and cable needed to connect computer with LCD projector, and extension cord to connect computer and LCD projector with electrical outlet
- AV stand or tab (if you will be using PowerPoint in this module)
- Portable speakers for videos


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## Grassroots Advocacy Trainer's Manual

Introduction

## WELCOME TO MODULE 8: VOLUNTEER MANAGEMENT AND DEVELOPMENT

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SAY
By the end of this module, participants should be able to understand:

- Strategies for successful volunteer management in the PTA setting.

In your role as a PTA leader, whether you are leading a committee, serving as president, or chairing a work group, the skills you will need to be able to effectively manage volunteers will not change.

However, PTA leadership changes regularly due to the nature of the democratic leadership model currently used (president, vice-president, etc.). This can create challenges for leaders in new positions because, more likely than not, you have interacted with the same PTA members for quite a while and you are the one that is in a "new" role that requires you to assume a different level of authority. Much like in the work environment when a peer is promoted to a supervisor role, the work relationships usually changes because how we interact with our peers may not always be consistent with how supervisors should act with their employees. As PTA leaders, you face a similar shift in relationships. PTA leaders need to be cognizant of the different roles within the PTA world and the focus placed on leadership.

This module focuses on general volunteer management; however, the techniques covered are valuable tools that a seasoned PTA leader or a new PTA leader can employ in order to create strong team.


DISPLAY ON A FLIPCHART OR POWERPOINT:
Strategies for Successful Volunteer Management

- Volunteer placement
- Training volunteers
- Evaluate
- Recognize and appreciate contributions


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## SAY

## Volunteer Placement

So, you have successfully recruited new PTA members to your team. Now what?
In PTA, we place a lot of emphasis on recruiting new members which is extremely important in order to ensure that our association's strength and significance continue to increase. One area that all volunteer driven organizations need to place a stronger emphasis on is volunteer management. Too often we find ourselves spending a considerable amount of time "putting out fires". Many of the issues associated with PTA drama can be prevented with effective volunteer management.

The first step leaders should take when bringing a new volunteer into the PTA family is to have the volunteer take a Parent Interest Survey. (Handouts of examples) This tool is created by your team and must focus on the events, activities and priorities of your PTA. This is essentially a list of "job opportunities" that can help new volunteers find a role in your PTA. There are a lot of great examples available; however, this tool really needs to be tailored to your situation and needs.

When you are creating your Parent Interest Survey, it is better to have broad categories and then list out types of activities that fall under the category. If you just put the word Advocacy or Legislative Chair on your assessment, more often than not, NO ONE will mark the box. Why? Because Advocacy sounds scary and Legislative Chair sounds very political and not too many of us want to engage in politics. Let's use the example of advocacy for our category.


ASK
What are some jobs that your PTA might have in this category?

## INSTRUCTOR NOTE

Be sure to write their selections on a flip chart. This list can be quite lengthy and there really is no wrong answer, so encourage attendees to think of specific examples that are "real" in their PTA world such as:

- Writing letters of support for an educational initiative.
- Attending PTA's annual legislative conference.
- Serving as a chaperone for our annual junior/senior trip to the state capital.
- Attending school board meetings.



## SAY

By giving concrete examples, your potential PTA member can get a better picture of the role and expectations for each type of activity. This also allows the volunteer to share what skills and interests they bring to the group and allows PTA leadership to match the volunteer to the activities and interests that best suit the new volunteer. Volunteers who can engage in activities that they enjoy are much more likely to stay involved and remain an active member of the PTA.

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The key to any volunteer assessment/survey is for the PTA leadership team to actually read and use the forms. Too often, in our busy routine, we ask parents to complete the forms, we collect them, put them in a folder with the intent of reading them and using them, and then sometime right before the end of the year, we find the folder, and "Uh, Oh....Right?" We must assign ownership of this task to a responsible person within our leadership team. This person should be the membership chair or at least someone on the membership committee. Ideally, someone within your PTA will take the information from the surveys and create a database that can be shared with the leadership team. This will allow everyone on the leadership team access to PTA members who can be called on for specific activities or roles. The goal is to match your PTA members with activities that they are interested in, have experience with and want to be involved in.

Training volunteers - Training PTA volunteers is an ongoing process, one that your leadership team must be actively engaged in. New volunteers look to the leadership team for guidance and direction so it is imperative that the leadership team takes an active, role in providing training. National PTA has a variety of training materials available to assist PTAs in training new members and seasoned volunteers. Topics range from advocacy to Reflections and everything in between. Members are encouraged to frequent National PTA's website to keep updated on new training materials and opportunities.

In our PTA world, we take a lot of things for granted. We assume that everyone knows what Reflections is. We are positive that the entire world engages in Leg Con, and surely everyone knows an SP or deals with JBF.

## Example:

It is the first PTA meeting of the year and your leadership team is welcoming all your new parents and planning to kick-off a great year. Your team has worked very hard to increase membership by recruiting over 35 new parents to PTA. These parents are new to your school and are excited to be involved in their child's education. You are really excited that you have more than 100 parents in attendance!

The President addresses the group and says something like this: "Good afternoon parents, teachers and students. I am so excited to be your PTA president for this year. We want to keep these meetings short to be respectful of your time so we have a lot to cover in a short amount of time. We are planning a strong Reflections program for the year and are really excited that our Leg Chair will be attending Leg Con again in the spring. We have already begun a fundraiser for Founders and will get information to everyone just like last year. We are excited to be working on CCSSI this year and hope all of you will help us promote the initiative. Be sure to sign up for Harvest Day and pick up your cookie packets at the back table. Do not forget to get your JBF form turned in by the end of the week. We also need all of you to plan to rally the school board about the crosswalk and we cannot forget the SAT and ACT are scheduled for October. We really look forward to a great PTA year and we thank you for all that you do. As promised short and sweet."

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ASK
What do you think is running through the mind of a brand new member?
(Allow audience to share a few thoughts.)


## SAY

As we all know there are only so many hours in a day and minutes in an hour and we also all know that everyone is overextended and rushed; however, parents who actually come to PTA meetings have already expressed they are interested, they feel the time is valuable, and they want to help. Make sure that the experience you provide for them matches their expectations. It is imperative that the time they give you is treated in a meaningful way and at the very minimum, they should understand what you are talking about.

Training new volunteers can include preplanned training events; however, training must also include basic "informational language" trainings. As PTA leaders, we must be mindful that everything we say needs to be understood by everyone in the room. Our rule of thumb should be that we always speak as if the person or people we are speaking to do not live in our PTA world. Too many parents would have decided not to attend future PTA meetings if their first experience mirrored our scenario, not because there was not a lot of great work planned, but because they really left not knowing what was planned, why it was planned or even what the president was talking about. This can be intimidating for some, and perceived as disrespectful to others leading both to believe that this is not the place for them.

Further, not all parents are familiar with Robert's Rules. The structure of PTA meetings can be really confusing and daunting to new members. All members of the PTA leadership team should explain the steps of the meetings that pertain to their role throughout the meeting. This should be done in a casual, conversational manner. For instance, "Hi, I am the president of XYZ PTA, and as such, I preside over all PTA meetings. Our treasurer, Sue, handles all funds for our PTA and at each meeting will give a report of our finances. Sue, please share your report."


## INSTRUCTOR NOTE

Mid-training Activity - Have participants break into small groups and rewrite the president's speech. The goal is to develop a speech that is clear, concise and meaningful. Acronyms and programs should be explained. Give the group 5-10 minutes to rewrite the speech. Have one or two groups share their speech, and discuss.

Evaluate - Why do we evaluate volunteers? (Allow participants to share a few ideas.)

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## SAY

Volunteer evaluations are critical in providing both the association and the volunteer the feedback necessary to improve and grow. It also gives us the opportunity to let our volunteers know the importance of the function they perform. An evaluation process that is well-designed and conducted provides an opportunity for real communication and is an essential element in building and nurturing teamwork.

Evaluations come in many forms from the verbal discussion of an event to a formal process with written documentation. It is up to each PTA to determine which evaluation process works best for their setting.

PTA leadership teams should develop and implement an evaluation process that allows them to gauge the success of events/activities, measure the success of volunteers, and inform the team of concerns/areas that may need improvement.


INSTRUCTOR NOTE
Share handouts.

SAY
The handouts are a few examples of evaluation formats that can be adopted by your PTA. When creating evaluation tools and/or methods it is important to strive to be positive and success-focused. Evaluation should never be a negative process but rather should be a process that assists all involved in making PTA a stronger group that is welcoming to all members of the community.

Much like paid staff, volunteers benefit from working with or under the supervision of someone who knows exactly what needs to be done and understands the bigger picture of the work. In PTA the leadership team comprised of volunteers fills that role. Placing someone in charge to supervise volunteers' work can increase the value of their contributions by making sure that tasks are completed correctly, questions are answered, and that your PTA is properly represented through the volunteer's work and attitude. This is especially important when members are representing your PTA out in the community.

This may seem like a no-brainer, but volunteers who consistently complete tasks incorrectly or not complete their assigned work, create a problem for your PTA. Ineffective volunteers can cause all kinds of problems, from tension with school staff members to losing PTA members. While the majority of issues like these can be avoided with screening and proper training and supervision, the time may come when a PTA simply must "fire" a volunteer.

Like any other disciplinary action, firing a volunteer is a delicate task and must be handled with the same care you would use when deciding to let go a staff member. It can be especially strange to discipline or fire someone who has offered his or her time and service for free. The same is true for volunteer board members. PTA leaders are encouraged to work with their National Service Representative (NSR) if these types of situations arise.

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Recognize and appreciate contributions - Studies show that most volunteers believe the best form of recognition is to know the impact of their work. PTA leaders can demonstrate their appreciation by showing members how their individual efforts make an impact on their school, community, district, state and nation. Knowing that your PTA collected enough canned food to supplement the meals of 100 families ravaged by a tornado is truly rewarding and makes the work of the volunteer "real." This type of information should be shared in newsletters and reports frequently so that all members can truly appreciate the impact that their PTA makes in the community. Research also reveals that volunteer recognition is tied to volunteer retention rates. Volunteers who feel their contributions are appreciated are more likely to uphold their volunteer commitments.

Good leaders recognize their volunteers from the minute they join a program by treating them as individuals with talents and interests who need to be matched to the right task. Leaders also understand the value of praising effective work at the time it takes place and treating volunteers as important members of the team. This kind of recognition is more important than any social event that might be held.

Today, PTA members are more goal-oriented, tech-savvy and mobile than ever before and the types of positions they seek have evolved to reflect this. Being flexible by offering PTA members the type of roles they want is another effective form of recognition. Volunteer recognition is personal. Getting to know your members as individuals allows you to learn the type of recognition each member would like to receive.

Recognizing where volunteers are in their lifecycle and what role volunteering plays in their life is critical to the recruitment, retention and recognition processes. The conditions, schedule and format of volunteering are important factors for people when selecting an organization; make sure your PTA has roles for all interested volunteers (parents, grandparents, moms and dads, aunts and uncles, teachers, and community members). Some volunteers love the big yearly volunteer recognition event. Others do not care at all and find satisfaction in the work and the feedback from those they work with. Volunteer recognition can be public or private and should be appropriate to the person and his/her contribution. Most of all, it should be honest and demonstrate some particular insight into what that person has done.

Formally recognizing the hard work of your PTA members is an essential part of making them feel appreciated and accomplished. Think of it as a form of compensation for their efforts. There are many ways to formally recognize volunteers and there are options for all budgets, so be creative! Formal recognition can include annual events/dinners and award ceremonies. PTAs are urged to remember to submit outstanding volunteer efforts for state and national award opportunities. Be sure to check with your state leadership for more details on available awards.

Never forget the power of a simple thank you - oral or written.


XYZ PTA President's Speech Activity
Scenario:
It is the first PTA meeting of the year and your leadership team is welcoming all your new parents and planning to kick-off a great year. Your team has worked really hard to increase membership by recruiting over 35 new parents to PTA. These parents are brand new to your school and are super excited to be involved with their child's education. You are really excited that you have over 100 parents in attendance! Take a minute to think about how you would feel if this was your first PTA meeting experience.

The President addresses the group:
"Good afternoon parents, teachers and students. I am so excited to be your PTA president for this year. We want to keep these meetings short to be respectful of your time so we have a lot to cover in a short amount of time. We are planning a strong reflections program for the year and are really excited that our LegChair will be attending LegCon again in the Spring. We have already begun a fundraiser for Founders and will get information to everyone just like last year. We are super excited to be working on CCSSI this year and hope all of you will help us promote the initiative. Be sure to sign up for Harvest Day and pick up your cookie packets at the back table. Do not forget to get your JBF form turned in by the end of the week. We also need all of you to plan to rally the school board about the crosswalk and we cannot forget the SAT and ACT are scheduled for October. We really look forward to a great PTA year and we thank you for all that you do. As promised short and sweet."

Activity: Within your group rewrite the President's speech. The goal is to develop a speech that is clear, concise and meaningful. Acronyms and programs should be explained. You will have 5-10 minutes to rewrite the speech. Select a spokesperson who will read your speech to the whole group.

[^1]

Parent Volunteer Interest Survey 2012/2013
Parent Name(s): $\qquad$
Student Name(s): $\qquad$
Phone: (H) $\qquad$ (C) $\qquad$ E-mail: $\qquad$
The best way to reach me is $(\mathrm{H}) \quad$ __ $\quad$ (C) ___ E-mail $\qquad$
Please check any of the following volunteer opportunities that are of interest to you. Please note, checking an item here is not a firm commitment on your part- it just lets us know of your interest. Our membership team will contact you with specific volunteer opportunities.

## School-Wide Support

Serve as PTA Member
Serve on Family/School Partnership Action Team
Participate in School-Wide Fundraising
Popcorn Friday Coordinator
Assist with popcorn Fridays
Yearbook Committee
Assist with After-School Clubs
Maintain and Update Parent Bulletin Board

- Coordinate Book Swap
- Help to Plan Special Events (i.e. Book Fair, Family Fun Nights)
Assist at Special Events
- Act as Crossing Guard (AM or PM)
- Help Monitor Recess


## Classroom Support

- Serve as Classroom Parent
- Assist with Project-Based Learning Activities
- Reading with small groups or individual children
- Chaperone a Field Trip
- Play Math Games with Small Groups or Individual Children


## Community Support

- Help to Secure Community Partnerships (May include donations of time, expertise, goods or \$)
- Assist with Community Service Projects

At Home Support

- Trim and Count Box Tops
- Trim Laminated Items for Teachers
- Baking or Preparing Other Refreshments for Special Events

Please tell us about any special interests, talents, skills or expertise that you might like to share with students, teachers or parents, i.e. gardening, scrapbooking, couponing, raising livestock, etc.

## EVENT EVALUATION \& PLANNING FORM

Note to Event Chairs: In an effort to avoid re-inventing the wheel each year, we'd like to keep good records on the great, the good, the bad, and the ugly from all of our events and efforts going forward. At the conclusion of your event, please complete this evaluation form. Your volunteer list will also help us make sure we don't miss any volunteers when it comes to appreciation-time at the end of the year. Thanks!

## 1. Event Basics

Name of Event:

Date: Day of Week: Time:
Location:

Chairs:

Basics Feedback:
Was there anything involving the when and where that was particularly positive?

Was there anything involving the when and where that was particularly negative?

## 2. Communications/Promotion

What tactics (flyers, email, posters, etc.) did you use to promote this event/effort? And what did and did not work well?

What was your timing on communications? Too early? Too late? Any learning for next year?

## 3. Event/Effort Execution

How was participation/attendance? (specifics, if possible):

Was there a cost to attend or participate?

Expenses for running the event (Items Needed \& Cost)

Key Steps before Event:

Key Steps during Event:

How Many volunteers did You Have? $\qquad$ How many volunteers would you have preferred? $\qquad$

## 4. Overall feedback.

Key: Overall comments on successes/failures of the event. Anything you'd do differently? Anything that did or did not work particularly well? Did you have enough help? Suggestions for next year?

Any Key feedback as heard from Faculty, Staff or Families?
$\qquad$
$\qquad$
$\qquad$

Should PTA run this event again next year?
Did you have a budget big enough to fund this event?
If no, how much more should be considered for budgeting?

## 5. Volunteers

Please list all volunteers who helped in any way with the event. If possible, please also list function.

## Volunteer Evaluation Form 2012-13

Thank you so much for volunteering your time to help with this PTA Event. We are always looking to improve PTA events, so your feedback is greatly appreciated.

Thanks, (PTA Development Team)

Your Name: $\qquad$ Phone Number: $\qquad$
Name of Event: $\qquad$

1. What is your overall assessment of how the event flowed?
2. What was your role (responsibilities/duties)?
3. Were you set up to succeed in your job with guidance, instructions, materials, etc.? If not, what more could have been done to help you?
4. If you were instructing the next person to do this job, what would you tell him/her?
5. How could events like this be improved in the future?
6. Anything else that you'd like to say?

Thank you for taking the time to fill out \& reply back. You are helping the PTA create successful events.

## Volunteer Self Evaluation Form

The purpose of this appraisal is to maintain good communication with our PTA members and to improve your PTA experience as well as improving the services we provide.
As part of our continuous improvement program we request that you complete this self appraisal and bring it to discuss at our appointment on (insert appointment time).

Signed Membership Chair. $\qquad$
Volunteer Name:

Office held:
Date of appraisal:
What do you enjoy most in your role with PTA?

Which part of your PTA role do you feel you do well?

Which part of your PTA role do you feel you could do better?

Are there any factors that make your role easy or difficult?

Are there any aspects of your role in which you would benefit from further support/training?

Do you wish to:

- continue in this role?
- develop this role further?
- vary your role?
- act as a buddy for new volunteers?
- move into a different role?
- take on greater responsibility?
- contribute less/more time?

Any further comments?

Signed: Volunteer:

| Date Developed | Signed |  |
| :--- | :--- | :--- |
| Date Reviewed |  |  |

## Grassroots Advocacy Trainer's Manual

## Module 9: Presentation Skills and Public Speaking



GOALS
By the end of this module, participants should be able to understand:

- Strategies for becoming a better public speaker.
- Strategies for effective presentations.
- Strategies for calming nerves.

TIME
Total: $\mathbf{3 0}$ minutes


## OVERVIEW

The focus of this session is to help people think more strategically about their public speaking and presentation skills in order to improve their overall effectiveness in relaying information to others about advocacy skills and the Common Core State Standards.

PTA leaders have the opportunity to share the PTA messages to many groups. Additionally, PTA leaders are called upon to use public speaking and presentation skills on a regular basis, even if the leaders are not comfortable speaking in public.


MATERIALS NEEDED

- Easel paper
- Masking tape
- Dark markers



## HANDOUTS

- PowerPoint printout
- Presentation Checklist


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## EQUIPMENT NEEDED

- Easel/flipchart
- If you have elected to develop your own PowerPoint presentation to suit your specific training audience for this module, you will need:
- Computer with PowerPoint software
- LCD projector
- All cords and cable needed to connect computer with LCD projector, and extension cord to connect computer and LCD projector with electrical outlet
- AV stand or tab (if you will be using PowerPoint in this module)
- Portable speakers for videos


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## Grassroots Advocacy Trainer's Manual



## Introduction

## WELCOME TO MODULE 9: PRESENTATION SKILLS AND PUBLIC SPEAKING

## SAY

By the end of this module you should understand:

- Strategies for becoming a better public speaker.
- Strategies for developing stronger presentations.
- Strategies for calming nerves.

Chances are that you will have to speak in public as part of your role with PTA. While this can seem intimidating, the benefits of being able to speak well outweigh any perceived fears.

In this session we are going to discuss strategies for becoming a better public speaker, delivering effective presentations and calming nerves that are associated with public speaking.

Even if you don't need to make regular presentations in front of a group, good public speaking skills are useful for all aspects of your life, work and home. For example, you might have to talk about your organization at a conference, make a speech after accepting an award or provide training for new PTA members. You might be asked to make a speech at a friend's wedding, give a eulogy for a loved one or inspire a group of PTA volunteers at a meeting. In short, being a good public speaker can enhance your reputation, boost your self-confidence, and open up countless opportunities.

However, while good public speaking skills can open doors, poor speaking skills can close them. For example, your boss might decide against promoting you after sitting through a poorly-delivered presentation. You might lose a valuable new PTA member by failing to connect with a prospect during a PTA sales pitch or you could make a poor impression with your new team because you trip over your words and don't look people in the eye.

Make sure that you learn how to speak well!


ASK
Who is afraid of public speaking? (Take a few minutes to discuss.)
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## SAY

Well, we are not alone! Some surveys and research results show that most people are terrified of speaking in front of a live audience, as you can see in this list of the top 10 fears globally!

## DISPLAY ON A FLIPCHART OR POWERPOINT:

## Top 10 Global Fears

1. Public speaking or stage fright
2. Death and end of life
3. Spiders and other arachnids creatures
4. Darkness and twilight
5. Heights, altitude or elevations
6. People or social situations
7. Flying in airplanes
8. Open spaces and squares
9. Natural thunder and lightning
10. Confined spaces or small rooms


SAY
Chances are that you will at some point have to speak in public as part of your role with PTA. While this can seem intimidating, the benefits of being able to speak well outweigh any perceived fears. To become a better speaker, use the following strategies:


DISPLAY ON A FLIP CHART OR POWERPOINT:

- Planning
- Practice
- Engaging Your audience
- Body Language
- Thinking Positively
- Calming Nerves


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## SAY

Planning - Make sure that you plan your communication appropriately to think about how you'll structure what you're going to say from your opening words all the way through to your closing statement.

Think about how important a book's first paragraph is; if it doesn't grab you, you're likely going to put it down. The same principle goes for public speaking: from the beginning, you need to intrigue your audience. You will notice that in each of the PTA modules we have included "attention grabbers" throughout the scripts. These can include quotes from famous people on the topic, statistics that emphasize your point or funny anecdotes that lighten the mood.
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You also want to develop your closing remarks. What you leave your audience with should summarize what has been covered, the key point or points you want them to take away and stress any action you want them to take after the session.

Planning also helps you to think on your feet. This is especially important for unpredictable question and answer sessions or last-minute communications.

And finally, it is very important that you make presentations "your own" even if you have been provided with all the written tools including a script. If your audience does not feel like you are genuinely knowledgeable or excited about the topic, they will not engage with you or find your material valuable.

## Practice

There's a good reason that we say, "Practice makes perfect!" You simply cannot be a confident, compelling speaker without practice.

To get practice, seek opportunities to speak in front of others. As a PTA member, you have the perfect audience in your PTA family. Your local PTA is a great place to develop your public speaking skills because you already know your audience, are familiar with the material and your surroundings and you should have a higher comfort level. The first step is by volunteering to speak at meetings.

When you are planning to deliver a presentation or a prepared speech, create it as early as possible. The earlier you put it together, the more time you'll have to practice. This is not the time to wait until the last minute!

Practice it plenty of times alone, using the resources you'll rely on at the event, and, as you practice, tweak your words until they flow smoothly and easily. Then, if appropriate, do a practice run in front of a small audience: this will help you calm your fears and make you feel more comfortable with the material. Your audience can also give you useful feedback, both on your material and on your performance.

Whenever possible, record your presentations and speeches. You can improve your speaking skills dramatically by watching yourself later, and then working on improving in areas that did not go well. As you watch, notice any verbal stalls, such as "um" or "like", and practice replacing those verbal stalls with brief pauses. Look at your body language: are you swaying, leaning on the podium or leaning heavily on one leg? Are you looking at the audience? Did you smile? Did you speak clearly at all times? Pay attention to your gestures. Do they appear natural or forced? Make sure that people can see them, especially if you're standing behind a podium.

Last, look at how you handled interruptions, such as a sneeze or a question that you weren't prepared for. Does your face show surprise, hesitation, or annoyance? If so, practice managing interruptions like these smoothly so that you're even better next time.

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## Engaging Your Audience

When you speak, try to engage your audience. This makes you feel less isolated as a speaker and keeps everyone involved with your message. If appropriate, ask leading questions targeted to individuals or groups, and encourage people to participate and ask questions.

Keep in mind that some words reduce your power as a speaker. Think about how these sentences sound:
"I just want to add that I think we really need the Common Core State Standards."
"I just think this plan is a good one."
Phrases such as "Just" and "I think" limit your authority and conviction. Don't use them.
"I believe in the Common Core State Standards because they are clearer and more focused."
"I am confident that this plan will increase enrollment and allow our members stronger advocacy efforts."

Notice the increase in authority and conviction?
A similar word is "actually." When you use "actually," it conveys a sense of submissiveness or even surprise.
"Actually, I'd like to add that we were under budget last year."

By removing actually your message is clear, concise and stresses confidence:
"We were under budget last year."
Also, pay attention to how you're speaking. If you're nervous, you might talk quickly. This increases the chances that you'll trip over your words or say something you don't mean. Force yourself to slow down by breathing deeply. Don't be afraid to gather your thoughts; pauses are an important part of conversation, and they make you sound confident, natural, and authentic.

Finally, avoid reading word-for-word from your notes. When you read, you are not looking at your audience so you will not be seen as an engaging speaker. Additionally, when you try to read from your notes and look up occasionally, you appear awkward and come across as less confident.

Instead, make a list of important points on index cards and use bullet points. For instance for this workshop, I know I need to cover each of the strategies: planning, practice, engaging your audience, body language, thinking positively, and calming nerves.

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Here is a sample index card that allows you to engage with your audience:


## DISPLAY ON A FLIP CHART OR POWERPOINT:

## Planning

- Attention grabbers
- Closing summation
- Plan for Q\&A
- Making it your own



## SAY

## Body Language

Your body language will give your audience constant, subtle clues about your inner state. If you're nervous or if you don't believe in what you're saying, the audience will know by how you present yourself. Research has shown that up to $94 \%$ of communication is nonverbal!


ASK
What are some examples of non-verbal communication that you have seen during presentations? (Discuss both positive and negative examples.)

## Examples:

Pay attention to your body language: stand up straight, take deep breaths, look people in the eye and smile. Don't lean on one leg or use gestures that feel unnatural. Don't cross your arms.


## SAY

Many people prefer to speak behind a podium when giving presentations. While podiums can be useful for holding notes, they put a barrier between you and the audience. They can also become a "crutch," giving you a hiding place from the dozens or hundreds of eyes that are on you.

Instead of standing behind a podium, walk around and use gestures to engage the audience. This movement and energy will also come through in your voice, making it more active and passionate.

Don't forget to SMILE! When you smile, your audience is more inclined to forgive nervousness and they will be rooting for you.

Think Positively — Positive thinking can make a huge difference to the success of your communication because it helps you feel more confident.

Fear makes it all too easy to slip into a cycle of negative self-talk, especially right before you speak.

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Self-sabotaging thoughts such as, "I'll never be good at this!" or "I'm going to fall flat on my face!" lower your confidence and increase the chances that you won't achieve what you're truly capable of.

Use affirmations and visualization to raise your confidence. This is especially important right before your speech or presentation. Visualize giving a successful presentation, and imagine how you'll feel once it's over and when you've made a positive difference for others. Use positive affirmations such as, "I am the local expert on this topic!" or "I am going to do well!"

Don't forget to smile!


## DISPLAY ON A FLIPCHART OR POWERPOINT:

"The way you overcome fear and shyness is to become so wrapped up in something that you forget to be afraid!" - Lady Bird Johnson

## SAY

Cope With Your Nerves


ASK
How often have you listened to or watched a speaker who really messed up?

## SAY:

Chances are the answer is "not very often." When we have to speak in front of others, we can envision terrible things happening. We imagine forgetting every point we want to make, passing out from our nervousness, or doing so horribly that we will never be asked to speak again. But those things almost never happen! We build them up in our minds and end up more nervous than we need to be.

Make an effort to stop thinking about yourself, your nervousness, and your fear. Instead, focus on your audience: what you're saying is "about them." Remember that you're trying to help or educate your audience in some way, and your message is more important than your fear. Concentrate on the audience's wants and needs, instead of your own.

Crowds are more intimidating than individuals, so think of your speech as a conversation that you're having with one person. Although your audience may be 100 people, focus on one person at a time, and talk to that person as if he or she is the only one in the room. You should seek several people within the audience to focus on, ideally strategically located around the room.

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## DISPLAY ON A FLIPCHART OR POWERPOINT:

## Steps for Conquering Your Presentation Nerves

Step 1 - Know your audience
Step 2 - Know your material
Step 3 - Structure your presentation
Step 4 - Calm yourself from the inside

## SAY

Notice we didn't say to get rid of your nervousness. This is because presenting is not a natural activity. Even the most practiced presenters get a bit nervous. The point is this: your nervous energy can be used to your advantage. When you are in a heightened state from the adrenaline that is being pumped into your body, you can use that energy to communicate enthusiastically, convincingly, and passionately. The key is to decrease your level of nervousness so you can use your energy on these positive activities, not on trying to control your nerves. The more uncertain you are, the more nervous you will be.

Step 1 - Know Your Audience: If you are asked to speak to a group, make sure to take time to find out a few things beforehand:

- Ask who will be in the audience? (Are they parents, teachers, members of the business community, school board members, etc.)
- What do they already know about the topic? Are they experts on the topic? Will this be brand new information?
- Is there a meeting or event planned before and/or after your talk? What other topics will be discussed? What is the agenda for the meeting? How much time do you have?

The more confident you are that you are presenting useful and interesting material for your audience, the less nervous you will be overall. A great tip is to greet audience members at the door and do a quick survey of why they are there and what they expect. This really helps you build a rapport with the group.

Step 2 - Know Your Material: Nothing is worse for nerves than trying to give a presentation on a topic that you do not know! Our modules will provide you with information and tools for each of the topics; however, it is on you to make sure that you take time to read the material and become familiar with each topic. Remember: Your audience will ask you questions and will look to you as the expert.

Another important point to remember is that you cannot possibly cover everything you know in your presentation. That would probably be long and boring. So select the most pertinent points from your subject base and then supplement with other material if time allows. A great tip is to make your material interesting and memorable, include occasional questions to the audience to encourage audience participation. This enhances the learning experience and gives you a break from presenting. It also allows you deliver your information in a more conversational manner, which is often more believable.

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Step 3 - Structure Your Presentation: A common technique for trying to calm nervousness is memorizing what you intend to say; however, all this does is make your delivery sound like it is coming from a robot. If you miss a word or draw a blank, your whole presentation is thrown off and then your nervousness gets worse. It is far better to structure your presentation so that you give yourself clues to what is coming next.

- Have a set of key phrases listed on a cue card.
- Refer to these phrases to trigger your mind as to what is coming up next.
- If you're using slides, use these key phrases in your transitions.

This approach helps you control your own uncertainty about whether you will remember what you want to say and the order you want to say it.

Step 4 - Calm Yourself from the Inside: Nervousness causes physiological reactions, which are mostly attributed to the increase of adrenaline in your system. You can counteract these effects with a few simple techniques:

Practice deep breathing - Adrenalin causes you to breathe shallowly. By breathing deeply your brain will get the oxygen it needs and the slower pace will trick your body into believing you are calmer. It also helps with voice quivers, which can occur when your breathing is irregular.

Drink water - Adrenalin can cause a dry mouth, which in turn leads to getting tonguetied. Have a glass of water handy. Take sips occasionally, especially when you want to emphasize a point.

Smile - This is a natural relaxant that sends positive chemicals through your body.
Use visualization techniques - Imagine that you are delivering your presentation to an audience that is interested, enthused, smiling, and reacting positively. Cement this positive image in your mind and recall it right before you are ready to go on.

Here are a few more calming presentation tips:

- Press and massage your forehead to energize the front of the brain and speech center.
- Just before you start talking, pause, make eye contact, and smile. This last moment of peace is very relaxing and gives you time to adjust to being the center of attention.
- Speak more slowly than you would in a conversation, and leave longer pauses between sentences. This slower pace will calm you down, and it will also make you easier to hear, especially at the back of a large room.
- Move around during your presentation. This will expend some of your nervous energy.
- Remember that the audience is there to get some information and it is your job to put it across to them.
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## Grassroots Advocacy Trainer's Manual

When it comes to presenting, nerves are inevitable. Letting them get the better of you is not. You need to develop a strategy for taking the focus off your nervousness and putting that energy to positive use. By controlling as much of the uncertainly as you can, you increase your confidence in your ability to deliver an excellent presentation. This confidence then counteracts your nerves, and you create a positive cycle for yourself.

Nerves are not your enemy and you don't have to fear public speaking. For your next presentation, be knowledgeable, be well-practiced and prepared, and try out some physical relaxation techniques. Amaze yourself and impress your audience with your calm and cool delivery of a great presentation.

Planning

| How much does your audience know about the presentation's subject? (Make sure |
| :--- |
| that your presentation matches their knowledge level - don't make it too |
| complicated or too simple for their needs.) |
| Where and how will you present (indoors, outdoors, standing, sitting)? Will this |
| affect how you need to prepare? |
| What is going on before and after your presentation? Do you need to adjust your |
| presentation? |
| How long do you have? Will your presentation fit in the time allotted? |
| Are you knowledgeable enough about the topic that you're covering in your |
| presentation? If not, how will you build this knowledge? |
| Can you visit the presentation room beforehand to get a feel for it? |

Can you visit the presentation room beforehand to get a feel for it?
Does the presentation room have everything that you need? (For example, electrical supply, Internet access, projector screen, and so on.) Do you need to bring your own equipment? (You should always bring your own equipment even if you don't use it, as a back-up)
Do you want to inspire your audience to act? If so, how are you going to do this?
Are you presenting as part of a team? How will you divide up the presentation?
Have you prepared an evaluation?
Do you need to provide your own handouts and evaluations? How many copies do
you need? If someone else is making them, how will you get them the material?
How will you know they are ready?
Have you practiced your presentation standing (or sitting, if applicable), paying
close attention to your body language and posture?
Have you rehearsed often enough to be able to speak smoothly and fluently?
Have you practiced your presentation in front of others? Your practice audience can
give you valuable feedback about your presentation.


Does your presentation's conclusion summarize the presentation clearly and
concisely?



 Are the main points in a logical sequence?
Do these points flow well? Do you follow this by clearly defining the points of the presentation?
 Does your introduction grab your audience's attention? And does it need to
Power Point Presentation Is the power point easy to read/view and easy to understand? Is it tied into the points that you're trying to communicate? Have you used the same fonts throughout? Are the slides easy to read? Can they be seen easily from all areas of the room?

[^2]Do you have all of the equipment you need? Laptop, projector, all cords needed to hook it all up? Do you have spare projector bulbs, plan to show a video?
Have you prepared contingency plans in case your audio/visual equipment fails? Do you have a printed copy so you can use it in the
event Power point is not an option?
Be sure to save your presentation on your laptop, a USB drive and
email it to yourself, just in case!
Even if all equipment is supposed to be provided; BRING YOU OWN. You never know!

¿шәчł әsn of моч моия no人 ұечұ pue Have you checked your visual aids to ensure that they're working, Have you left enough time for travel and setting up?
 Are you dressed and groomed appropriately? (Make sure that this is Do you have your slides, notes, and other visual aids in the right
order?
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## Checklist For Media Events

## All Levels

$\square$ Have the date, time, and place been cleared with all the speakers?
$\square \quad$ Are there other media conflicts (e.g., another major event or press conference)?
$\square$ Is the room large enough?
$\square \quad$ Will you need a public address system?
$\square$ Have volunteers been recruited to set up and clean up the room before and after the event?
$\square$ Do you plan to serve refreshments? If so, have people been asked to bring them?
$\square \quad$ Who is sending the media advisory?
$\square \quad$ Who is making follow-up phone calls?
$\square \quad$ Is there a script available for those making follow-up phone calls to the media?
$\square$ Are visuals, charts, or graphs needed at the press conference?
$\square \quad$ Who is writing each person's presentation? Are there good quotable sound bites?
$\square \quad$ Do you need translators?
$\square \quad$ Is a time set for speakers to rehearse their presentations and answers to the anticipated questions?
$\square \quad$ Are materials being prepared for the press kit?
O Press release
O Background information on speakers
O Fact sheet
O Organizational background
O Copies of speakers' statements
$\square \quad$ Is someone drafting a question and answer sheet for anticipated questions at the press conference?
$\square$ Will your organization's name be projected well through signs, posters, buttons, and so forth?
$\square \quad$ Is someone assigned to hang the banner? This can take a while.
$\square$ Is there a podium sign?
$\square \quad$ Who will greetthe media and staff the sign-in table?
$\square \quad$ Is someone in your group going to take photos \& videos?
$\square \quad$ Who is assigned toassist the speakers with details at the press conference?
$\square \quad$ Who will send releasesto those who don't attend the press conference?
$\square \quad$ Who will call reporters who don't attend, but will needthe information immediately in order to use it? Are volunteers assigned to watch for stories in various media?
$\square \quad$ Will thank you notes be sent to all spokespersons and volunteers?

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## Checklist For Planning a Meeting With an Official (At His or Her Office or "Turf")

## All Levels

Will your action be based on real power? Will it be fun?$\square \quad$ Is everyone in your group comfortable with the plan? (Is it within the experience of your group?)
$\square \quad$ Will the plan be outside the experience of the target?
$\square \quad$ Are your demands clear and simple?
$\square \quad$ Do you have several fallback demands?
$\square \quad$ Do you have an appointment?
$\square$ Have you scouted the building and made a floor plan? Do you know where to find:
O Elevators and stairs
○ Bathrooms?
O Parking or nearest transit stops?
O The target's office?
○ "Hot spot" where your cell phone works - or a pay phone?
$\square \quad$ Can the site accommodate disabled members?
$\square \quad$ Has the group selected who will present information at the meeting? Are people prepared for their roles?
$\square \quad$ Has the group selected who its spokesperson for the action?
$\square$ Have you held a dress rehearsal for the spokesperson and the participants?
$\square \quad$ Have you calculated how you will demonstrate your power? Do you plan to have symbols with you (letters, petitions)?
$\square$ Do you have a good turnout plan for the action, including last-minute reminder phone calls?
$\square$ If you want the media, have they been notified? Have you...
O Sent a press release, including a notice of your photo opportunity, a week ahead of time?
O Called the daybook a week ahead of time?
O Called and emailed the assignment editors the day before the action?
O Prepared a release for distribution on the day of the action?
O Assigned someone to talk with the media at the event? (your spokesperson may be busy)
$\square \quad$ Have you selected someone to take notes during the meeting and write the confirmation letter to the target?
$\square$ Do you know who will debrief the action with participants and where the debriefing will occur?
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## Strategy Exercise

## THE CAMPAIGN TO RESTORE BUS SERVICE TO ST. FINBAR MAGNET SCHOOLS

## OVERVIEW

Participants practice creating a strategy chart for an issue advocacy campaign using a hypothetical scenario involving a local school district.

TIME
Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

St. Finbar is a fictitious city in the U.S. The school system, including charter schools, serves 135,000 students distributed between 119 elementary schools, 24 middle schools and 30 high schools. The annual school budget is $\$ 1.2$ billion, which was inadequate before the economic downturn and has typically become less adequate as costs have risen. At the same time income from taxes has declined. The students are majority non-White. Latinos make up $44 \%$ of the student population, followed by nonHispanic White students at 25\%, African Americans at 13\% and the remaining 15\% are largely Asian.

## THE PROBLEM

The school board has announced, in a moment of ill-advised budgeting frenzy that to save $\$ 10$ million dollars, school bus service for all 25 magnet schools will be eliminated starting in September. The board's vote was unanimous. It is now February. The absence of bus service will be a major blow to your school as $57 \%$ of the students now ride the bus and many families can't afford to bring their children to school by other means.

The school board, which has final decision-making power over the budget, consists of five members who are elected to four-year terms on a staggered basis. The at-large school board election takes place at the same time as the City Council election. While almost $800,000(54 \%)$ voted in the last City Council election, only 500,000 of those voted in the school board race (lower down on the ballot).

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## YOUR ORGANIZATION

You are members of the PTA at the Linguistic Institute, an elementary magnet school devoted to graduating truly bilingual students. Your school has over 800 students. Slightly more than half of them qualify for free or reduced-cost lunches, indicating that the school has diversity of income as well as race. The Institute is known as a $100 \%$ magnet, meaning that none of the students attend because it is their local school. All are in the magnet program.

Your PTA has four officers and five board members plus a class parent in each class. Usually not more than 30 people show up for PTA meetings but since the bus cuts were announced, more than 100 people, have been coming.

## THE SCHOOL BOARD

$\left.\begin{array}{|l|l|}\hline \text { Name } & \text { Notes } \\ \hline \text { Hubert Gonzalez } & \begin{array}{l}\text { Mr. Gonzalez has a background as a community organizer, working } \\ \text { to revitalize low-income neighborhoods and creating networks } \\ \text { By 72\% } \\ \text { for parents of pre-school aged children. He served five years as } \\ \text { president of the Relational Organizing Institute and has also } \\ \text { worked for the Local Efforts Support Corporation, the Vomer } \\ \text { Running in Next } \\ \text { Election: Yes } \\ \text { Washington Heights Community Development Corporation. } \\ \text { In the field of labor relations, he has served as St. Finbar regional } \\ \text { organizer for both the United Domestic Workers and United } \\ \text { Healthcare Workers. Mr. Gonzalez serves as a board member of } \\ \text { the St. Finbar Cooperative Charter School. }\end{array} \\ \hline \text { Jack Gotham } & \begin{array}{l}\text { Jack Gotham, Ph.D., was elected to the Board in 2008. He earned } \\ \text { a Bachelor of Arts in Psychology at Sitzer College and a Masters } \\ \text { in Psychology and Ph.D. in Clinical Psychology at U.S. National } \\ \text { b4\% } \\ \text { University. }\end{array} \\ \text { Running in Next } \\ \text { Election: No } & \begin{array}{l}\text { Once in St. Finbar, Dr. Gotham taught Spanish at a language institute } \\ \text { where he later became director. Dr. Gotham is currently a clinical } \\ \text { psychologist in private practice, working with children, adolescents } \\ \text { and adults. As a parent, Dr. Gotham has been a member of the } \\ \text { Larson Elementary School Site Council, a classroom and PTA }\end{array} \\ \text { volunteer at Sprack Elementary. He and his wife live in Multiversity } \\ \text { City, a subdivision of St. Finbar. Their three grown children all } \\ \text { attended St. Finbar Unified schools. }\end{array}\right\}$

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| Name | Notes |
| :---: | :---: |
| Eldridge Knowles <br> Won Last Election By 59\%. <br> Running in Next <br> Election: Yes | Eldridge Knowles was first elected directly from the classroom to the board to represent District C in 1990. He served as board president and vice-president during his first term. Reelected in 1994, 1998, 2002, and 2006, he has been an active delegate to both the St. Finbar County School Boards Association and the State School Boards Association. On the national level, Mr. Knowles has served as the board's representative on the Council of Great City Schools. Mr. Knowles attended St. Finbar City Schools in Point Loma and he received his bachelor's and master's degrees in business from St. Finbar State University. He has taught for more than 36 years. He also served as a counselor, resource teacher, and curriculum administrator, and he taught business at St. Finbar City College for 10 years. |
| Carol Johnson <br> Won Last Election By: 80\% <br> Running in Next <br> Election: No | Carol Johnson was elected to the Board of Education in November 2004 and re-elected to her seat in November 2008. <br> Ms. Johnson was born and raised in Smithfield, North Carolina, and graduated from Smithfield-Selma Senior High School. After graduation, she joined the U.S. Navy and served for 21 years. During her career in the Navy she rose to the rank of Senior Chief, and managed Navy Health clinics. During her military career, Ms. Johnson earned a Bachelor of Health Science from George Washington University. After her retirement from active duty in 1995, Ms. Johnson moved to St. Finbar to begin her second career in public education. From 1995 to 2003, Ms. Johnson taught at Bay Park Elementary School and served on various school and neighborhood committees. |
| Linda Nagashima <br> Won Last Election By: 60\% <br> Running in Next <br> Election: Yes | Linda Nagashima was elected to the board in 2002 and 2006. She holds a bachelor's degree in linguistics and english literature, as well as a certificate in applied linguistics for teaching English as a second language. She received her law degree from the University of St. Finbar, where she worked as a member of the administration. She served as vice-chair of the Union of Pan Asian Communities, as well as serving on boards of other community organizations. She and her husband, Kotaro Nagashima, have two sons, one who attends school in the St. Finbar Unified School District. They have lived in the city for 25 years. |

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## Strategy Exercise

## ASSIGNMENT

## TIME

Total: 30 minutes
From the above list of elected officials, choose one to be the initial decision-maker whose support you will first attempt to win and whom you think can persuade others to get on board. Be prepared to justify your choice. Make a strategy chart on easel paper, one column to a sheet. The chart should show how you intend to put pressure on the decision maker you have chosen. When you are finished with the Tactics column, number the tactics in the order in which you will use them. Choose someone to report to the whole group.

You can make up any additional information you need as long as it is both possible and probable.
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## Grassroots Advocacy Trainer's Manual

## Coalition Exercise

## FORMING THE ST. FINBAR EDUCATION COALITION

OVERVIEW
Participants practice evaluating possible coalition partners to work together on a local issue.

TIME
Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

In the campaign to get the bus service restored to all magnet schools in the district the Linguistic Institute PTA has decided that it must involve other organizations to build enough power to be successful. School Board Member Hubert Gonzalez has agreed to introduce the proposal. You are the leaders of the PTA, and have decided to form the St. Finbar Education Coalition. You are considering asking the following groups to join:

- The Greater St. Finbar Small Business and Manufacturers Association
- St. Finbar chapter of the State Senior Citizen Federation
- St. Finbar Interfaith Committee
- The St. Finbar branch of the NAACP
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## Grassroots Advocacy Trainer's Manual

## Coalition Exercise

## ASSIGNMENT

## TIME

Total: 20 minutes

You have 20 minutes to answer the questions below. From the perspective of the newly formed St. Finbar Education Coalition, consider why the group that you have been assigned (one of the four above) would want to be a part of the coalition, and the resources and liabilities they would bring to the coalition. Choose one person to record the answers on easel paper and present them to the larger group.

1. Why would the organization be interested in joining the St. Finbar Education Coalition?
2. What might prevent the organization from joining the Coalition?
3. What resources could the organization bring to the Coalition?
4. What liabilities might the organization bring to the Coalition?
5. Who would you contact? Who from the PTA should make the contact?

NOTE: Do not role play the planning meeting. Answer the questions from the perspective of the Linguistics Institute PTA.
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## Grassroots Advocacy Trainer's Manual

## Media Exercise

## MEDIA AND THE CAMPAIGN TO RESTORE BUS SERVICE TO ST. FINBAR MAGNET SCHOOLS

## OVERVIEW

Participants practice focusing their message in the face of questions from the media.
TIME
Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

Everyone will use the same scenario below, but each person will be assigned to do either Exercise 1 or Exercise 2. Everyone will have 15 minutes to prepare, and then we will begin the interviews.

You are a leader of the PTA at the Linguistic Academy in St. Finbar, working to save the busing program for magnet schools. Your PTA unit and others brought a large group of parents to the school board meeting, and a number of them were able to give testimony about how their children would be impacted if the busing were eliminated. The school board just ended their meeting without making any decision. The board members are clearly nervous about so many parents showing up, but they keep saying there just is not enough money. They postponed the decision for one month.

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## Media Exercise

## ASSIGNMENT

## Exercise 1

As you leave the school board meeting, a reporter thrusts a microphone at you and asks for a comment.

What will you say? What is the main point you want to make? How will you respond to questions? Remember that your time with the reporter is likely to be very brief! If you appear on the evening news program, it is not likely to be more than a 15 -second clip.

## Exercise 2

The morning after the school board meeting, you and three or four other parents are on a public affairs talk show on the local public radio station.

The president of the school board was on just before you, and he said that there simply is not enough money. What will you say? What are your main points? How will you handle questions? Your segment on the show will last 10 minutes.
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## Meetings Exercise

## THE ST. FINBAR EDUCATION COALITION MEETS WITH LINDA NAGASHIMA

OVERVIEW
Participants practice winning the support of an elected official.

TIME
Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes

The St. Finbar Education Coalition has been conducting a campaign to reverse the decision to cut bus transportation to all magnet schools in the district. After meeting with individual school board members, you have determined that Hubert Gonzalez is in favor of reversing the decision to cut the bus service and is willing to make the proposal to the school board. At this point two board members are opposed and two are undecided.

Linda Nagashima is undecided. She has agreed to meet with a delegation from the St. Finbar Education Coalition to discuss the issue. Nagashima is very concerned about her next race, which is in November.

## POSITION OF ST. FINBAR MEMBERS ON REINSTATING BUS SERVICE

|  | School Board Member | Position |
| :---: | :--- | :--- |
| 1 | Hubert Gonzalez | In Favor |
| 2 | Jack Gotham | Opposed |
| 3 | Eldridge Knowles | Undecided |
| 4 | Carol Johnson | Opposed |
| 5 | Linda Nagashima | Undecided |

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## ASSIGNMENT

You have 20 minutes to plan your meeting with School Board Member Linda Nagashima who has agreed to meet at the school district office in one week. Determine whom you will send from the coalition and who will be the spokespeople at the meeting. What power do you have over Ms. Nagashima?

After planning, you will have a mock meeting with Board Member Nagashima in which you must convince her that she has more to gain by supporting the proposal than opposing it.

You may make up whatever information you need but keep it within the realm of the possible.

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## Strategy Exercise

## THE CAMPAIGN TO INVEST IN NEW LEIF'S CHILDREN

## OVERVIEW

Participants practice creating a strategy chart for an issue advocacy campaign using a hypothetical scenario involving an issue before the state legislature.

TIME
Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

New Leif is a mythical state in the United States named after the Norse explorer Leif Erickson. Like most states, it has been hit hard by the current recession. Over the last three years, the state legislature has repeatedly cut the education budget. It is January and the legislature has proposed cutting $\$ 2$ billion more from the state budget. The legislature will be voting on the cuts in April.

All 59 school districts in the state have been affected by the cuts, which have reached directly into the classroom (e.g., cuts in staffing including teachers, teacher's aides, and hall monitors; enrichment programs including music, art, field trips, etc; transportation; health and nutrition programs; summer and after school programs).

Currently, New Leif is near the bottom of the ladder in funding education and children's services. The New Leif state PTA is concerned that further cuts will continue to erode the already lean budget for education. The failure of the legislature to act on a longterm solution to identify a stable source of funding for education will continue the downward spiral, making it even more difficult to recover lost ground.

At its last convention, the New Leif state PTA voted to develop a statewide campaign to "Invest in New Leif's Children" and stop the cuts to this year's budget. The PTA is also calling for the legislature to develop a plan for a long-term solution to education funding. The PTA has assumed a leadership role in coordinating the campaign. They have succeeded in getting the New Leif Education Association (the teachers' union) and the State School Board Association to join the campaign and are working on getting more organizations to join. While all PTA units have been asked to pressure their legislators, the state PTA has done an analysis of the Legislature and targeted some key districts where more intense pressure will be necessary.

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The NLPTA knows that to be successful it must demonstrate and unleash the power of their grassroots membership and organize others to participate in the campaign. They want to use this campaign to build the organization and develop a model advocacy infrastructure that can be used for other issues. In so doing, they also want to increase the power and membership of the PTA so that they are a force to be reckoned with the state.

This week, your PTA County Council told you that your State Senator, Olivia Rosten, is a key target. Your unit is in the Freemont School District, which lies in Assembly District 13. The Freemont School District has 10 K-6 elementary schools and three junior high schools. You have been asked to take the lead in coordinating the campaign in Assembly District 13.

## STATE SENATOR OLIVIA ROSTEN

Your immediate task is to plan a campaign to get Republican Senator Olivia Rosten to oppose the state budget cuts. Sen. Rosten is a career politician. She was elected to the Assembly in 1990 and was reelected thereafter until she resigned to run for the State Senate in 1998. She has been reelected every term since then. Her committee assignments include: budget, human services and aging, health \& education, utilities, and military and veterans affairs. She has a B.A. in anthropology from the state university, has six grandchildren, and once worked as the director of community services for a local hospital.

## RESULTS OF OLIVIA ROSTEN'S LAST ELECTION:

$$
\begin{aligned}
& \text { Republican Incumbent Rosten ......................... 28,434 } \\
& \text { Democratic Candidate ....................................................................................... } 816
\end{aligned}
$$

Senators serve staggered four-year terms. Half of the Senate is up for election every two years. Assembly members serve two-year terms and the whole assembly is up for election each time. Sen. Rosten had no primary opposition in the last election. She is up for reelection this year.

## THE FIFTH DISTRICT

Sen. Rosten's Fifth District takes in a portion of the state's largest city. The district then goes straight south to include parts of two wealthy suburban counties. The Senate district includes all parts of three assembly districts -the 13th, 14th, and 15th. Freemont School District lies in Assembly District 13.

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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SD－ 5 | 143，690 | 102，229 | 32，555 | 3，051 | 1，010 | 78 | 4，088 | 291 |
| AD－13 | 49，241 | 25，668 | 19，863 | 1，349 | 332 | 27 | 1，568 | 147 |
| AD－14 | 47，275 | 38，939 | 6，105 | 1，104 | 191 | 34 | 813 | 68 |
| AD－15 | 47，174 | 37，622 | 6，587 | 598 | 487 | 17 | 1，707 | 76 |

Voting Figures for the State Assembly races in Senate District 5：
－\＃ 13 Incumbent Dem＝20，080．Unopposed．
－\＃ 14 Incumbent Rep＝20，268．Unopposed．
－\＃ 15 Incumbent Dem＝15，489．Libertarian＝2，174．（No Republican ran．）

In an initial discussion with your county Council staff，Sen．Rosten said that she was inclined to support the cuts as the state＂．．．just has no more money＂！Sen．Rosten went on to say that she respects the PTA and cares deeply about all children，but has a responsibility to see that the state has a balanced budget．She also said that she has been hearing from many people in her district that taxes are way out of control and they want tax cuts．

## ASSIGNMENT

TIME
Total： 20 minutes

Make a strategy chart for a campaign to get Sen．Rosten to agree to vote against the budget cuts．Choose one person to present the chart to the whole group．You can make up any information you need as long as it is realistic and probable．For your Organizational Considerations column，make an educated guess about the actual budget，staffing，desired outcomes and internal problems of the campaign based on the situation in your own state／ district．Consider resources that are available to you from all levels of the PTA．

Choose someone to lead your group through the chart．Write the chart on easel paper with one column on each sheet．The chart should be in presented by the person who wrote it．（It is easier for the presenter to read his／her own handwriting．）

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## Grassroots Advocacy Trainer's Manual

## Coalition Exercise

## FREMONT PTAS ORGANIZE A COALITION

## OVERVIEW

Participants practice evaluating possible coalition partners to work together on a statewide issue.

TIME
Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

In the campaign to stop the $\$ 2$ billion in cuts to the state budget, the New Leif PTA has asked PTA units that have not received a commitment from their state senator to vote against the cuts to invite other organizations into the campaign to increase their power. A few members from PTAs in Fremont met with Sen. Rosten and asked her to vote against the cuts. Sen. Rosten says that she is getting a lot of pressure from some of her constituents to vote for the cuts. Several of the Fremont PTAs have decided that to win they must form a coalition. In addition to recruiting all the PTAs in the area, you are considering asking the following groups to join the coalition:

- The Fremont Retail Merchant Association
- The Fremont chapter of the State Senior Citizen Federation
- The Fremont Interfaith Committee
- The Fremont branch of the NAACP


## Grassroots Advocacy Trainer's Manual

## Coalition Exercise

## ASSIGNMENT

## TIME

Total: 20 minutes

You have 20 minutes to answer the questions below. From the perspective of the newly formed Coalition, consider why the group that you have been assigned (one of the four above) would want to be a part of the coalition, and the resources and liabilities they would bring to the coalition. Choose one person to record the answers on easel paper and present them to the larger group.

1. Why would the organization be interested in joining the Coalition?
2. What might prevent the organization from joining the Coalition?
3. What resources could the organization bring to the Coalition?
4. What liabilities might the organization bring to the Coalition?
5. Who would you contact? Who from the PTA should make the contact?

NOTE: Do not role play the planning meeting. Answer the questions from the perspective of the Fremont PTAs.
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## Grassroots Advocacy Trainer's Manual

## Media Exercise

## MEDIA AND CAMPAIGN TO INVEST IN NEW LEIF'S CHILDREN

## OVERVIEW

Participants practice focusing their message in the face of questions from the media.
TIME
Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

Everyone will use the same scenario below, but each person will be assigned to do either Exercise 1 or Exercise 2. Everyone will have 15 minutes to prepare, and then we will begin the interviews.

You are a leader of the PTA in the Fremont School District, working to save school funding which the state legislature is proposing to cut. Your PTA unit and others brought a large group of parents to the state capitol to talk with State Senator Olivia Rosten, as a part of a much larger rally organized by the New Leif State PTA and its allies. Your PTA unit president was one of the speakers at the rally on the capitol steps, and then a delegation from your unit went to Sen. Rosten's office and met with her. She listened, but refused to commit to vote against the funding cuts. She is still undecided, she says. She wants to cast a vote that will be fiscally responsible and balance the state budget. The actual vote is still a month away.

## Grassroots Advocacy Trainer's Manual

## Media Exercise

## ASSIGNMENT

## Exercise 1

As you leave the state capitol building, a reporter thrusts a microphone at you and asks for a comment.

What will you say? What is the main point you want to make? How will you respond to questions? Remember that your time with the reporter is likely to be very brief! If you appear on the evening news program, it is not likely to be more than a 15 -second clip.

## Exercise 2

The morning after the rally and meeting with Sen. Rosten, you and three or four other parents are on a public affairs talk show on the local public radio station.

The State Senate Finance Committee Chairman was on just before you, and he said that there simply is not enough money. What will you say? What are your main points? How will you handle questions? Your segment on the show will last 10 minutes.
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## Grassroots Advocacy Trainer's Manual

## Meetings Exercise

## THE FREMONT PTA MEETS WITH SENATOR OLIVIA ROSTEN

## OVERVIEW

Participants practice winning the support of an elected official.

TIME
Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

The Fremont PTA and its coalition partners have been conducting a campaign to stop the funding cuts to public schools in the state. At a recent meeting with a few PTA members, State Senator Rosten refused to take a position on the funding cuts. She claims she is torn about what to do. She wants to uphold her reputation for being fiscally responsible.

State Senator Rosten is truly undecided. She has agreed to meet with a delegation from the campaign to discuss the issue. Rosten is very concerned about her next race, which is in November. You have been informed that the vote will take place in one month.

## ASSIGNMENT

You have 20 minutes to plan your meeting with Sen. Rosten who has agreed to meet in her district office in two weeks. Determine who you will send from the coalition and who will be the spokespeople at the meeting. What power do you have over Sen. Rosten?

Use the Checklist For Planning a Meeting With an Official pages of this handout to help your preparation.

After planning, you will have a mock meeting with Sen. Rosten in which you must convince her that she has more to gain by supporting the PTA and its allies and opposing the funding cuts.

If there is information you need but don't have, pretend you did the research and make it up. But keep it within the realm of the possible.

## Strategy Exercise

## THE CAMPAIGN TO IMPROVE FOODS SOLD OUTSIDE SCHOOL MEAL PROGRAMS

## OVERVIEW

Participants practice creating a strategy chart for an issue advocacy campaign using a hypothetical scenario involving an issue before the U.S. Congress.

## TIME

Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

Nutrition standards for foods sold outside school meal programs but in schools (competitive foods) have not been updated since 1979. Such foods include those sold in vending machines, cafeteria a la carte menus, and school stores. The only nutritional criteria for school foods sold outside of meals are that "foods of minimal nutritional value" (FMNV) may not be sold in the food service area during meal times.

This year, the U.S. House Committee on Education and Labor has introduced the Child Nutrition Reauthorization Act (H.R. 789). This bill, reauthorized every five years, has jurisdiction over school meal programs. In the past, Congress has considered nutrition standards for competitive foods, but has not put them into law. Members from both parties have supported and opposed these standards.

National PTA, representing the wishes of its members, has asked Congress to amend the Child Nutrition Reauthorization Act to include a minimum federal protective nutrition standard for foods sold outside of school meals. National PTA public policy staff has done an analysis to determine which members of Congress need to be targeted to pass the amendment and the final bill.

## REP. ETHAN CHARLES <br> (D, New Leif- CD 2)

In 1997 Rep. Ethan Charles (a purely fictional Congressman from the equally fictional state of New Leif) was appointed Assistant State's Attorney in the county and served until 2001. Active in the Young Democrats, he was elected to the American Council of Young Political Leaders' delegation to Taiwan. In 2003, at the age of 34, he was the elected State's Attorney (youngest) for the county. He was on the Governor's transition team.

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Elected to his first term in Congress in 2008, Charles has tended to vote more with the "moderates" believing that his margin of victory came from conservatives and independents. He voted against the House health care bill on the grounds that it is too big and too costly - a view that some of his constituents share.

Rep. Charles is a member of the House Committee on Education \& Labor. Two members of the State PTA recently met with Rep. Charles. He told them that while he was concerned about the health of children, he thought that the PTA was going a bit overboard. "Kids will be kids" he said, "... and they will buy junk food anyway - that's what kids do. At least when they buy it from school vending machines, a percentage of the sales goes to support school sports programs." National PTA public policy staff has determined that Rep. Charles' vote for the amendment in committee is essential to its passage. He could be the deciding vote! In addition, they think getting his support will also help in getting other members on board.

In a conference call with state presidents, National PTA public policy staff have laid out the strategy to pass the Child Nutrition Reauthorization Act. Your state president in turn has called your County Council to ask that you develop a campaign to get Rep. Charles to vote for the amendment, as well as the final bill. The vote is expected to take place in three months. During his campaign, Charles supported the concept of "Healthy Schools". He now says that he is getting a lot of pressure from conservatives and libertarians in his district to oppose any federal legislation that preempts state and local control of nutrition standards.

Rep. Charles' district is just outside a major metropolitan area. It touches the city and takes in suburbs and tourist regions. It then extends into rural areas (with some small farms) until it reaches the city of Wellsboro, the regional center of food production and processing (including snack foods) and the Super Cola bottling plant.

The PTA County Council has assigned one staff person to work half-time on this issue. In addition, there are two interns from a local community college in the district, who are available three afternoons a week. Besides salaries and travel expenses, the Council has only $\$ 1000$ for work in the Charles district. Any more will have to be raised.

The district is considered $64 \%$ urban. In this district, $13 \%$ of the population is over the age of 65 which is about the national average. By actual count that comes to 89,000 people. An additional 59,000 people are between the ages of 55 and 65 . The largest minority group in this district is African-American (9\%). Other groups total only $2 \%$. The median family income in the district is $\$ 52,000$ a year, which is about ten thousand over the national average.

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In the four elections prior to 2008, this district went Republican, and was considered a safe seat for Millard Gilpeak although there was always the possibility of a primary challenge from the right wing of the party. This occurred in the 2008 primary and Gilpeak was ousted by a conservative Republican. Once off the Republican ticket, Gilpeak endorsed the Democrat, Charles, who won by a very narrow margin. Gilpeak's voting record on social issues showed him split between liberal and conservative positions. In fact, his National Journal rating was $56 \%$ liberal and $44 \%$ conservative on social issues and about the reverse on economic issues. He was endorsed by the Sierra Club and League of Conservation Voters. He supported gun control, equalization of school funding, and DC statehood. He recently voted for the minimum wage increase but against card check recognition to help union organizing.

## REP. CHARLES' POSITIONS

- On federal budget issues, he is a deficit hawk. He supports adding a balanced budget amendment to the Constitution and strict spending caps for Congress.
- Unlike his Republican predecessor, he opposes gun control.
- He is for strict enforcement of immigration laws.
- During this first term, he voted for the stimulus package, and the Clean Energy Bill.


## DISTRICT VOTING DATA

The actual voting data shows some potentially useful patterns.

| Total Vote in 2000 | Gilpeak (R) | Rosterman (D) |
| :--- | :--- | :--- |
|  | $165,293 \quad 64 \%$ | $91,022 \quad 35 \%$ |
|  | Bush | Gore |
|  | $160,402 \quad 57 \%$ | $111,807 \quad 40 \%$ |
| Total Vote in 2002 | Gilpeak (R) | Fishbine (D) |
|  | $245,149 \quad 76 \%$ | $77,872 \quad 24 \%$ |
| Total Vote in 2004 | Gilpeak (R) | Schwartz (D) |
|  | $245,149 \quad 76 \%$ | $77,872 \quad 24 \%$ |
|  | Bush | Kerry |
|  | $213,144 \quad 62 \%$ | 124,163 |
| Total Vote in 2006 | Gilpeak (R) | Gronoffski (D) |
|  | $185,353 \quad 69 \%$ | 83,817 |
| Total Vote in 2008 | Marris (R) | Charles (D) |
|  | $173,478 \quad 48.4 \%$ | 176,052 |
|  | Bixbe (Libertarian) |  |
|  | $9,1902.5 \%$ |  |
|  | McCain (R) | Obama (D) |
|  | 216,896 | 148,029 |
|  |  |  |

Voter Registration and Turnout in Charles's District

|  | Registered 2008 | Voted in 2008 | Percent Voted 2008 |
| :--- | :--- | :--- | :--- |
| Republicans | 193,584 | 161,330 | $83 \%$ |
| Democrats | 200,216 | 160,753 | $80 \%$ |
| Unaffiliated | 71,443 | 50,310 | $74 \%$ |
| Libertarian | 1,141 | 784 | $69 \%$ |

There are parts of 12 counties in this district. Of those, Obama carried only two, the second largest county and the smallest. Charles carried in seven counties of the ten that also went for McCain.
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## Grassroots Advocacy Trainer's Manual

## POSSIBLE OPPOSING ORGANIZATIONS

Voter Registration and Turnout in Charles's District

| Name | Notes |
| :--- | :--- |
| National School Board <br> Association (NSBA) | NSBA supports state and local control of <br> nutrition standards, but does not support <br> federal regulations. |
| Snack Food Association | The Snack Food Association supports the <br> snack food industry and represents snack <br> manufacturers and suppliers. They are <br> wary of federal restrictive nutrition <br> standards and have concerns that their <br> products won't meet these standards. If <br> federal standards were passed, they prefer <br> these standards to preempt state standards <br> so that their products don't have to meet <br> both state and federal standards. |

## ASSIGNMENT

TIME
20 Minutes

From the point of view of the Campaign to Improve Foods Sold Outside School Meal Programs, prepare a strategy chart showing how you would set up a campaign to get Congressman Charles to vote "Yes" on the amendment to the Child Nutrition Reauthorization Act. Put the chart on easel paper one column to a sheet. Add a four-month time line. Choose someone to present it to the whole group. If you need additional information you may pretend you did the research and make it up. Just keep it within the realm of the possible and plausible.

## Grassroots Advocacy Trainer's Manual

## Coalition Exercise

## REAUTHORIZATION OF THE CHILDHOOD NUTRITION ACT

OVERVIEW
Participants practice evaluating possible coalition partners to work together on a federal issue.

TIME
Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

In the campaign to pass the Reauthorization of the Childhood Nutrition Act, the National PTA has asked your county council to get Congressman Ethan Charles to vote "YES" on an amendment to include a minimum federal protective nutrition standard for foods sold outside of school meals. PTA leaders met with Rep. Charles and asked him to vote for the amendment and the reauthorization. Rep. Charles was quite friendly. He said that he totally respected the PTA and all its good work, but he thinks that trying to "regulate what is in a school vending machine is just not the role of the federal government." Your PTA has decided that to win it must form a coalition. You are considering asking the following groups to join:

- The County Medical Association
- The Interfaith Committee
- Local 123 of the State Education Association
- The County Branch of the NAACP


## Grassroots Advocacy Trainer's Manual

## Coalition Exercise

## ASSIGNMENT

## TIME

Total: 30 minutes
You have 20 minutes to answer the questions below. From the perspective of the newly formed Coalition, consider why the group that you have been assigned (one of the four above) would want to be a part of the coalition, and the resources and liabilities they would bring to the coalition. Choose one person to record the answers on easel paper and present them to the larger group.

1. Why would the organization be interested in joining the Coalition?
2. What might prevent the organization from joining the Coalition?
3. What resources could the organization bring to the Coalition?
4. What liabilities might the organization bring to the Coalition?
5. Who would you contact? Who from the PTA should make the contact?

NOTE: Do not role play the planning meeting. Answer the questions from the perspective of the PTA County Council.
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## Grassroots Advocacy Trainer's Manual

## Media Exercise

## REAUTHORIZATION OF THE CHILDHOOD NUTRITION ACT

## OVERVIEW

Participants practice focusing their message in the face of questions from the media.

TIME
Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

Everyone will use the same scenario below, but each person will be assigned to do either Exercise 1 or Exercise 2. Everyone will have 15 minutes to prepare, and then we will begin the interviews.

You are a leader of the PTA county council in the district of Congressman Ethan Charles, working to get federal nutrition standards for competitive foods. Your PTA unit met with Rep. Ethan Charles at his district office to ask him to vote yes for nutrition standards. He says that he needs more time to study the issue; he is reluctant to have the federal government tell children and their parents and their local schools what to do. The actual vote is still a month away. everychild. one voice.

## Grassroots Advocacy Trainer's Manual

## Media Exercise

## ASSIGNMENT

## Exercise 1

As you leave the district office building, a reporter thrusts a microphone at you and asks for a comment. What will you say? What is the main point you want to make? How will you respond to questions? Remember that your time with the reporter is likely to be very brief! If you appear on the evening news program, it is not likely to be more than a 15 -second clip.

## Exercise 2

The morning after your meeting with Rep. Charles, you and three or four other parents are on a public affairs talk show on the local public radio station.

The president of the Snack Food Association was on just before you, and he said that they are being blamed, when they are doing everything they can to produce healthy snacks. Besides, it is up to parents to teach their children what to eat. The money from the soda machines pays for lots of extras at local schools, like uniforms for sports teams. What will you say? What are your main points? How will you handle questions? Your segment on the show will last 10 minutes.
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## Meetings Exercise

# THE PTA COUNTY COUNCIL MEETS WITH CONGRESSMAN ETHAN CHARLES 

OVERVIEW
Participants practice winning the support of an elected official.
TIME
Total: 30 minutes

- Exercise: 20 minutes
- Debrief: 10 minutes


## BACKGROUND

The county council and its coalition partners have been conducting a campaign to amend and pass the Reauthorization of the Childhood Nutrition Act. At a recent meeting with PTA members, Representative Charles said even if he voted for the Reauthorization Act he is concerned that the amendment to regulate competitive foods would be an example of government getting involved in something in which it should not be involved. He repeated the comment he made recently on a radio show that parents should be teaching their children how to make nutritious choices.

While Rep. Charles has been indicating that he will not vote for the amendment, you have heard that he is really worried about his upcoming election. He has said that he has to pay attention to libertarians in the district as he thinks they were the margin of victory in his election. He has agreed to meet with a delegation from the PTA and others in the coalition to discuss the issue. Charles is very concerned about his next race, which is in November. You have been informed that the vote on the amendment will take place in one month.

## ASSIGNMENT

You have 20 minutes to plan your meeting with Rep. Charles who has agreed to meet in his district office in two weeks. Determine who you will send from the coalition and who will be the spokespeople at the meeting. What power do you have over Rep. Charles?

Use the Checklist For Planning a Meeting With an Official to help your preparation.

After planning, you will have a mock meeting with Rep. Charles in which you must convince him that he has more to gain by supporting the PTA and its allies and voting for the amendment.

If there is information you need but don't have, pretend you did the research and make it up. But keep it within the realm of the possible.

## Parent Guides

PIF:


# PARENTS' GUIDE TO <br> Student Success 

This guide provides an overview of what your child will learn by the end of kindergarten in mathematios and English language arts/literacy. It focuses on the key skills your child will learn in these subjects, which will build a strong foundation for success in the other subjects he or she studies throughout the school year. This guide is based on the new Common Core State Standards, which have been adopted by more than 40 states. These K-12 standards are informed by the highest state standards from across the country. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for 1st grade.

## WHY ARE ACADEMIC STANDARDS IMPORTANT?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. They help set clear and consistent expectations for students, parents, and teachers; build your child's knowledge and skills; and help set high goals for all students.

Of course, high standards are not the only thing needed for our children's success. But standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. Standards help parents and teachers know when students need extra assistance or when they need to be challenged even more. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## HOW CAN I HELP MY CHILD?

You should use this guide to help build a relationship with your child's teacher. You can do this by talking to his or her teacher regularly about how your child is doing - beyond parent-teacher conferences.

At home, you can play an important role in setting high expectations and supporting your child in meeting them. If your child needs a little extra help or wants to learn more about a subject, work with his or her teacher to identify opportunities for tutoring, to get involved in clubs after school, or to find other resources.

## THIS GUIDE INCLUDES

- An overview of some of the key things your child will learn in English/literacy and math in kindergarten
- Ideas for activities to help your child learn at home
- Topics of discussion for talking to your child's teacher about his or her academic progress


## English Language Arts \& Literacy

Learning new language skills is a hallmark of kindergarten. Your child will learn about the alphabet and its role in reading. Your child will practice rhyming, matching words with beginning sounds, and blending sounds into words. Practice with these types of activities is a powerful step toward learning to read and spell correctly. The size of your child's vocabulary is another key factor in his or her ability to read and comprehend books and stories. Your child also will begin to experiment with writing and will be encouraged to use a combination of drawing, dictating, and writing letters to share information, ideas, and feelings.

## A Sample of What Your Child Will Be Working on in Kindergarten

- Naming upper- and lower-case letters, matching those letters with their sounds, and printing them
- Comparing the adventures and experiences of characters in familiar stories, such as fairy tales and folktales
- Retelling familiar stories and talking about stories read to them using details from the text

■ Using a combination of drawing, dictating, and writing to describe an event, including his or her reaction to what happened

- Stating an opinion or preference about a topic or book in writing (e.g., "My favorite book is . . .")
- Taking part in classroom conversations and following rules for discussions (e.g., learning to listen to others and taking turns when speaking)
- Speaking clearly to express thoughts, feelings, and ideas, including descriptions of familiar people, places, things, and events

■ Asking and answering questions about key details in stories or other information read aloud

- Understanding and using question words (e.g., who, what, where, when, why, how) in discussions
- Learning to recognize, spell, and properly use those little grammatical words that hold the language together (e.g., a, the, to, of, from, I, is, are)


## Talking to

 Your Child's Teacher
## Keeping the conversation focused.

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In kindergarten, these include:

Using knowledge of letters and letter-sound correspondences to figure out how to spell words as they sound

Reading and understanding a story designed for early readers
Ask to see a sample of your child's work. Ask the teacher questions such as: Is this piece of work satisfactory? How could it be better? Is my child on track? How can I help my child improve or excel in this area? If my child needs extra support or wants to learn more about a subject, are there resources to help his or her learning outside the classroom?

## Mathematics

Young children arrive in kindergarten with widely varying knowledge in math. By the end of the year, your child must have some important foundations in place. One of the most important skills your child should develop is the ability to add and subtract small numbers and use addition and subtraction to solve word problems. This will rely on gaining some fundamentals early in the year, such as counting objects to tell how many there are. Addition and subtraction will continue to be a very strong focus in math through 2nd grade.

## A Sample of What Your Child Will Be Working on in Kindergarten

- Counting objects to tell how many there are
- Comparing two groups of objects to tell which group, if either, has more; comparing two written numbers to tell which is greater
- Acting out addition and subtraction word problems and drawing diagrams to represent them
- Adding with a sum of 10 or less; subtracting from a number 10 or less; and solving addition and subtraction word problems
- Adding and subtracting very small numbers quickly and accurately (e.g., $3+1$ )
- Correctly naming shapes regardless of orientation or size (e.g., a square oriented as a "diamond" is still a square)


## Keeping the conversation focused.

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In kindergarten, these include:

- Counting to tell the number of objects (this will not be written work; ask the teacher for his or her observations of your child's progress in this area)
- Solving addition and subtraction word problems

Ask to see a sample of your child's work. Ask the teacher questions such as: Is this piece of work satisfactory? How could it be better? Is my child on track? How can I help my child improve or excel in this area? If my child needs extra support or wants to learn more about a subject, are there resources to help his or her learning outside the classroom?

Talking to Your Child's Teacher

## Help Your Child Learn at Home

Learning does not end in the classroom. Children need help and support at home to succeed in their studies. Try to create a quiet place for your child to study, and carve out time every day when your child can concentrate on reading, writing, and math uninterrupted by friends, brothers or sisters, or other distractions.

You should also try and sit down with your child at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your child is working on, and it will help you be the first to know if your child needs help with specific topics. By taking these small steps, you will be helping your child become successful both in and outside the classroom.

Additionally, here are some activities you can do with your child to support learning at home:

## English Language Arts \& Literacy

- Read with your child every day, books like Are You My Mother by P.D. Eastman or Green Eggs and Ham by Dr. Seuss. Ask your child to explain his or her favorite parts of the story. Share your own ideas. To find more books for your child to read, visit www.corestandards.org/assets/Appendix_B.pdf.

■ Encourage your child to tell you about his or her day at school. Keep paper, markers, or crayons around the house for your child to write letters or words or draw a picture about his or her day. Have your child describe the picture to you.

- Play word games like I Spy, sing songs like Itsy Bitsy Spider, and make silly rhymes together.


## Mathematics

Look for "word problems" in real life. Some kindergarten examples might include:

- Play "Write the next number." You write a number, and your child writes the next number.
- Ask your child questions that require counting as many as 20 things. For example, ask, "How many books do you have about wild animals?"
- Ask your child questions that require comparing numbers. "Who is wearing more bracelets, you or your sister?" (Your child might use matching or counting to find the answer.)

For more information, the full standards are available at www.corestandards.org.

## National <br> PT/

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## National PTA

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# PARENTS' GUIDE TO <br> Student Success 

This guide provides an overview of what your child will 1ST GRADE learn by the end of 1 st grade in mathematics and English language arts/literacy. It focuses on the key skills your child will learn in these subjects, which will build a strong foundation for success in the other subjects he or she studies throughout the school year. This guide is based on the new Common Core State Standards, which have been adopted by more than 40 states. These K-12 standards are informed by the highest state standards from across the country. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for 2nd grade.

## WHY ARE ACADEMIC STANDARDS IMPORTANT?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. They help set clear and consistent expectations for students, parents, and teachers; build your child's knowledge and skills; and help set high goals for all students.

Of course, high standards are not the only thing needed for our children's success. But standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. Standards help parents and teachers know when students need extra assistance or when they need to be challenged even more. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## HOW CAN I HELP MY CHILD?

You should use this guide to help build a relationship with your child's teacher. You can do this by talking to his or her teacher regularly about how your child is doing - beyond parent-teacher conferences.

At home, you can play an important role in setting high expectations and supporting your child in meeting them. If your child needs a little extra help or wants to learn more about a subject, work with his or her teacher to identify opportunities for tutoring, to get involved in clubs after school, or to find other resources.

## THIS GUIDE INCLUDES

- An overview of some of the key things your child will learn in English/literacy and math in 1st grade
- Ideas for activities to help your child learn at home
- Topics of discussion for talking to your child's teacher about his or her academic progress


## English Language Arts \& Literacy

In 1st grade, your child will become a more independent reader and writer. Your child will continue to learn and practice rules for recognizing the sounds that make up words and will be able to sound out more complex words. Such foundational skills are necessary and important components of developing proficient readers with the capacity to comprehend a wide range of materials. Students will learn to think about what they read and talk about the main ideas of simple stories. As they write and speak, 1st graders will learn to use language appropriately; this includes using complete sentences and spelling words with increasing accuracy.

## A Sample of What Your Child Will Be Working on in 1st Grade

■ Using phonics (matching letters and sounds) and word analysis skills to figure out unfamiliar words when reading and writing

- Describing characters, settings, and major events in a story, using key details
- Getting facts and information from different writings
- Writing about a topic, supplying some facts, and providing some sense of opening and closing
- Participating in shared research and writing projects (e.g., exploring a number of "how-to" books and using them to write a sequence of instructions)
- Taking part in conversations about topics and texts being studied by responding to the comments of others and asking questions to clear up any confusion
- Describing people, places, things, and events with relevant details, expressing ideas and feelings clearly and with complete sentences
- Producing and expanding complete simple and compound statements, questions, commands, and exclamations
- Identifying the correct meaning for a word with multiple meanings, based on the sentence or paragraph in which the word is used (e.g., deciding whether the word bat means a flying mammal or a club used in baseball)
- Learning to think about finer distinctions in the meanings of near-synonyms (e.g., marching, prancing, strutting, strolling, walking)



## Mathematics

In 1st grade, your child will build on last year's work and gain important new skills. One of the most important outcomes for the year is to improve speed and accuracy adding with a sum of 20 or less and subtracting from a number 20 or less (e.g., $17-8$ ). Another important goal in 1st grade is adding with a sum of 100 or less; this will rely on understanding what the digits mean in a number such as 63 (namely, 63 is six tens and three ones). Working with multi-digit addition this year will set the stage for 2nd grade, when your child will be working with three-digit numbers and adding and subtracting with larger numbers.

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A Sample of What Your Child Will Be Working on in 1st Grade
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- Solving addition and subtraction word problems in situations of adding to, taking from, putting together, taking apart, and comparing (e.g., a taking from situation would be: "Five apples were on the table. I ate some apples. Then there were three apples. How many apples did I eat?")
- Adding with a sum of 20 or less, and subtracting from a number 20 or less, for example by using strategies based around the number 10 (e.g., to solve $13-4$, one can start with 13 , subtract 3 to reach 10 , and then subtract 1 more to reach 9 )
- Quickly and accurately adding with a sum of 10 or less, and quickly and accurately subtracting from a number 10 or less (e.g., $2+5,7-5$ )
- Understanding what the digits mean in two-digit numbers (place value)
- Using understanding of place value to add and subtract (e.g., $38+5,29+20,64+27$, $80-50$ )
- Measuring lengths of objects by using a shorter object as a unit of length

■ Making composite shapes by joining shapes together, and dividing circles and rectangles into halves or fourths

## Keeping the conversation focused.

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In 1st grade, these include:

Adding with a sum of 20 or less and subtracting from a number 20 or less

Talking to Your Child's Teacher (this will not be written work; ask the teacher for his or her observations of your child's progress in this area)

- Using understanding of place value to add and subtract
- Solving addition and subtraction word problems

Ask to see a sample of your child's work. Ask the teacher questions such as: Is this piece of work satisfactory? How could it be better? Is my child on track? How can I help my child improve or excel in this area? If my child needs extra support or wants to learn more about a subject, are there resources to help his or her learning outside the classroom?

## Help Your Child Learn at Home

Learning does not end in the classroom. Children need help and support at home to succeed in their studies. Try to create a quiet place for your child to study, and carve out time every day when your child can concentrate on reading, writing, and math uninterrupted by friends, brothers or sisters, or other distractions.

You should also try and sit down with your child at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your child is working on, and it will help you be the first to know if your child needs help with specific topics. By taking these small steps, you will be helping your child become successful both in and outside the classroom.

Additionally, here are some activities you can do with your child to support learning at home:

## English Language Arts \& Literacy

- Encourage your child to read to you books such as Little Bear by Else Holmelund Minarik. Help him or her sound out difficult words. To find more books for your child to read, visit www.corestandards.org/assets/Appendix_B.pdf.

■ Act out stories together from books, television, or your child's imagination.

■ Pick a "word of the day" each day starting with a different letter. Have your child write the word and look for other things beginning with the same letter.

■ Visit the library with your child every week. Have your child sign up for a library card.

## Mathematics

Look for "word problems" in real life. Some 1st grade examples might include:

- If you open a new carton of a dozen eggs, and you use four eggs to cook dinner, close the carton and ask your child how many eggs are left.
- While putting away toys into bins, count the number of toys in two bins and ask your child how many more are in one bin compared to the other.

■ Play the "I'm thinking of a number" game. For example, "I'm thinking of a number that makes 11 when added to 8 . What is my number?"

For more information, the full standards are available at www.corestandards.org.

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# PARENTS' GUIDE TO <br> Student Success 

This guide provides an overview of what your child will learn by the end of 2nd grade in mathematics and English

## 2ND GRADE

 language arts/literacy. It focuses on the key skills your child will learn in these subjects, which will build a strong foundation for success in the other subjects he or she studies throughout the school year. This guide is based on the new Common Core State Standards, which have been adopted by more than 40 states. These K-12 standards are informed by the highest state standards from across the country. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for 3rd grade.
## WHY ARE ACADEMIC STANDARDS IMPORTANT?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. They help set clear and consistent expectations for students, parents, and teachers; build your child's knowledge and skills; and help set high goals for all students.

Of course, high standards are not the only thing needed for our children's success. But standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. Standards help parents and teachers know when students need extra assistance or when they need to be challenged even more. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## HOW CAN I HELP MY CHILD?

You should use this guide to help build a relationship with your child's teacher. You can do this by talking to his or her teacher regularly about how your child is doing - beyond parent-teacher conferences.

At home, you can play an important role in setting high expectations and supporting your child in meeting them. If your child needs a little extra help or wants to learn more about a subject, work with his or her teacher to identify opportunities for tutoring, to get involved in clubs after school, or to find other resources.

## THIS GUIDE INCLUDES

An overview of some of the key things your child will learn in English/literacy and math in 2nd grade

- Ideas for activities to help your child learn at home
- Topics of discussion for talking to your child's teacher about his or her academic progress


## English Language Arts \& Literacy

Students in 2nd grade will gain more skills in reading, writing, speaking, and listening. They continue to learn and practice rules for matching sounds to letters that make up words, and they learn new concepts - such as words that share the same root (e.g., add and additional) - that help them figure out the meanings of new words. Writing will become an exciting way for your child to use newly learned words and phrases to express ideas. As they write and speak, 2nd graders will be more attentive to the formal and informal uses of English and will spell most words correctly in their writing.

## A Sample of What Your Child Will Be Working on in 2nd Grade

- Paying close attention to details, including illustrations and graphics, in stories and books to answer who, what, where, when, why, and how questions
- Determining the lesson or moral of stories, fables, and folktales

■ Using text features (e.g., captions, bold print, indexes) to locate key facts or information efficiently

- Writing an opinion about a book he or she has read, using important details from the materials to support that opinion
- Writing stories that include a short sequence of events and include a clear beginning, middle, and end
- Participating in shared research projects (e.g., read books on a single topic to produce a report)
- Taking part in conversations by linking his or her comments to the remarks of others and asking and answering questions to gather additional information or deepen understanding of the topic
- Retelling key information or ideas from media or books read aloud
- Producing, expanding, and rearranging sentences (e.g., "The boy watched the movie"; "The little boy watched the movie"; "The action movie was watched by the little boy")
- Determining the meaning of the new word formed when a known prefix or suffix is added to a known word (happy/unhappy; pain/painful/pain/ess)


In 2nd grade, your child will build on last year's work and gain important new skills. One of the most important outcomes for the year is to add and subtract two-digit numbers quickly and accurately (e.g., $77-28$ ). Another important goal in 2nd grade is to understand what the digits mean in a three-digit number such as 463 (namely, 463 is four hundreds, six tens, and three ones). Your child also will build expertise with solving addition and subtraction word problems. Mastering addition and subtraction at the 2nd grade level is important so that your child will not have to review and repeat this material in 3rd grade, when the study of multiplication, division, and fractions will start.

## A Sample of What Your Child Will Be Working on in 2nd Grade

- Solving challenging addition and subtraction word problems with one or two steps (e.g., a "one-step" problem would be: "Lucy has 23 fewer apples than Julie. Julie has 47 apples. How many apples does Lucy have?")
- Quickly and accurately adding with a sum of 20 or less (e.g., $11+8$ ); quickly and accurately subtracting from a number 20 or less (e.g., $16-9$ ); and knowing all sums of one-digit numbers from memory by the end of the year
- Understanding what the digits mean in three-digit numbers (place value)


## Mathematics

- Using understanding of place value to add and subtract three-digit numbers (e.g., 811 - 367 ); adding and subtracting two-digit numbers quickly and accurately (e.g., 77-28)
- Measuring and estimating length in standard units
- Solving addition and subtraction word problems involving length (e.g., "The pen is 2 cm longer than the pencil. If the pencil is 7 cm long, how long is the pen?")

Building, drawing, and analyzing 2-D and 3-D shapes to develop foundations for area, volume, and geometry in later grades

## Keeping the conversation focused.

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In 2nd grade, these include:

- Using understanding of place value to add and subtract
- Solving more challenging addition and subtraction word problems
- Measuring lengths, and solving word problems involving addition and subtraction of lengths

Ask to see a sample of your child's work. Ask the teacher questions such as: Is this piece of work satisfactory? How could it be better? Is my child on track? How can I help my child improve or excel in this area? If my child needs extra support or wants to learn more about a subject, are there resources to help his or her learning outside the classroom?

Talking to Your Child's Teacher

## Help Your Child Learn at Home

Learning does not end in the classroom. Children need help and support at home to succeed in their studies. Try to create a quiet place for your child to study, and carve out time every day when your child can concentrate on reading, writing, and math uninterrupted by friends, brothers or sisters, or other distractions.

You should also try and sit down with your child at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your child is working on, and it will help you be the first to know if your child needs help with specific topics. By taking these small steps, you will be helping your child become successful both in and outside the classroom.

Additionally, here are some activities you can do with your child to support learning at home:

## English Language Arts \& Literacy

- Read at home every day and assist your child by reading every other paragraph. Encourage your child to read to younger siblings, cousins, or other children you know. To find recommendations of books for your child to read, visit www.corestandards.org/assets/Appendix_B.pdf.

■ Have your child write a thank you note or letter to family members or friends.

■ Ask your librarian to suggest books about people or places that are important to your child or family that you can read together. Encourage your child to explain what he or she has just read.

## Mathematics

Look for "word problems" in real life. Some 2nd grade examples might include:

- When saving for a purchase, compare the cost of the item to the amount of money you have; then ask your child to determine how much more money he or she needs to buy the item.
- When measuring your child's height, ask how many inches he or she has grown since the very first measurement.
- Play "draw the shape." For example, ask your child to draw a hexagon with one side longer than the others, or ask him or her to shade in a quarter of a rectangle.

For more information, the full standards are available at www.corestandards.org.

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## PARENTS' GUIDE TO <br> Student Success

This guide provides an overview of what your child will learn by the end of 3rd grade in mathematics and English

## 3RD GRADE

 language arts/literacy. It focuses on the key skills your child will learn in these subjects, which will build a strong foundation for success in the other subjects he or she studies throughout the school year. This guide is based on the new Common Core State Standards, which have been adopted by more than 40 states. These K-12 standards are informed by the highest state standards from across the country. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for 4th grade.
## WHY ARE ACADEMIC STANDARDS IMPORTANT?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. They help set clear and consistent expectations for students, parents, and teachers; build your child's knowledge and skills; and help set high goals for all students.

Of course, high standards are not the only thing needed for our children's success. But standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. Standards help parents and teachers know when students need extra assistance or when they need to be challenged even more. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## HOW CAN I HELP MY CHILD?

You should use this guide to help build a relationship with your child's teacher. You can do this by talking to his or her teacher regularly about how your child is doing - beyond parent-teacher conferences.

At home, you can play an important role in setting high expectations and supporting your child in meeting them. If your child needs a little extra help or wants to learn more about a subject, work with his or her teacher to identify opportunities for tutoring, to get involved in clubs after school, or to find other resources.

## THIS GUIDE INCLUDES

- An overview of some of the key things your child will learn in English/literacy and math in 3rd grade
- Ideas for activities to help your child learn at home
- Topics of discussion for talking to your child's teacher about his or her academic progress


## English Language Arts \& Literacy

Third grade is a pivotal year for your child. Learning to read with fluency and confidence will serve as a foundation for the reading demands in later grades. By practicing with learning-to-read strategies, your child will reliably be able to make sense of multisyllable words in books. He or she will come to appreciate that words have meanings that are not literal (e.g., a piece of cake) and have relationships to other words (e.g., company and companion). Recognizing and understanding words will help your child read increasingly challenging stories and books and build knowledge about the world around him or her. By the end of the year, your child also will be writing clear sentences and paragraphs on a range of topics, drawing on an expanding vocabulary.

## A Sample of What Your Child Will Be Working on in 3rd Grade

- Reading closely to find main ideas and supporting details in a story
- Describing the logical connection between particular sentences and paragraphs in stories (e.g., first, second, third; cause and effect)
- Comparing the most important points and key details presented in two books on the same topic
- Writing opinions or explanations that group related information and develop topics with facts and details

■ Writing stories that establish a situation and include details and clear sequences of events that describe the actions, thoughts, and feelings of characters

Independently conducting short research projects that build knowledge about various topics

- Asking and answering questions about information he or she hears from a speaker or while participating in classroom discussions, offering appropriate elaboration and detail that build on what others have said
- Reading stories and poems aloud fluently, without pausing to figure out what each word means
- Distinguishing the literal and nonliteral meanings of words, such as something's fishy and cold shoulder
- Spelling correctly and consulting dictionaries to clarify meanings of words



## Mathematics

In 3rd grade, your child will learn important new ideas and gain important new skills. One of the most important topics this year is multiplication and division. Another is fractions. Multiplication, division, and fractions are the building blocks for many life skills that students will learn in later grades, such as percentages. Students also need to master these topics to be ready for algebra and advanced math, so it is essential to get a good start with these topics in 3rd grade.

## A Sample of What Your Child Will Be Working on in 3rd Grade

- Multiplying and dividing up to $10 \times 10$ quickly and accurately, including knowing the times tables from memory
- Solving word problems using addition, subtraction, multiplication, and division
- Beginning to multiply numbers with more than one digit (e.g., multiplying $9 \times 80$ )
- Understanding fractions and relating them to the familiar system of whole numbers (e.g., recognizing that $3 /$ and 3 are the same number)
- Measuring and estimating weights and liquid volumes, and solving word problems involving these quantities

■ Reasoning about shapes (e.g., all squares are rectangles but not all rectangles are squares)
$\square$ Finding areas of shapes, and relating area to multiplication (e.g., why is the number of square feet for a 9 -foot by 7 -foot room given by the product $9 \times 7$ ?)

## Keeping the conversation focused.

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In 3rd grade, these include:

- Multiplication and division
- Fractions

Ask to see a sample of your child's work. Ask the teacher questions such as: Is this piece of work satisfactory? How could it be better? Is my child on track? How can I help my child improve or excel in this area? If my child needs extra support or wants to learn more about a subject, are there resources to help his or her learning outside the classroom?

## Help Your Child Learn at Home

Learning does not end in the classroom. Children need help and support at home to succeed in their studies. Try to create a quiet place for your child to study, and carve out time every day when your child can concentrate on reading, writing, and math uninterrupted by friends, brothers or sisters, or other distractions.

You should also try and sit down with your child at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your child is working on, and it will help you be the first to know if your child needs help with specific topics. By taking these small steps, you will be helping your child become successful both in and outside the classroom.

Additionally, here are some activities you can do with your child to support learning at home:

## English Language Arts \& Literacy

- Make reading for fun a part of your child's daily routine. Set aside quiet time, with no phones, computers, or other distractions, when your child can read for pleasure, books such as Amos \& Boris by William Steig or The Fire Cat by Esther Averill.
To find more books for your child to read, visit www.corestandards.org/assets/Appendix_B.pdf.

■ Encourage your child to find a picture from a newspaper or magazine, cut it out, paste it on paper, and write a story about it.

- Start a family vocabulary box or jar. Have everyone write down new words they discover, add them to the box, and use the words in conversation.


## Mathematics

Look for "word problems" in real life. Some 3rd grade examples might include:

Notice those everyday occasions when you find yourself using your times tables - such as to determine how many days there are in four weeks. Ask your child for the answer.

- Involve your child when you notice yourself using division to "work backward" in the times tables such as determining how many candies each child will get if 36 candies are shared equally among nine children at a party, or determining how many six-inch lengths can be cut from a string 18 inches long.

For more information, the full standards are available at www.corestandards.org.

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# PARENTS' GUIDE TO <br> Student Success 

This guide provides an overview of what your child will learn by the end of 4th grade in mathematics and English

## 4TH GRADE

 language arts/literacy. It focuses on the key skills your child will learn in these subjects, which will build a strong foundation for success in the other subjects he or she studies throughout the school year. This guide is based on the new Common Core State Standards, which have been adopted by more than 40 states. These K-12 standards are informed by the highest state standards from across the country. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for 5th grade.
## WHY ARE ACADEMIC STANDARDS IMPORTANT?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. They help set clear and consistent expectations for students, parents, and teachers; build your child's knowledge and skills; and help set high goals for all students.

Of course, high standards are not the only thing needed for our children's success. But standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. Standards help parents and teachers know when students need extra assistance or when they need to be challenged even more. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## HOW CAN I HELP MY CHILD?

You should use this guide to help build a relationship with your child's teacher. You can do this by talking to his or her teacher regularly about how your child is doing - beyond parent-teacher conferences.

At home, you can play an important role in setting high expectations and supporting your child in meeting them. If your child needs a little extra help or wants to learn more about a subject, work with his or her teacher to identify opportunities for tutoring, to get involved in clubs after school, or to find other resources.

## THIS GUIDE INCLUDES

- An overview of some of the key things your child will learn in English/literacy and math in 4th grade
- Ideas for activities to help your child learn at home
- Topics of discussion for talking to your child's teacher about his or her academic progress


## English Language Arts \& Literacy

Building the stamina and skills to read challenging fiction, nonfiction, and other materials is fundamental in 4th grade. Your child will continue to learn about the world as well as build vocabulary skills by reading more complicated stories and poems from different cultures and a range of books on history, science, art, and music. Fourth grade students also will make important strides in their ability to explain plainly and in detail what a book says - both explicitly and what is implied from its details. By 4th grade, your child will be writing effective summaries, book reports, and descriptions of characters or events that use correct grammar and punctuation.

## A Sample of What Your Child Will Be Working on in 4th Grade

- Describing the basic elements of stories - such as characters, events, and settings - by drawing on specific details in the text
- Paying close attention to key features of informational books and articles: these include understanding the main and supporting ideas; being able to compare and contrast information; and explaining how the author uses facts, details, and evidence to support particular points
- Comparing ideas, characters, events, and settings in stories and myths from different cultures
- Writing summaries or opinions about topics supported with a set of well-organized facts, details, and examples
- Independently conducting short research projects on different aspects of a topic using evidence from books and the Internet
- Paraphrasing and responding to information presented in discussions, such as comparing and contrasting ideas and analyzing evidence that speakers use to support particular points
- Reporting orally on a topic or telling a story with enough facts and details
- Writing complete sentences with correct capitalization and spelling
- Relating words that are common in reading to words with similar meanings (synonyms) and to their opposites (antonyms)


## Keeping the conversation focused.

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In 4th grade, these include:

- Comprehending a range of grade-level stories, poems, and informational texts such as biographies, articles, or guidebooks about history, science, or the arts
- Building understanding of relationships between words and nuances in word meanings - synonyms, antonyms, idioms - and using this knowledge to convey ideas precisely

Ask to see a sample of your child's work. Ask the teacher questions such as: Is this piece of work satisfactory? How could it be better? Is my child on track? How can I help my child improve or excel in this area? If my child needs extra support or wants to learn more about a subject, are there resources to help his or her learning outside the classroom?

## Mathematics

In 4th grade, your child will gain important new skills while continuing to build on what he or she learned the previous year. One of the main areas studied in 4th grade is arithmetic and applying it to solve problems. This is an important life skill, and your child should make significant strides in this area during the year. Your child will also build knowledge and skills with fractions to prepare for mastering this topic in 5th and 6th grades. These skills will help ensure your child is ready for algebra and advanced math.

## A Sample of What Your Child Will Be Working on in 4th Grade

Using whole-number arithmetic to solve word problems, including problems with remainders and problems with measurements

- Adding and subtracting whole numbers quickly and accurately (numbers up to 1 million)
$\square$ Multiplying and dividing multi-digit numbers in simple cases (e.g., multiplying $1,638 \times 7$ or $24 \times 17$, and dividing 6,966 by 6 )
- Understanding and applying equivalent fractions (e.g., recognizing that $1 / 4$ is less than $3 / 8$ because $2 / 8$ is less than $3 \%$ )

Adding, subtracting, and multiplying fractions in simple cases (such as $23 / 4-1 \frac{1}{4}$ or $3 \times 5 / 6$ ), and solving related word problems

- Understanding simple decimals in terms of fractions (e.g., rewriting 0.62 as $6 \% / 00$ )
- Measuring angles and finding unknown angles in a diagram


## Keeping the conversation focused.

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In 4th grade, these include:

Doing arithmetic and solving word problems with multi-digit numbers

Talking to Your Child's Teacher

Doing arithmetic and solving word problems with fractions
Ask to see a sample of your child's work. Ask the teacher questions such as: Is this piece of work satisfactory? How could it be better? Is my child on track? How can I help my child improve or excel in this area? If my child needs extra support or wants to learn more about a subject, are there resources to help his or her learning outside the classroom?

## Help Your Child Learn at Home

Learning does not end in the classroom. Children need help and support at home to succeed in their studies. Try to create a quiet place for your child to study, and carve out time every day when your child can concentrate on reading, writing, and math uninterrupted by friends, brothers or sisters, or other distractions.

You should also try and sit down with your child at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your child is working on, and it will help you be the first to know if your child needs help with specific topics. By taking these small steps, you will be helping your child become successful both in and outside the classroom.

Additionally, here are some activities you can do with your child to support learning at home:

## English Language Arts \& Literacy

- Urge your child to use logical arguments to defend his or her opinion. If your child wants a raise in allowance, ask him or her to research commonsense allowance systems and, based on that research, explain reasons why, supported by facts and details.
- Talk about the news together. Pick one story in the news, read it together, and discuss with your child what it means.
- Keep books, magazines, and newspapers at home. Make sure your child sees you reading.


## Mathematics

Look for "word problems" in real life. Some 4th grade examples might include:

Ask your child to compare numbers using phrases like "times as much." For example, if the family cat weighs 8 lbs . and the family dog weighs 56 lbs., how many times as much does the dog weigh?

- Ask your child to help you compare fractional amounts - for example, if one recipe calls for $2 / 3$ of a cup of oil, but another recipe calls for $3 / 4$ of a cup of oil, which recipe calls for more oil? (In 5th grade, your child will learn ways to determine just how much more oil.)

For more information, the full standards are available at www.corestandards.org.

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## PARENTS' GUIDE TO Student Success

This guide provides an overview of what your child will learn by the end of 5th grade in mathematics and English language arts/literacy. It focuses on the key skills your child will learn in these subjects, which will build a strong foundation for success in the other subjects he or she studies throughout the school year. This guide is based on the new Common Core State Standards, which have been adopted by more than 40 states. These K-12 standards are informed by the highest state standards from across the country. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for 6th grade.

## WHY ARE ACADEMIC STANDARDS IMPORTANT?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. They help set clear and consistent expectations for students, parents, and teachers; build your child's knowledge and skills; and help set high goals for all students.

Of course, high standards are not the only thing needed for our children's success. But standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. Standards help parents and teachers know when students need extra assistance or when they need to be challenged even more. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## HOW CAN I HELP MY CHILD?

You should use this guide to help build a relationship with your child's teacher. You can do this by talking to his or her teacher regularly about how your child is doing - beyond parent-teacher conferences.

At home, you can play an important role in setting high expectations and supporting your child in meeting them. If your child needs a little extra help or wants to learn more about a subject, work with his or her teacher to identify opportunities for tutoring, to get involved in clubs after school, or to find other resources.

## THIS GUIDE INCLUDES

- An overview of some of the key things your child will learn in English/literacy and math in 5th grade
- Ideas for activities to help your child learn at home
- Topics of discussion for talking to your child's teacher about his or her academic progress


## English Language Arts \& Literacy

In 5th grade, your child will read widely and deeply from a range of high-quality, increasingly challenging fiction and nonfiction from diverse cultures and time periods. Building knowledge about subjects through research projects and responding analytically to literary and informational sources will be key to your child's continuing success. Your child will write stories or essays that are several paragraphs long. By devoting significant time and effort to producing numerous written pieces over short and extended timeframes throughout the year, he or she also will gain control over many conventions of grammar, usage, and punctuation as well as learn ways to make himself or herself understood.

## A Sample of What Your Child Will Be Working on in 5th Grade

- Summarizing the key details of stories, dramas, poems, and nonfiction materials, including their themes or main ideas
- Identifying and judging evidence that supports particular ideas in an author's argument to change a reader's point of view
- Integrating information from several print and digital sources to answer questions and solve problems
- Writing opinions that offer reasoned arguments and provide facts and examples that are logically grouped to support the writer's point of view
- Writing stories, real or imaginary, that unfold naturally and developing the plot with dialogue, description, and effective pacing of the action
- Coming to classroom discussions prepared, then engaging fully and thoughtfully with others (e.g., contributing accurate, relevant information; elaborating on the remarks of others; synthesizing ideas)
- Reporting on a topic or presenting an opinion with his or her own words, a logical sequence of ideas, sufficient facts and details, and formal English when appropriate
- Expanding, combining, and reducing sentences to improve meaning, interest, and style of writing
- Building knowledge of academic words with an emphasis on those that signal a contrast in ideas or logical relationships, such as on the other hand, similarly, and therefore
- Producing writing on the computer


## Keeping the conversation focused.

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In 5th grade, these include:

- Reading closely and drawing evidence from grade-level fiction and nonfiction materials, including the ability to quote accurately from them when answering questions
- Adjusting communications to accomplish a particular purpose (e.g., providing more background information for audiences who do not know the topic well)

Ask to see a sample of your child's work. Ask the teacher questions such as: Is this piece of work satisfactory? How could it be better? Is my child on track? How can I help my child improve or excel in this area? If my child needs extra support or wants to learn more about a subject, are there resources to help his or her learning outside the classroom?

## Mathematics

Fifth grade is a milestone and a pivot point for students. The classroom focus on arithmetic during the elementary grades will develop into a more formal study of algebra in middle school. To be ready for algebra, students must have an understanding of fractional arithmetic, in part because even simple equations cannot be solved without fractions. Because of this, whole-number arithmetic comes mostly to a close in 5th grade, while multiplying and dividing fractions becomes a major focus.

## A Sample of What Your Child Will Be Working on in 5th Grade

- Adding and subtracting fractions with unlike denominators (e.g., $2^{1 / 1 / 4}-1 \frac{1}{3}$ ), and solving word problems of this kind
- Multiplying fractions; dividing fractions in simple cases; and solving related word problems (e.g., finding the area of a rectangle with fractional side lengths; determining how many $1 / 3$-cup servings are in 2 cups of raisins; determining the size of a share if 9 people share a 50 -pound sack of rice equally or if 3 people share $1 / 2$ pound of chocolate equally)
- Generalizing the place-value system to include decimals, and calculating with decimals to the hundredths place (two places after the decimal)
- Multiplying whole numbers quickly and accurately, for example $1,638 \times 753$, and dividing whole numbers in simple cases, such as dividing 6,971 by 63
- Understanding the concept of volume, and solving word problems that involve volume
- Graphing points in the coordinate plane (two dimensions) to solve problems
- Analyzing mathematical patterns and relationships


## Keeping the conversation focused.

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In 5th grade, these include:

Talking to Your Child's Teacher

- Multiplying and dividing fractions, and solving related word problems
- Decimals (concepts and arithmetic)
- Volume (concepts and problem-solving)

Ask to see a sample of your child's work. Ask the teacher questions such as: Is this piece of work satisfactory? How could it be better? Is my child on track? How can I help my child improve or excel in this area? If my child needs extra support or wants to learn more about a subject, are there resources to help his or her learning outside the classroom?

## Help Your Child Learn at Home

Learning does not end in the classroom. Children need help and support at home to succeed in their studies. Try to create a quiet place for your child to study, and carve out time every day when your child can concentrate on reading, writing, and math uninterrupted by friends, brothers or sisters, or other distractions.

You should also try and sit down with your child at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your child is working on, and it will help you be the first to know if your child needs help with specific topics. By taking these small steps, you will be helping your child become successful both in and outside the classroom.

Additionally, here are some activities you can do with your child to support learning at home:

## English Language Arts \& Literacy

- Invite your child to read his or her writing out loud to other family members. Ask questions about your child's word choices and ideas.
- Discuss your family stories and history. Encourage your child to ask relatives questions about their lives. Put the information together in an album or brainstorm different ways to tell family tales, such as poems or short stories.
- Go to a play or musical with your child. Discuss the way the actors bring the words to life.


## Mathematics

Look for "word problems" in real life. Some 5th grade examples might include:

Doing arithmetic with decimals, for example when balancing a checkbook.

- Multiplying with fractions - for example, if you used about $2 / 3$ of a $3 / 4$-cup measure of vegetable stock, then how much stock did you use? About how much is left?
- Using the length, width, and depth of a garden plot to determine how many bags of garden soil to buy.

For more information, the full standards are available at www.corestandards.org.

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## PARENTS' GUIDE TO <br> Student Success

This guide provides an overview of what your child will learn by the end of 6th grade in mathematics and English

## 6TH GRADE

 language arts/literacy. It focuses on the key skills your child will learn in these subjects, which will build a strong foundation for success in the other subjects he or she studies throughout the school year. This guide is based on the new Common Core State Standards, which have been adopted by more than 40 states. These K-12 standards are informed by the highest state standards from across the country. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for 7th grade.
## WHY ARE ACADEMIC STANDARDS IMPORTANT?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. They help set clear and consistent expectations for students, parents, and teachers; build your child's knowledge and skills; and help set high goals for all students.

Of course, high standards are not the only thing needed for our children's success. But standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. Standards help parents and teachers know when students need extra assistance or when they need to be challenged even more. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## HOW CAN I HELP MY CHILD?

You should use this guide to help build a relationship with your child's teacher. You can do this by talking to his or her teacher regularly about how your child is doing - beyond parent-teacher conferences.

At home, you can play an important role in setting high expectations and supporting your child in meeting them. If your child needs a little extra help or wants to learn more about a subject, work with his or her teacher to identify opportunities for tutoring, to get involved in clubs after school, or to find other resources.

## THIS GUIDE INCLUDES

$\square$ An overview of some of the key things your child will learn in English/literacy and math in 6th grade

- Ideas for activities to help your child learn at home
- Topics of discussion for talking to your child's teacher about his or her academic progress


## English Language Arts \& Literacy

In 6th grade, students apply skills they learned in earlier grades to make sense of longer, more challenging books and articles. That includes learning about how authors try to influence readers and find reasons to support their ideas. Focusing on how authors make their points and support their arguments with evidence and reasoning helps 6th grade students sharpen their ability to write and speak with more clarity and coherence. Students also will expand their vocabularies and use new words in their stories, reports, and essays. To meet these literacy goals, students must devote significant attention to precise details in their reading and when writing.

## A Sample of What Your Child Will Be Working on in 6th Grade

- Analyzing how chapters of a book, scenes of a play, or stanzas of a poem fit into the overall structure of the piece and contribute to the development of ideas or themes
- Gaining knowledge from materials that make extensive use of elaborate diagrams and data to convey information and illustrate concepts
- Evaluating the argument and specific claims in written materials or a speech, and distinguishing claims that are supported by reasons and evidence from claims that are not
- Presenting claims and findings to others orally, sequencing ideas logically, and accentuating main ideas or themes

■ Writing arguments that provide clear reasons and relevant evidence, using credible sources

- Writing brief reports that examine a topic, have a clear focus, and include relevant facts, details, and quotations
- Conducting short research projects to answer a question, drawing on several sources and sharpening the focus based on the research findings

■ Reviewing and paraphrasing key ideas and multiple perspectives of a speaker

- Recognizing variations from standard English in his or her own and others' writing and speaking, and using this knowledge to improve language use
- Determining the correct meaning of a word based on the context in which it is used (e.g., the rest of the sentence or paragraph; a word's position or function in a sentence)


The skills and understanding that your child will gain during 6th grade are among the most important foundations for college and career readiness. These include working with ratios and rates and working with variables and variable expressions - the building blocks of algebra. Many of this year's topics will remain a major emphasis throughout the middle school years and into high school.

## A Sample of What Your Child Will Be Working on in 6th Grade

- Understanding ratios and rates, and solving problems involving proportional relationships (e.g., if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?)
- Dividing fractions and solving related word problems (e.g., how wide is a rectangular strip of land with length $3 / 4$ mile and area $1 / 2$ square mile?)
- Using positive and negative numbers together to describe quantities; understanding the ordering and absolute values of positive and negative numbers
- Working with variables and expressions by generalizing the way numbers work (e.g., when adding numbers, the order doesn't matter, so $x+y=y+x$, likewise, properties of addition and multiplication can be used to rewrite $24 x+18 y$ as $6(4 x+3 y)$, or $y+y+y$ as $3 y)$
- Understanding the process of solving simple equations
- Writing equations to solve word problems and describe relationships between quantities (e.g., the distance $D$ traveled by a train in time $T$ might be expressed by an equation $D=85 T$, where $D$ is in miles and $T$ is in hours)

Reasoning about relationships between shapes to determine area, surface area, and volume

## Keeping the conversation focused.

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In 6th grade, these include:

- Analyzing and solving problems using concepts of ratio and rate

Talking to Your Child's Teacher

Working with variables and expressions
Analyzing and solving word problems using equations
Ask to see a sample of your child's work. Ask the teacher questions such as: Is this piece of work satisfactory? How could it be better? Is my child on track? How can I help my child improve or excel in this area? If my child needs extra support or wants to learn more about a subject, are there resources to help his or her learning outside the classroom?

## Help Your Child Learn at Home

Learning does not end in the classroom. Children need help and support at home to succeed in their studies. Try to create a quiet place for your child to study, and carve out time every day when your child can concentrate on reading, writing, and math uninterrupted by friends, brothers or sisters, or other distractions.

You should also try and sit down with your child at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your child is working on, and it will help you be the first to know if your child needs help with specific topics. By taking these small steps, you will be helping your child become successful both in and outside the classroom.

Additionally, here are some activities you can do with your child to support learning at home:

## English Language Arts \& Literacy

- Listen with your child to a television reporter, politician, or other speaker. Ask your child to tell you the speaker's main points. Was the speaker trying to convince the audience of something? How?
- Visit a library or book store together and ask the librarian or bookseller to recommend young adult books, such as Roll of Thunder, Hear My Cry by Mildred D. Taylor. To find more books for your child to read, visit www.corestandards.org/assets/Appendix_B.pdf.
- Invite your child to participate in an adult gathering, such as a meal with friends, to practice listening skills and making conversation.
- Encourage your child to learn at the library or on the Internet what life in your community was like 100 years ago. Have your child write a story, poem, or play about that time.


## Mathematics

Look for "word problems" in real life. Some 6th grade examples might include:

- Determining the average speed of a family trip, based on the distance traveled and the time taken; or estimating the time that a trip will take, given the distance and an estimate of the average speed. (Examples can also come from the news - for example, a swimmer crossing the English Channel or a space probe traveling to another planet.)
- Finding the surface area of the walls and ceiling in a room to determine the cost of painting the room.

For more information, the full standards are available at www.corestandards.org.

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## PARENTS' GUIDE TO <br> Student Success

This guide provides an overview of what your child will learn by the end of 7th grade in mathematics and English

## 7TH GRADE

 language arts/literacy. It focuses on the key skills your child will learn in these subjects, which will build a strong foundation for success in the other subjects he or she studies throughout the school year. This guide is based on the new Common Core State Standards, which have been adopted by more than 40 states. These K-12 standards are informed by the highest state standards from across the country. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for 8th grade.
## WHY ARE ACADEMIC STANDARDS IMPORTANT?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. They help set clear and consistent expectations for students, parents, and teachers; build your child's knowledge and skills; and help set high goals for all students.

Of course, high standards are not the only thing needed for our children's success. But standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. Standards help parents and teachers know when students need extra assistance or when they need to be challenged even more. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## HOW CAN I HELP MY CHILD?

You should use this guide to help build a relationship with your child's teacher. You can do this by talking to his or her teacher regularly about how your child is doing - beyond parent-teacher conferences.

At home, you can play an important role in setting high expectations and supporting your child in meeting them. If your child needs a little extra help or wants to learn more about a subject, work with his or her teacher to identify opportunities for tutoring, to get involved in clubs after school, or to find other resources.

## THIS GUIDE INCLUDES

- An overview of some of the key things your child will learn in English/literacy and math in 7th grade
- Ideas for activities to help your child learn at home
- Topics of discussion for talking to your child's teacher about his or her academic progress


# English Language Arts \& Literacy 

In 7th grade, your child will analyze, define, compare, and evaluate ideas when reading, writing, speaking, and listening. He or she will continue to analyze how themes in fiction and nonfiction develop over the course of a book or article. Readings will include classic and contemporary pieces that represent diverse perspectives. In particular, 7th grade students' ability to cite specific evidence when offering an interpretation of a text matures. They use relevant evidence when supporting their own points in writing and speaking, making their reasoning clear to readers or listeners or constructively evaluating others' use of evidence. This ability will help your child in every facet of his or her studies.


## Mathematics

In 7th grade, your child will grow in skill and understanding as he or she continues the previous grade's work in proportional relationships, equations, and positive and negative numbers. These topics will remain a major emphasis throughout the middle school years and into high school. A good command of rates and proportional relationships, including percentages, is also an important life skill.

## A Sample of What Your Child Will Be Working on in 7th Grade

- Analyzing proportional relationships (e.g., by graphing in the coordinate plane), and distinguishing proportional relationships from other kinds of mathematical relationships (e.g., buying 10 times as many items will cost you 10 times as much, but taking 10 times as many aspirin will not lower your fever 10 times as much)

Solving percent problems (e.g., tax, tips, and markups and markdowns)

Adding, subtracting, multiplying, and dividing positive and negative numbers, and solving related word problems

Solving word problems that have a combination of whole numbers, fractions, and decimals (e.g., a woman making $\$ 25$ per hour receives a $10 \%$ raise;
she will make an additional 110 of her salary an hour, or $\$ 2.50$, for a new salary of $\$ 27.50$ )

- Solving equations such as $1 / 2(x-3)=3 / 4$ quickly and accurately, and writing equations of this kind to solve word problems (e.g., "I knocked over a carton of milk, and 3 cups were spilled before I set the carton upright again. When I poured out the remaining milk equally into two measuring cups, there was $3 / 4$ of a cup of milk in each one. How much milk was originally in the carton?")
- Solving problems involving scale drawings
- Using statistics to draw inferences and make comparisons (e.g., deciding which candidate is likely to win an election based on a survey)


## Keeping the conversation focused.

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In 7th grade, these include:

- Analyzing proportional relationships

Talking to Your Child's Teacher

- Arithmetic with positive and negative numbers
- Solving equations quickly and accurately, and writing equations to solve word problems

Ask to see a sample of your child's work. Ask the teacher questions such as: Is this piece of work satisfactory? How could it be better? Is my child on track? How can I help my child improve or excel in this area? If my child needs extra support or wants to learn more about a subject, are there resources to help his or her learning outside the classroom?

## Help Your Child Learn at Home

Learning does not end in the classroom. Children need help and support at home to succeed in their studies. Try to create a quiet place for your child to study, and carve out time every day when your child can concentrate on reading, writing, and math uninterrupted by friends, brothers or sisters, or other distractions.

You should also try and sit down with your child at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your child is working on, and it will help you be the first to know if your child needs help with specific topics. By taking these small steps, you will be helping your child become successful both in and outside the classroom.

Additionally, here are some activities you can do with your child to support learning at home:

## English Language Arts \& Literacy

- Visit a local art museum together. Take time to closely observe the details of the paintings or other art objects and talk about what you see there.
- Have your child help plan a family outing, using the Internet or library to research a place he or she is interested in.

■ Ask your child who his or her favorite authors are. Why does your child like their books? What ideas does the author write about? Who are his or her favorite characters? Why? To find recommendations of books for your child to read, visit www.corestandards.org/assets/Appendix_B.pdf.

## Mathematics

Look for "word problems" in real life. Some 7th grade examples might include:

■ Figuring the amount of a $15 \%$ tip or determining what percentage of weekly income goes to pay taxes.

■ Using a scale diagram in a manual or a newspaper article to determine lengths, areas, distances, or other measures.

- For a long-term project, help your child choose a stock and follow its value on the stock market using the newspaper or the Internet. Have your child calculate the stock's percent increase or decrease each month.

For more information, the full standards are available at www.corestandards.org.

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# PARENTS' GUIDE TO <br> Student Success 

This guide provides an overview of what your child will learn by the end of 8th grade in mathematics and English

## 8TH GRADE

 language arts/literacy. It focuses on the key skills your child will learn in these subjects, which will build a strong foundation for success in the other subjects he or she studies throughout the school year. This guide is based on the new Common Core State Standards, which have been adopted by more than 40 states. These K-12 standards are informed by the highest state standards from across the country. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for high school.
## WHY ARE ACADEMIC STANDARDS IMPORTANT?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. They help set clear and consistent expectations for students, parents, and teachers; build your child's knowledge and skills; and help set high goals for all students.

Of course, high standards are not the only thing needed for our children's success. But standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. Standards help parents and teachers know when students need extra assistance or when they need to be challenged even more. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## HOW CAN I HELP MY CHILD?

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At home, you can play an important role in setting high expectations and supporting your child in meeting them. If your child needs a little extra help or wants to learn more about a subject, work with his or her teacher to identify opportunities for tutoring, to get involved in clubs after school, or to find other resources.

## THIS GUIDE INCLUDES

- An overview of some of the key things your child will learn in English/literacy and math in 8th grade
- Ideas for activities to help your child learn at home
- Topics of discussion for talking to your child's teacher about his or her academic progress


## English Language Arts \& Literacy

To prepare for bigger challenges in high school, 8th grade students must grapple with major works of fiction and nonfiction that extend across cultures and centuries. As they work diligently to understand precisely what an author or speaker is saying, students also must learn to question an author's or speaker's assumptions and assess the accuracy of his or her claims. They also must be able to report findings from their own research and analysis of sources in a clear manner.

## A Sample of What Your Child Will Be Working on in 8th Grade

- Citing the evidence that most strongly supports an analysis of what is explicitly stated and/or implied from a book, article, poem, or play
- Analyzing where materials on the same topic disagree on matters of fact, interpretation, or point of view
- Learning how authors support their ideas through word choice, sentence and paragraph structure, and other methods

Building writing around strong central ideas or points of view; supporting the ideas with sound reasoning and evidence, precise word choices, smooth transitions, and different sentence structures

- Planning and conducting research projects that include several steps and use many credible and documented print and digital sources
- Analyzing the purpose of information presented in diverse media (e.g., print, TV, web) and evaluating its social, political, or commercial motives
- Presenting findings and claims to others, emphasizing key points with relevant evidence and sound reasoning, adapting speech to the audience and the formality of the setting, and responding to questions and comments with relevant observations and ideas

■ Using strong, active verbs to create a clear picture for the reader (e.g., walk, skip, meander, lurch, limp)

- Interpreting figures of speech (e.g., irony, puns) and developing a large vocabulary of general academic words and phrases


## Talking to Your Child's Teacher

## Keeping the conversation focused.

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In 8th grade, these include:

Reading closely and drawing evidence from grade-level fiction and nonfiction works that most strongly supports an analysis of the material
Developing a rich vocabulary of complex and sophisticated words and using them to speak and write more precisely and coherently

Ask to see a sample of your child's work. Ask the teacher questions such as: Is this piece of work satisfactory? How could it be better? Is my child on track? How can I help my child improve or excel in this area? If my child needs extra support or wants to learn more about a subject, are there resources to help his or her learning outside the classroom?

In 8th grade, your child will learn a number of skills and ideas that he or she must know and understand to be ready for college and career. Your child will continue to learn how to write and reason with algebraic expressions. Your child also will make a thorough study of linear equations with one and two variables. Building on previous work with relationships between quantities, your child will be introduced to the idea of a mathematical function. And your child will prepare for high school geometry by understanding congruence (same shape and size) and similarity of geometric figures.

## A Sample of What Your Child Will Be Working on in 8th Grade

- Understanding slope, and relating linear equations in two variables to lines in the coordinate plane

Solving linear equations (e.g., $-x+5(x+1 / 3)=$ $2 x-8$ ); solving pairs of linear equations (e.g., $x+6 y=-1$ and $2 x-2 y=12$ ); and writing equations to solve related word problems

- Understanding functions as rules that assign a unique output number to each input number; using linear functions to model relationships

Analyzing statistical relationships by using a bestfit line (a straight line that models an association between two quantities)

- Working with positive and negative exponents, square root and cube root symbols, and scientific notation (e.g., evaluating $\sqrt{36+64}$; estimating world population as $7 \times 10^{9}$ )

■ Understanding congruence and similarity using physical models, transparencies, or geometry software (e.g., given two congruent figures, show how to obtain one from the other by a sequence of rotations, translations, and/or reflections)

- Understanding and applying the Pythagorean Theorem ( $a^{2}+b^{2}=c^{2}$ ) to solve problems


## Keeping the conversation focused.

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In 8th grade, these include:

Linear equations with one and two variables

- Functions

Congruence and similarity of geometric figures
Ask to see a sample of your child's work. Ask the teacher questions such as: Is this piece of work satisfactory? How could it be better? Is my child on track? How can I help my child improve or excel in this area? If my child needs extra support or wants to learn more about a subject, are there resources to help his or her learning outside the classroom?

## Help Your Child Learn at Home

Learning does not end in the classroom. Children need help and support at home to succeed in their studies. Try to create a quiet place for your child to study, and carve out time every day when your child can concentrate on reading, writing, and math uninterrupted by friends, brothers or sisters, or other distractions.

You should also try and sit down with your child at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your child is working on, and it will help you be the first to know if your child needs help with specific topics. By taking these small steps, you will be helping your child become successful both in and outside the classroom.

Additionally, here are some activities you can do with your child to support learning at home:

## English Language Arts \& Literacy

■ Make time in everyone's busy schedule for family discussions about things going on around the world. Weekends can be a chance for everyone to catch up.

- Visit the campus of a local college with your teen. Begin talking about college early. What does he or she expect from college? What high school courses will your child need to pass to prepare for college?

■ Make sure to keep books and magazines around the house that your child will enjoy reading and learning from. For a list of book recommendations, visit www.corestandards.org/assets/Appendix_B.pdf.

## Mathematics

Ask your child to share with you any work he or she is doing in math class that strikes him or her as interesting. Some possibilities might include:

- Solving interesting problems involving cylinders and spheres, such as figuring out how much water fits inside a garden hose, or how many earths would fit inside the sun.
- Analyzing data with a scatterplot, for example to decide whether exercise and obesity are related.
- Solving "just for fun" algebra puzzles, such as: "I'm thinking of two numbers. The difference between the numbers is 40 . Twice the smaller number is 20 more than the larger number. What are my numbers?"

For more information, the full standards are available at www.corestandards.org.

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## PARENTS' GUIDE TO Student Success

This guide provides an overview of what your child will learn during high school in English language arts.
It focuses on the key skills your child will tearn in
English, which will build a strong foundation for success in the other subjects he or she studies throughout high school. This guide is based on the new Common Core State Standards, which have been adopted by more than 40 states. These $\mathrm{K}-12$ standards are informed by the highest state standards from across the country. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for success after graduation.

## WHY ARE ACADEMIC STANDARDS IMPORTANT?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. They help set clear and consistent expectations for students, parents, and teachers; build your child's knowledge and skills; and help set high goals for all students.

Of course, high standards are not the only thing needed for our children's success. But standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. Standards help parents and teachers know when students need extra assistance or when they need to be challenged even more. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## HOW CAN I HELP MY CHILD?

You should use this guide to help build a relationship with your child's teacher. You can do this by talking to his or her teacher regularly about how your child is doing - beyond parent-teacher conferences.

At home, you can play an important role in setting high expectations and supporting your child in meeting them. If your child needs a little extra help or wants to learn more about a subject, work with his or her teacher to identify opportunities for tutoring, to get involved in clubs after school, or to find other resources.

## THIS GUIDE INCLUDES

- An overview of some of the key things your child will learn in English language arts in high school
- Topics of discussion for talking to your child's teacher about his or her academic progress
- Tips to help your child plan for college and career


## English Language Arts \& Literacy

To become ready for college and career, high school students learn to evaluate intricate arguments and surmount the challenges posed by complex written materials independently and confidently. Through wide and deep reading of literature and literary nonfiction of steadily increasing sophistication, students expand their literary and cultural knowledge and better understand references and images. They also develop the flexibility, concentration, and fluency to produce high-quality, first drafts of writing under tight deadlines. And they are able to revisit and make improvements to a piece of writing over multiple drafts if needed. High school students master the essential "rules" of standard written and spoken English and resolve usage issues by consulting style and usage guides. By writing and participating in a variety of conversations, they assert and defend claims and show what they know about a subject using appropriate examples and evidence.

## A Sample of the Work Your Child Will Be Doing To Become Ready for College and Career

## READING

- Understanding more from and making fuller use of written materials, including using a wider range of evidence to support an analysis
- Making more connections about how complex ideas interact and develop within a book, essay, or article
- Evaluating arguments and specific claims; assessing whether the reasoning is valid and the evidence is sufficient; and as appropriate, detecting inconsistencies and ambiguities
- Analyzing the meaning of foundational U.S. documents (the Declaration of Independence, the Preamble to the Constitution, the Bill of Rights)


## WRITING

Making an argument that is logical, well-reasoned, and supported by evidence
Writing a literary analysis, report, or summary that develops a central idea and a coherent focus and is well supported with relevant examples, facts, and details

- Conducting several research projects that address different aspects of the same topic, using more complex books, articles, and other sources


## SPEAKING AND LISTENING

- Responding thoughtfully to diverse perspectives; synthesizing comments, claims, and evidence made on all sides of an issue; and resolving contradictions when possible
- Sharing research, findings, and evidence clearly and concisely

Making strategic use of digital media (e.g., animations, video, websites, podcasts) to enhance understanding of findings and to add interest

## LANGUAGE

$\square$ Determining or clarifying the meaning of words and phrases, choosing flexibly from multiple strategies, such as using context, Greek and Latin roots (e.g., bene as in benefactor or benevolent), patterns of words (conceive, conception, conceivable), and consulting specialized reference materials (e.g., dictionaries, glossaries, thesauruses)

- Interpreting figures of speech (e.g., hyperbole, paradox) in context and analyzing their role in the written materials


## Keeping the conversation focused.

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In high school, these include:

- Focusing, reading deliberately and slowly, and rereading (when necessary) complex fiction and nonfiction materials
Becoming skilled at gathering information, evaluating sources, and citing material accurately
- Asserting and defending claims, conveying what he or she understands about what he or she has read and researched

Speaking clearly and appropriately, listening attentively when discussing findings and evidence, and building on others' good ideas while expressing his or her own ideas persuasively

- Learning to see individual words as part of a network of other words - e.g., words that have similar literal meanings but different connotations (e.g., bullheaded, willful, firm, persistent, resolute)
Ask to see a sample of your child's work. Ask the teacher questions such as: Is this piece of work satisfactory? How could it be better? Is my child on track? How can I help my child improve or excel in this area? If my child needs extra support or wants to learn more about a subject, are there resources to help his or her learning outside the classroom?


## PARENT TIPS Planning for College and Career

At the beginning of high school, sit down with your child's teachers, counselor, or other advisor to discuss what it will take for your child to graduate, your child's goals, and his or her plans after high school. Greate a plan together to help your child reach these goals, and review it every year to make sure he or she is on track.

This plan should include:

- An appropriate course sequence to meet your child's goals. For example, if your child wants to study biosciences in college, he or she will likely need additional or advanced math and science courses in high school to be prepared for college-level coursework.
- The most appropriate extracurricular activities for your child to participate in. For example, if your child is interested in journalism or photography, encourage him or her to sign up for the school newspaper or yearbook. These activities will help your child expand his or her learning outside of school and may help foster new hobbies or interests.

Ways you can help your child prepare for college or career. For example, if your child is interested in a particular field, look to see if internships exist to build his or her work experience in that subject area. Look for college fairs to attend, and encourage your child to visit colleges he or she might be interested in.

- Finding ways to pay for college or advanced training. College can be expensive, but there are lots of ways to get financial help, such as scholarships, grants, work study programs, and student loans. You just need to make the time for you and your child to do the research. You can start by helping your child fill out the FAFSA (Free Application for Federal Student Aid) during his or her senior year. Visit www.fafsa.ed.gov for help and more information on FAFSA and financial aid.


## For more information, the full standards are available at www.corestandards.org.

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# PARENTS' GUIDE TO <br> Student Success 

This guide provides an overview of what your child will HIGH SCHOOL MATH learn during high school in mathematics. It focuses on the key skills your child will learn in math, which will build a strong foundation for success in many of the other subjects he or she studies throughout high school. This guide is based on the new Common Core State Standards, which have been adopted by more than 40 states. These K - $\mathbf{1 2}$ standards are informed by the highest state standards from across the country. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for success after graduation.

## WHY ARE ACADEMIC STANDARDS IMPORTANT?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. They help set clear and consistent expectations for students, parents, and teachers; build your child's knowledge and skills; and help set high goals for all students.

Of course, high standards are not the only thing needed for our children's success. But standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. Standards help parents and teachers know when students need extra assistance or when they need to be challenged even more. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## HOW CAN I HELP MY CHILD?

You should use this guide to help build a relationship with your child's teacher. You can do this by talking to his or her teacher regularly about how your child is doing - beyond parent-teacher conferences.

At home, you can play an important role in setting high expectations and supporting your child in meeting them. If your child needs a little extra help or wants to learn more about a subject, work with his or her teacher to identify opportunities for tutoring, to get involved in clubs after school, or to find other resources.

## THIS GUIDE INCLUDES

- An overview of some of the key things your child will learn in math in high school
- Topics of discussion for talking to your child's teacher about his or her academic progress
- Tips to help your child plan for college and career


## Mathematics

To prepare for college and career, your child will study mathematics across a broad spectrum, from pure mathematics to real-world applications. Numerical skill and quantitative reasoning remain crucial even as students move forward with algebra. Algebra, functions, and geometry are important not only as mathematical subjects in themselves but also because they are the language of technical subjects and the sciences. And in a data-rich world, statistics and probability offer powerful ways of drawing conclusions from data and dealing with uncertainty. The high school standards also emphasize using mathematics creatively to analyze real-world situations - an activity sometimes called "mathematical modeling."

The high school standards are organized into six major content areas: Number and Quantity; Algebra; Functions; Modeling; Geometry; and Statistics and Probability.

## A Sample of the Work Your Child Will Be Doing To Become Ready for College and Career

## NUMBER AND QUANTITY

- Working with rational and irrational numbers, including working with rational exponents (e.g., rewriting $\left(5^{3}\right)^{1 / 2}$ as $5 \sqrt{5}$ )
- Solving problems with a wide range of units and solving problems by thinking about units (e.g., "The Trans Alaska Pipeline System is 800 miles long and cost $\$ 8$ billion to build. Divide one of these numbers by the other. What is the meaning of the answer?"; "Greenland has a population of 56,700 and a land area of $2,175,600$ square kilometers. By what factor is the population density of the United States, 80 persons per square mile, larger than the population density of Greenland?")


## ALGEBRA

- Solving real-world and mathematical problems by writing and solving nonlinear equations, such as quadratic equations ( $a x^{2}+b x+c=0$ )
- Interpreting algebraic expressions and transforming them purposefully to solve problems (e.g., in solving a problem about a loan with interest rate $r$ and principal $P$, seeing the expression $P(1+r)^{n}$ as a product of $P$ with a factor not depending on $P$ )


## FUNCTIONS

- Analyzing functions algebraically and graphically, and working with functions presented in different forms (e.g., given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum)
- Working with function families and understanding their behavior (such as linear, quadratic, and exponential functions)


## MODELING

- Analyzing real-world situations using mathematics to understand the situation better and optimize, troubleshoot, or make an informed decision (e.g., estimating water and food needs in a disaster area, or using volume formulas and graphs to find an optimal size for an industrial package)


## GEOMETRY

- Proving theorems about triangles and other figures (e.g., that the angles in a triangle add to $180^{\circ}$ )
- Solving applied problems involving trigonometry of right triangles
- Using coordinates and equations to describe geometric properties algebraically (e.g., writing the equation for a circle in the plane with specified center and radius)


## STATISTICS AND PROBABILITY

- Making inferences and justifying conclusions from sample surveys, experiments, and observational studies
- Working with probability and using ideas from probability in everyday situations (e.g., comparing the chance that a person who smokes will develop lung cancer to the chance that a person who develops lung cancer smokes)


## Keeping the conversation focused.

When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In high school, these include:

Does my child have a strong grounding in arithmetic, including operations on fractions, decimals, and negative numbers?

- Does my child take a thinking approach to algebra and work with algebraic symbols fluently?
- Is my child comfortable using coordinates in algebra and geometry?

Can my child break a complex problem down into parts and apply the math he or she knows to problems outside of mathematics?

Does my child use terms precisely and make logical arguments?

- Does my child have the knowledge to learn advanced mathematics after high school if he or she so chooses?

Ask to see a sample of your child's work. Ask the teacher questions such as: Is this piece of work satisfactory? How could it be better? Is my child on track? How can I help my child improve or excel in this area? If my child needs extra support or wants to learn more about a subject, are there resources to help his or her learning outside the classroom?

## PARENT TIPS Planning for College and Career

At the beginning of high school, sit down with your child's teachers, counselor, or other advisor to discuss what it will take for your child to graduate, your child's goals, and his or her plans after high school. Create a plan together to help your child reach these goals, and review it every year to make sure he or she is on track.

This plan should include:

- An appropriate course sequence to meet your child's goals. For example, if your child wants to study biosciences in college, he or she will likely need additional or advanced math and science courses in high school to be prepared for college-level coursework.
- The most appropriate extracurricular activities for your child to participate in. For example, if your child is interested in journalism or photography, encourage him or her to sign up for the school newspaper or yearbook. These activities will help your child expand his or her learning outside of school and may help foster new hobbies or interests.

Ways you can help your child prepare for college or career. For example, if your child is interested in a particular field, look to see if internships exist to build his or her work experience in that subject area. Look for college fairs to attend, and encourage your child to visit colleges he or she might be interested in.

Finding ways to pay for college or advanced training. College can be expensive, but there are lots of ways to get financial help, such as scholarships, grants, work study programs, and student loans. You just need to make the time for you and your child to do the research. You can start by helping your child fill out the FAFSA (Free Application for Federal Student Aid) during his or her senior year of high school. Visit www.fafsa.ed.gov for help and more information on FAFSA and financial aid.

For more information, the full standards are available at www.corestandards.org.

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## THIS GUIDE INCLUDES

- An overview of some of the key things your child will learn in English/Literacy and Math in Kindergarten through High School
- Ideas for activities to help your child learn at home
- Topics of discussion for talking to your child's teacher about his or her academic progress


## Parents' Guide to Student Success

This guide provides an overview of what your child will learn by the end of kindergarten in mathematics and English language arts/literacy. This guide is based on the new Common Core State Standards, which have been adopted by more than 45 states. If your child is meeting the

## KINDERGARTEN

 expectations outlined in these standards, he or she will be well prepared for 1st grade.
## Why Are Academic Standards Important?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. Standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## English Language Arts \& Literacy

## A Sample of What Your Child Will Be Working on in Kindergarten

- Naming upper-and lower-case letters, matching those letters with their sounds, and printing them
- Comparing the adventures and experiences of characters in familiar stories, such as fairy tales and folktales
- Retelling familiar stories and talking about stories read to them using details from the text
- Using a combination of drawing, dictating, and writing to describe an event, including his or her reaction to what happened
- Stating an opinion or preference about a topic or book in writing (e.g., My favorite book is . . .)
- Taking part in classroom conversations and following rules for discussions (e.g., learning to listen to others and taking turns when speaking)
- Speaking clearly to express thoughts, feelings, and ideas, including descriptions of familiar people, places, things, and events
- Asking and answering questions about key details in stories or other information read aloud
- Understanding and using question words (e.g., who, what, where, when, why, how) in discussions
- Learning to recognize, spell, and properly use those little grammatical words that hold the language together (e.g., $a$, the, to, of, from, l, is, are)



## Mathematics

## A Sample of What Your Child Will Be Working on in Kindergarten

- Counting objects to tell how many there are
- Comparing two groups of objects to tell which group, if either, has more; comparing two written numbers to tell which is greater
- Acting out addition and subtraction word problems and drawing diagrams to represent them
- Adding with a sum of 10 or less; subtracting from a number 10 or less; and solving addition and subtraction word problems
- Adding and subtracting very small numbers quickly and accurately (e.g., $3+1$ )
- Correctly naming shapes regardless of orientation or size (e.g., a square oriented as a "diamond" is still a square)



## Help Your Child Learn at Home

Try to create a quiet place for your child to study, and carve out time every day when your child can concentrate. You should also try to sit down with your child at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your child is working on, and it will help you be the first to know if your child needs help with specific topics. Additionally, here are some activities you can do with your child to support learning at home:

## English Language Arts \& Literacy

- Read with your child every day. Ask your child to explain his or her favorite parts of the story. Share your own ideas. To find more books for your child to read, visit www.corestandards.org/ assets/Appendix_B.pdf
- Encourage your child to tell you about his or her day at school
- Have your child describe the picture to you


## Mathematics

- Ask your child questions that require counting as many as 20 things. For example, ask, "Do many children have more than 20 books about wild animals?"
- Ask your child questions that require comparing numbers. "Who is wearing more bracelets, you or your sister?" (Your child might use matching or counting to find the answer)


## Parents' Guide to Student Success

This guide provides an overview of what your child will learn by the end of 1 st grade in mathematics and English language arts/literacy.

## 1ST GRADE

 This guide is based on the new Common Core State Standards, which have been adopted by more than 45 states. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for 2nd grade.
## Why Are Academic Standards Important?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. Standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## English Language Arts \& Literacy

## A Sample of What Your Child Will Be Working on in 1st Grade

- Using phonics (matching letters and sounds) and word analysis skills to figure out unfamiliar words when reading and writing
- Getting facts and information from different writings
- Writing about a topic, supplying some facts, and providing some sense of opening and closing
- Taking part in conversations about topics and texts being studied by responding to the comments of others and asking questions to clear up any confusion
- Producing and expanding complete simple and compound statements, questions, commands, and exclamations
- Identifying the correct meaning for a word with multiple meanings, based on the sentence or paragraph in which the word is used (e.g., deciding whether the word bat means a flying mammal or a club used in baseball)
- Learning to think about finer distinctions in the meanings of near-synonyms (e.g., marching, prancing, strutting, strolling, walking)



## Mathematics

## A Sample of What Your Child Will Be Working on in 1st Grade

- Solving addition and subtraction word problems in situations of adding to, taking from, putting together, taking apart, and comparing (e.g., a taking from situation would be: "Five apples were on the table. I ate some apples. Then there were three apples. How many apples did I eat?")
- Quickly and accurately adding with a sum of 10 or less, and quickly and accurately subtracting from a number 10 or less (e.g., $2+5,7-5$ )
- Understanding what the digits mean in two-digit numbers (place value)
- Using understanding of place value to add and subtract (e.g., $38+5,29+20,64+27,80-50$ )
- Measuring lengths of objects by using a shorter object as a unit of length
- Making composite shapes by joining shapes together, and dividing circles and rectangles into halves or fourths



## Help Your Child Learn at Home

Try to create a quiet place for your child to study, and carve out time every day when your child can concentrate. You should also try to sit down with your child at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your child is working on, and it will help you be the first to know if your child needs help with specific topics. Additionally, here are some activities you can do with your child to support learning at home:

## English Language Arts \& Literacy

- Encourage your child to read to you books such as Little Bear by Else Holmelund Minarik. Help him or her sound out difficult words. To find more books for your child to read, visit www. corestandards.org/assets/Appendix_B.pdf
- Pick a "word of the day" each day starting with a different letter
- Have your child write the word and look for other things beginning with the same letter


## Mathematics

Look for "word problems" in real life. Some 1st grade examples might include:

- If you open a new carton of a dozen eggs, and you use four eggs to cook dinner, close the carton and ask your child how many eggs are left
- Play the "I'm thinking of a number" game. For example, "I'm thinking of a number that makes 11 when added to 8 . What is my number?"


## Parents' Guide to Student Success

This guide provides an overview of what your child will learn by the end of 2nd grade in mathematics and English language arts/literacy. If your

## 2ND GRADE

 child is meeting the expectations outlined in these standards, he or she will be well prepared for 3rd grade.
## Why Are Academic Standards Important?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. Standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## English Language Arts \& Literacy

## A Sample of What Your Child Will Be Working on in 2nd Grade

- Paying close attention to details, including illustrations and graphics, in stories and books to answer who, what, where, when, why, and how questions
- Determining the lesson or moral of stories, fables, and folktales
- Using text features (e.g., captions, bold print, indexes) to locate key facts or information efficiently
- Writing an opinion about a book he or she has read, using important details from the materials to support that opinion
- Writing stories that include a short sequence of events and include a clear beginning, middle, and end
- Taking part in conversations by linking his or her comments to the remarks of others and asking and answering questions to gather additional information or deepen understanding of the topic
- Retelling key information or ideas from media or books read aloud
- Producing, expanding, and rearranging sentences (e.g., "The boy watched the movie"; "The little boy watched the movie"; "The action movie was watched by the little boy")
- Determining the meaning of the new word formed when a known prefix or suffix is added to a known word (happy/unhappy; pain/painful/painless)



## Mathematics

## A Sample of What Your Child Will Be Working on in 2nd Grade

- Solving challenging addition and subtraction word problems with one or two steps (e.g., a "one-step" problem would be: "Lucy has 23 fewer apples than Julie. Julie has 47 apples. How many apples does Lucy have?")
- Quickly and accurately adding with a sum of 20 or less (e.g., $11+8$ ); quickly and accurately subtracting from a number 20 or less (e.g., $16-9$ ); and knowing all sums of one-digit numbers from memory by the end of the year
- Understanding what the digits mean in three-digit numbers (place value)
- Using understanding of place value to add and subtract threedigit numbers (e.g., 811 - 367); adding and subtracting two-digit numbers quickly and accurately (e.g., 77-28)
- Solving addition and subtraction word problems involving length (e.g., "The pen is 2 cm longer than the pencil. If the pencil is 7 cm long, how long is the pen?")
- Building, drawing, and analyzing 2-D and 3-D shapes to develop foundations for area, volume, and geometry in later grades



## Help Your Child Learn at Home

Try to create a quiet place for your child to study, and carve out time every day when your child can concentrate. You should also try to sit down with your child at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your child is working on, and it will help you be the first to know if your child needs help with specific topics. Additionally, here are some activities you can do with your child to support learning at home:

## English Language Arts \& Literacy

- Read at home every day and assist your child by reading every other paragraph. To find recommendations of books for your child to read, visit www.corestandards.org/assets/ Appendix_B.pdf
- Have your child write a thank you note or letter to family members or friends


## Mathematics

Look for "word problems" in real life. Some 2nd grade examples might include:

- When saving for a purchase, compare the cost of the item to the amount of money you have; then ask your child to determine how much more money he or she needs to buy the item
- Play "draw the shape." For example, ask your child to draw a hexagon with one side longer than the others, or ask him or her to shade in a quarter of a rectangle.


## Parents' Guide to Student Success

This guide provides an overview of what your child will learn by the end of 3rd grade in mathematics and English language arts/literacy. If your

## 3RD GRADE

 child is meeting the expectations outlined in these standards, he or she will be well prepared for 4th grade.
## Why Are Academic Standards Important?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. Standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## English Language Arts \& Literacy

## A Sample of What Your Child Will Be Working on in 3rd Grade

- Reading closely to find main ideas and supporting details in a story
- Describing the logical connection between particular sentences and paragraphs in stories (e.g., first, second, third; cause and effect)
- Comparing the most important points and key details presented in two books on the same topic
- Writing opinions or explanations that group related information and develop topics with facts and details
- Writing stories that establish a situation and include details and clear sequences of events that describe the actions, thoughts, and feelings of characters
- Independently conducting short research projects that build knowledge about various topics
- Asking and answering questions about information he or she hears from a speaker or while participating in classroom discussions, offering appropriate elaboration and detail that build on what others have said
- Reading stories and poems aloud fluently, without pausing to figure out what each word means
- Distinguishing the literal and nonliteral meanings of words, such as something's fishy and cold shoulder
- Spelling correctly and consulting dictionaries to clarify meanings of words


When you talk to the teacher, do not worry about covering everything. Instead, keep the conversation focused on the most important topics. In 3rd grade, these include:

- Reading grade-level books, stories, poems, and articles fluently
- Writing and speaking well, following rules of punctuation and grammar
- Reading grade-level books and stories with understanding and fluency
- Building a foundation of knowledge through reading and listening to books in history/social studies, science, and other subjects


## Mathematics

## A Sample of What Your Child Will Be Working on in 3rd Grade

- Multiplying and dividing up to $10 \times 10$ quickly and accurately, including knowing the times tables from memory
- Solving word problems using addition, subtraction, multiplication, and division
- Beginning to multiply numbers with more than one digit (e.g., multiplying $9 \times 80$ )
- Understanding fractions and relating them to the familiar system of whole numbers (e.g., recognizing that $3 / 1$ and 3 are the same number)
- Measuring and estimating weights and liquid volumes, and solving word problems involving these quantities
- Reasoning about shapes (e.g., all squares are rectangles but not all rectangles are squares)
- Finding areas of shapes, and relating area to multiplication (e.g., why is the number of square feet for a 9 -foot by 7 -foot room given by the product $9 \times 7$ ?)



## Help Your Child Learn at Home

Try to create a quiet place for your child to study, and carve out time every day when your child can concentrate. You should also try to sit down with your child at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your child is working on, and it will help you be the first to know if your child needs help with specific topics. Additionally, here are some activities you can do with your child to support learning at home:

## English Language Arts \& Literacy

- Make reading for fun a part of your child's daily routine
- Encourage your child to find a picture from a newspaper or magazine, cut it out, paste it on paper, and write a story about it
- Start a family vocabulary box or jar. Have everyone write down new words they discover, add them to the box, and use the words in conversation


## Mathematics

Look for "word problems" in real life. Some 3rd grade examples might include:

- Notice those everyday occasions when you find yourself using your times tables - such as to determine how many days there are in four weeks. Ask your child for the answer.
- Involve your child when you notice yourself using division to "work backward" in the times tables - such as determining how many candies each child will get if 36 candies are shared equally among nine children at a party


## Parents' Guide to Student Success

This guide provides an overview of what your child will learn by the end of 4th grade in mathematics and English language arts/literacy. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for 5th grade.

## 4TH GRADE

## Why Are Academic Standards Important?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. Standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## English Language Arts \& Literacy

## A Sample of What Your Child Will Be Working on in 4th Grade

- Describing the basic elements of stories — such as characters, events, and settings - by drawing on specific details in the text
- Paying close attention to key features of informational books and articles: these include understanding the main and supporting ideas; being able to compare and contrast information; and explaining how the author uses facts, details, and evidence to support particular points
- Comparing ideas, characters, events, and settings in stories and myths from different cultures
- Writing summaries or opinions about topics supported with a set of well-organized facts, details, and examples
- Independently conducting short research projects on different aspects of a topic using evidence from books and the Internet
- Paraphrasing and responding to information presented in discussions, such as comparing and contrasting ideas and analyzing evidence that speakers use to support particular points
- Reporting orally on a topic or telling a story with enough facts and details
- Writing complete sentences with correct capitalization and spelling
- Relating words that are common in reading to words with similar meanings (synonyms) and to their opposites (antonyms)



## Mathematics

## A Sample of What Your Child Will Be Working on in 4th Grade

- Using whole-number arithmetic to solve word problems, including problems with remainders and problems with measurements
- Adding and subtracting whole numbers quickly and accurately (numbers up to 1 million)
- Multiplying and dividing multi-digit numbers in simple cases (e.g., multiplying $1,638 \times 7$ or $24 \times 17$, and dividing 6,966 by 6 )
- Understanding and applying equivalent fractions (e.g., recognizing that $1 / 4$ is less than 38 because 28 is less than 38 )
- Adding, subtracting, and multiplying fractions in simple cases (such as $23 / 4-11 / 4$ or $3 \times 5 / 8$ ), and solving related word problems
- Understanding simple decimals in terms of fractions (e.g., rewriting 0.62 as $62 / 100$ )
- Measuring angles and finding unknown angles in a diagram



## Help Your Child Learn at Home

Try to create a quiet place for your child to study, and carve out time every day when your child can concentrate. You should also try to sit down with your child at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your child is working on, and it will help you be the first to know if your child needs help with specific topics. Additionally, here are some activities you can do with your child to support learning at home:

## English Language Arts \& Literacy

- Urge your child to use logical arguments to defend his or her opinion. If your child wants a raise in allowance, ask him or her to research commonsense allowance systems and, based on that research, explain reasons why, supported by facts and details
- Talk about the news together. Pick one story in the news, read it together, and discuss with your child what it means


## Mathematics

- Ask your child to compare numbers using phrases like "times as much." For example, if the family cat weighs 8 lbs . and the family dog weighs 56 lbs ., how many times as much does the dog weigh?
- Ask your child to help you compare fractional amounts - for example, if one recipe calls for $2 \beta$ of a cup of oil, but another recipe calls for $3 / 4$ of a cup of oil, which recipe calls for more oil? (In 5th grade, your child will learn ways to determine just how much more oil)


## Parents' Guide to Student Success

This guide provides an overview of what your child will learn by the end of 5th grade in mathematics and English language arts/literacy. If your

## 5TH GRADE

 child is meeting the expectations outlined in these standards, he or she will be well prepared for 6th grade.
## Why Are Academic Standards Important?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. Standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## English Language Arts \& Literacy

## A Sample of What Your Child Will Be Working on in 5th Grade

- Summarizing the key details of stories, dramas, poems, and nonfiction materials, including their themes or main ideas
- Identifying and judging evidence that supports particular ideas in an author's argument to change a reader's point of view
- Integrating information from several print and digital sources to answer questions and solve problems
- Writing opinions that offer reasoned arguments and provide facts and examples that are logically grouped to support the writer's point of view
- Writing stories, real or imaginary, that unfold naturally and developing the plot with dialogue, description, and effective pacing of the action
- Coming to classroom discussions prepared, then engaging fully and thoughtfully with others (e.g., contributing accurate, relevant information; elaborating on the remarks of others; synthesizing ideas)
- Reporting on a topic or presenting an opinion with his or her own words, a logical sequence of ideas, sufficient facts and details, and formal English when appropriate
- Expanding, combining, and reducing sentences to improve meaning, interest, and style of writing
- Building knowledge of academic words with an emphasis on those that signal a contrast in ideas or logical relationships, such as on the other hand, similarly, and therefore
- Producing writing on the computer



## Mathematics

## A Sample of What Your Child Will Be Working on in 5th Grade

- Adding and subtracting fractions with unlike denominators (e.g., 21/4-11/3), and solving word problems of this kind
- Multiplying fractions; dividing fractions in simple cases; and solving related word problems (e.g., finding the area of a rectangle with fractional side lengths; determining how many $1 / 3$-cup servings are in 2 cups of raisins; determining the size of a share if 9 people share a 50 -pound sack of rice equally or if 3 people share $1 / 2$ pound of chocolate equally)
- Generalizing the place-value system to include decimals, and calculating with decimals to the hundredths place (two places after the decimal)
- Multiplying whole numbers quickly and accurately, for example $1,638 \times 753$, and dividing whole numbers in simple cases, such as dividing 6,971 by 63
- Understanding the concept of volume, and solving word problems that involve volume
- Graphing points in the coordinate plane (two dimensions) to solve problems
- Analyzing mathematical patterns and relationships



## Help Your Child Learn at Home

Try to create a quiet place for your child to study, and carve out time every day when your child can concentrate. You should also try to sit down with your child at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your child is working on, and it will help you be the first to know if your child needs help with specific topics. Additionally, here are some activities you can do with your child to support learning at home:

## English Language Arts \& Literacy

- Invite your child to read his or her writing out loud to other family members. Ask questions about your child's word choices and ideas
- Go to a play or musical with your child. Discuss the way the actors bring the words to life
- Discuss your family stories and history. Encourage your child to ask relatives questions about their lives. Put the information together in an album or brainstorm different ways to tell family tales, such as poems or short stories


## Mathematics

Look for "word problems" in real life. Some 5th grade examples might include:

- Doing arithmetic with decimals, for example when balancing a checkbook
- Multiplying with fractions - for example, if you used about $2 / 3$ of a 3/4-cup measure of vegetable stock, then how much stock did you use? About how much is left?
- Using the length, width, and depth of a garden plot to determine how many bags of garden soil to buy

For more information, the full standards are available at www.corestandards.org

## Parents' Guide to Student Surcess

This guide provides an overview of what your child will learn by the end of 6th grade in mathematics and English language arts/literacy. If your

## 6TH GRADE

 child is meeting the expectations outlined in these standards, he or she will be well prepared for 7th grade.
## Why Are Academic Standards Important?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. Standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## English Language Arts \& Literacy

## A Sample of What Your Child Will Be Working on in 6th Grade

- Gaining knowledge from materials that make extensive use of elaborate diagrams and data to convey information and illustrate concepts
- Evaluating the argument and specific claims in written materials or a speech, and distinguishing claims that are supported by reasons and evidence from claims that are not
- Presenting claims and findings to others orally, sequencing ideas logically, and accentuating main ideas or themes
- Writing brief reports that examine a topic, have a clear focus, and include relevant facts, details, and quotations
- Conducting short research projects to answer a question, drawing on several sources and sharpening the focus based on the research findings
- Reviewing and paraphrasing key ideas and multiple perspectives of a speaker
- Determining the correct meaning of a word based on the context in which it is used (e.g., the rest of the sentence or paragraph; a word's position or function in a sentence)



## Mathematics

## A Sample of What Your Child Will Be Working on in 6th Grade

- Understanding ratios and rates, and solving problems involving proportional relationships (e.g., if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours?)
- Dividing fractions and solving related word problems (e.g., how wide is a rectangular strip of land with length $3 / 4$ mile and area $1 / 2$ square mile?)
- Using positive and negative numbers together to describe quantities; understanding the ordering and absolute values of positive and negative numbers
- Working with variables and expressions by generalizing the way numbers work (e.g., when adding numbers, the order doesn't matter, so $x+y=y+x$; likewise, properties of addition and multiplication can be used to rewrite $24 x+18 y$ as $6(4 x+3 y)$, or $y+y+y$ as $3 y)$
- Writing equations to solve word problems and describe relationships between quantities (e.g., the distance $D$ traveled by a train in time $T$ might be expressed by an equation $D=85 T$, where $D$ is in miles and $T$ is in hours)
- Reasoning about relationships between shapes to determine area, surface area, and volume



## Help Your Child Learn at Home

Try to create a quiet place for your child to study, and carve out time every day when your child can concentrate. You should also try to sit down with your child at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your child is working on, and it will help you be the first to know if your child needs help with specific topics. Additionally, here are some activities you can do with your child to support learning at home:

## English Language Arts \& Literacy

- Listen with your child to a television reporter, politician, or other speaker. Ask your child to tell you the speaker's main points. Was the speaker trying to convince the audience of something? How?
- Encourage your child to learn at the library or on the Internet what life in your community was like 100 years ago. Have your child write a story, poem, or play about that time


## Mathematics

Look for "word problems" in real life. Some 6th grade examples might include:

- Determining the average speed of a family trip, based on the distance traveled and the time taken; or estimating the time that a trip will take, given the distance and an estimate of the average speed
- Finding the surface area of the walls and ceiling in a room to determine the cost of painting the room


## Parents' Guide to Student Success

This guide provides an overview of what your child will learn by the end of 7th grade in mathematics and English language arts/literacy. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for 8th grade.

7TH GRADE

## Why Are Academic Standards Important?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce.

Standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## English Language Arts \& Literacy

## A Sample of What Your Child Will Be Working on in 7th Grade

- Citing several sources of specific evidence from a piece when offering an oral or written analysis of a book, essay, article, or play
- Organizing and focusing his or her own writing, including supporting statements and conclusions with evidence and showing that the evidence is accurate and reliable
- Conducting research in response to a specific question by drawing on evidence from several credible literary or informational sources to support an analysis or reflection
- Avoiding plagiarism and following a standard format for citations (e.g., footnotes, bibliography)
- Evaluating a speaker's key points and reasoning, asking questions, and stating his or her own well-supported ideas in discussions
- Presenting claims and findings to others emphasizing main points, making eye contact, speaking loudly enough, pronouncing words clearly, and using formal English when the situation calls for it
- Using common, grade-appropriate Greek or Latin affixes and roots as clues to defining the meaning of a word (e.g., semi-, semiannual, semicircle)



## Mathematics

## A Sample of What Your Child Will Be Working on in 7th Grade

- Analyzing proportional relationships (e.g., by graphing in the coordinate plane), and distinguishing proportional relationships from other kinds of mathematical relationships (e.g., buying 10 times as many items will cost you 10 times as much, but taking 10 times as many aspirin will not lower your fever 10 times as much)
- Solving percent problems (e.g., tax, tips, and markups and markdowns)
- Solving word problems that have a combination of whole numbers, fractions, and decimals (e.g., a woman making \$25
per hour receives a 10\% raise; she will make an additional ${ }^{1 / 10}$ of his or her salary an hour, or $\$ 2.50$, for a new salary of $\$ 27.50$ )
- Solving equations such as $1 / 2(x-3)=3 / 4$ quickly and accurately, and writing equations of this kind to solve word problems
- Solving problems involving scale drawings
- Using statistics to draw inferences and make comparisons (e.g., deciding which candidate is likely to win an election based on a survey)



## Help Your Child Learn at Home

Try to create a quiet place for your child to study, and carve out time every day when your child can concentrate. You should also try to sit down with your child at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your child is working on, and it will help you be the first to know if your child needs help with specific topics. Additionally, here are some activities you can do with your child to support learning at home:

## English Language Arts \& Literacy

- Visit a local art museum together. Take time to closely observe the details of the paintings or other art objects and talk about what you see there
- Ask your child who his or her favorite authors are. Why does your child like their books? What ideas does the author write about? Who are his or her favorite characters? Why? To find recommendations of books for your child to read, visit www.corestandards.org/assets/Appendix_B.pdf


## Mathematics

Look for "word problems" in real life. Some 7th grade examples might include:

- Figuring the amount of a $15 \%$ tip or determining what percentage of weekly income goes to pay taxes
- For a long-term project, help your child choose a stock and follow its value on the stock market using the newspaper or the Internet. Have your child calculate the stock's percent increase or decrease each month


## Parents' Guide to Student Success

This guide provides an overview of what your child will learn by the end of 8th grade in mathematics and English language arts/literacy. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for high school.

## 8TH GRADE

## Why Are Academic Standards Important?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. Standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## English Language Arts \& Literacy

## A Sample of What Your Child Will Be Working on in 8th Grade

- Citing the evidence that most strongly supports an analysis of what is explicitly stated and/or implied from a book, article, poem, or play
- Analyzing where materials on the same topic disagree on matters of fact, interpretation, or point of view
- Building writing around strong central ideas or points of view; supporting the ideas with sound reasoning and evidence, precise word choices, smooth transitions, and different sentence structures
- Planning and conducting research projects that include several steps and use many credible and documented print and digital sources
- Analyzing the purpose of information presented in diverse media (e.g., print, TV, web) and evaluating its social, political, or commercial motives
- Presenting findings and claims to others, emphasizing key points with relevant evidence and sound reasoning, adapting speech to the audience and the formality of the setting, and responding to questions and comments with relevant observations and ideas
- Using strong, active verbs to create a clear picture for the reader (e.g., walk, skip, meander, lurch, limp)
- Interpreting figures of speech (e.g., irony, puns) and developing a large vocabulary of general academic words and phrases



## Mathematics

## A Sample of What Your Child Will Be Working on in 8th Grade

- Understanding slope, and relating linear equations in two variables to lines in the coordinate plane
- Solving linear equations (e.g., $-x+5(x+1 / 3)=2 x-8$ ); solving pairs of linear equations (e.g., $x+6 y=-1$ and $2 x-2 y=12$ ); and writing equations to solve related word problems
- Understanding functions as rules that assign a unique output number to each input number; using linear functions to model relationships
- Analyzing statistical relationships by using a best-fit line (a straight line that models an association between two quantities)
- Working with positive and negative exponents, square root and cube root symbols, and scientific notation (e.g., evaluating Ö36 +64 ; estimating world population as $7 \times 10^{9}$ )
- Understanding congruence and similarity using physical models, transparencies, or geometry software (e.g., given two congruent figures, show how to obtain one from the other by a sequence of rotations, translations, and/or reflections)



## Help Your Child Learn at Home

Try to create a quiet place for your child to study, and carve out time every day when your child can concentrate. You should also try to sit down with your child at least once a week for 15 to 30 minutes while he or she works on homework. This will keep you informed about what your child is working on, and it will help you be the first to know if your child needs help with specific topics. Additionally, here are some activities you can do with your child to support learning at home:

## English Language Arts \& Literacy

- Make time in everyone's busy schedule for family discussions about things going on around the world. Weekends can be a chance for everyone to catch up
- Visit the campus of a local college with your teen. Begin talking about college early. What does he or she expect from college? What high school courses will your child need to pass to prepare for college?


## Mathematics

Ask your child to share with you any work he or she is doing in math class that strikes him or her as interesting. Some possibilities might include:

- Solving interesting problems involving cylinders and spheres, such as figuring out how much water fits inside a garden hose, or how many earths would fit inside the sun
- Analyzing data with a scatterplot, for example to decide whether exercise and obesity are related


## Parents' Guide to Student Success

This guide provides an overview of what your child will learn during high school in English language arts. This guide is based on the new Common Core State Standards, which have been adopted by more than

HIGH SCHOOL ENGLISH 45 states. If your child is meeting the expectations outlined in these standards, he or she will be well prepared for success after graduation.

## Why Are Academic Standards Important?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. Standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## English Language Arts \& Literacy

To become ready for college and career, high school students learn to evaluate intricate arguments and surmount the challenges posed by complex written materials independently and confidently. Through wide and deep reading of literature and literary nonfiction of steadily increasing sophistication, students expand their literary and cultural knowledge and better understand references and images. They also develop the flexibility, concentration, and fluency to produce high-quality, first drafts of writing under
tight deadlines. And they are able to revisit and make improvements to a piece of writing over multiple drafts if needed. They master the essential "rules" of standard written and spoken English and resolve usage issues by consulting style and usage guides. By writing and participating in a variety of conversations, they assert and defend claims and show what they know about a subject using appropriate examples and evidence.

## An Overview of the Work Your Child Will Be Doing in High School to Become Ready for College and Career

## Reading

- Understanding more from and making fuller use of written materials, including using a wider range of evidence to support an analysis
- Making more connections about how complex ideas interact and develop within a book, essay, or article
- Evaluating arguments and specific claims, assessing whether the reasoning is valid and the evidence is sufficient, and as appropriate, detecting inconsistencies and ambiguities
- Analyzing the meaning of foundational U.S. documents (the Declaration of Independence, the Preamble to the Constitution, the Bill of Rights)


## Writing

- Making an argument that is logical, well-reasoned, and supported by evidence
- Writing a literary analysis, report, or summary that develops a central idea and a coherent focus and is well supported with relevant examples, facts, and details
- Conducting several research projects that address different aspects of the same topic, using more complex books, articles, and other sources


## Speaking and Listening

- Responding thoughtfully to diverse perspectives; synthesizing comments, claims, and evidence made on all sides of an issue; and resolving contradictions when possible
- Sharing research, findings, and evidence clearly and concisely
- Making strategic use of digital media (e.g., animations, video, websites, podcasts) to enhance understanding of findings and to add interest


## Language

- Determining or clarifying the meaning of words and phrases, choosing flexibly from multiple strategies, such as using context, Greek and Latin roots (e.g., bene as in benefactor or benevolent), patterns of words (conceive, conception, conceivable), and consulting specialized reference materials.
- Interpreting figures of speech (e.g., hyperbole, paradox) in context and analyzing their role in the written materials



## Parent Tips: Planning for College and Career

At the beginning of high school, sit down with your child's teachers, counselor or other advisor to discuss what it will take for your child to graduate, your child's goals, and his/her plans after high school. Create a plan together to help your child reach these goals. This plan should include:

- An appropriate course sequence to meet your child's goals
- The most appropriate extracurricular activities for your child
- Your plan to help your child prepare for college or career. For example, if your child is interested in a particular field, look to see if internships exist to build his/her work experience in that subject area
- Finding ways to pay for college or advanced training


## Parents' Guide to Student Success

This guide provides an overview of what your child will learn during high school in mathematics. This guide is based on the new Common Core State Standards, which have been adopted by more than 45 states.

HIGH SCHOOL MATH If your child is meeting the expectations outlined in these standards, he or she will be well prepared for success after graduation.

## Why Are Academic Standards Important?

Academic standards are important because they help ensure that all students, no matter where they live, are prepared for success in college and the workforce. Standards provide an important first step - a clear roadmap for learning for teachers, parents, and students. Having clearly defined goals helps families and teachers work together to ensure that students succeed. They also will help your child develop critical thinking skills that will prepare him or her for college and career.

## Mathematics

Numerical skill and quantitative reasoning remain crucial even as students move forward with algebra. Algebra, functions, and geometry are important not only as mathematical subjects in themselves but also because they are the language of technical subjects and the sciences. And in a data-rich world, statistics and probability offer powerful ways of drawing conclusions from
data and dealing with uncertainty. The high school standards also emphasize using mathematics creatively to analyze real-world situations - an activity sometimes called "mathematical modeling."

The high school standards are organized into six major content areas: Number and Quantity; Algebra; Functions; Modeling; Geometry; and Statistics and Probability.

## An Overview of the Work Your Child Will Be Doing in High School to Become Ready for College and Career

## Number and Quantity

- Working with rational and irrational numbers, including working with rational exponents (e.g., rewriting $\left(5^{3}\right)^{1 / 2}$ as $5 \sqrt{5}$ )
- Solving problems with a wide range of units and solving problems by thinking about units (e.g., "The Trans Alaska Pipeline System is 800 miles long and cost $\$ 8$ billion to build. Divide one of these numbers by the other. What is the meaning of the answer?"; "Greenland has a population of 56,700 and a land area of $2,175,600$ square kilometers. By what factor is the population density of the United States, 80 persons per square mile, larger than the population density of Greenland?")


## Algebra

- Solving real-world and mathematical problems by writing and solving nonlinear equations, such as quadratic equations ( $a x^{2}+$ $b x+c=0$ )
- Interpreting algebraic expressions and transforming them purposefully to solve problems (e.g., in solving a problem about a loan with interest rate $r$ and principal $P$, seeing the expression $P(1+r)^{n}$ as a product of $P$ with a factor not depending on $P$ )


## Functions

- Analyzing functions algebraically and graphically, and working with functions presented in different forms (e.g., given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum)
- Working with function families and understanding their behavior (such as linear, quadratic, and exponential functions)


## Modeling

- Analyzing real-world situations using mathematics to understand the situation better and optimize, troubleshoot, or make an informed decision (e.g., estimating water and food needs in a disaster area, or using volume formulas and graphs to find an optimal size for an industrial package)


## Geometry

- Proving theorems about triangles and other figures (e.g., that the angles in a triangle add to $180^{\circ}$ )
- Using coordinates and equations to describe geometric properties algebraically (e.g., writing the equation for a circle in the plane with specified center and radius)


## Statistics and Probability

- Making inferences and justifying conclusions from sample surveys, experiments, and observational studies
- Working with probability and using ideas from probability in everyday situations (e.g., comparing the chance that a person who smokes will develop lung cancer to the chance that a person who develops lung cancer smokes)



## Parent Tips: Planning for College and Career

At the beginning of high school, sit down with your child's teachers, counselor or other advisor to discuss what it will take for your child to graduate, your child's goals, and his/her plans after high school. Create a plan together to help your child reach these goals. This plan should include:

- An appropriate course sequence to meet your child's goals
- The most appropriate extracurricular activities for your child
- Your plan to help your child prepare for college or career. For example, if your child is interested in a particular field, look to see if internships exist to build his/her work experience in that subject area


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FAQs and Fact Sheets

PI／F

Using Data to Improve Student Achievement

## What Every Parent Should Be Asking about Education Data

Schools and districts collect a lot of information about students. Empowered parents should demand to get value out of these data. Here are questions you can ask of your school officials to ensure that your child is on track to graduate college and career ready:

## 1. I already have my child's grades and test scores, so what more do I need?

- You may have some information about your child, but this doesn't tell you how your child is doing over time, how they compare to kids in other schools, and if they're going to be ready for college or a job.
- Your child's teacher uses your child's data to understand your child's learning and teach to their needs and strengths. Your child's school uses data to make sure your child is on track to graduate.
- Example: Early warning systems provide information to educators and families about whether students need extra help. Parents and teachers can use this information to help students improve their performance.

Tip: When you meet with your child's teacher for a parent-teacher conference, make sure you child's teacher uses data beyond just test scores to have a productive conversation with you about your child's strengths and weaknesses.
2. Why does the state collect student data? Can't my district just do it?

- States can do things districts can't, like follow children when they move across district lines and connect high school data to college records.
- Also, because states provide services on a larger scale, they can better employ technical expertise and have more purchasing power to adopt better technology and security than most districts.
- Example: When a child moves across district lines, the state can electronically transfer transcripts in real time so that the child doesn't lose instructional time repeating lessons or trying to make up missed material.

Tip: Request information about how your school district compares to others in the state and how children in your district fare in college.
3. As we implement state standards aligned to the Common Core, what can I expect to change with regard to data collection or use?

- Common Core is a set of grade-level expectations and doesn't require states or districts to collect any new data.
- With comparable expectations across states, states will be able to better use the data they have to make comparisons to other states and determine what programs, interventions, and pathways lead to success.
- Example: With comparable expectations, state data is comparable across state lines. Your state can better understand how well third graders in your state are reading compared to third graders in other states-and what those states might be doing better.

Tip: Ask your school's leaders how they plan to use Common Core assessment data to help students.

## What Every Parent Should Be Asking about Data Privacy

Asking the questions on the previous page, families are more ready than ever to use education data to help their kids. However, along with the great benefits of education data come school, district, and state responsibilities to keep your child's data private. Empowered parents can ensure that their child's data are being protected by demanding answers to the following questions:

## 1. How is my child's privacy being protected?

- There are many federal and state laws that protect the privacy of students.
- Data systems use complex security processes and technology to protect student data.
- Example: Oklahoma's HB1989 outlines policies and processes to protect student data.

Tip: Ask for an explanation of your district's privacy and security policies.
2. If my school district or state works with a vendor to keep track of things like attendance, grades, and test scores, will my child's information be secure?

- Districts and states almost always work with a vendor to keep the data they collect safe and make it easy to use.
- Federal and state laws prevent these vendors from using the data in any way the district doesn't want them to.
- These vendors also can't sell the data or let anyone else access it.
- Example: A federal law called FERPA specifies that student records cannot be accessed for purposes not related to education or a health or safety emergency.

Tip: Ask your school and district what oversight is in place to ensure that its data security policies are being followed.
3. Who has access to this data?

- Access to student data is role based, which means that only teachers and other designated local personnel have access to student data.
- FERPA was designed to protect student privacy. And most states have their own privacy laws in addition to FERPA.
- The federal government is forbidden by at least four federal laws from collecting student data. And the federal government can't look at the data about individual students that states collect.
- Example: Section 9531 of the Elementary and Secondary Education Act prohibits the creation of a federal student database.

Tip: Ask for an explanation of your rights as a parent to access your child's data.

## What Are Education Data?

Education data means any type of information (like student attendance, demographics, or success in college and the workforce) that helps parents, educators, and policymakers make informed decisions about education.

For more information on how education data can help parents, educators, and education leaders, please see www.dataqualitycampaign.org.

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As the largest volunteer child advocacy association in the nation, National PTA speaks with a powerful voice on behalf of every child and provides the best tools for parents and communities to help their children become successful students. National PTA volunteers have adopted several position statements and resolutions, beginning in 1981, in support of voluntary, clearer, higher academic standards for all students. You can read our position statements on our website.

Unfortunately, there has been a lot of misinformation circulating about the Common Core State Standards, so National PTA has included a CCSS section on our website to educate parents about the standards. It is important to note that the standards are widely supported from Governors to the business community. National PTA has also compiled a PTA CCSS FAQ document for more information.

It is important to identify the real cause of concern; many parents are finding that their concerns are not actually related to Common Core, but rather, issues surrounding implementation (teacher training, aligning curriculum, etc) and assessments (testing schedule, accountability, privacy). Each state has unique challenges, but it is important not to back away from demanding the highest expectations of our children via the new Common Core State Standards. National PTA stands firm in its position to implement and assess properly. The road will be bumpy, but we cannot allow these challenges to undermine this strong bipartisan effort to raise the bar for our children.

Myth: The Common Core State Standards are not internationally benchmarked, and were not approved by the validation committee. Fact: International benchmarking played a significant role in the creation of the standards. The criteria used for writing the standards and the list of the validation committee are readily available.

Myth: States are not leading the effort. The Federal government is taking over the educational system. Governors were forced to sign on before the standards were written. Fact: The CCSS initiative is indeed led by States, with coordination from the National Governors Association Center for Best Practices (NGA) and the Council of Chief State School Officers (CCSSO). The federal government has not been involved in initiating or developing the CCSS Process. Prior to the standards being written, 48 states voluntarily signed on to help create the standards, and of those, 45 eventually adopted.

Myth: States were coerced into adopting the CCSS with Race to the Top (RTT) and other Federal funding. Fact: States and Districts who applied for Race to the Top funds were not required to adopt CCSS. States and districts who applied for Race to the Top funds were required to adopt college and career ready standards and assess students based on those standards. The rationale behind adopting college and career-ready standards is based on evidence that the United States is not adequately, or consistently, preparing students for either college or career. Two states received Race to the Top grants with standards that were not the Common Core.

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Myth: A federal database is required in the Common Core State Standards. The Federal government is compiling personal data about my child for the purpose of data mining. Fact: Common Core is not a mechanism for federal data collection. Federal law, FERPA , prohibits the reporting of aggregate data that could identify individual students. In addition, the federal government does not have access to the student-level information held in state databases. States have collected student information through state assessments in accordance with state and federal law, and will continue these practices under new assessments. The confusion in this area often surrounds InBloom - a new database option that five states have chosen to store their data. This is, rightly, a state decision, and National PTA strongly supports the privacy of children and families. Common Core does not require data collection.

Myth: Common core is expanding standardized testing. Students will be tested on information they have not learned. Fact: As states implement new college and career-ready standards, they will also transition to new assessments designed to better measure whether our students are on track for college and career readiness. The new tests will replace old state testing-not add to it-and, for the first time, comparable achievement information will be available from state to state. PARCC and Smarter Balance are the two consortia that states are working with for the development of assessments. National PTA is creating state specific assessment and accountability guides so parents will know how their state will be handling assessments. National PTA believes that assessments should be used to help parents and teachers determine the specific academic needs of students and increase opportunities for students as outlined in our Position Statement regarding assessments.

Myth: The Common Core State Standards are a national curriculum that will "dumb down" our kids. Fact: The Common Core State Standards do not dictate the details of academic curriculum; they only provide clear expectations for what each student must know to leave school prepared for college and career. Standards equal the end goal, or the WHAT $\qquad$ Curriculum equals HOW $\qquad$ These terms are not interchangeable.


## Common Core State Standards Initiative

## OVERVIEW

The Common Core State Standards Initiative (CCSSI) is an effort designed to improve educational outcomes for students by developing a set of consistent, voluntary, internationally-benchmarked academic standards in mathematics and English language arts.

Currently, every state has its own standards, which has resulted in varied expectations and levels of academic rigor that are largely dependent on geography. Common core state standards are a first step to leveling the playing field to allow for equal access to an excellent education for all children.

As the nation's largest volunteer child advocacy association with over five million members who are parents, students, and teachers, the National Parent Teacher Association ${ }^{\circledR}$ (PTA ${ }^{\oplus}$ ) is uniquely positioned to be an influential and credible voice in advancing the common core state standards. Since its founding in 1897, PTA has worked toward its vision of making every child's potential a reality. Ensuring high academic expectations for all students, regardless of their zip code, is aligned with PTA's public policy priority of equity and opportunity for every child.

## BACKGROUND

The CCSSI is a joint effort led by the National Governors Association Center for Best Practices and the Council of Chief State School Officers to develop a common core of $\mathrm{K}-12$ standards in English language arts and mathematics. The aim of this state-led initiative is to develop internationally-benchmarked standards that are aligned with college and work expectations.

States will develop and adopt the standards through a collaborative process. First, a group of leading academic experts, including Achieve, ACT, and the College Board, drafted college and career ready standards that detailed expectations for what students should know and be able to do upon high school graduation. The college and career ready standards were released for public comment in early fall 2009. Those standards were used to develop corresponding $\mathrm{K}-12$ standards that set expectations by grade level.

States are being asked to adopt the standards based on their own timeline and context. ${ }^{1}$ States will have a great deal of flexibility when adopting the standards, which are not connected to any federal mandate, highstakes assessment, or national curriculum. Rather, the common core standards establish clear expectations for what all students should know, and allow states to determine the best way for their students to reach these academic goals and achieve college and career success.

## WHY COMMON CORE STANDARDS ARE IMPORTANT TO PARENTS

1) Consistent and clear standards prepare students for college, career, and citizenship.

Currently, each state has its own set of academic standards for students, which has led to wide-ranging expectations of what students should be able to learn and do before they graduate from high school. Several researchers have found that state standards and assessments are neither consistent across states nor aligned to college and workplace demands. ${ }^{2}$ These inconsistencies present a challenge for parents trying to

ensure their children are successful in college and career.

Because current state standards and curriculum are not aligned to college and work expectations, students who are now entering college often begin their postsecondary education unprepared. American college students' need for remedial classes results in them not graduating from college on time and places an increased financial burden on parents and students. The Alliance for Excellent Education estimates that it costs $\$ 1.4$ billion to provide remedial education to students who have recently completed high school, \$283 million goes to the cost of tuition alone. ${ }^{3}$

Common core standards will ensure that all students are held to consistent expectations that will prepare them for college and career.
2) Clear, consistent standards equip parents to understand and support what their children should learn and know.


A recent study by ACT found that only 23 percent of high school graduates were likely to earn at least a "C" or higher in first-year college courses.

Because states' standards are often overly complicated, vague, and inaccessible, parents may lack an understanding of what their children should be learning in school and how they can support learning at home. Current standards in several states are often hundreds of pages long, have complicated codes and descriptions, and lack continuity between grade levels-making them difficult for parents to decipher.

Common core standards provide parents with clear expectations for what their children should be able to know and do when they graduate high school or advance to a particular grade-level, allowing them to engage more fully in the education of their children. Their engagement raises student achievement, improves behavior and attendance, decreases drop-
out rates, and improves the emotional and physical well-being of children. ${ }^{4}$ Common core standards help parents hold their schools accountable for providing high-quality, standards-aligned instruction. Moreover, if parents know and understand the academic material their children are learning at school, they can further support and reinforce learning at home.

Common core standards that are consistent across states allow families that move from one part of the country to another to have the same expectations for what their child will learn in another school. The movement of students between states presents a number of challenges for students, families, and schools. According to a study conducted by the U.S. Government Accountability Office, one out of six children has attended three or more schools by the end of the third grade. ${ }^{5}$

When these students and families enter a new school, they must adjust to new classmates, teachers, and behavioral and academic expectations. In the absence of consistent standards, students in the same grade level in different states are expected to meet objectives of varied difficulty and content. For example, California mathematics standards require fourth graders to identify and determine prime numbers, while Arizona fourth grade mathematics standards do not explicitly require students to learn about prime numbers. ${ }^{6}$ Through no fault of their own, students may be entering a new school academically unprepared, and teachers and parents need to spend additional time and resources helping students catch up.

Common core standards provide consistency for parents and students during transitions and allow parents to continue to support student learning and hold their school accountable, regardless of changes in zip code.
3) Curriculum, assessments, and professional development aligned to clear standards will prepare and support teachers so that they can be effective in the classroom.

| CODE | GRADE 4 BENCHMARKS |
| :--- | :--- |
| 4.1 .1 | Students use the concept of place <br> value to read and write whole numbers <br> up to 999,999 in words, standard, and <br> expanded form. |
| 4.1 .2 | Students compare and order whole <br> numbers. |
| 4.1 .3 | Students use coins and bills <br> to compare the values, make <br> combinations up to \$10.00, and make <br> change from amounts up to \$5.00. |
| 4.1 .4 | Students demonstrate computational <br> fluency with basic facts (add to 20, <br> subtract from 20, multiply by 0-10). |
| 4.1 .5 | Students add and subtract to thousands <br> and multiply hundreds by a single digit. |
| 4.1 .6 | Students explain their choice of problem- <br> solving strategies and justify their <br> results when performing whole number <br> operations in problem-solving situations. |

This is an excerpt from one state's mathematics standards. The full standards are over 70 pages long and contain complicated explanations of each code.

Adopting common standards will help improve teacher effectiveness by providing clear expectations for what students in each grade level need to learn. Currently, the variation in standards across states makes it difficult to prepare new teachers to deliver standards-based instruction and create aligned activities and assessments. Common core standards will allow teachers to more easily determine if a curriculum would adequately prepare students for college and career, and also make it easier for teachers to design assessments that measure student progress in meaningful and accurate ways.

Common core standards will also help states train and support highly effective teachers. Once a critical mass of states adopts the standards, states will have the opportunity to develop collaborative tools, professional development, assessments, and curriculum. For example, states and institutions of higher education
could align teacher preparation and professional development to the common standards so teachers could enter a classroom anywhere in the nation knowing what to teach and how to assess student mastery. Rather than having to adopt a different curriculum for different states, teachers would have access to a curriculum aligned to consistent standards that prepare students for college and the workforce. Moreover, while these standards outline what students need to learn, it would still be up to schools and teachers, using the additional tools provided, to decide how to best help students reach these standards.
4) Internationally-benchmarked standards will guarantee that all our nation's students are able to compete in a globally competitive workforce.

The United States can no Ionger claim widespread educational success. Once the global leader in education, the United States has fallen behind other industrialized nations in both math and science. ${ }^{7}$ Further, out of 100 students who begin 9th grade in U.S. schools, only 19 will graduate from high school, go directly to college, and graduate within six years. ${ }^{8}$
A recent report by the U.S. Department of
Education's National Center for Education
Statistics revealed that the literacy scores of
America's fourth graders rank 11th among
industrialized nations.

It is critical to our nation's future success that our students graduate high school prepared for postsecondary education and the workforce. Holding our students to internationally-benchmarked standards is not only a crucial step in closing our nation's achievement gap, but also an assurance that they will be able to compete in an increasingly global society and workforce.
5) Common core standards ensure that all studentsregardless of income or geography-have the opportunity to engage in equally challenging work


Because standards differ from states to state, students are held to different academic expectations, largely based on geography. Student scores on the National Assessment of Educational Progress (NAEP) indicated that student proficiency is widely divergent from state to state. In a state-by-state comparison of 2005 NAEP 4th grade reading scores, more than half of the states in the nation scored about one grade level below the highest scoring state of Massachusetts. ${ }^{9}$ A recent review of NAEP scores found that the states with the lowest NAEP proficiency rates have at least $20 \%$ of children living in poverty. ${ }^{10,11}$

Over one million students drop out of high school every year, with a disproportional effect on minority students—almost half of Hispanic and African American students are not graduating. ${ }^{12}$

Having consistent standards will also ensure that all students are held to high expectations. Without consistent standards, students-particularly those growing up in low-income communities-are less likely to receive creative, challenging work. The example below illustrates the vastly different expectations for students in high income and low income communities.

The difference in our education system's expectations for these two groups of students demonstrates the need for higher, clearer standards that reflect consistent expectations for all students.

Common core standards are a first step in leveling the playing field to ensure that all students, regardless of geography, are held to the same high expectations and have the opportunity to achieve their fullest potential.

## SAME TOPIC: ODYSSEY SAME GRADE: NINTH SAME STATE: CALIFORNIA DIFFERENT ACADEMIC EXPECTATIONS AND ASSIGNMENTS

## High Income School

By nature, humans compare and contrast all elements of their world. Why? Because in the juxtaposition of two different things, one can learn more about each individual thing as well as something about the universal nature of the things being compared.

For this 2-3 page comparison/contrast paper ask yourself: what larger ideas do you see working in Homer's The Odyssey and "O Brother Where Art Thou?" Do both works treat these issues in the same way? What do the similarities and differences between the works reveal about the underlying nature of the larger idea?

Lower income school
Divide class into 3 groups:
Group 1 designs a brochure titled "Odyssey Cruises." The students listen to the story and write down all the places Odysseus visited in his adventures, and list the cost to travel from place to place.

Group 2 draws pictures of each adventure.
Group 3 takes the names of the characters in the story and gods and goddesses in the story and designs a crossword puzzle.

Source: Russlyn Ali, Education Trust, 2007


## Talking about the Facts of Education Data with Parents

Here are the answers to some questions about education data that are commonly asked by parents and other members of the public.

## QUESTION: Why do states and districts collect education data about students?

ANSWER: States and districts collect data to help students succeed and improve schools.

Teachers use education data to understand their students' needs and strengths and ensure that each child is going to be ready for college or a job. State and district leaders use education data to see how their students compare to students in other schools and whether their high school graduates are well prepared to succeed in college. States also use education data to make comparisons to other states and determine what programs, interventions, and pathways lead to success.

## QUESTION: Is the federal government using Common Core to collect data about individual students?

ANSWER: No. Common Core does NOT require the collection of any data about students; it is simply a set of gradelevel expectations for students.

Further, the federal government is prohibited by law from collecting any personally identifiable data (e.g., name, place and date of birth, SSN, or any other information that could be used to distinguish an individual's identity) about individual students. This means that the federal government does not collect data about individual students or have access to the data about individual students that states collect.

QUESTION: Is the federal government collecting 400 pieces of sensitive student data, including religious preference and health information?
ANSWER: No. The federal government is prohibited by law from collecting any personally identifiable data about individual students.

The mentions of " 400 points of data" reference the National Education Data Model: a sort of dictionary for data that shows how data could be organized by states or districts to answer their own questions about policy and practice. This tool does not collect or contain any actual data. The tool is not related to Common Core or any federal initiative. Federal law prohibits the reporting of aggregate data (i.e., data about a large group of students) that could lead to the identification of individual students. In addition, the federal government does not have access to the information on individual students held in state databases.

QUESTION: Are states selling student-level data to vendors and corporations who will use it to develop new products to market to students?
ANSWER: No. States and districts CANNOT and DO NOT sell student information.

Nearly every state and school district contracts with a vendor to help them store and use their data. If your state or school district works with a vendor, that vendor is not allowed to let anyone see or use the data in a way that your state or district didn't specifically ask for. If your state or district hires another company, that company must follow all of the state and federal laws that protect student privacy.

The limited information that states and districts do collect is used for compliance and accountability purposes, to help students by showing their teachers how to improve their teaching and personalize lessons for each child, and by showing district leaders which teachers and school programs are most effective at helping children succeed.

For more information on the value of effective data use and on data privacy, see www.dataqualitycampaign.org.

## 

## Common Core State Standards Initiative:

## Assuring that All Students Graduate From High School Ready for College and Career

## WHAT IS THE COMMON CORE STATE STANDARDS INITIATIVE (CCSSI):

The CCSSI is a state-led effort designed to improve educational outcomes for students by developing a set of consistent, clear K-12 academic standards in English language arts and mathematics. In 2009 the National Governors Association (NGA) and the Council of Chief State School Officers (CCSSO), the coordinators of the initiative, convened a group of leading experts to develop K-12 standards for math and English language arts in 2010. These standards are relevant to the real world, reflecting the knowedge and skills young people need to be prepared for both college and work in a global economy.

WHY PTA BELIEVES STATES SHOULD ADOPT AND IMPLEMENT THE COMMON CORE STATE STANDARDS

The Problem: American students are graduating unprepared for college and career

- American students are poorly prepared for college and career. Today, most good jobs require some type of postsecondary education or training. Yet, our education system is falling short in preparing students to succeed in higher education. It is estimated that each year, $\$ 1.4$ billion is spent on remedial education for college students who have recently completed high school, a burden often borne by parents, students, and states.' Additionally, ACT found that less than a quarter of high school graduates are able to pass their classes (earn a C average) in their first year of college. ${ }^{\text {² }}$
- In 1995, the U.S. was tied for first in the proportion of young adults with a college degree, but by 2004 it had fallen to 14 th. ${ }^{2}$
- Out of 30 industrialized countries, the U.S. ranked 25th in math and 21st in science in 2006. ${ }^{4}$



## CLEAR AND CONSISTENT STANDARDS ACROSS THE COUNTRY

Standards will be consistent from state to state. CCSSI is based on the principle that anithmetic should be the same in Missouri or Michigan, and reading skills should be the same in California or Florida. Today there are different academic standards in every state, and too many states have standards that do not prepare students for college and career. Consistent standards will provide appropriate benchmarks for all students regardless of where they live and allow states to more effectively help all students succeed.

In addition, families who must move from one state to another because of job changes will particularly benefit from consistent standards across states. They will no longer face the problem of their children moving to a new school and finding that they are underprepared, because the standards of the state from which they are moving are lower than those of the state to which they are relocating.

Standards will be relevant to the real world. The Common Core State Standards will reflect the knowledge and skills that young people need to succeed in college and career. They will focus on problem solving and critical thinking skills, not solely on knowledge of particular facts that have little relationship to success later in life.

Standards will be clear. In many states, standards have been updated over the years by adding additional requirements onto existing standards. The result has been standards that are often so long and confusing that they do not function as clear guides for instruction. CCSSI will address this problem by increasing clarty among educators and parents about what students

should be able to know and do at each grade level. States agreeing to adopt the standards may add a limited amount (no more than 15\% of their overall standards) above and beyond what is in the core standards.

CCSSI aims to avoid additional testing. Because there are limits on how much states can add above and beyond the common core, these standards and the assessments that will be developed for them are expected to replace existing tests, not add to them.

Clearer standards will benefit parents, teachers and students. One of the benefits of adopting clearer standards is that parents, teachers and students will have a shared understanding of what is expected in school. Studies have shown that when parents are actively engaged in their children's education, student achievement outcomes are improved.s

Standards will incorporate the best and highest of the current state standards. This effort will build on what many states are already doing right. States with high standards will not be required to lower their standards in order to "meet in the middle" with states that now have lower standards.

## SUPPORT FOR SCHOOLS TO HELP STUDENTS

 ACHIEVE THEIR FULL POTENTIALHigher standards combined with curriculum in our schools that emphasizes the skills needed to succeed in college and career will raise student achievement. Creating better standards is clearly just the first step in raising the level of achievement of all students. The next and more important step is creating schools that give students the support they need to realize their full potential. This will mean creating curricula that is aligned to the new standards and professional development for teachers to assure that they have the knowledge and skills to improve student achievement.
Common Core State Standards will make it easier for states to create first class education systems. Consistent standards across the states will create new efficiencies. States that previously used only multiple choice tests, because they were inexpensive to develop, will be able to share the cost of developing better assessments of students' abilities to perform in the real world. They will also be able to share the cost of developing curriculum and professional development for teachers aligned to the new standards.

Curriculum and assessment tied to clearer standards will increase student achievement. Studies have shown that when curriculum allows teachers to cover select topics in greater depth, rather than numerous topics superficially, student achievement is improved.s In addition, teachers will be able to better respond to students' educational needs using assessments that are aligned to the new standards.

## RESOURCES AND CONTACT INFORMATION

For further information on National PTA's
recommendations on CCSSI see PTA's annual Public Policy Agenda. Available online at: http://www.pta.org/public_policy_agenda.asp

If you should have any questions about National PTA and the CCSSI, please contact:
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## Common Core State Standards (CCSS) Frequently Asked Questions

What are the Common Core State Standards? The CCSS are a set of internationally benchmarked K-12 educational standards to ensure every students' college and career readiness in English language arts and mathematics. These standards increase rigor in every school, and provide clarity and consistency for what all students need to know once they graduate from high school. To date, 45 states, the District of Columbia, Guam, American Samoan Islands, U.S. Virgin Islands and the Anchorage, AK School District have voluntarily adopted CCSS.

What was the process for developing and writing the Standards? In 2009, 48 states, the District of Columbia and two U.S. territories voluntarily committed to collaborate on the development of common English language arts and mathematics standards aligned with the expectations of postsecondary job training programs and credit-bearing, entry-level courses in two and four year colleges. The Common Core State Standards were written and published in 2010 by The National Governors Association Center for Best Practices (NGA) and the Council of Chief State School Officers (CCSSO), in collaboration with educational organizations, teachers, researchers, higher learning experts and business leaders from across the country.

The Standards are divided into two categories:

- K-12 standards that outline the grade-by-grade expectations for student learning and results in students prepared for college or career; and
- College and career readiness standards, which address what students are expected to know when they enter college, technical school or career.

The process was thoughtful and transparent, and ensured that the Standards:

- Were based on state and international student learning standards with the best outcomes, and the expectations of postsecondary job training programs and credit-bearing, entry level courses in two and four year colleges.
- Utilized the experience of teachers, the higher learning and business communities, content experts, and leading education researchers; and
- Incorporated feedback from the public.

The Standards development timeline included:

- College and career ready graduation standards released for public comment in September 2009;


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- K-12 standards released for public comment in March 2010. More than 10,000 comments were received and reviewed by an advisory group of education, college and state policy administrators and experts; and
- Final K-12 standards released in June 2010.

Who is leading the initiative? The CCSS initiative is led by States, with coordination from the National Governors Association Center for Best Practices and the Council of Chief State School Officers. The federal government has not been involved in initiating or developing the CCSS. Other supporting partners include National PTA; the National Association of State Boards of Education; the Alliance for Excellent Education; the American Association of School Administrators; The James B. Hunt, Jr. Institute; the Business Roundtable, Achieve; ACT; and the College Board.

How were standards set in the past? In 2002, No Child Left Behind (NCLB) mandated that every state implement a standards-based accountability system designed to ensure that all students would become proficient-as defined by the statein reading and English language arts and mathematics by the 2013-14 school year. Every state has its own method for setting standards. Some states adopt standards through the Department of Education, while others adopt them through the State Legislature. NCLB did not address specific levels of rigor, so state standards were vastly different across the country. This has caused a patchwork system of standards that has proven to be detrimental within the United States' mobile society. As a result, quality education depended on zip code, prompting the development of the CCSS.

Have the Standards been field-tested or are they evidence-based? The CCSS has a solid foundation. They were developed from the best standards in the country, the highest international standards, and evidence and expertise about educational outcomes. The Standards build on the most advanced thinking in preparing all students for success in college and career. This means the CCSS will take even the best state standards to the next level.

Is this essentially a government takeover of education because of the Race to the Top grant requirements? No. States and Districts who applied for Race to the Top funds were not required to adopt CCSS. States and districts who applied for Race to the Top funds were required to adopt college and career-ready standards and assess students based on those standards. The rationale behind adopting college and careerready standards is based on evidence that the United States is not adequately or consistently preparing students for either college or career.


Is the federal government compiling student and family data into a federal database? No. Common Core is not a mechanism for federal data collection. Confusion over data collection likely comes from a misunderstanding of the National Education Data Model (NEDM), which is actually a framework describing the types of data that individual districts and states may choose to use to answer their own questions about policy. The NEDM does not contain any data, and there are no data collection requirements for the Standards. Federal law prohibits the reporting of aggregate data that could identify individual students. In addition, the federal government does not have access to the student-level information held in state databases.

Does National PTA have a position statement or resolution that supports the CCSSI? Yes. National PTA volunteers have adopted several position statements and resolutions, beginning in 1981, in support of voluntary, clearer, higher academic standards for all students. You can read these documents on our website at PTA.org/resolutions.

## What Does This Mean for Students, Teachers and Schools?

Why are the Standards important for students, teachers and parents? Education standards and level of rigor in instruction are often complicated and vary from state to state, which can be overwhelming for teachers to implement in the classroom. In addition, parents find it difficult to support their child's learning at home. The new Common Core State Standards ensure that teachers and parents know the exact end goal and can help each student meet that goal in the classroom and at home.

Prior to Common Core, students received a variable quality of education depending on their zip code, which is problematic given the high mobility of families, especially military families. College and career-ready standards are critical because, even in highperforming states, some students are passing all required tests and graduating, yet still require remediation in their postsecondary work. Every student needs rigorous academics to ensure U.S. graduates remain globally competitive.

How much will this cost my state and school district? Exact costs will vary by state and district. There are different costs associated with adopting, implementing and assessing the Common Core State Standards, as well as providing professional development for teachers to understand the Standards, depending on what each state and district is already investing in this effort. None of these costs are new-schools, districts and states have always spent money on updating professional development, curriculum and assessments.

## National <br> PTH <br> everychild.one woice.

The creation of curriculum may cost some schools or districts more money, however since states are using the same standards, the opportunity to share best practices and curriculum will save money over time. In addition, assessments always cost money, but many states are finding that the new assessments will actually be more cost-effective than those currently used.

If the standards are raised, is it likely that students will drop out of school? This is a common concern of parents and educators. Data does not support this idea and actually shows the opposite-when more is expected of students, they rise to the challenge. In a survey of high school dropouts, two thirds report that they would have worked harder if more was demanded of them (such as higher academic standards or more studying and homework). When asked about what would improve their schools, $91 \%$ of high school students reported that providing opportunities to take courses that are more challenging would be an improvement.

Does the CCSS create unrealistically high expectations that would penalize students in low-performing schools? No. The goal of the CCSS is to ensure high expectations and an excellent education for all students, regardless of where they live. Too often, students in low-performing schools are held to lower expectations than their peers in higher performing districts. The CCSS aim to improve outcomes for students in low-performing schools by preparing students with the knowledge and skills they need to succeed in college and career, and to compete not only with their peers in the next state, but also with students from around the world.

## Are the Standards a new national curriculum? Do they remove local and state

 authority, or tell teachers what to teach? No. The Common Core State Standards do not dictate the details of academic curriculum; they only provide clear expectations for what each student must know to leave school prepared for college and career. Standards equal the end goal, or the WHAT ...... Curriculum equals HOW ...... These terms are not interchangeable.Curriculum is a broad term that encompasses everything a teacher uses in the classroom from lesson plans to activities, to reading and math units. In most school districts, curriculum is determined at the local level. The CCSS only set the goal; they do not tell teachers how to achieve the goal, but they will allow teachers to share best practices from state to state.

Do the Standards remove fiction and literature? Why do science teachers have to teach reading? The Standards do not remove fiction and literature from schools. The

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intent of the Standards is to increase the reading level of students to what they will experience in college and career. The 2009 NAEP findings agree that students need to be exposed to both literature (Charlotte's Web) and informational text (Diary of Anne Frank) in order to be college and career ready. NAEP suggested the following breakdown for literary and informational text:

| Grade | Literary | Informational |
| :---: | :---: | :---: |
| 4 | $50 \%$ | $50 \%$ |
| 8 | $45 \%$ | $55 \%$ |
| 12 | $30 \%$ | $70 \%$ |

English and math skills are required in all classes, not just English and math; therefore, teachers of all subjects play a role in the English language arts (ELA) and math proficiency of students. History teachers depend on students' ability to read history books and science teachers need students to be able to understand basic math in order to learn how to navigate scientific formulas.

Do the math standards cover all key math topics in the proper sequence? The challenge with having 50 different sets of standards is states cover different topics and different grade levels, especially in math. The Standards have created a coherent math progression that gets students to a final college and career ready point after 12th grade and there is flexibility to allow advanced students to study harder topics earlier, such as algebra in 8th grade. Implementation of the CCSS and new curriculum will adjust for differences among the states.

What do the Standards mean for students with disabilities and English Language Learners (ELL)? The CCSS applies to all students in school, including students with disabilities and who are ELL. The Standards recognize that implementation requires providing these students with a range of needed supports, including:

- Support and related services designed to meet students' unique needs and enable their access to the general education curriculum;
- Teachers and specialized instructional support staff who are prepared and qualified to deliver high-quality, evidence-based, individualized instruction and support services;
- Assistive technology devices that enable access to the Standards; and
- Additional time, appropriate support, and aligned assessments as ELL students acquire both English language proficiency and content area knowledge.


## The CCSS Assessments

Will new standards mean more testing? Will common assessments be developed? As states implement new college and career-ready standards, they will also transition to new assessments designed to better measure if students are on track for college and career readiness. As part of the process, two consortia of states are developing common assessment processes and tools-the Partnership for Assessment of Readiness for College and Careers (PARCC) and the Smarter Balanced Assessment Consortium (SBAC). The new tests will replace old state testing-not add to it-and for the first time, comparable achievement information will be available from state to state.

Will test scores drop? This is a new system with a new way of scoring; therefore, it is not possible to compare the new scores directly with the old state assessment scores. What is important is that the higher standards are measured with better tests. Because the rigor is higher, it may appear that scores have temporarily dropped. If this does happen, it does not mean a student is performing worse on the new tests. Educators expect this short-term decline to improve as teachers and students become more familiar with the Standards and better equipped to meet the challenges they present.

How will students, teachers and schools measure success and conduct accountability? Some states have joined Partnership for Assessment of Readiness for College and Careers or the Smarter Balanced Assessment Consortium to help create new methods to assess the Standards. Every state will develop CCSS assessment methods as they see fit, and to determine their own accountability models, including guidelines for "making scores count" for students, teachers and schools.

National PTA is creating assessment and accountability guides for each state so parents will know how their state will be handling assessments. In the interim, parents are encouraged to work with teachers, administrators and school boards to determine what is the best method for assessing students, determining accountability and evaluating student growth and teacher performance.

## Does my school have adequate technology to conduct the new assessments?

The biggest hurdle that some schools will face is acquiring adequate technology and bandwidth to accommodate the new electronic testing. States still have five years to make this transition, as assessments will be available in the traditional "paper and pencil" format for three years following implementation in the 2014-15 school year. According to experts, an average middle school can successfully conduct electronic assessments with one lab containing 30 computers.

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[^3]
# K-12 CORE Curriculum Standards 

Why are they the same, only different?

"Sometimes when you move, your curriculum is flip-flopped so you're learning the same thing over and over again without learning anything new which has happened a couple of times"


## Common Core Standards:

Will it make a difference for our military-connected students?


#### Abstract

A phrase you may hear or read about over the next few years is "Common Core" or "Common Core State Standards" (CCSS). CCSS represent a major education shift toward an emphasis on rigorous and consistent standards throughout students' K-12 academic careers. The adoption and implementation of CCSS in schools will provide consistent and clear standards of student expectations. The new standards require a high level of student engagement as well as a focus on both content and a depth of understanding to apply the knowledge. Standards are designed to be relevant to what students need to know in order to be prepared for college or their careers and to position our students to be successful in our global economy. For our military-connected children, CCSS are a dramatic shift from an education experience that has traditionally been a patchwork of various standards and expectations as they move from state to state to one that will be as close to academically seamless as possible. Students will not be caught off-guard when they move, because CCSS outline the specific skills and knowledge by each grade that students need to have in order to be prepared for college or employment after high school.




What are the Common Core State Standards?


CCSS are a list of specific, grade by grade, academic standards that cover mathematics and English Ianguage arts. It is important to understand that CCSS are not intended to dictate everything that is taught, nor do they mandate how to teach. They describe the critical knowledge and skills our students need to be successful in college or the workplace. The example below is from seventh grade mathematics, under the geometry section:

- Draw, construct, and describe geometrical figures and describe the relationships between them.
- Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.

Artwork by Daniel, Grade 7 | Poquoson Middle School, Poquoson, Virginia | U.S. Army


## Why do we need common standards?

Prior to the adoption of CCSS, each state had its own process to develop and implement academic standards or expectations. This autonomy caused in a great deal of disparity in content, rigor, and standards from one state to another. For the mil-itary-connected student, this disparity often resulted in students not having pre-requisite skills or knowledge or having to repeat content when they transitioned. All students need to be prepared for success in college or the workplace, wherever their post-secondary endeavors take them. All students are entitled to a high quality education no matter where they live. All students, especially our mobile military-connected students, should know that standards and expectations for academic excellence will be consistent as they move.







## Why are CCSS so important to military-connected students?

The education experience for many military-connected students can be frustrating. Some students find themselves in a class where they do not have the ex-
 pected knowledge and skills needed to do well, skills their classmates learned the previous year. Other students find themselves repeating material and are expected to be content to spend class time "reviewing." The adoption and implementation of CCSS are a critical step and particularly important to the mobile military-connected student because they provide consistency, continuity, and clear expectations of the knowledge and skills students need in each grade.


The Council of Chief State School Officer (CCSSO) and the National Governors Association Center for Best Practices (NGA Center) have worked for several years with 48 states, two territories, and the District of Columbia to develop curriculum standards for English language arts and mathematics that reflect the skills students need to prepare them for post-secondary education or to enter the work-place (college or career ready). Many other groups were involved in the development of these standards including Achieve, ACT, College Board, National Association of State Boards of Education, and State Higher Education Officers. Other groups like the National Council of Teachers of English and the National Council of Teachers of Mathematics provided feedback on the standards. States voluntarily decide whether they will or will not adopt the standards and how they will implement them.
The adoption of CCSS is not a federal government program or mandate. The federal govern-
 ment does, however, have the ability to support the states' efforts to implement CCSS through a range of incentives such as allowing states greater flexibility in the use of federal funds and in the current accountability system. The federal government can also revise existing federal education laws to support the most effective and promising research-proven practices in the classroom.


PT/
were released and the first item types, including performance tasks, were written. The 2012-2013 school year will be devoted to pilot testing various test item types: multiple-choice, short answer, new item types enhanced through technology, and performance tasks. Both programs are expected to be fully operational by the 2014-2015 school year following field testing in 2013-2014.

Since the states are using the same standards, CCSS, parents may ask will all states use the same tests?

This question cannot be answered with a simple yes or no. As we have already seen, there are two different consortia. The thirty-four states who have adopted CCSS have reported that they do plan on implementing the new aligned assessment. (Kober \& Renter, 2012) Because eight states belong to both consortia and six do not belong to either one, both test programs will most likely be used.

Current plans are for states to commit to one of the assessment programs at the beginning of the 2014-2015 school year. If states have included additional standards, they may elect to add up to $15 \%$ additional items to meet their additional state-specific standards. They may also plan to test other subjects. Some states have already made plans to offer transitional tests prior to the 201415 school year

One piece of good news for the mobile militaryconnected student is the PARCC and SBAC already have committees at work to address the question of interpreting test results if a student moves from one state program to another. The committees plan to develop common achievement standards that will enable student scores to be comparable between the two consortia.

If you are interesting in learning more about assessments, visit your state education assessment website. You can link to this through the SchoolQuest library at www.schoolquest.org/ state-education-resources/. Both of the Consortia have websites and plan to release sample test items, tutorials, practice tests, and scoring information. More information can be found at www. smarterbalanced.org/ and www.parcconline.org.

## MCEC TIPS FOR PARENTS

Know what your child is responsible for on the test and how well they have to perform on each test to pass. Encourage your child to strive for more than a "basic" level of proficiency.
As soon as you know you are moving, inquire about the required state tests that your child must take. You can do this the first time you meet with your child's teacher. If your student did well on his tests last year it doesn't guarantee he will do well on his tests this year. For example, under the current system of state standards and assessment, a student who was proficient in grade 4 math in one state may or may not be proficient in grade 4 math in another state. This student could be behind before the school year even starts. This is a great example of an issue that will be alleviated with the implementation of CCSS - the standards for math are the same no matter where you live.
Ask your child's teacher(s) for information on state required assessments. Inquire about family nights that introduce the state assessment programs. Visit the MCEC Resource Center at www.SchoolQuest.org, and choose your state and resource area to learn about the test frameworks, test performance, and proficiency provided by the state education agencies. Look for released versions of the tests; just make sure released version are for the current assessment program.

Parents of children who have unique learning challenges will want to know about accommodations and modifications for state assessments. When state assessments are not appropriate, know the options for alternative tests in order to make the best decision for your child. Military parents must relearn the Special Needs identification process and assessment for each state they live in. This knowledge may result in speeding up the ARD or LPAC decision process. If your child was scheduled to receive accommodations or modifications on state assessments or take an alternative assessment at a previous school, make sure you bring your child's records with you and immediately inform your new school upon arrival. Quick decisions must still be correct decisions.
You can find out more about accommodations and modifications for assessments through the MCEC Education Resource center on the SchoolQuest website www.SchoolQuest.org. Look for "Special Education" or "Bilingual/ESL" for English as a Second Language (English Language Learners). You can also address specific questions to "Ask Aunt Peggie" at Peggie.Watson@MilitaryChild.org

## Start looking for test format information through the MCEC Education

 Resource Center located in the SchoolQuest Library www.schoolquest. org. Once you are at the site, got to the Library, then to State Education Resources to find information about assessments in your state.Look for other words like "Exemplars" or "Sample Papers." Also look for "Blueprints" which sometimes tell the number of each question type or objective. Don't skip over the rubrics (a rubric tells you how tests are scored and what each point means to the scorer). Knowing why an answer is wrong instead of simply knowing the answer is wrong will help your student avoid repeating the same error.
Don't rely entirely on the format from the previous year to study for the test. The same concept can be tested many different ways.

## Informed ofdvocacy:

## A laok at same of the myths and misunderstandings surraunding the Cammon Core State Standards

The adoption and implementation of CCSS represent a major shift in education in the United States. As with any change, and especially one of this magnitude, many myths and misunderstandings often accompany the change. Here is a quick look at a few of those myths and the reality surrounding them.

Nyth The Common Core State Standard Initiative is a federal program.

> REALITY The
> Common Core State Standard Initiative is a state-led effort coordinated by the National Governors Association Center for Best Practice
> (NGA Center) and the Council of Chief State School Officers (CCSSO). Adoption of the standards is completely voluntary. A state may "un-adopt" the standards if they desire.

## Myth The federal government will take over the Common Core State Standard Initiative.

## REALITY

The Initiative is and will remain a stateled effort. The NGA and CCSSO are committed to developing a long-term governance structure with leadership from governors, chief state school officers, and other state policy makers

> Myth The standards are the same as a national curriculum.

REALITY The standards are NOT curriculum. The standards are statements that clearly describe the goals and expectations for learning. They describe the skills and knowledge students need to be successful in college or the workplace. Decisions about curriculum are at the local levels - the schools, principals, and superintendents. Teachers will continue to devise lesson plans and tailor instruction to the needs of students in their classrooms.

## Meyth The standards are not rigorous and bring all states down to the lowest common denominator.

REALITY The standards were designed specifically to prepare all children for success in college or their careers. No state has lowered its academic standards. The standards were informed by the best and highest standards in the country, the highest international standards, and evidence and expertise about educational outcomes.

The adoption of CCSS is critically important to our nation. CCSS set the bar high for all students so they are equipped to succeed in our highly competitive global economy. CCSS adoption is particularly important to our mobile militaryconnected students as they move from state to state and district to district during their kindergarten through high school years. This effort to address the issue of common standards and emphasize high expectation is one all parents should welcome and support. More information about the standards and facts responding to the many myths that surround them can be found at www.corestandards.org

## COMMON STANDARDS ADOPTIONS

Between February 2010 and November 2011, nearly all states adopted the Common Core State Standards. By 2013, some states were debating whether to keep them. One decided to reverse its adoption.


AND THE DISTRICT OF COLUMBIA


State adopted standards
State did not adopt standards
State adopted standards in only one subject
State reversed its adoption of the standards

## A Student's Perspective <br> Andrew Parry

## "Although I excelled in academics I found myself 'out of sync' with my classes."

I spent my whole childhood as a military child, so moving around was a pretty common occurrence. In fact, I moved 12 times by my 18 th birthday, which included attending four different high schools. While my situation is certainly not unique, it was not without its challenges. Because of the frequent moves and school changes I had to take frequent assessments to determine where I "belonged" in my new classes. The "advanced" reading group in one school may have been the equivalent of the "average" group in the next school I attended. In high school the challenges were even greater. Although I excelled in academics I found myself "out of sync"


## "For the sake of all children, it is imperative that the knowledge and skills taught from kindergarten through high school be both consistent from state to state as well as challenging."

with my classes. In English I found myself re-reading books in the 10th and 11th grade that I had read in 9th grade. Additionally, there were books my senior year that, according to my teacher, I SHOULD have read, but didn't because they weren't part of the curriculum at my past schools. Math proved to be even more difficult. I never took a class in geometry but was expected to know it my sophomore year. This required extra effort on my part to "catch up" with the rest of the class or risk falling further behind. My senior year I found myself in a freshman geography class that was required for graduation.
I am confident there are other military children who experience the same issues I faced. That is why the implementation of Common Core State Standards is beneficial to families that must relocate frequently. No longer will kids risk falling behind because of a parent's reassignment. The curriculum, while challenging, is also uniform from state to state, ensuring that military children are afforded the same opportunities as their peers and that, regardless of where they graduate from high school, they are prepared for either college or the workforce. With the support of the Military Child Education Coalition, this issue and its importance to military-connected students can get the necessary attention of state governments and school systems. More importantly, the effort will help ensure that all children leave high school ready for the next phase in their life whether that is college, working, or both.
Although I succeeded in school without Common Core Standards in place, I had a fair number of challenges. Fellow students not well-equipped to handle the frequent changes struggled more. For the sake of all children, it is imperative that the knowledge and skills taught from kindergarten through high school be both consistent from state to state as well as challenging.

## Does It Add Up for Military Families?

## 1 military family +1 change of duty station

A change of address, change of school and teachers,

Change of friends, change of place of worship, change of weather, change of scenery

Change of schedules, change of neighborhood, change of sports, and change of routine

For our nation's 2 million military connected children these changes happen an average of $6-9$ times over the course of their school years. But what if, just what if, the impact of one of these changes is lessened for every move? That possibility is very real and attainable with passage of the Common Core State Standards. The Common Core Standards Initiative's mission is to "provide a consistent, clear understanding of what students are expected

## A Parent's Perspective Zoe Trautman

As a parent of military-connected children and a veteran of 12 global and interstate relocations, our family navigated its share of turbulent waters when it came to changing schools. Research tells me that my children were typical among their peers. They were in a group of nearly 1.1 million military-connected students with parents who are Active Duty, National Guard or Reserves, $80 \%$ of whom attend public school systems in the United States. They also move 3 times more frequently than their civilian classmates and change schools an average of 6 to 9 times before graduation. For the most part, my children embraced each transition - although my son had to work hard at putting a good face on his third high school in four years.

That is why it is with a grateful heart that I follow the progress of a grant from The Bill \& Melinda Gates Foundation to the Military Child Education Coalition (MCEC). Through this partnership, the MCEC will be a champion for the implementation of the Common Core State Standards (CCSS) that will help ensure that all students are receiving a high quality education
consistently, from school to school and state to state, as preparation for future success at work or in higher education. CCSS are designed to provide a clear, rigorous set of shared goals and expectations for the knowledge and skills that will help all students.

This predictability is singularly critical for our military-connected students who currently are challenged with adapting and flexing as they move through each state's unique curriculum, specific materials, requirements, and assessment formats. Often this means repeating courses or missing concepts altogether, given that the scope and sequence of core subjects differs from state to state. Math, in particular, can present these challenges at all grade levels.

So while our military families negotiate the choppy seas of change that characterize their lives, changes resulting from military assignments, or a parent's deployment, they need the reassurance that their children's educational progress will not suffer - no matter where they are.

## An $\mathscr{A d m i n i s t r a t o p ' s ~ P e r s p e c t i v e ~ k m m a n t i s e ~}$

to learn, so teachers and parents know that they need to do to help them. The standards are designed to be robust and relevant to the real work, reflecting the knowledge and skills that our young people need for success in college and careers. With American students fully prepared for the future, our communities will be best positioned to compete successfully in the global economy." So for every child across the United States, these rigorous expectations for learning provide consistent and predictable learning goals. Schools and teachers continue to make decisions about how lessons are presented, keeping intact the art of teaching.
From my experience as a former principal of an elementary school situated on a large military installation, military families hold their children's education in high regard, keeping that one item
at the center of their most critical decisions. Decisions such as keeping the family together at the same duty station, or separating the family while the service member moves to the next duty station, or whether or not to remain in the military. Hundreds of our conversations centered on the differences they experienced in school expectations, curriculums, textbooks, etc. and the dramatic effect these fluctuations placed on their children.
"Like the Interstate Compact on Educational Opportunity for Military Children that provides common guidelines for states to follow in handling issues that impact children of military families as they transition between schools, the rigor of the proposed academic Common Core Standards will be a benefit to military dependent students everywhere," said

USAAC Commanding General, LT. Gen. Benjamin C. Freakley. "Moreover, I fully agree with Secretary of Education Duncan when he says there is no more important work than preparing our students to success in the global economy. Our national security as well as our national economy hinge upon education and our ability to adapt to global changes. National standards will raise the bar in education, and ultimately, serve our Nation by producing high school graduates fully prepared for higher education, the military, or the workforce."

As our service members continually sacrifice for the freedoms we enjoy, passage of Common Core State Standards afford military families one less change to face in their transitions and add one more item of familiarity to their world.

## There are no miracles, but there are teachers:

## An educator's view on the Common Core

ASK 10 FIFTH-GRADE TEACHERS how they teach fractions, and you'll probably get 10 different answers. That's the beauty of teaching: part art, part science, all creativity.
Will Common Core State Standards change that? Will we suddenly have a nation of automatons at the front of our classrooms, delivering identical lessons?

As a teacher, I think not. To me, the Common Core represents an empowering opportunity for teachers to collaborate, exchange best practices, and share differing curricula - because a common set of standards is not the same thing as a common curriculum.


Darren Burris (Photo by Kate Goldenheim)

A report recently released by the Brookings Institution, The 2012 Brown Center Report on American Education, would have us believe otherwise. The report begins with this oversimplification (unfortunately perpetuated in a blog post by Peter Wood on The Chronicle of Higher Education) and repeats it throughout: "The push for common education standards argues that all American students should study a common curriculum..."
Curriculum is informed by standards, not determined by them. By equating a set of standards with the curricular experiences created by teachers for their students, you immediately undercut the craft of teaching. This flawed approach to understanding the Common Core amounts to an elimination of the power of the classroom.

Consider this Common Core State Standard from fifth-grade mathematics:
5.NF.1 Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, $2 / 3+5 / 4=$ $8 / 12+15 / 12=23 / 12$. (1n general, $a / b+c / d=(a d+b c) / b d)$.

Fifth-grade teachers across the country will determine what set of classroom experiences will allow students to fully master this standard. How many ways could 5.NF.l be experienced?

Well... a teacher could organize students in rows and directly instruct them on how to add and subtract fractions by filling the board with examples and having students complete worksheets at their desks.

Or a teacher could provide a pair of students with fraction manipulatives and ask them to create equivalent fractions for a half, a third, a fourth, and a fifth. After this, students could be asked to add fractions with different denominators using the manipulatives.

A teacher could ask students to reflect on how they spent their time over the weekend and then to determine what fraction they spent sleeping, eating, playing, gaming, or texting. What fraction of the time was spent eating and sleeping? How did you figure that out? How did you get your common denominator? How could you add $2 / 3+5 / 4$ ?
Or a teacher could have students rotate through stations where they look up different words from the standard and make flashcards, listen to a short lesson online, and interact with a virtual applet that explores the topic. This set of independent experiences could fuel a classroom discussion that formalizes the process of adding and subtracting fractions with unlike denominators.

Not one of these lessons looks alike, and the student experiences would be quite distinct. But because as teachers, we are designing lesson plans to teach the same standard, we have an unprecedented opportunity to share our experiences about what's working, how it's working, with whom it's working, and which areas of growth still need support.

Artwork by Sara Noemi, Grade 7 | Ramey School, Aguadilla, Puerto Rico | DoDEA

The Brookings Institution report misses the significant difference between the old standards and the new: the Common Core State Standards are shared in common. True collaboration among teachers could be the single most important result of common standards-if we seize the opportunity.

As we craft our curricula from these common standards, we can connect with the best ideas from around the country to inform how we bring the standards to life in our classrooms. We should feel empowered to use evolving technologies to go beyond our classrooms, schools, districts, and even states and to start crafting and sharing curricula and experiences in order to serve all students and families well.

The Brookings report's headline-grabbing finding-that standards will not, on their own, improve student achievement-is nothing new. It only confirms what teachers have known since the standards movement gained steam in the 90 s: standards will not in and of themselves improve achievement. Well-led collections of committed and effective teachers, not standards, transform schools.

As Kathleen Porter-Magee states in her critique of the Brookings report, "[S]etting standards alone does very little, but... thoughtfully and faithfully implemented rigorous curricula can move the achievement needle, sometimes dramatically."
So the report should not be taken as evidence that standards are useless, or that the Common Core State Standards are a step in the wrong direction. In fact, I find its message ultimately empowering for teachers if we write ourselves into it - empowering if:

1. We marshal the experiences and lessons learned from the classroom and bring them to bear on the national conversation about education reform.
2. We see this as an unprecedented opportunity for collaboration and the sharing of best practices.
3. We turn the conversation toward enabling and supporting quality teaching in our schools.
4. We connect the $K-12$ conversation to the demands of college and the workforce.


The Brookings report reminded me that there are no miracles in the hard task of closing the achievement gap, graduating college- and career-ready students, and preparing the next generation to be engaged citizens in a fast-changing, information-saturated world. I hope the national conversation now moves toward recognizing the power of holding basic standards in common; that curricula and classrooms will remain as varied as the people teaching and learning in them; and that attracting, supporting, developing and retaining quality teachers
 would be the closest thing to a miracle that our schools can and should hope for.

Darren Burris is a middle-school instructional coach and a high-school math teacher at a charter school in Boston. He is a former Teach Plus Teaching Policy Fellow. This article appears courtesy of The Hechinger Report.

## Common Core Standards:

 One Step on the Road to SmoothThe adoption of Common Core State Standards (CCSS) is a huge step toward addressing academic transition issues for military-connected children; however, they do not address many of the issues that students will still encounter when they transition. Parents, students, and educators must work together to make sure the transition is as smooth as possible. Challenges that students may encounter could include:

# School Transitions 

## CALENDARS

Even though schools may teach the same content, the school calendar may still look very different. The adoption of CCSS does not mean schools will have the same calendar. School calendars are inconsistent. Start dates, end dates, and mid-year break dates can vary considerably between different school districts and even within a district in the instances of different schedules or schools of choice. Start dates can range from early August to after Labor Day in September. If the school is on a year round calendar, this creates another range of dates, usually with school starting and ending in July. The semester break can also be a stumbling block, especially for high school students who take a final exam or end of course test for a class that is only one semester. The first semester may end prior to the winter holiday break or as late as mid-January. Military Families who move over the summer need to pay close attention to starting dates to ensure their children arrive, enroll, and are ready to start when the school year begins. Districts typically post the calendar for the upcoming school year as soon as it is available on their website. If the calendar is not available, call the district or campus office and ask for the start date. Do this early so you have this information when you start planning your move.

## SCHEDULES

The difference between a block schedule and traditional schedule ${ }^{1}$ will always create transitioning challenges; these challenges are exacerbated if a student moves during a semester. Moving a student between a traditional and block schedule and vice versa can cause loss of credit. Even though this loss may be mitigated by credit recovery classes, it still contributes to a bumpy transition, particularly for the secondary student. If possible, plan your moving date to coincide with the end of a semester. If you have a high school student, make sure you have course descriptions or a syllabus for his classes to assist the receiving school counselor with placing your student. Make an appointment with the new school counselor as soon as you have moving dates in place.

## INTERPRETATION of GRADES

CCSS do not address how students are graded or what type of grading system is used. When a student moves, the receiving school will need to interpret a student's grades in a manner that is comparable to its system. "Weighted" grades, a higher grade given for an advanced course, may present challenges. Take, for example, a student who earns a " B " in an advanced placement course where grades are not weighted and this "B" is worth three points on a four point system grading system. The student then moves to a school where advanced courses are weighted, and a " $B$ " in an advanced placement course is worth four points on the same four point system. This student may or may not receive the extra point toward his grade point average when he moves to the new school. A percentage grade is usually easier to interpret, but a $90 \%$ may be an "A" in one school and a " B " in another school. Make sure you have a copy of the sending school's grading scale and policy.

## OPPORTUNITIES to PARTICIPATE in SPECIAL PROGRAMS or EXTRACURRICULAR ACTIVITIES

Mobile students frequently miss cut-off dates for applying for special programs or do not have the necessary prerequisite coursework to take advantage of special academic opportunities. Mobility may also impact a student's ability to participate in extracurricular activities. Although many districts have policies in place to accommodate the militaryconnected student, access to these types of programs may be limited. Students who may participate in special programs, like gifted and talented programs, may have to be retested and meet a new set of qualifications to continue participation in these programs. Parents who are proactive in researching programs as soon as they know they are moving will have a better chance of getting their children access to these opportunities.

## SOCIAL-EMOTIONAL IMPLICATIONS of TRANSITION

Moving is always difficult. Finding a way to fit in and make new social connections will always be the greatest challenge for some military-connected children. Find out if your child's new school has an MCEC Student 2 Student (S2S) or Junior Student 2 Student (JS2S) program. These programs are designed to help your students get connected and assimilate quickly at their new school.

The implementation of CCSS will certainly address many of the academic issues that mobile students have encountered in the past, but there are still educational barriers for mobile students. The implementation of CCSS does not address policies for placement in special programs, access to services for a student with special needs, or the ability to participate in an extracurricular activity when a student moves after a deadline to qualify for programs, services, or activities. Kids are kids, and some of them will always struggle and need extra support finding a way to fit in at a new location. The implementation of CCSS mitigates some of the transition issues related to academics such as not having learned a specific skill that is a building block for another skill, repeating material, and finding disparity in standards and expectations. CCSS create an academic environment in which students know what to expect and allow them to feel more prepared to handle the academic challenges no matter where they go, alleviating that stress and allowing students an opportunity to focus on finding their niche in their new school.

The adoption and implementation of CCSS are positive steps in the right direction to easing academic transitions for the militaryconnected child, but there is still work to be done to support the 1.2 million military-connected students as they face the uncertainty of school transitions.

1 Scheduling at high school may be block, alternating block, or traditional. Block schedules are sometimes referred to as accelerated or four-by-four block schedule in which students take four, 90 -minute classes a day, every day, for one semester. The alternating, or alternative block, is where students have an extended time in each class, usually 90 minutes, and go to four classes on one day and four additional classes on the alternating day. The days are frequently identified as $\mathrm{A} / \mathrm{B}$ days or two colors such as Black/Gold days. In a traditional schedule, students take six to eight classes for the entire year


## Resources

## www.SchoolQuest.org

SchoolQuest is an educational resource tool from the Military Child Education Coalition. Although our primary audience includes military students and their parents, SchoolQuest is well-suited to anyone who is "questing" information about schools, college and workplace readiness, transition, etc.

## www.parcconline.org

www.smarterbalanced.org
www.epiconline.org/files/pdf/LiningUp-FullReport.pdf

## www.corestandards.org

## Aunt Peggie

Do you have questions about military-connected students and education? Aunt Peggie has the answers! She and her team would like to hear from you! www.militarychild.org/ask-aunt-peggie

Peggie Watson - Aunt Peggie - is an expert researcher for the MCEC and serves as a trusted resource for families and educators around the world. She has answered thousands of e-mails over the years.

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## BILL\&MELINDA GATES foundation

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PTIF
COMMON CORE
STATE STANDARDS
English Language Arts
\&
Literacy in History/Social Studies,
Science, and Technical Subjects


$$
\begin{aligned}
& \text { Staying on Topic Within a Grade and Across Grades }
\end{aligned}
$$

Language Standards K－5
Speaking and Listening Standards K－5
Writing Standards K－5
Reading Standards for Informational Text K－5
$\begin{aligned} & \text { College and Career Readiness Anchor Standards for Reading } \\ & \text { Reading Standards for Literature K－5 }\end{aligned}$
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College and Career Readiness Anchor Standards for Reading
Science，and Technical Subjects
Standards for Literacy in History／Social Studies，
Standard 10：Range，Quality，and Complexity of Student Reading 6－12
Language Progressive Skills，by Grade
Language Standards 6－12
Speaking and Listening Standards 6－12

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$$

> Reading Standards for Literature 6-12
> College and Career Readiness Anchor Standards for Reading
The Standards set requirements not only for English language arts（ELA） Just as students must learn to read，write，speak，listen，and use language effectively in a variety of content areas，so too must the Standards specify the literacy skills and understandings required for college and career
readiness in multiple disciplines．Literacy standards for grade 6 and above are predicated on teachers of ELA，history／social studies，science，and technical subjects using their content area expertise to help students meet the particular challenges of reading，writing，speaking，listening，and language
in their respective fields．It is important to note that the $6-12$ literacy in their respective fields．It is important to note that the 6－12 literacy
standards in history／social studies，science，and technical subjects are
meant to replace content standards in those areas but rather to supplement them．States may incorporate these standards into their standards for those subjects or adopt them as content area literacy standards．
As a natural outgrowth of meeting the charge to define college and career readiness，the Standards also lay out a vision of what it means to be a literate person in the twenty－first century．Indeed，the skills and understandings
students are expected to demonstrate have wide applicability outside the classroom or workplace．Students who meet the Standards readily undertake the close，attentive reading that is at the heart of understanding and enjoying complex works of literature．They habitually perform the critical reading necessary to pick carefully through the staggering amount of information
available today in print and digitally．They actively seek the wide，deep，and available today in print and digitally．They actively seek the wide，deep，and
thoughtful engagement with high－quality literary and informational texts that builds knowledge，enlarges experience，and broadens worldviews． They reflexively demonstrate the cogent reasoning and use of evidence democratic republic．In short，students who meet the Standards develop the skills in reading，writing，speaking，and listening that are the foundation for any

The present work，led by the Council of Chief State School Officers（CCSSO） and the National Governors Association（NGA），builds on the foundation laid by The Standards also draw on the most important international models as well as research and input from numerous sources，including state departments of education，scholars，assessment developers，professional organizations，
educators from kindergarten through college，and parents，students，and other members of the public．In their design and content，refined through successive drafts and numerous rounds of feedback，the Standards represent a synthesis of
the best elements of standards－related work to date and an important advance over that previous work．

As specified by CCSSO and NGA，the Standards are（1）research and evidence based，（2）aligned with college and work expectations，（3）rigorous，and document only when the best available evidence indicated that its mastery was essential for college and career readiness in a twenty－first－century，globally better evidence emerges，the Standards will be revised accordingly．

The Standards are an extension of a prior initiative led by CCSSO and NGA to develop College and Career Readiness（CCR）standards in reading，writing，
speaking，listening，and language as well as in mathematics．The CCR Reading， Writing，and Speaking and Listening Standards，released in draft form in September 2009，serve，in revised form，as the backbone for the present and language translate the broad（and，for the earliest grades，

 communication are closely connected, as reflected throughout this document.
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 A focus on results rather than means
allow schools, districts, and states flexibility in high school course design. provide useful specificity; the Standards use two-year bands in grades 9-12 to


in preceding grades, and work steadily toward meeting the more general



 expectations no later than the end of high school. The CCR and high school


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## Key Design Considerations

text. The 2009 reading framework of the National Assessment of Educational
Progress (NAEP) requires a high and increasing proportion of informational text
on its assessment as students advance through the grades. The Standards are not alone in calling for a special emphasis on informational





 a role in this development as well. skills while at the same time recognizing that teachers in other areas must have






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skills and understandings are
treated in a separate section.





Distribution of Communicative Purposes by Grade
in the 2011 NAEP Writing Framework

It follows that writing assessments aligned with the Standards should adhere to the distribution of writing purposes across grades outlined by NAEP.
While the Standards delineate specific expectations in reading, writing,
speaking, listening, and language, each standard need not be a separate speaking, listening, and language, each standard need not be a separate focus for instruction and assessment. Often, several standards can be addressed by
a single rich task. For example, when editing writing, students address Writing standard 5 ("Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach") as well as Language standards 1-3
(which deal with conventions of standard English and knowledge of language). When drawing evidence from literary and informational texts per Writing standard 9 , students are also demonstrating their comprehension skill in relation read or written, students are also demonstrating their speaking and listening skills. The CCR anchor standards themselves provide another source of focus
and coherence.
The same ten CCR anchor standards for Reading apply to both literary and technical subjects. The ten CCR anchor standards for Writing cover numerous technical subjects. The ten CCR anchor standards for Writing cover numerous
text types and subject areas. This means that students can develop mutually reinforcing skills and exhibit mastery of standards for reading and writing across a range of texts and classrooms.
Distribution of Literary and Informational Passages by Grade in
the 2009 NAEP Reading Framework

The Standards aim to align instruction with this framework so that many more students than at present can meet the requirements of college and career readiness. In $\mathrm{K}-5$, the Standards follow NAEP's lead in balancing the reading social studies, science, and technical subjects. In accord with NAEP's growing that a significant amount of reading of informational texts take place in and outside the ELA classroom. Fulfilling the Standards for 6-12 ELA requires nonfiction-than has been traditional. Because the ELA classroom must focus on literature (stories, drama, and poetry) as well as literary nonfiction, a great
deal of informational reading in grades 6-12 must take place in other classes if the NAEP assessment framework is to be matched instructionally.' To measure students' growth toward college and career readiness, assessments aligned with
the Standards should adhere to the distribution of texts across grades cited in the NAEP framework.
NAEP likewise outlines a distribution across the grades of the core purposes and types of student writing. The 2011 NAEP framework, like the Standards, cultivates the development of three mutually reinforcing writing capacities: writing to persuade, to explain, and to convey real or imagined experience.
Evidence concerning the demands of college and career readiness gathered during development of the Standards concurs with NAEP's shifting emphases: standards for grades 9-12 describe writing in all three forms, but, consistent
with NAEP, the overwhelming focus of writing throughout high school should be on arguments and informative/explanatory texts. ${ }^{2}$
$\overline{\text { The }}$ percentages on the table reflect the sum of student reading, not just reading in ELA settings. Teachers of senior English classes, for example, are not required to devote 70
percent of reading to informational texts. Rather, 70 percent of student reading across the ${ }^{2}$ As with reading, the percentages in the table reflect the sum of student writing, not just writing in ELA settings.
schoolwide literacy program
What is Not Covered by the Standards

> The Standards should be recognized for what they are not

 grade-specific standards can fully reflect the great variety in abilities, who are well below or well above grade-level expectations. No set of The Standards set grade-specific standards but do not define the
intervention methods or materials necessary to support students language, and journalism should be available. This work should provide
the next logical step up from the college and career readiness baseline
established here. who meet the Standards prior to the end of high school. For those
students, advanced work in such areas as literature, composition, The Standards do not define the nature of advanced work for students
who meet the Standards prior to the end of high school. For those әपł әu!fəp fou op sprepuełs әul

> beyond what is specified herein. that limits what can be taugh the Standards is to articulate the fundamentals, not to set out an the discretion of teachers and curriculum developers. The aim of While the Standards focus on what is most essential, they do not

> consistent with the expectations laid out in this document. be complemented by a well-developed, content-rich curriculum they do not-indeed, cannot-enumerate all or even most of the
content that students should learn. The Standards must therefore including mythology, foundational U.S. documents, and Shakespeare students meet the expectations in this document. Furthermore, while
the Standards make references to some particular forms of content, welcome as a valuable activity in its own right and as a way to help play with young children is not specified by the Standards, but it is The Standards define what all students are expected to know and be
able to do, not how teachers should teach. For instance, the use of It is also beyond the scope of the Standards to define the full range of
supports appropriate for English language learners and for students with special needs. At the same time, all students must have the
opportunity to learn and meet the same high standards if they are to
access the knowledge and skills necessary in their post-high school It is also beyond the scope of the Standards to define the full range of
supports appropriate for English language learners and for students
with special needs. At the same time, all students must have the
of conventions and vocabulary. For those students, it is possible to meet the standards in reading, Each grade will include students who are still acquiring English.
For those students, it is possible to meet the standards in reading, =
 interpreted broadly to include sign language. text technology, In a similar vein, speaking and listening should be Braille, screen-reader technology, or other assistive devices, while
writing should include the use of a scribe, computer, or speech-toparticipation of students with special education needs. For example,
for students with disabilities reading should allow for the use of as permitting appropriate accommodations to ensure maximum possible range of students to participate fully from the outset and The Standards should also be read as allowing for the widest
$\square$
Students Who are College and Career Ready
in Reading, Writing, Speaking, Listening, and



## They demonstrate independence

Students can, without significant scaffolding, comprehend and evaluate complex texts across a range of types and disciplines, and they can construct effective arguments and convey intricate or multifaceted information. Likewise, students are able independently to discern a speaker's key points, request
clarification, and ask relevant questions. They build on others' ideas, articulate clarification, and ask relevant questions. They build own ideas, and confirm they have been understood. Without prompting, they demonstrate command of standard English and acquire and use a
wide-ranging vocabulary. More broadly, they become self-directed learners, peers, and print and digital reference materials.
They build strong content knowledge.
Students establish a base of knowledge across a wide range of subject matter in new areas through research and study. They read purposefully and listen attentively to gain both general knowledge and discipline-specific expertise.
They refine and share their knowledge through writing and speaking.
They respond to the varying demands of audience, task, purpose, and discipline.
Students adapt their communication in relation to audience, task, purpose, and discipline. They set and adjust purpose for reading, writing, speaking, listening, how the composition of an audience should affect tone when speaking and how the connotations of words affect meaning. They also know that different disciplines call for different types of evidence (e.g., documentary evidence in history, experimental evidence in science).
 The Reading standards place equal emphasis on the sophistication of what

Key Features of the Standards






 designations can be found in brackets alongside the full strand title.







 Standards for each grade within K-8 and for grades 9-10 and 11-12 follow the
CCR anchor standards in each strand. Each grade-specific standard (as these

 Speaking and Listening, and Language strands; the 6-12 history/ social studies,
science, and technical subjects section focuses on Reading and Writing. Each Each section is divided into strands. K-5 and 6-12 ELA have Reading, Writing, 7uәши

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student writing at various grade levels.


 د pue 'a' $\forall$ səə!puәdd $\forall$ words and phrases




 and adapt speech to context and task.




 infused throughout the document of the centrality of writing to most forms of inquiry, research to
prominently included in this strand, though skills important to research are

 səssəıұs 6 prepuełS 'səィ! as the ability to plan, revise, edit, and publish, are applicable to many types of
writing, other skills are more properly defined in terms of specific writing types:


more sensitive to inconsistencies, ambiguities, and poor reasoning in texts.









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6. Assess how point of view or purpose shapes the content and style of a text. 5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g.,
a section, chapter, scene, or stanza) relate to each other and the whole. figurative meanings, and analyze how specific word choices shape meaning or tone Craft and Structure
4. Interpret words
3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text 2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific
textual evidence when writing or speaking to support conclusions drawn from the text.
s!!ełəの pue seəp! Кәу
understandings that all students must demonstrate.
providing broad standards, the latter providing additional specificity-that together define the skills and the end of each grade. They correspond to the College and Career Readiness (CCR) anchor standards
below by number. The CCR and grade-specific standards are necessary complements-the former The K-5 standards on the following pages define what students should understand and be able to do by
College and Career Readiness Anchor Standards for Reading essential to their future success.


 intentionally and coherently structured this foundation when the curriculum is
intentionally and coherently structured content areas. Students can only gain

fields that will also give them the asəuł u! әбрә/м


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 'K7!!enb-46! 4 to aбues peosq e suoue moн K/dәәр рие K/əp!m реал 7 snum stuapnts 'ssau!pear дадлел pue of student reading Note on range and content
Reading Standards for Literature K-5

The following standards offer a focus for instruction each year and help ensure that students gain adequate exposure to a range of texts and tasks. Rigor is also
infused through the requirement that students read increasingly complex texts through the grades. Students advancing through the grades are expected to meet each year's grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.

2. With prompting and support, ask and answer 1. Ask and answer questions about key details in a $\begin{aligned} & \text { 1. Ask and answer such questions as who, what, } \\ & \text { questions about key details in a text. }\end{aligned}$ text. where, when, why, and how to demonstrate
understanding of key details in a text.
Recount stories, including fables and folktales Recount stories, including fables and folktales
from diverse cultures, and determine their central message, lesson, or moral.
escribe how characters in a story respond to
3. Identify words and phrases in stories or poems 4. Describe how words and phrases (e.g., regular
Describe how words and phrases (e.g., regular
beats, alliteration, rhymes, repeated lines) supply
rhythm and meaning in a story, poem, or song.
Describe the overall structure of a story, including Describe the overall structure of a story, including
describing how the beginning introduces the
story and the ending concludes the action.
Acknowledge differences in the points of view of
characters, including by speaking in a different
voice for each character when reading dialogue aloud.
4. Explain major differences between books that tell 5 Explain major differences between books that tell on a wide reading of a range of text types.
5. Identify who is telling the story at various points in a text.
Key Ideas and Details
6. Retell stories, including key details, and $\quad 2$.
demonstrate understanding of their central
message or lesson.
Describe characters, settin
a story, using key details.
7. With prompting and support, retell familiar
stories, including key details.
8. With prompting and support, identify characters,
settings, and major events in a story.
Craft and Structure
9. Ask and answer questions about unknown words

## 5. Recognize common types of texts (e.g.,

 storybooks, poems).6. With prompting and support, name the author each in telling the story.
Integration of Knowledge and Ideas
7. With prompting and support, describe the 7. Use illustrations and details in a story to describe 7. Use information gained from the illustrations and words in a print or digital text to demonstrate
understanding of its characters, setting, or plot.




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Reading Standards: Foundational Skills (K-5)
These standards are directed toward fostering students' understanding and working knowledge of concepts of print, the alphabetic principle, and other basic conventions of the English writing system. These foundational skills are not an end in and of themselves; rather, they are necessary and important components disciplines. Instruction should be differentiated: good readers will need much less practice with these concepts than struggling readers will. The point is to teach students what they need to learn and not what they already know-to discern when particular children or activities warrant more or less attention.
Note: In kindergarten, children are expected to demonstrate increasing awareness and competence in the areas that follow.



$$
\begin{aligned}
& \text { Phonological Awareness } \\
& \text { 2. Demonstrate understanding }
\end{aligned}
$$ a. Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation). d. Segment spoken single-syllable words into their complete sequence of

individual sounds (phonemes). Orally produce single-syllab
including consonant blends.
a. Distinguish long from short vowel sounds in spoken single-syllable words. b. Orally produce single-syllable words by blending sounds (phonemes),
c. Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in

$$
\begin{aligned}
& \text { 2. Demonstrate understanding of spoken words, syllables, and sounds } \\
& \text { (phonemes). } \\
& \text { a. Recognize and produce rhyming words. } \\
& \text { b. Count, pronounce, blend, and segment syllables in spoken words. } \\
& \text { c. Blend and segment onsets and rimes of single-syllable spoken words. } \\
& \text { d. Isolate and pronounce the initial, medial vowel, and final sounds (phoner } \\
& \text { in three-phoneme (consonant-vowel-consonant, or CVC) words.* (This d } \\
& \text { not include CVCs ending with } / I /, / r /, \text { or } / x / . \text { ) } \\
& \text { e. Add or substitute individual sounds (phonemes) in simple, one-syllable } \\
& \text { words to make new words. }
\end{aligned}
$$

| －Kıessəวəu <br> se бu！̣peәләд＇চu！puełsıәpun pue uo！t！uбоวәл <br>  ＇sбu！peəィ ə＾！！ssəวэns uo uo！̣ssəıdxə pue ‘әдед әұе！̣doıdde ＇Кэелวэе чұ！м Кןело ұхәұ ןəләן－әрелб реәу＇q －бu！puezsıəpun pue əsodınd $4 \not!M \ddagger \times \partial \nmid$ ןлә｜－әре»б реәу＇e ＇uo！suəцəлdmoว łィoddns Of Kouən｜f pue Kวeınวગe ұuә！כ！ffns 47 ！м peəy |  | －Kıessəวəu <br> se бu！peəдәд＇চu！puełsıәpun pue uo！t！uбоวәд <br>  ＇sбu！peəィ <br> əл！！ssəววns uo uo！ssəədxə pue ‘əłe» əłe！ 1 doıdde <br>  －бu！puełsıәрй <br>  ＇uo！suəyəıdmoว łoddns <br>  | $\nabla$ | ＇Бu！̣puełsıəpun pue əsodınd $47!M$ Słxəł дәреәл－ұиәбләшә реәу | $\nabla$ |
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|  |  |  |  | イับən｜」 |  |
| ＇spıом рәןəds Кןлןnбәдı！ <br> әје！ıdoıdde－әрелб реәィ pue əz！uбоэәу <br> ＇səəuəpuodsəдıว punos－бu！！ןds <br>  <br> ＇səx！⿰扌ns <br> pue səx！fərd uommos पł！M spıom әроวəの＇p <br> ＇sןəмол биоן чұ！м <br> spıом әqе॥Кs－омұ pəןəds Кןеןnбәィ әроวәด＇ว <br> ＇smeәł ןәмол иommos ןеио！t！ppe <br>  ＇spıом әqе॥Кs－әuo pәןəds Кןцепбәд бu！peәд <br>  ＇spıom бu！pozəp u！sII！Ys s！sरןןeue ряом pue sэ！uoud ןəлә｜－әрелб Кןdde pue mou»৷ | $\Sigma$ | ＇sрıом рә„әәs Киеןпбәли！ әұе！иdoıdde－әрелб реәл pue әz！uбогәу <br>  <br>  <br>  <br> ＇pıoм рәғu！ıd e u！səןqe॥Кs <br>  <br>  <br> ＇spunos <br>  سеәғ ןәмол иommos pue ә－ןеu！mourl <br>  ＇sydeגб！ұ ұueuosuos uommos <br>  ＇spıом бu！poгәp u！sו！！ys s！s＾｜eue ряом pue sэ！uoud ןəлә｜－әрелб Кןdde pue моия | ＇$\Sigma$ | ＇גән！ <br>  <br>  <br>  <br> ＇sןəmo八 до！еш <br>  Чł！M spunos łous pue 反uol әЧł әłе！วOss $\forall$ ＇子ueuosuos чวеә 10ł spunos 子uәnbəィ」 <br>  <br>  <br>  <br>  рıом pue ș！uoud ןəлә－әрелб К｜dde pue мои»्र | ＇$\Sigma$ |
| uo！t！u6osey pıoM pue sjluoud |  |  |  |  |  |
| ：sұuөpnłs z өpe．s |  | ：słuөpnłs L өреля |  |  |  |


Reading Standards: Foundational Skills (K-5)


＊These broad types of writing include many subgenres．See Appendix A for definitions of key writing types

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9．Draw evidence from literary or informational texts to support analysis，reflection，and research． 8．Gather relevant information from multiple print and digital sources，assess the credibility and accuracy of each
source，and integrate the information while avoiding plagiarism．

6．Use technology，including the Internet，to produce and publish writing and to interact and collaborate with others． Develop and strengthen writing as needed by planning，revising，editing，rewriting，or trying a new approach． ＇əวuə！pne pue＇əsodınd
Production and Distribution of Writing
and well－structured event sequences． through the effective selection，organization，and analysis of content
Write narratives to develop real or imagined experiences or events using
and well－structured event sequences． 1．Write argicient evidence．
Text Types and Purposes＊
 each grade．They correspond to the College and Career Readiness（CCR）anchor standards below by number．The
CCR and grade－specific standards are necessary complements－the former providing broad standards，the latter The K－ 5 standards on the following pages define what students should understand and be able to do by the end of
each grade．They correspond to the College and Career Readiness（CCR）anchor standards below by number．The
College and Career Readiness Anchor Standards for Writing
 informational sources．To meet these pue K1erat！！of Kl｜lea！子K｜eue puodsal
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ұиәұиоэ pue əळиед ио әұоN
Writing Standards K-5
The following standards for K-5 offer a focus for instruction each year to help ensure that students gain adequate mastery of a range of skills and applications. Each year in their writing, students should demonstrate increasing sophistication in all aspects of language use, from vocabulary and syntax to the development and organization sideas, and they shour ability is reflected both in the standards themselves and in the collection of annotated student writing samples in Appendix C.
$\begin{array}{lll}\text { Kindergartners: } & \text { Grade } 1 \text { students: } & \text { Grade } 2 \text { students: }\end{array}$
rite opinion pieces in which they introduce the topic or book they are writing about, state an
opinion, supply reasons that support the opinion, opinion, supply reasons that support the opinion,
use linking words (e.g., because, and, also) to use linking words (e.g., because, and, also) to
Write informative/explanatory texts in which
they introduce a topic, use facts and definitions
to develop points, and provide a concluding
Write narratives in which they recount a wellelaborated event or short sequence of events, include details to describe actions, thoughts, order, and provide a sense of closure.
Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.
2. Use a combination of drawing, dictating, and
writing to compose informative/explanatory $\quad$ 2. Write informative/explanatory texts in which they $2 . \begin{aligned} & \text { name a topic, supply some facts about the topic, }\end{aligned}$ and provide some sense of closure.
3. Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use provide some sense of closure.
4. (Begins in grade 3) 4. (Begins in grade 3) 4. (Begins in grade 3)

peers, focus on a topic and strengthen writing as needed by revising and editing.

 writing, including in collaboration with peers. $\quad$ writing, including in collaboration with peers. Participate in shared research and writing
projects (e.g., explore a number of "how-to" books on a given topic and
sequence of instructions).
Participate in shared research and writing
projects (e.g., read a number of books on a
single topic to produce a report; record science
observations).
Recall information from experiences or gather
information from provided sources to answer a question.
(Begins in grade 4)
0. (Begins in grade 3)
Text Types and Purposes
Use a combination of drawing, dictating, and
writing to compose opinion pieces in which they
tell a reader the topic or the name of the book
they are writing about and state an opinion or favorite book is . .
texts in which they name what they are writing
about and supply some information about the topic.
3. Use a combination of drawing, dictating, and writing to narrate a single event or several the order in which they occurred, and provide a reaction to what happened.
Production and Distribution of Writing
add details to strengthen writing as needed.
7. Participate in shared research and writing 7.
Participate in shared research and writing
projects (e.g., explore a number of books by a favorite author and express opinions about them).
8. With guidance and support from adults, recall information from experiences or gather
information from provided sources to answer a ci
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9. (Begins in grade 4) Range of Writing
10. (Begins in grade 3)



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 illustrations, and multimedia when useful to
aiding comprehension.


 phrases (e
addition).
d. Provide a concluding statement or section.

 Introduce the topic or text they are writing
about, state an opinion, and create an Write opinion pieces on topics or texts, supporting
a point of view with reasons. uo səכə! uo!uldo $\partial+!\Lambda M \quad ' L$
 a. Introduce a topic or text clearly, state an
 opinion, and create an organizational structure
 b. 1. Write
 Write opinion pieces on topics or texts, supporting a
point of view with reasons and information.





 d. Use precise language and domain-specific
vocabulary to inform about or explain the
 concrete details, quotations, or other
information and examples related to the topic.
c. Link ideas within and across categories of
information using words, phrases, and clauses b. Develop the topic with facts, definitions,
concrete details, quotations, or other

 Write informative/explanatory texts to examine a
topic and convey ideas and information clearly.
$\qquad$
$\leqslant$
$\begin{aligned} & \text { experiences or events using effective technique, } \\ & \text { descriptive details, and clear event sequences. }\end{aligned}$
$\begin{aligned} & \text { experiences and events or show the responses } \\ & \text { of characters to situations. } \\ & \text { c. Use a variety of transitional words, phrases, }\end{aligned}$

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\begin{aligned}
& \sigma
\end{aligned}
$$



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3. Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric. mprehension and Collaboration
Prepare for and participate effectiv
building on others' ideas and expre
Integrate and evaluate information
orally. CCR and grade-specific standards are necessary complements-the former providing broad standards, the latter The K-5 standards on the following pages define what students should understand and be able to do by the end of
each grade. They correspond to the College and Career Readiness (CCR) anchor standards below by number. The for Speaking and Listening College and Career Readiness Anchor Standards
Speaking and Listening Standards K-5



Note on range and content
of student language use
To build a foundation for college and career readiness in language, students must gain control over many conventions of standard English grammar, usage, and mechanics
as well as learn other ways to lso be able to use language to convey meaning determine or clarify the meaning of grade-appropriate words encountered through listening, reading, and media use; come to appreciate that words have nonliteral meanings, shadings of meaning, and relationships to other words; and expand their vocabulary in the course of studying content. The inclusion of Language standards in иәуед әq zou pinoys puenzs имо $1!\partial 47$ as an indication that skills related o conventions, effective language use, and vocabulary are unimportant to reading, writing, speaking, and
listening: indeed, they are inseparable from such contexts.
College and Career Readiness Anchor Standards for Language The K-5 standards on the following pages define what students should understand and be able to do by the end of
each grade. They correspond to the College and Career Readiness (CCR) anchor standards below by number. The
CCR and grade-specific standards are necessary complements-the former providing broad standards, the latter providing additional specificity-that together define the skills and understandings that all students must demonstrate.

Conventions of Standard English
 - $6 \mathbf{1}!+!$ м
Knowledge of Language
3. Apply knowledge of language to understand how language functions in different contexts, to make effective
choices for meaning or style, and to comprehend more fully when reading or listening.
Vocabulary Acquisition and Use
 analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
6. Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for
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 Use frequently occurring adjectives.


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 Appendix A for an example of how these skills develop in sophistication
 The following standards for grades K-5 offer a focus for instruction each year to help ensure that students gain adequate mastery of a range of skills and Language Standards K-5

## Language Standards K-5

| Kindergartners: | Grade 1 students: | Grade 2 students: |
| :---: | :---: | :---: |
| Knowledge of Language |  |  |
| 3. (Begins in grade 2) | 3. (Begins in grade 2) | 3. Use knowledge of language and its conventions when writing, speaking, reading, or listening. <br> a. Compare formal and informal uses of English. |
| Vocabulary Acquisition and Use |  |  |
| 4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content. <br> a. Identify new meanings for familiar words and apply them accurately (e.g., knowing duck is a bird and learning the verb to duck). <br> b. Use the most frequently occurring inflections and affixes (e.g., -ed, -s, re-, un-, pre-, -ful, -less) as a clue to the meaning of an unknown word. | 4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 1 reading and content, choosing flexibly from an array of strategies. <br> a. Use sentence-level context as a clue to the meaning of a word or phrase. <br> b. Use frequently occurring affixes as a clue to the meaning of a word. <br> c. Identify frequently occurring root words (e.g., look) and their inflectional forms (e.g., looks, looked, looking). | 4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 2 reading and content, choosing flexibly from an array of strategies. <br> a. Use sentence-level context as a clue to the meaning of a word or phrase. <br> b. Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., happy/unhappy, tell/rete//). <br> c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., addition, additional). <br> d. Use knowledge of the meaning of individual words to predict the meaning of compound words (e.g., birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark). <br> e. Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the |

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5. Demonstrate understanding of word relationships
a. Identify real-life connections between words
and their use (e.g., describe foods that are
spicy or juicy).
b. Distinguish shades of meaning among closely
related verbs (e.g., toss, throw, hurl) and closely
related adjectives (e.g., thin, slender, skinny, scrawny).

| 5. | With guidance and support from adults, explore word relationships and nuances in word meanings. <br> a. Sort common objects into categories (e.g., shapes, foods) to gain a sense of the concepts the categories represent. <br> b. Demonstrate understanding of frequently occurring verbs and adjectives by relating them to their opposites (antonyms). <br> c. Identify real-life connections between words and their use (e.g., note places at school that are colorful). <br> d. Distinguish shades of meaning among verbs describing the same general action (e.g., walk, march, strut, prance) by acting out the meanings. | 5. | With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings. <br> a. Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent. <br> b. Define words by category and by one or more key attributes (e.g., a duck is a bird that swims a tiger is a large cat with stripes). <br> c. Identify real-life connections between words and their use (e.g., note places at home that are cozy). <br> d. Distinguish shades of meaning among verbs differing in manner (e.g., look, peek, glance, stare, glare, scow/) and adjectives differing in intensity (e.g., large, gigantic) by defining or choosing them or by acting out the meanings. |
| :---: | :---: | :---: | :---: |
| 6. | Use words and phrases acquired through conversations, reading and being read to, and responding to texts. | 6. | Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., because). |


Language Standards K-5

4. Determine or clarify the meaning of unknown and
multiple-meaning words and phrases based on 4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based
grade 5 reading and content, choosing flexibly
from a range of strategies.
a. Use context (e.g., cause/effect relationships
and comparisons in text) as a clue to the
meaning of a word or phrase.
meaning of a word or phrase.
Latin affixes and roots as clues to the meaning of a word (e.g., photograph, photosynthesis). glossaries, thesauruses), both print and digital, to find the pronunciation and determine or
clarify the precise meaning of key words and phrases.
5. Demonstrate understanding of figurative language,
 a. Interpret figurative language, including similes b. Recognize and explain the meaning of common c. Use the relationship between Use the relationship between particular words
(e.g., synonyms, antonyms, homographs) to better understand each of the words.

> 6. Acquire and use accurately grade-appropriate general academic and domain-specific words $\quad$ 6. $\begin{aligned} & \text { Acquire and use accurately grade-appropriate } \\ & \text { general academic and domain-specific words }\end{aligned}$ general academic and domain-specific words
and phrases, including those that signal contrast, addition, and other logical relationships (e.g.,
however, although, nevertheless, similarly, however, although, nevertheless, similarly,
moreover, in addition). m a range of strategies. rade 4 reading and content, choosing flexibly
a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning
of a word or phrase. b. Use common, grade
$\qquad$ Latin affixes and roots as clues to the meaning
of a word (e.g., telegraph, photograph, autograph).
c. Consult reference materials (e.g., dictionaries, to find the pronunciation and determine or clarify the precise meaning of key words and phrases. $\qquad$
Demonstrate understanding of figurative
Explain the meaning of simple similes and
metaphors (e.g., as pretty as a picture) in
context.
Recognize and explain the meaning of
common idioms, adages, and proverbs c. Demonstrate understanding of words by relating them to their opposites (antonyms)
and to words with similar but not identical meanings (synonyms). moreover, in addition).
4. Determine or clarify the meaning of unknown on grade 3 reading and content, choosing flexibly
from a range of strategies.
a. Use sentence-level context as a clue to the
meaning of a word or phrase.
Determine the meaning of the
b. Determine the meaning of the new word known word (e.g., agreeable/disagreeable, comfortable/uncomfortable, care/careless,
heat/preheat). heat/preheat).
Use a known root Use a known root word as a clue to the
meaning of an unknown word with the same root (e.g., company, companion). d. Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the
precise meaning of key words and phrases.
5. Demonstrate understanding of word relationships
a. Distinguish the literal and nonliteral meanings
b. Identify real-life connections between words and their use (e.g., describe people who are
friendly or helpful).
c. Distinguish shades of meaning among related words that describe states of mind or degrees
of certainty (e.g., knew, believed, suspected, of certainty (e.g.,
heard, wondered).
6. Acquire and use accurately grade-appropriate and phrases, including those that signal precise whined, stammered) and that are basic to a particular topic (e.g., wildlife, conservation, and endangered when discussing animal preservation)


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 L.6.3a. Vary sentence patterns for meaning, reader/listener interest, and style. L.6.2a. Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements L.6.1e. Recognize variations from standard English in their own and others' writing and speaking, and identify and
use strategies to improve expression in conventional language.
 L.6.1c. Recognize and correct inappropriate shifts in pronoun number and person. L.5.2a. Use punctuation to separate items in a series. ${ }^{\text {. }}$
 L.4.3a. Choose words and phrases to convey ideas precisely.

L.4.3b. Choose punctuation for effect. | L.3.3a. Choose words and phrases for effect. |
| :--- | :--- |
| L.4.1f. Produce complete sentences, recognizin |
| L.4.1g. Correctly use frequently confused wor | L.3.1f. Ensure subject-verb and pronoun-antecedent agreement. Standard applied to increasingly sophisticated writing and speaking. Language Progressive Skills, by Grade

Standard 10: Range, Quality, and Complexity of Student Reading K-5
Measuring Text Complexity: Three Factors

Matching reader to text and task: Reader variables (such as motivation, knowledge, and experiences) and task variables (such as purpose and the
 tions posed)

## Qualitative evaluation of the text: Levels of meaning, structure, language conventionality and clarity, and knowledge demands



Note: More detailed information on text complexity and how it is measured is contained in Appendix A.
Range of Text Types for K-5
Students in $K-5$ apply the Reading standards to the following range of text types, with texts selected from a broad range of cultures and periods.


be selected around topics or themes that generate knowledge and allow students to study those topics or themes in depth. On the next page is an example of progressions of
texts building knowledge across grade levels.
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Staying on Topic Within a Grade and Across Grades:

## How to Build Knowledge Systematically in English Language Arts K-5

 Building knowledge systematically in English language arts is like giving children various pieces of a puzzle in each grade that, over time, will form one big picture. At a curricular or instructional level, texts-within and across grade levels-need to be selected around topics or themes that systematically develop the knowledge period. The knowledge children have learned about particular topics in early grade levels should then be expanded and developed in subsequent grade levels to ensure an increasingly deeper understanding of these topics. Children in the upper elementary grades will generally be expected to read these texts independently to the written texts that are read aloud, orally comparing and contrasting as well as analyzing and synthesizing, in the manner called for by the Standards.Preparation for reading complex informational texts should begin at the very earliest elementary school grades. What follows is one example that uses domainspecific nonfiction titles across grade levels to illustrate how curriculum designers and classroom teachers can infuse the English language arts block with rich, age-appropriate content knowledge and vocabulary in history/social studies, science, and the arts. Having students listen to informational read-aloud
grades helps lay the necessary foundation for students' reading and understanding of increasingly complex texts on their own in subsequent grades.

## ๗̣

Circulatory system

- The Heart by Seymour Simon
(2006)
- The Heart and Circulation by
Carol Ballard (2005)
- The Circulatory System by
Kristin Petrie (2007)
- The Amazing Circulatory System
by John Burstein (2009)
Respiratory system
- The Lungs by Seymour Simon
(2007)
- The Respiratory System by
Susan Glass (2004)
- The Respiratory System by
Kristin Petrie (2007)
- The Remarkable Respiratory
System by John Burstein (2009)
Endocrine system
- The Endocrine System by
Rebecca Olien (2006)
- The Exciting Endocrine System
by John Burstein (2009)
Digestive and excretory systems - What Happens to a Hamburger
by Paul Showers (1985)
by Paul Showers (1985)
- The Digestive System by
Christine Taylor-Butler (
Christine Taylor-Butler (2008)
- The Digestive System by
Rebecca L. Johnson (2006) - The Digestive System by Kristin
Petrie (2007) Taking care of you - Good Enough to Eat by Lizzy
Rockwell (1999) - Showdown at the Food Pyramid
by Rex Barron (2004) Muscular, skeletal, and nervous
systems
 - Muscles by Seymour Simon (1998)
- Bones by Introduction to the systems of the
human body and associated body  - Uody by Mick Manning (2007)
 - The Human Body by Gallimard
Jeunesse (2007) - The Busy Body Book by Lizzy
Rockwell (2008) - First Encyclopedia of the Taking care of your body: Germs,
diseases, and preventing illness - Germs Make Me Sick by Marilyn Berger (1995) Tiny Life on Your Body by
Christine Taylor-Butler (2005) - Germ Stories by Arthur
Kornberg (2007) - All About Scabs by The five senses and associated
body parts - My Five Senses by Aliki (1989) - Hearing by Maria Rius (1985) - Sight by Maria Rius (1985) - Smell by Maria Rius (1985) - Taste by Maria Rius (1985) - Touch by Maria Rius (1985) Taking care of your body: Overview (hygiene, diet, exercise,
rest) - My Amazing Body: A First
Look at Health \& Fitness by Pat Thomas (2001) - Get Up and Go! by Nancy - Go Wash Up by Doering
Tourville (2008) - Sleep by Paul Showers (1997)


## Exemplar Texts on a Topic Across Grades

 Students can begin learningabout the human body
starting in kindergarten
and then review and extend
their learning during each
subsequent grade.


Note on range and content
of student reading
To become college and career ready, students must grapple with works of exceptional craft and thought whose range extends across genres, cultures, and centuries. Such works offer profound insights into the human condition and serve as models for students' own thinking and writing. Along with high-quality contemporary works, these texts should be chosen from among seminal U.S. documents, the classics of American literature, and the timeless dramas of Shakespeare. Through wide and deep reading of literature and literary nonfiction of steadily increasing sophistication, students gain a reservoir of literary and cultural knowledge, references, and images; the ability to evaluate intricate arguments; and the capacity to surmount the challenges posed by complex texts.
College and Career Readiness Anchor Standards for Reading
The grades 6-12 standards on the following pages define what students should understand and be able to do by the The CCR and grade-specific standards are necessary complements-the former providing broad standards, the latter providing additional specificity-that together define the skills and understandings that all students must demonstrate. Key Ideas and Details

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

## Craft and Structure

4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
5. Assess how point of view or purpose shapes the content and style of a text.
Integration of Knowledge and Ideas
6. Integrate and evaluate content presented in diverse formats and media, including visually and quantitatively, as well as in words.*
7. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
8. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.

## Range of Reading and Level of Text Complexity

10. Read and comprehend complex literary and informational texts independently and proficiently.
"Please see "Research to Build Knowledge" in Writing and "Comprehension and Collaboration" in Speaking and Listening for
additional standards relevant to gathering, assessing, and applying information from print and digital sources.

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Reading Standards for Literature 6-12

| Grade 6 students: | Grade 7 students: | Grade 8 students: |
| :---: | :---: | :---: |
| Integration of Knowledge and Ideas |  |  |
| 7. Compare and contrast the experience of reading a story, drama, or poem to listening to or viewing an audio, video, or live version of the text, including contrasting what they "see" and "hear" when reading the text to what they perceive when they listen or watch. | 7. Compare and contrast a written story, drama, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., lighting, sound, color, or camera focus and angles in a film). | 7. Analyze the extent to which a filmed or live production of a story or drama stays faithful to or departs from the text or script, evaluating the choices made by the director or actors. |
| 8. (Not applicable to literature) | 8. (Not applicable to literature) | 8. (Not applicable to literature) |
| 9. Compare and contrast texts in different forms or genres (e.g., stories and poems; historical novels and fantasy stories) in terms of their approaches to similar themes and topics. | 9. Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history. | 9. Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works such as the Bible, including describing how the material is rendered new. |
| Range of Reading and Level of Text Complexity |  |  |
| 10. By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range. | 10. By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6-8 text complexity band proficiently, with scaffolding as needed at the high end of the range. | 10. By the end of the year, read and comprehend literature, including stories, dramas, and poems, at the high end of grades 6-8 text complexity band independently and proficiently. |



 Range of Reading and Level of Text Complexit

 8. (Not applicable to literature) (sniey

 Integration of Knowledge and Ideas

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\begin{aligned}
& \text { Grades 9-10 students: } \\
& \text { Key Ideas and Details } \\
& \text { 1. Cite strong and thorough textual evidence to support analysis of what the text } \\
& \text { says explicitly as well as inferences drawn from the text. } \\
& \hline \text { 2. } \begin{array}{l}
\text { Determine a theme or central idea of a text and analyze in detail its } \\
\text { development over the course of the text, including how it emerges and is } \\
\text { shaped and refined by specific details; provide an objective summary of the } \\
\text { text. }
\end{array} \\
& \hline \text { 3. } \quad \text { Analyze how complex characters (e.g., those with multiple or conflicting } \\
& \text { motivations) develop over the course of a text, interact with other characters, } \\
& \text { and advance the plot or develop the theme. }
\end{aligned}
$$

The CCR anchor standards and high school grade-specific
broad standards, the latter providing additional specificity
Reading Standards for Literature 6-12
Reading Standards for Informational Text 6-12
 Craft and Structure
4. Determine the meaning of words and phrases
as they are used in a text, including figurative, $\quad \begin{aligned} & \text { Determine the meaning of words and phrases } \\ & \text { as they are used in a text, including figurative, }\end{aligned} \quad \begin{aligned} & \text { 4. Determine the meaning of words and phrases as they } \\ & \text { are used in a text, including figurative, connotative, }\end{aligned}$
and technical meanings; analyze the impact of
specific word choices on meaning and tone,
including analogies or allusions to other texts.
Analyze in detail the structure of a specific
paragraph in a text, including the role of particular
sentences in developing and refining a key concept.
6. Determine an author's point of view or purpose in a ext and analyze how the author acknowledges and
responds to conflicting evidence or viewpoints.
Compare and contrast a text to an audio, video,
or multimedia version of the text, analyzing each $\quad \begin{aligned} & \text { Evaluate the advantages and disadvantages of using } \\ & \text { different mediums (e.g., print or digital text, video, }\end{aligned}$
medium's portrayal of the subject (e.g., how the multimedia) to present a particular topic or idea. medium's portrayal of the subject (e.g., how the
delivery of a speech affects the impact of the
words).
8. Trace and evaluate the argument and specific Trace and evaluate the argument and specific
laims in a text, assessing whether the reasoning is sound and the evidence is relevant and
sufficient to support the claims.
Analyze how two or more authors writing about
the same topic shape their presentations of key information by emphasizing different evidence or
advancing different interpretations of facts.
Range of Reading and Level of Text Complexity
10. By the end of the year, read and comprehend 10. By the end of the year, read and comprehend
literary nonfiction in the grades 6-8 text needed at the high end of the range.
connotative, and technical meanings.
5. Analyze how a particular sentence, paragraph, Analyze how a partion ar into the overall structure
chapter, or section fits int
of a text and contributes to the development of the ideas.
6. Determine an author's point of view or purpose

| Determine an author's point of view or purpose 6. $\begin{array}{l}\text { Determine an author's point of view or } \\ \text { purpose in a text and analyze how the author } \\ \text { in a text and explain how it is conveyed in the } \\ \text { text. }\end{array} \begin{array}{l}\text { distinguishes his or her position from that of }\end{array}$ |
| :--- |

Integration of Knowledge and Ideas
7. Integrate information presented in different 7
Integrate information presented in different
media or formats (e.g., visually, quantitatively)
as well as in words to develop a coherent
understanding of a topic or issue.
8. Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is
sound and the evidence is relevant and sufficient; Analyze a case in which two or more texts provide conflicting information on the same topic and identify where the
or interpretation. $\qquad$ By the end of the year, read and comprehend $\quad$ 10. By the end of the year, read and comprehend literary
literary nonfiction in the grades 6-8 text
nonfiction at the high end of the grades 6-8 text
nonfiction at the high end of the grades 6-8 text
complexity band independently and proficiently. needed at the high end of the range.

 Range of Reading and Level of Text Complexity әч7 моч би!

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8 person's life story in both pront.
emphasized in each account.
 Integration of Knowledge and Ideas
 chapter).



 Craft and Structure developed, and the connections that are drawn between them.
 details; provide an objective summary of the text.


 Key Ideas and Details

## Grades 9-10 students:

broad standards, the latter providing additional specificity.
Reading Standards for Informational Text 6-12

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\begin{aligned}
& \text { says explicitly as well as inferences draw } \\
& \text { where the text leaves matters uncertain. }
\end{aligned}
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Note on range and content
of student writing
For students, writing is a key means of asserting and defending claims, showing what they know about a subject, and conveying what they have experienced, imagined, thought, and felt. To be college- and careerready writers, students must take task, purpose, and audience into careful consideration, choosing words, information, structures, and formats deliberately. They need to know how to combine elements of different kinds of writing-for example, to use narrative strategies within argument and explanation within narrativeto produce complex and nuanced writing. They need to be able to use technology strategically when creating, refining, and collaborating on writing. They have to become at gathering information, evaluatin sources, and citing material accurately, reporting findings from their research and analysis of sources in a clear and cogent manner. They must have the flexibility, concentration, and fluency to produce high-quality firstdraft text under a tight deadline as well as the capacity to revisit and make improvements to a piece of writing over multiple drafts when circumstances encourage or require it.

College and Career Readiness Anchor Standards for Writing
The grades 6-12 standards on the following pages define what students should understand and be able to do by the end of each grade. They correspond to the College and Career Readiness (CCR) anchor standards below by number.
The CCR and grade-specific standards are necessary complements-the former providing broad standards, the latter providing additional specificity-that together define the skills and understandings that all students must demonstrate. Text Types and Purposes*
 through the effective selection, organization, and analysis of content.
3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details,
and well-structured event sequences.

Production and Distribution of Writing
4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

## Research to Build and Present Knowledge

7. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.
8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each
source, and integrate the information while avoiding plagiarism.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

Range of Writing
10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a
single sitting or a day or two) for a range of tasks, purposes, and audiences.
'These broad types of writing include many subgenres. See Appendix A for definitions of key writing types.
or explanation presented.
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 that follows from and supports the argument
presented.
 Establish and maintain a formal style.

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 Writing Standards 6-12

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Writing Standards 6-12

| Grade 6 students: | Grade 7 students: | Grade 8 students: |
| :---: | :---: | :---: |
| Text Types and Purposes (continued) |  |  |
| 3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. <br> a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. <br> b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. <br> c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. <br> d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. <br> e. Provide a conclusion that follows from the narrated experiences or events. | 3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. <br> a. Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. <br> b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters. <br> c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. <br> d. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events. <br> e. Provide a conclusion that follows from and reflects on the narrated experiences or events. | 3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences. <br> a. Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. <br> b. Use narrative techniques, such as dialogue, pacing, description, and reflection, to develop experiences, events, and/or characters. <br> c. Use a variety of transition words, phrases, and clauses to convey sequence, signal shifts from one time frame or setting to another, and show the relationships among experiences and events. <br> d. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events. <br> e. Provide a conclusion that follows from and reflects on the narrated experiences or events. |
| Production and Distribution of Writing |  |  |
| 4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.) | 4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards $1-3$ above.) | 4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.) |
| 5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards $1-3$ up to and including grade 6 on page 53.) | 5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed. (Editing for conventions should demonstrate command of Language standards $1-3$ up to and including grade 7 on page 53.) | 5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed. (Editing for conventions should demonstrate command of Language standards $1-3$ up to and including grade 8 on page 53.) |
| 6. Use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of three pages in a single sitting. | 6. Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources. | 6. Use technology, including the Internet, to produce and publish writing and present the relationships between information and ideas efficiently as well as to interact and collaborate with others. |


Writing Standards 6-12
The CCR anchor standards and high school grade-specific standards work in tandem to define college and career readiness expectations-the former providing broad standards, the latter providing additional specificity.

 Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and
create an organization that logically sequences claim(s), counterclaims, create an organizations, and evidence.
b. Develop claim(s) and counterclaims fairly and thoroughly, supplying the
most relevant evidence for each while pointing out the strengths and most relevant evidence for each while pointing out the strengths and
limitations of both in a manner that anticipates the audience's knowledge level, concerns, values, and possible biases.
Use words, phrases, and clauses as well as varied syntax to link the major
sections of the text, create cohesion, and clarify the relationships between sections of the text, create cohesion, and clarify the relationships between
claim(s) and reasons, between reasons and evidence, and between claim(s)
d. Establish and maintain a formal style and objective tone while attending to Provide a concluding statement or section that follows from and supports
the argument presented. the argument presented.

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Writing Standards 6-12

| Grades 9-10 students: | Grades 11-12 students: |
| :---: | :---: |
| Research to Build and Present Knowledge (continued) |  |
| 9. Draw evidence from literary or informational texts to support analysis, reflection, and research. <br> a. Apply grades 9-10 Reading standards to literature (e.g., "Analyze how an author draws on and transforms source material in a specific work [e.g., how Shakespeare treats a theme or topic from Ovid or the Bible or how a later author draws on a play by Shakespeare]"). <br> b. Apply grades 9-10 Reading standards to literary nonfiction (e.g., "Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning"). | 9. Draw evidence from literary or informational texts to support analysis, reflection, and research. <br> a. Apply grades 11-12 Reading standards to literature (e.g., "Demonstrate knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works of American literature, including how two or more texts from the same period treat similar themes or topics"). <br> b. Apply grades 11-12 Reading standards to literary nonfiction (e.g., "Delineate and evaluate the reasoning in seminal U.S. texts, including the application of constitutional principles and use of legal reasoning [e.g., in U.S. Supreme Court Case majority opinions and dissents] and the premises, purposes, and arguments in works of public advocacy [e.g., The Federalist, presidential addresses]"). |
| Range of Writing |  |

10. Write routinely over extended time frames (time for research, reflection, and
revision) and shorter time frames (a single sitting or a day or two) for a range of $\begin{aligned} & \text { 10. Write routinely over extended time frames (time for research, reflection, and } \\ & \text { revision) and shorter time frames (a single sitting or a day or two) for a range of }\end{aligned}$ tasks, purposes, and audiences.
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Speaking and Listening Standards 6-12
The following standards for grades 6-12 offer a focus for instruction in each year to help ensure that students gain adequate mastery of a range of skills
and applications. Students advancing through the grades are expected to meet each year's grade-specific standards and retain or further develop skills and understandings mastered in preceding grades.

Comprehension and Collaboration

1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-
led) with diverse partners on grade 6 topics, led) with diverse partners on grade 6 topics,
texts, and issues, building on others' ideas and a. Come to discusions prepared, having read or studied required material; explicitly draw on that preparation by referring to evidence on
the topic, text, or issue to probe and reflect on Follow rules for collegial discussions, set specific goals and deadlines,
individual roles as needed.
c. Pose and respond to specific questions with

Pose and respond to specific questions with
elaboration and detail by making comments
that contribute to the topic, text, or issue that contribute to
d. Review the key ideas expressed and
demonstrate understanding of multiple
demonstrate understanding of multiple
perspectives through reflection and paraphrasing.
Engage effectively in a range of collaborative
discussions (one-on-one, in groups, and teacher- $\quad \begin{aligned} & \text { Engage effectively in a range of collaborative } \\ & \text { discussions (one-on-one, in groups, and teacher- }\end{aligned}$ led) with diverse partners on grade 8 topics, texts, and issues, building on others' ideas and a. Come to discussions prepared, having read Come to discussions prepared, having read
or researched material under study; explicitly draw on that preparation by referring to
evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
Follow rules for collegial discussions and . Follow rules for collegial discussions and specific goals and deadlines, and define
individual roles as needed.

Pose questions that connect the ideas of
several speakers and respond to others'
questions and comments with relevant
d. Acknowledge new information expressed
by others, and, when warranted, qualify or
justify their own views in light of the evidence presented.
2. Analyze the purpose of information presented
in diverse media and formats (e.g., visually,
quantitatively, orally) and evaluate the motives
(e.g., social, commercial, political) behind its
presentation. presentation.
3. Delineate a speaker's argument and specific claims, evaluating the soundness of the reasoning
and relevance and sufficiency of the evidence and identifying when irrelevant evidence is introduced.


Present claims and findings, emphasizing salient
points in a focused, coherent manner with relevant points in a focused, coherent manner with relevant
evidence, sound valid reasoning, and well-chosen details; use appropriate eye contact, adequate
volume, and clear pronunciation. volume, and clear pronunciation.

Integrate multimedia and visual displays into
presentations to clarify information, strengthen
claims and evidence, and add interest.
Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when
indicated or appropriate. (See grade 8 Language
 expectations.) Anaze the main ideas and supporting details presented in diverse media and formats (e.g.,
visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study. 3. Delineate a speaker's argument and specific
claims, distinguishing claims that are supported by 3. $\begin{aligned} & \text { Delineate a speaker's argument and specific } \\ & \text { claims, evaluating the soundness of the reasoning }\end{aligned}$ Interpret information presented in diverse media
and formats (e.g., visually, quantitatively, orally) and formats (e.g., visually, quantitatively, orally)
and explain how it contributes to a topic, text, or
and explain how it contributes to a topic, text, or
issue under study.
4. Present claims and findings, sequencing ideas
logically and using pertinent descriptions, facts, $\quad$ 4. $\begin{aligned} & \text { Present claims and findings, emphasizing } \\ & \text { salient points in a focused, coherent manner }\end{aligned}$ salient points in a focused, coherent manner with pertinent descriptions, facts, details, and volume, and clear pronunciation.

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\begin{aligned}
& \text { Include multimedia components and visual } \\
& \text { displays in presentations to clarify claims and } \\
& \text { findinge }
\end{aligned}
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Presentation of Knowledge and Ideas and details to accentuate main ideas or themes; use appropriate eye contact, adequate volume,

Include multimedia components (e.g., graphics,
images, music, sound) and visual displays in
presentations to clarify information.
6. Adapt speech to a variety of contexts and tasks,
demonstrating command of formal English when standards 1 and 3 on page 53 for specific
findings and emphasize salient points.
6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when standards 1 and 3 on page 53 for specific expectations.)







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The CCR anchor standards and high school grade-specific
broad standards, the latter providing additional specificity.

## Speaking and Listening Standards 6-12

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 media (e.g., visually, quantitatively, oraly inility and accuracy of each source and Integrate multiple sources of information presented in diverse formats andmedia (e.g., visually, quantitatively, orally) in order to make informed decisions

 divergent and creative perspectives.







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Note on range and content of student language use To be college and career ready in language, students must have firm control over the conventions of standard English. At the same time, they must come to appreciate that language is as at least as much a | 0 |
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|  | able to choose words, syntax, and punctuation to express themselves

 thetorical effects. They must also have extensive vocabularies, built through reading and study, enabling them to comprehend complex texts and engage in purposeful writing about and conversations around content. They need to become skilled in determining or clarifying the meaning of words and phrases they encounter, choosing flexibly
from an array of strategies to aid from an array of strategies to aid
them. They must learn to see an individual word as part of a network 0
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0 that have similar denotations but different connotations. The inc/usion of Language standards in their own strand should not be taken as
an indication that skills related to conventions, effective language use, and vocabulary are unimportant to reading, writing, speaking, and istening; indeed, they are inseparable from such contexts.

College and Career Readiness Anchor Standards for Language
 end of each grade. They correspond to the College and Career Readiness (CCR) anchor standards below by number.
The CCR and grade-specific standards are necessary complements-the former providing broad standards, the latter providing additional specificity-that together define the skills and understandings that all students must demonstrate.

## Conventions of Standard English

monstrate command of the conventions of standard English grammar and usage when writing or speaking.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

Knowledge of Language

Vocabulary Acquisition and Use
 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
6. Acquire and use accurately a range of general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression. ம் $்$

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 The following standards for grades 6-12 offer a focus for instruction each year to help ensure that students gain adequate mastery of a range of skills and
applications. Students advancing through the grades are expected to meet each year's grade-specific standards and retain or further devel
Language Standards 6-12
Language Standards 6-12

| Grade 6 students: | Grade 7 students: | Grade 8 students: |
| :---: | :---: | :---: |
| Vocabulary Acquisition and Use |  |  |
| 4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexibly from a range of strategies. | 4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies. | 4. Determine or clarify the meaning of unknown and multiple-meaning words or phrases based on grade 8 reading and content, choosing flexibly from a range of strategies. |
| a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. | a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. | a. Use context (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) as a clue to the meaning of a word or phrase. |
| b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., audience, auditory, audible). | b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., belligerent, bellicose, rebel). | b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., precede, recede, secede). |
| c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. | c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of | c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech. |
| d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). | speech. <br> d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). | d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary). |

[^6]
Language Standards 6-12

| Language Standards 6-12 |
| :--- |
| Grades 9-10 students: |



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 L.6.3b. Maintain consistency in style and tone. L.6.3a. Vary sentence patterns for meaning, reader/listener interest, and style. L.6.2a. Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical element L.6.1e. Recognize variations from standard English in their own and others' writing and speaking, and identify and
use strategies to improve expression in conventional language. L.6.1d. Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents). L.5.2a. Use punctuation to separate items in a series.
L.6.1c. Recognize and correct inappropriate shifts in pr
 L.4.3b. Choose punctuation for effect L.4.3a. Choose words and phrases to convey ideas precisely. L.4.1g. Correctly use frequently confused words (e.g., to/too/two; there/their). L.3.3a. Choose words and phrases for effect.
L.4.1f. Produce complete sentences, recognizing
L.3.1f. Ensure subject-verb and pronoun-antecedent agreemen
Standard
to increasingly sophisticated writing and speaking.
 Language Progressive Skills, by Grade
Standard 10: Range, Quality, and Complexity of Student Reading 6-12
Measuring Text Complexity: Three Factors
Qualitative evaluation of the text: Levels of meaning, structure, language conventionality

Range of Text Types for 6-12

P10

 "Because I Could Not Stop for Death" by Emily Dickinson (1890)
 The Killer Angels by Michael Shaara (1975)

 "Ozymandias" by Percy Bysshe Shelley (1817)

 The Dark Is Rising by Susan Cooper (1973) "The Road Not Taken" by Robert Frost (1915) The Adventures of Tom Sawyer by Mark Twain (1876)

＇Please see＂Research to Build and Present Knowledge＂in Writing for additional standards relevant to gath－
ering，assessing，and applying information from print and digital sources．
Range of Reading and Level of Text Complexity
10．Read and comprehend complex literary and inform
approaches the authors take．
Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the

well as in words．＊
Integration of Knowledge and Ideas
6．Assess how point of view or purpose shapes the content and style of a text．
5．Analyze the structure of texts，including how specific sentences，paragraphs，and larger portions of the text（e．g．，a
section，chapter，scene，or stanza）relate to each other and the whole．
4．Interpret words
meanings，and and

3．Analyze how and why individuals，events，or ideas develop and interact over the course of a text and ideas．
2．Determine central ideas or themes of a text and analyze their development；summarize the key supporting details

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providing additional specificity－that together define the skills and understandings that all students must demonstrate．
 The grades 6－12 standards on the following pages define what students should understand and be able to do by the end
College and Career Readiness Anchor Standards for Reading
disciplines，not replace them． the specific content demands of the ұиәшәdmos он диеәш әле spıepuełs




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 information，and follow detailed xəןdmos əz！səyłuरs＇s＇squamnsıe
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 Reading is critical to building of student reading

Note on range and content
Reading Standards for Literacy in History/Social Studies 6-12 The standards below begin at grade 6; standards for K-5 reading in history/social studies, science, and technical subjects are integrated into the K-5 Reading standards. The CCR anchor standards and high school standards ind providing broad standards, the latter providing additional specificity.


1. Cite specific textual evidence to support analysis 1. Cite specific textual evidence to support analysis 1. Cite specific textual evidence to support analysis insights gained from specific details to an insights gained from specific details to an
understanding of the text as a whole.
Determine the central ideas or information of a
primary or secondary source; provide an accurate summary that makes clear the relationships among
the key details and ideas. the key details and ideas.
Evaluate various explanations for actions or events
and determine which explanation best accords
with textual evidence, acknowledging where the
text leaves matters uncertain.

author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines
faction in Federalist No. 10). faction in Federalist No. 10).
2. Analyze in detail how a complex primary source is structured, including how key sentences,
paragraphs, and larger portions of the text contribute to the whole.
3. Evaluate authors' differing points of view on the
Evaluate authors' differing points of view on the

屋
4. Integrate quantitative or technical analysis (e.g.,
charts, research data) with qualitative analysis in Integrate and evaluate multiple sources of $\begin{aligned} & \text { information presented in diverse formats and media }\end{aligned}$ print or digital text.
5. Determine the meaning of words and phrases 4. Determine the meaning of words and phrases history/social studies.
6. Analyze how a text uses structure to emphasize Analyze how a text uses structure to emphasize
key points or advance an explanation or analysis.
เ
7. Determine the central ideas or information of a primary or secondary source; provide an ary knowledge or opinions.
8. Identify key steps in a text's description of a process related to history/social studies (e.g., how
a bill becomes law, how interest rates are raised or lowered).

## Craft and Structure

 as they are used in a text, including vocabularyspecific to domains related to history/social specific
studies.
5. Describe how a text presents information (e.g.,
sequentially, comparatively, causally).
6. Identify aspects of a text that reveal an author's 6. Compare the point of view of two or more point of view or purpose (e.g., loaded language, authors for how they treat the same or similar inclusion or avoidance of particular facts).
Integration of Knowledge and Ideas
7. Integrate visual information (e.g., in charts,
graphs, photographs, videos, or maps) with othe
information in print and digital texts.
8. Distinguish among fact, opinion, and reasoned
judgment in a text. 8. $\begin{aligned} & \text { Assess the extent to which the reasoning and } \\ & \text { evidence in a text support the author's claims. }\end{aligned}$ evidence in a text support the author's claims.
9. Analyze the relationship between a primary and 9. Compare and contrast treatments of the same
9. Analyze the relationship between a primary and
secondary source on the same topic.

Integrate information from diverse sources,
both primary and secondary, into a coherent
understanding of an idea or event, noting
understanding of an idea or event, noting

| Range of Reading and Level of Text Complexity |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\begin{array}{lll}\text { 10. } & \text { By the end of grade 8, read and comprehend } \\ \text { history/social studies texts in the grades } 6-8 \text { text } \\ \text { complexity band independently and proficiently. }\end{array}$ | 10. | $\begin{array}{l}\text { By the end of grade 10, read and comprehend } \\ \text { history/social studies texts in the grades } 9-10 \\ \text { complexity band independently and proficiently. }\end{array}$ | $\begin{array}{l}\text { 10. }\end{array}$ | $\begin{array}{l}\text { By the end of grade } 12 \text {, read and comprehend } \\ \text { history/social studies texts in the grades } 11-\text { CCR text } \\ \text { complexity band independently and proficiently. }\end{array}$ |


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Cite specific textual evid
of science and technic
 ：sұuәpnłs 8－9 səpeds

Reading Standards for Literacy in Science and Technical Subjects 6－12


 ：słuәpnłs OL－6 səpe．s



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##  <br> 죽

College and Career Readiness Anchor Standards for Writing
The grades 6-12 standards on the following pages define what students should understand and be able to do by the end of each grade span. They correspond to the College and Career Readiness (CCR) anchor standards below by number. providing additional specificity-that together define the skills and understandings that all students must demonstrate. Text Types and Purposes*

1. Write arguments to support claims in an analysis of substantive topics or texts using valid reasoning and relevant and sufficient evidence.
2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
3. Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details
and well-structured event sequences.

Production and Distribution of Writing
4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

Research to Build and Present Knowledge
7. Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.

9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

Range of Writing
10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a
single sitting or a day or two) for a range of tasks, purposes, and audiences.
*These broad types of writing include many subgenres. See Appendix A for definitions of key writing types.

Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects 6-12 wws

Grades 6-8 students: Grades 9-10 students: Grades 11-12 students: | 2. Write informative/explanatory texts, including | 2. | $\begin{array}{l}\text { Write informative/explanatory texts, including } \\ \text { the narration of historical events, scientific }\end{array}$ | 2. | $\begin{array}{l}\text { Write informative/explanatory texts, including } \\ \text { the narration of historical events, scientific }\end{array}$ |
| :--- | :--- | :--- | :--- | :--- | the narration of historical events, scientific

procedures/ experiments, or technical processes. a. Introduce a topic and organize complex ideas, concepts, and information so that each new
element builds on that which precedes it to element builds on that which precedes it to
create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. Develop the topic thoroughly by selecting the
most significant and relevant facts, extended definitions, concrete details, quotations, or
other information and examples appropriate to other information and examples appropriate to
the audience's knowledge of the topic. Use varied transitions and sentence structures
to link the major sections of the text, create to link the major sections of the text, create
cohesion, and clarify the relationships among cohesion, and clarify the relationships among
complex ideas and concepts. Use precise language, domain
vocabulary and techniques such as metaphor,
simile, and analogy to manage the complexity simile, and analogy to manage the complexity
of the topic; convey a knowledgeable stance in a style that responds to the discipline and readers.
e. Provide a concluding statement or section
that follows from and supports the information or explanation provided (e.g., articulating implications or the significance of the topic).
3. (See note; not applicable as a separate
requirement) figures, tables), ansion.
aiding comprehension
b. Develop the topic with
and sufficient facts, ext
b. Develop the topic with well-chosen, relevant, concrete details, quotations, or other
information and examples appropriate to the audience's knowledge of the topic. Use varied transitions and sentence structures
to link the major sections of the text, create cohesion, and clarify the relationships among ideas and concepts.
d. Use precise language
vocabulary to manag Use precise language and domain-specific
vocabulary to manage the complexity of the topic and convey a style appropriate to
the discipline and context as well as to the expertise of likely readers.
e. Establish and maintain a formal style and and conventions of the discipline in which they are writing.
f. Provide a concluding statement or section
that follows from and supports the information or explanation presented (e.g., articulating
implications or the significance of the topic).
3. (See note; not applicable as a separate
equirement)
Note: $\quad$ Students' narrative skills continue to grow in these grades. The Standards require that students be able to incorporate narrative elements effectively into individuals or events of historical import. In science and technical subjects, students must be able to write precise enough descriptions of the step-by-step procedures they use in their investigations or technical work that others can replicate them and (possibly) reach the same results.

OI
Range of Writing
10．Write routinely o

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 capacity to link to other information
information flexibly and dynamically． products，taking advantage of to publish，and update individual or shared writing
products，taking advantage of technology＇s
 products in response to ongoing feedback
including new arguments or information． products in response to ongoing feedback，
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＇әวиə！pne＇pəssəлppe иәәq әлец әวuә！pne

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 Production and Distribution of Writing sұuәpnłs 8－9 səpeıs
Writing Standards for Literacy in History／Social Studies，Science，and Technical Subjects 6－12 team бu！ssarppe no бu！snoof＇yreordde mat e aq рәрәәи se би！？！им иәчұбиәдұs pure doןəләС
 Grades 9－10 students：

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 broaden the inquiry when appropriate；synthesize
multiple sources on the subject，demonstrating


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# COMMON CORE STATE STANDARDS for 

## Mathematics

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## Introduction

## Toward greater focus and coherence

Mathematics experiences in early childhood settings should concentrate on （1）number（which includes whole number，operations，and relations）and（2） geometry，spatial relations，and measurement，with more mathematics learning time devoted to number than to other topics．Mathematical process goals should be integrated in these content areas．
－Mathematics Learning in Early Childhood，National Research Council， 2009


#### Abstract

The composite standards［of Hong Kong，Korea and Singapore］have a number of features that can inform an international benchmarking process for the development of K－6 mathematics standards in the U．S．First，the composite standards concentrate the early learning of mathematics on the number， measurement，and geometry strands with less emphasis on data analysis and little exposure to algebra．The Hong Kong standards for grades 1－3 devote approximately half the targeted time to numbers and almost all the time remaining to geometry and measurement．


－Ginsburg，Leinwand and Decker， 2009

Because the mathematics concepts in［U．S．］textbooks are often weak，the presentation becomes more mechanical than is ideal．We looked at both traditional and non－traditional textbooks used in the US and found this conceptual weakness in both．
— Ginsburg et al．， 2005

There are many ways to organize curricula．The challenge，now rarely met，is to avoid those that distort mathematics and turn off students．

$$
\text { - Steen, } 2007
$$

For over a decade，research studies of mathematics education in high－performing countries have pointed to the conclusion that the mathematics curriculum in the United States must become substantially more focused and coherent in order to improve mathematics achievement in this country．To deliver on the promise of common standards，the standards must address the problem of a curriculum that is＂a mile wide and an inch deep．＂These Standards are a substantial answer to that challenge．

It is important to recognize that＂fewer standards＂are no substitute for focused standards．Achieving＂fewer standards＂would be easy to do by resorting to broad， general statements．Instead，these Standards aim for clarity and specificity．

Assessing the coherence of a set of standards is more difficult than assessing their focus．William Schmidt and Richard Houang（2002）have said that content standards and curricula are coherent if they are：
articulated over time as a sequence of topics and performances that are logical and reflect，where appropriate，the sequential or hierarchical nature of the disciplinary content from which the subject matter derives．That is， what and how students are taught should reflect not only the topics that fall within a certain academic discipline，but also the key ideas that determine how knowledge is organized and generated within that discipline．This implies

> that to be coherent, a set of content standards must evolve from particulars (e.g., the meaning and operations of whole numbers, including simple math facts and routine computational procedures associated with whole numbers and fractions) to deeper structures inherent in the discipline. These deeper structures then serve as a means for connecting the particulars (such as an understanding of the rational number system and its properties). (emphasis added)

These Standards endeavor to follow such a design, not only by stressing conceptual understanding of key ideas, but also by continually returning to organizing principles such as place value or the properties of operations to structure those ideas.

In addition, the "sequence of topics and performances" that is outlined in a body of mathematics standards must also respect what is known about how students learn. As Confrey (2007) points out, developing "sequenced obstacles and challenges for students...absent the insights about meaning that derive from careful study of learning, would be unfortunate and unwise." In recognition of this, the development of these Standards began with research-based learning progressions detailing what is known today about how students' mathematical knowledge, skill, and understanding develop over time.

## Understanding mathematics

These Standards define what students should understand and be able to do in their study of mathematics. Asking a student to understand something means asking a teacher to assess whether the student has understood it. But what does mathematical understanding look like? One hallmark of mathematical understanding is the ability to justify, in a way appropriate to the student's mathematical maturity, why a particular mathematical statement is true or where a mathematical rule comes from. There is a world of difference between a student who can summon a mnemonic device to expand a product such as $(a+b)(x+y)$ and a student who can explain where the mnemonic comes from. The student who can explain the rule understands the mathematics, and may have a better chance to succeed at a less familiar task such as expanding $(a+b+c)(x+y)$. Mathematical understanding and procedural skill are equally important, and both are assessable using mathematical tasks of sufficient richness.

The Standards set grade-specific standards but do not define the intervention methods or materials necessary to support students who are well below or well above grade-level expectations. It is also beyond the scope of the Standards to define the full range of supports appropriate for English language learners and for students with special needs. At the same time, all students must have the opportunity to learn and meet the same high standards if they are to access the knowledge and skills necessary in their post-school lives. The Standards should be read as allowing for the widest possible range of students to participate fully from the outset, along with appropriate accommodations to ensure maximum participaton of students with special education needs. For example, for students with disabilities reading should allow for use of Braille, screen reader technology, or other assistive devices, while writing should include the use of a scribe, computer, or speech-to-text technology. In a similar vein, speaking and listening should be interpreted broadly to include sign language. No set of grade-specific standards can fully reflect the great variety in abilities, needs, learning rates, and achievement levels of students in any given classroom. However, the Standards do provide clear signposts along the way to the goal of college and career readiness for all students.

The Standards begin on page 6 with eight Standards for Mathematical Practice.

## How to read the grade level standards

Standards define what students should understand and be able to do.
Clusters are groups of related standards. Note that standards from different clusters may sometimes be closely related, because mathematics is a connected subject.

Domains are larger groups of related standards. Standards from different domains may sometimes be closely related.

## Number and Operations in Base Ten <br> Use place vaiue understanding and properties of operations to perform multi-digit arithmetic.

1. Use place value understanding to round whole numbers to the nearest 10 or 100.
2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
3. Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., $9 \times 80,5 \times 60$ ) using strategies based on place value and properties of operations.

These Standards do not dictate curriculum or teaching methods. For example, just because topic $A$ appears before topic $B$ in the standards for a given grade, it does not necessarily mean that topic $A$ must be taught before topic $B$. A teacher might prefer to teach topic $B$ before topic $A$, or might choose to highlight connections by teaching topic $A$ and topic $B$ at the same time. Or, a teacher might prefer to teach a topic of his or her own choosing that leads, as a byproduct, to students reaching the standards for topics A and B.

What students can learn at any particular grade level depends upon what they have learned before. Ideally then, each standard in this document might have been phrased in the form, "Students who already know ... should next come to learn ...." But at present this approach is unrealistic-not least because existing education research cannot specify all such learning pathways. Of necessity therefore, grade placements for specific topics have been made on the basis of state and international comparisons and the collective experience and collective professional judgment of educators, researchers and mathematicians. One promise of common state standards is that over time they will allow research on learning progressions to inform and improve the design of standards to a much greater extent than is possible today. Learning opportunities will continue to vary across schools and school systems, and educators should make every effort to meet the needs of individual students based on their current understanding.

These Standards are not intended to be new names for old ways of doing business. They are a call to take the next step. It is time for states to work together to build on lessons learned from two decades of standards based reforms. It is time to recognize that standards are not just promises to our children, but promises we intend to keep.

## Mathematics | Standards for Mathematical Practice

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important "processes and proficiencies" with longstanding importance in mathematics education. The first of these are the NCTM process standards of problem solving, reasoning and proof, communication, representation, and connections. The second are the strands of mathematical proficiency specified in the National Research Council's report Adding It Up: adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations and relations), procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently and appropriately), and productive disposition (habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one's own efficacy).

## 1 Make sense of problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

## 2 Reason abstractly and quantitatively.

Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to decontextualize-to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents-and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

## 3 Construct viable arguments and critique the reasoning of others.

Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions,
communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and-if there is a flaw in an argument-explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

## 4 Model with mathematics.

Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

## 5 Use appropriate tools strategically.

Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

## 6 Attend to precision.

Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

## 7 Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern or structure.
Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see $7 \times 8$ equals the well remembered $7 \times 5+7 \times 3$, in preparation for learning about the distributive property. In the expression $x^{2}+9 x+14$, older students can see the 14 as $2 \times 7$ and the 9 as $2+7$. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see $5-3(x-y)^{2}$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers $x$ and $y$.

## 8 Look for and express regularity in repeated reasoning.

Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through $(1,2)$ with slope 3 , middle school students might abstract the equation $(y-2) /(x-1)=3$. Noticing the regularity in the way terms cancel when expanding $(x-1)(x+1),(x-1)\left(x^{2}+x+1\right)$, and $(x-1)\left(x^{3}+x^{2}+x+1\right)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.

## Connecting the Standards for Mathematical Practice to the Standards for Mathematical Content

The Standards for Mathematical Practice describe ways in which developing student practitioners of the discipline of mathematics increasingly ought to engage with the subject matter as they grow in mathematical maturity and expertise throughout the elementary, middle and high school years. Designers of curricula, assessments, and professional development should all attend to the need to connect the mathematical practices to mathematical content in mathematics instruction.

The Standards for Mathematical Content are a balanced combination of procedure and understanding. Expectations that begin with the word "understand" are often especially good opportunities to connect the practices to the content. Students who lack understanding of a topic may rely on procedures too heavily. Without a flexible base from which to work, they may be less likely to consider analogous problems, represent problems coherently, justify conclusions, apply the mathematics to practical situations, use technology mindfully to work with the mathematics, explain the mathematics accurately to other students, step back for an overview, or deviate from a known procedure to find a shortcut. In short, a lack of understanding effectively prevents a student from engaging in the mathematical practices.

In this respect, those content standards which set an expectation of understanding are potential "points of intersection" between the Standards for Mathematical Content and the Standards for Mathematical Practice. These points of intersection are intended to be weighted toward central and generative concepts in the school mathematics curriculum that most merit the time, resources, innovative energies, and focus necessary to qualitatively improve the curriculum, instruction, assessment, professional development, and student achievement in mathematics.

## Mathematics｜Kindergarten

In Kindergarten，instructional time should focus on two critical areas：（1） representing，relating，and operating on whole numbers，initially with sets of objects；（2）describing shapes and space．More learning time in Kindergarten should be devoted to number than to other topics．
（1）Students use numbers，including written numerals，to represent quantities and to solve quantitative problems，such as counting objects in a set；counting out a given number of objects；comparing sets or numerals； and modeling simple joining and separating situations with sets of objects， or eventually with equations such as $5+2=7$ and $7-2=5$ ．（Kindergarten students should see addition and subtraction equations，and student writing of equations in kindergarten is encouraged，but it is not required．） Students choose，combine，and apply effective strategies for answering quantitative questions，including quickly recognizing the cardinalities of small sets of objects，counting and producing sets of given sizes，counting the number of objects in combined sets，or counting the number of objects that remain in a set after some are taken away．
（2）Students describe their physical world using geometric ideas（e．g．， shape，orientation，spatial relations）and vocabulary．They identify，name， and describe basic two－dimensional shapes，such as squares，triangles， circles，rectangles，and hexagons，presented in a variety of ways（e．g．，with different sizes and orientations），as well as three－dimensional shapes such as cubes，cones，cylinders，and spheres．They use basic shapes and spatial reasoning to model objects in their environment and to construct more complex shapes．

## Grade K Overview

## Counting and Cardinality

－Know number names and the count sequence．
－Count to tell the number of objects．
－Compare numbers．

## Operations and Algebraic Thinking

－Understand addition as putting together and adding to，and understand subtraction as taking apart and taking from．

## Number and Operations in Base Ten

－Work with numbers 11－19 to gain foundations for place value．

Measurement and Data
－Describe and compare measurable attributes．
－Classify objects and count the number of objects in categories．

## Geometry

－Identify and describe shapes．
－Analyze，compare，create，and compose shapes．

## Mathematical Practices

1．Make sense of problems and persevere in solving them．

2．Reason abstractly and quantitatively．
3．Construct viable arguments and critique the reasoning of others．

4．Model with mathematics．
5．Use appropriate tools strategically．
6．Attend to precision．
7．Look for and make use of structure．
8．Look for and express regularity in repeated reasoning．

## Counting and Cardinality

 K.CC
## Know number names and the count sequence.

1. Count to 100 by ones and by tens.
2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1 ).
3. Write numbers from O to 20 . Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).

## Count to tell the number of objects.

4. Understand the relationship between numbers and quantities; connect counting to cardinality.
a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
c. Understand that each successive number name refers to a quantity that is one larger.
5. Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects.

## Compare numbers.

6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. ${ }^{1}$
7. Compare two numbers between 1 and 10 presented as written numerals.

## Operations and Algebraic Thinking

## Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

1. Represent addition and subtraction with objects, fingers, mental images, drawings ${ }^{2}$, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5=2+3$ and $5=4+1$ ).
4. For any number from 1 to 9 , find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.
5. Fluently add and subtract within 5 .
[^7]
## Number and Operations in Base Ten K.NBT

Work with numbers 11-19 to gain foundations for place value.

1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., $18=10+$ 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

## Measurement and Data K.MD

## Describe and compare measurable attributes.

1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
2. Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.

## Classify objects and count the number of objects in each category.

3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. ${ }^{3}$
Geometry
Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).
4. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.
5. Correctly name shapes regardless of their orientations or overall size.
6. Identify shapes as two-dimensional (lying in a plane, "flat") or threedimensional ("solid").

## Analyze, compare, create, and compose shapes.

4. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).
5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
6. Compose simple shapes to form larger shapes. For example, "Can you join these two triangles with full sides touching to make a rectangle?"
[^8]
## Mathematics | Grade 1

In Grade 1, instructional time should focus on four critical areas: (1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 20; (2) developing understanding of whole number relationships and place value, including grouping in tens and ones; (3) developing understanding of linear measurement and measuring lengths as iterating length units; and (4) reasoning about attributes of, and composing and decomposing geometric shapes.
(1) Students develop strategies for adding and subtracting whole numbers based on their prior work with small numbers. They use a variety of models, including discrete objects and length-based models (e.g., cubes connected to form lengths), to model add-to, take-from, put-together, take-apart, and compare situations to develop meaning for the operations of addition and subtraction, and to develop strategies to solve arithmetic problems with these operations. Students understand connections between counting and addition and subtraction (e.g., adding two is the same as counting on two). They use properties of addition to add whole numbers and to create and use increasingly sophisticated strategies based on these properties (e.g., "making tens") to solve addition and subtraction problems within 20. By comparing a variety of solution strategies, children build their understanding of the relationship between addition and subtraction.
(2) Students develop, discuss, and use efficient, accurate, and generalizable methods to add within 100 and subtract multiples of 10 . They compare whole numbers (at least to 100) to develop understanding of and solve problems involving their relative sizes. They think of whole numbers between 10 and 100 in terms of tens and ones (especially recognizing the numbers 11 to 19 as composed of a ten and some ones). Through activities that build number sense, they understand the order of the counting numbers and their relative magnitudes.
(3) Students develop an understanding of the meaning and processes of measurement, including underlying concepts such as iterating (the mental activity of building up the length of an object with equal-sized units) and the transitivity principle for indirect measurement. ${ }^{1}$
(4) Students compose and decompose plane or solid figures (e.g., put two triangles together to make a quadrilateral) and build understanding of part-whole relationships as well as the properties of the original and composite shapes. As they combine shapes, they recognize them from different perspectives and orientations, describe their geometric attributes, and determine how they are alike and different, to develop the background for measurement and for initial understandings of properties such as congruence and symmetry.

[^9]
## Grade 1 Overview

Operations and Algebraic Thinking

- Represent and solve problems involving addition and subtraction.
- Understand and apply properties of operations and the relationship between addition and subtraction.
- Add and subtract within 20.
- Work with addition and subtraction equations.


## Number and Operations in Base Ten

- Extend the counting sequence.
- Understand place value.
- Use place value understanding and properties of operations to add and subtract.

Measurement and Data

- Measure lengths indirectly and by iterating length units.
- Tell and write time.
- Represent and interpret data.


## Geometry

- Reason with shapes and their attributes.


## Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

## Represent and solve problems involving addition and subtraction.

1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. ${ }^{2}$
2. Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

## Understand and apply properties of operations and the relationship between addition and subtraction.

3. Apply properties of operations as strategies to add and subtract. ${ }^{3}$ Examples: If $8+3=11$ is known, then $3+8=11$ is also known. (Commutative property of addition.) To add $2+6+4$, the second two numbers can be added to make a ten, so $2+6+4=2+10=12$. (Associative property of addition.)
4. Understand subtraction as an unknown-addend problem. For example, subtract $10-8$ by finding the number that makes 10 when added to 8 .

## Add and subtract within 20.

5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
6. Add and subtract within 20 , demonstrating fluency for addition and subtraction within 10 . Use strategies such as counting on; making ten (e.g., $8+6=8+2+4=10+4=14$ ); decomposing a number leading to a ten (e.g., $13-4=13-3-1=10-1=9$ ); using the relationship between addition and subtraction (e.g., knowing that $8+4=12$, one knows $12-8$ $=4$ ); and creating equivalent but easier or known sums (e.g., adding $6+$ 7 by creating the known equivalent $6+6+1=12+1=13$ ).

## Work with addition and subtraction equations.

7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? $6=6,7=8-1$, $5+2=2+5,4+1=5+2$.
8. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8+$ $?=11,5=\square-3,6+6=\square$.

Number and Operations in Base Ten

## Extend the counting sequence.

1. Count to 120 , starting at any number less than 120 . In this range, read and write numerals and represent a number of objects with a written numeral.

## Understand place value.

2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
a. 10 can be thought of as a bundle of ten ones - called a "ten."
b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
C. The numbers $10,20,30,40,50,60,70,80,90$ refer to one, two, three, four, five, six, seven, eight, or nine tens (and O ones).
[^10]
## COMMON CORE STATE STANDARDS for MATHEMATICS

3．Compare two two－digit numbers based on meanings of the tens and ones digits，recording the results of comparisons with the symbols $>$ ，＝，and＜．

## Use place value understanding and properties of operations to add and subtract．

4．Add within 100 ，including adding a two－digit number and a one－digit number，and adding a two－digit number and a multiple of 10，using concrete models or drawings and strategies based on place value，properties of operations，and／or the relationship between addition and subtraction； relate the strategy to a written method and explain the reasoning used． Understand that in adding two－digit numbers，one adds tens and tens，ones and ones；and sometimes it is necessary to compose a ten．

5．Given a two－digit number，mentally find 10 more or 10 less than the number，without having to count；explain the reasoning used．

6．Subtract multiples of 10 in the range 10－90 from multiples of 10 in the range 10－90（positive or zero differences），using concrete models or drawings and strategies based on place value，properties of operations， and／or the relationship between addition and subtraction；relate the strategy to a written method and explain the reasoning used．

## Measurement and Data

## Measure lengths indirectly and by iterating length units．

1．Order three objects by length；compare the lengths of two objects indirectly by using a third object．

2．Express the length of an object as a whole number of length units，by laying multiple copies of a shorter object（the length unit）end to end； understand that the length measurement of an object is the number of same－size length units that span it with no gaps or overlaps．Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps．

## Tell and write time．

3．Tell and write time in hours and half－hours using analog and digital clocks．

## Represent and interpret data．

4．Organize，represent，and interpret data with up to three categories；ask and answer questions about the total number of data points，how many in each category，and how many more or less are in one category than in another．

Geometry

## Reason with shapes and their attributes．

1．Distinguish between defining attributes（e．g．，triangles are closed and three－sided）versus non－defining attributes（e．g．，color，orientation， overall size）；build and draw shapes to possess defining attributes．

2．Compose two－dimensional shapes（rectangles，squares，trapezoids， triangles，half－circles，and quarter－circles）or three－dimensional shapes （cubes，right rectangular prisms，right circular cones，and right circular cylinders）to create a composite shape，and compose new shapes from the composite shape．${ }^{4}$
3．Partition circles and rectangles into two and four equal shares，describe the shares using the words halves，fourths，and quarters，and use the phrases half of，fourth of，and quarter of．Describe the whole as two of， or four of the shares．Understand for these examples that decomposing into more equal shares creates smaller shares．

[^11]
## Mathematics｜Grade 2

In Grade 2，instructional time should focus on four critical areas：（1） extending understanding of base－ten notation；（2）building fluency with addition and subtraction；（3）using standard units of measure；and（4） describing and analyzing shapes．
（1）Students extend their understanding of the base－ten system．This includes ideas of counting in fives，tens，and multiples of hundreds，tens， and ones，as well as number relationships involving these units，including comparing．Students understand multi－digit numbers（up to 1000）written in base－ten notation，recognizing that the digits in each place represent amounts of thousands，hundreds，tens，or ones（e．g．， 853 is 8 hundreds +5 tens +3 ones）．
（2）Students use their understanding of addition to develop fluency with addition and subtraction within 100 ．They solve problems within 1000 by applying their understanding of models for addition and subtraction， and they develop，discuss，and use efficient，accurate，and generalizable methods to compute sums and differences of whole numbers in base－ten notation，using their understanding of place value and the properties of operations．They select and accurately apply methods that are appropriate for the context and the numbers involved to mentally calculate sums and differences for numbers with only tens or only hundreds．
（3）Students recognize the need for standard units of measure（centimeter and inch）and they use rulers and other measurement tools with the understanding that linear measure involves an iteration of units．They recognize that the smaller the unit，the more iterations they need to cover a given length．
（4）Students describe and analyze shapes by examining their sides and angles．Students investigate，describe，and reason about decomposing and combining shapes to make other shapes．Through building，drawing， and analyzing two－and three－dimensional shapes，students develop a foundation for understanding area，volume，congruence，similarity，and symmetry in later grades．

## Grade 2 Overview

Operations and Algebraic Thinking
－Represent and solve problems involving addition and subtraction．
－Add and subtract within 20.
－Work with equal groups of objects to gain foundations for multiplication．

Number and Operations in Base Ten
－Understand place value．
－Use place value understanding and properties of operations to add and subtract．

## Mathematical Practices

1．Make sense of problems and persevere in solving them．

2．Reason abstractly and quantitatively．
3．Construct viable arguments and critique the reasoning of others．

4．Model with mathematics．
5．Use appropriate tools strategically．
6．Attend to precision．
7．Look for and make use of structure．
8．Look for and express regularity in repeated reasoning．

## Measurement and Data

－Measure and estimate lengths in standard units．
－Relate addition and subtraction to length．
－Work with time and money．
－Represent and interpret data．

## Geometry

－Reason with shapes and their attributes．

Represent and solve problems involving addition and subtraction.

1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. ${ }^{1}$

## Add and subtract within 20.

2. Fluently add and subtract within 20 using mental strategies. ${ }^{2}$ By end of Grade 2, know from memory all sums of two one-digit numbers.

## Work with equal groups of objects to gain foundations for multiplication.

3. Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2 s ; write an equation to express an even number as a sum of two equal addends.
4. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

## Number and Operations in Base Ten

## Understand place value.

1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:
a. 100 can be thought of as a bundle of ten tens - called a "hundred."
b. The numbers $100,200,300,400,500,600,700,800,900$ refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and O ones).
2. Count within 1000; skip-count by $5 \mathrm{~s}, 10 \mathrm{~s}$, and 100 s .
3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
4. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.

## Use place value understanding and properties of operations to add and subtract.

5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
6. Add up to four two-digit numbers using strategies based on place value and properties of operations.
7. Add and subtract within 1000 , using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting threedigit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
8. Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.
9. Explain why addition and subtraction strategies work, using place value and the properties of operations. ${ }^{3}$
[^12]
## Measurement and Data

## Measure and estimate lengths in standard units．

1．Measure the length of an object by selecting and using appropriate tools such as rulers，yardsticks，meter sticks，and measuring tapes．
2．Measure the length of an object twice，using length units of different lengths for the two measurements；describe how the two measurements relate to the size of the unit chosen．

3．Estimate lengths using units of inches，feet，centimeters，and meters．
4．Measure to determine how much longer one object is than another， expressing the length difference in terms of a standard length unit．

## Relate addition and subtraction to length．

5．Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units，e．g．，by using drawings（such as drawings of rulers）and equations with a symbol for the unknown number to represent the problem．
6．Represent whole numbers as lengths from $O$ on a number line diagram with equally spaced points corresponding to the numbers $0,1,2, \ldots$ ，and represent whole－number sums and differences within 100 on a number line diagram．

## Work with time and money．

7．Tell and write time from analog and digital clocks to the nearest five minutes，using a．m．and p．m．
8．Solve word problems involving dollar bills，quarters，dimes，nickels，and pennies，using $\$$ and $\$$ symbols appropriately．Example：If you have 2 dimes and 3 pennies，how many cents do you have？

## Represent and interpret data．

9．Generate measurement data by measuring lengths of several objects to the nearest whole unit，or by making repeated measurements of the same object．Show the measurements by making a line plot，where the horizontal scale is marked off in whole－number units．
10．Draw a picture graph and a bar graph（with single－unit scale）to represent a data set with up to four categories．Solve simple put－ together，take－apart，and compare problems ${ }^{4}$ using information presented in a bar graph．

## Geometry

## Reason with shapes and their attributes．

1．Recognize and draw shapes having specified attributes，such as a given number of angles or a given number of equal faces．${ }^{5}$ Identify triangles， quadrilaterals，pentagons，hexagons，and cubes．
2．Partition a rectangle into rows and columns of same－size squares and count to find the total number of them．
3．Partition circles and rectangles into two，three，or four equal shares， describe the shares using the words halves，thirds，half of，a third of， etc．，and describe the whole as two halves，three thirds，four fourths． Recognize that equal shares of identical wholes need not have the same shape．

[^13]
## Mathematics｜Grade 3

In Grade 3，instructional time should focus on four critical areas：（1） developing understanding of multiplication and division and strategies for multiplication and division within 100；（2）developing understanding of fractions，especially unit fractions（fractions with numerator 1）；（3） developing understanding of the structure of rectangular arrays and of area；and（4）describing and analyzing two－dimensional shapes．
（1）Students develop an understanding of the meanings of multiplication and division of whole numbers through activities and problems involving equal－sized groups，arrays，and area models；multiplication is finding an unknown product，and division is finding an unknown factor in these situations．For equal－sized group situations，division can require finding the unknown number of groups or the unknown group size．Students use properties of operations to calculate products of whole numbers，using increasingly sophisticated strategies based on these properties to solve multiplication and division problems involving single－digit factors．By comparing a variety of solution strategies，students learn the relationship between multiplication and division．
（2）Students develop an understanding of fractions，beginning with unit fractions．Students view fractions in general as being built out of unit fractions，and they use fractions along with visual fraction models to represent parts of a whole．Students understand that the size of a fractional part is relative to the size of the whole．For example， $1 / 2$ of the paint in a small bucket could be less paint than $1 / 3$ of the paint in a larger bucket，but $1 / 3$ of a ribbon is longer than $1 / 5$ of the same ribbon because when the ribbon is divided into 3 equal parts，the parts are longer than when the ribbon is divided into 5 equal parts．Students are able to use fractions to represent numbers equal to，less than，and greater than one． They solve problems that involve comparing fractions by using visual fraction models and strategies based on noticing equal numerators or denominators．
（3）Students recognize area as an attribute of two－dimensional regions． They measure the area of a shape by finding the total number of same－ size units of area required to cover the shape without gaps or overlaps， a square with sides of unit length being the standard unit for measuring area．Students understand that rectangular arrays can be decomposed into identical rows or into identical columns．By decomposing rectangles into rectangular arrays of squares，students connect area to multiplication，and justify using multiplication to determine the area of a rectangle．
（4）Students describe，analyze，and compare properties of two－ dimensional shapes．They compare and classify shapes by their sides and angles，and connect these with definitions of shapes．Students also relate their fraction work to geometry by expressing the area of part of a shape as a unit fraction of the whole．

## Grade 3 Overview

Operations and Algebraic Thinking

- Represent and solve problems involving multiplication and division.
- Understand properties of multiplication and the relationship between multiplication and division.
- Multiply and divide within 100.
- Solve problems involving the four operations, and identify and explain patterns in arithmetic.


## Number and Operations in Base Ten

- Use place value understanding and properties of operations to perform multi-digit arithmetic.


## Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

## Number and Operations-Fractions

- Develop understanding of fractions as numbers.


## Measurement and Data

- Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.
- Represent and interpret data.
- Geometric measurement: understand concepts of area and relate area to multiplication and to addition.
- Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.


## Geometry

- Reason with shapes and their attributes.


## Operations and Algebraic Thinking

Represent and solve problems involving multiplication and division.

1. Interpret products of whole numbers, e.g., interpret $5 \times 7$ as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as $5 \times 7$.
2. Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$.
3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. ${ }^{1}$
4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 $x ?=48,5=\square \div 3,6 \times 6=$ ?

## Understand properties of multiplication and the relationship between multiplication and division.

5. Apply properties of operations as strategies to multiply and divide. ${ }^{2}$ Examples: If $6 \times 4=24$ is known, then $4 \times 6=24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by 3 $\times 5=15$, then $15 \times 2=30$, or by $5 \times 2=10$, then $3 \times 10=30$. (Associative property of multiplication.) Knowing that $8 \times 5=40$ and $8 \times 2=16$, one can find $8 \times 7$ as $8 \times(5+2)=(8 \times 5)+(8 \times 2)=40+16=56$. (Distributive property.)
6. Understand division as an unknown-factor problem. For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8 .

## Multiply and divide within 100.

7. Fluently multiply and divide within 100 , using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times$ $5=40$, one knows $40 \div 5=8$ ) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

## Solve problems involving the four operations, and identify and explain patterns in arithmetic.

8. Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. ${ }^{3}$
9. Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.
[^14]
## Number and Operations in Base Ten

Use place value understanding and properties of operations to perform multi-digit arithmetic. ${ }^{4}$

1. Use place value understanding to round whole numbers to the nearest 10 or 100.
2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
3. Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., $9 \times 80,5 \times 60$ ) using strategies based on place value and properties of operations.

Number and Operations-Fractions ${ }^{5}$

## Develop understanding of fractions as numbers.

1. Understand a fraction $1 / b$ as the quantity formed by 1 part when a whole is partitioned into $b$ equal parts; understand $a$ fraction $a / b$ as the quantity formed by a parts of size $1 / b$.
2. Understand a fraction as a number on the number line; represent fractions on a number line diagram.
a. Represent a fraction $1 / b$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into $b$ equal parts. Recognize that each part has size $1 / b$ and that the endpoint of the part based at 0 locates the number $1 / b$ on the number line.
b. Represent a fraction $a / b$ on a number line diagram by marking off a lengths $1 / b$ from 0 . Recognize that the resulting interval has size $a / b$ and that its endpoint locates the number $a / b$ on the number line.
3. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.
a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
b. Recognize and generate simple equivalent fractions, e.g., $1 / 2=$ $2 / 4,4 / 6=2 / 3$. Explain why the fractions are equivalent, e.g., by using a visual fraction model.
c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. Examples: Express 3 in the form $3=3 / 1$; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram.
d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols $>$, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

## Measurement and Data

## Solve problems involving measurement and estimation of intervals

 of time, liquid volumes, and masses of objects.1. Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.
${ }^{4} \mathrm{~A}$ range of algorithms may be used.
${ }^{5}$ Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4,6 , and 8 .
2. Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (I). ${ }^{6}$ Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.?

## Represent and interpret data.

3. Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.
4. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate unitswhole numbers, halves, or quarters.

## Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

5. Recognize area as an attribute of plane figures and understand concepts of area measurement.
a. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.
b. A plane figure which can be covered without gaps or overlaps by $n$ unit squares is said to have an area of $n$ square units.
6. Measure areas by counting unit squares (square cm , square m , square in, square ft , and improvised units).
7. Relate area to the operations of multiplication and addition.
a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
b. Multiply side lengths to find areas of rectangles with wholenumber side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
c. Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths $a$ and $b+c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.
d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.
8. Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

[^15]
## Geometry

## Reason with shapes and their attributes．

1．Understand that shapes in different categories（e．g．，rhombuses， rectangles，and others）may share attributes（e．g．，having four sides）， and that the shared attributes can define a larger category（e．g．， quadrilaterals）．Recognize rhombuses，rectangles，and squares as examples of quadrilaterals，and draw examples of quadrilaterals that do not belong to any of these subcategories．

2．Partition shapes into parts with equal areas．Express the area of each part as a unit fraction of the whole．For example，partition a shape into 4 parts with equal area，and describe the area of each part as $1 / 4$ of the area of the shape．

## Mathematics | Grade 4

In Grade 4, instructional time should focus on three critical areas: (1) developing understanding and fluency with multi-digit multiplication, and developing understanding of dividing to find quotients involving multi-digit dividends; (2) developing an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers; (3) understanding that geometric figures can be analyzed and classified based on their properties, such as having parallel sides, perpendicular sides, particular angle measures, and symmetry.
(1) Students generalize their understanding of place value to $1,000,000$, understanding the relative sizes of numbers in each place. They apply their understanding of models for multiplication (equal-sized groups, arrays, area models), place value, and properties of operations, in particular the distributive property, as they develop, discuss, and use efficient, accurate, and generalizable methods to compute products of multi-digit whole numbers. Depending on the numbers and the context, they select and accurately apply appropriate methods to estimate or mentally calculate products. They develop fluency with efficient procedures for multiplying whole numbers; understand and explain why the procedures work based on place value and properties of operations; and use them to solve problems. Students apply their understanding of models for division, place value, properties of operations, and the relationship of division to multiplication as they develop, discuss, and use efficient, accurate, and generalizable procedures to find quotients involving multi-digit dividends. They select and accurately apply appropriate methods to estimate and mentally calculate quotients, and interpret remainders based upon the context.
(2) Students develop understanding of fraction equivalence and operations with fractions. They recognize that two different fractions can be equal (e.g., $15 / 9=5 / 3$ ), and they develop methods for generating and recognizing equivalent fractions. Students extend previous understandings about how fractions are built from unit fractions, composing fractions from unit fractions, decomposing fractions into unit fractions, and using the meaning of fractions and the meaning of multiplication to multiply a fraction by a whole number.
(3) Students describe, analyze, compare, and classify two-dimensional shapes. Through building, drawing, and analyzing two-dimensional shapes, students deepen their understanding of properties of two-dimensional objects and the use of them to solve problems involving symmetry.

## Grade 4 Overview

## Operations and Algebraic Thinking

- Use the four operations with whole numbers to solve problems.
- Gain familiarity with factors and multiples.
- Generate and analyze patterns.


## Number and Operations in Base Ten

- Generalize place value understanding for multidigit whole numbers.
- Use place value understanding and properties of operations to perform multi-digit arithmetic.


## Number and Operations-Fractions

- Extend understanding of fraction equivalence and ordering.
- Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.
- Understand decimal notation for fractions, and compare decimal fractions.


## Measurement and Data

- Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.
- Represent and interpret data.
- Geometric measurement: understand concepts of angle and measure angles.


## Geometry

- Draw and identify lines and angles, and classify shapes by properties of their lines and angles.


## Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

## Use the four operations with whole numbers to solve problems.

1. Interpret a multiplication equation as a comparison, e.g., interpret 35 $=5 \times 7$ as a statement that 35 is times as many as 7 and 7 times as many as 5 . Represent verbal statements of multiplicative comparisons as multiplication equations.
2. Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison. ${ }^{1}$
3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

## Gain familiarity with factors and multiples.

4. Find all factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite.

## Generate and analyze patterns.

5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. For example, given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.

## Number and Operations in Base Ten ${ }^{2}$

Generalize place value understanding for multi-digit whole numbers.

1. Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that $700 \div 70=10$ by applying concepts of place value and division.
2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>,=$, and $<$ symbols to record the results of comparisons.
3. Use place value understanding to round multi-digit whole numbers to any place.

## Use place value understanding and properties of operations to perform multi-digit arithmetic.

4. Fluently add and subtract multi-digit whole numbers using the standard algorithm.
5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

TSee Glossary, Table 2.
${ }^{2}$ Grade 4 expectations in this domain are limited to whole numbers less than or equal to 1,000,000.
6. Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
Number and Operations-Fractions ${ }^{3}$

## Extend understanding of fraction equivalence and ordering.

1. Explain why a fraction $a / b$ is equivalent to a fraction $(n \times a) /(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.
2. Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $1 / 2$. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

## Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.

3. Understand a fraction $a / b$ with $a>1$ as a sum of fractions $1 / b$.
a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.
b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. Examples: $3 / 8=1 / 8+1 / 8+1 / 8$; $3 / 8=1 / 8+2 / 8 ; 21 / 8=1+1+1 / 8=8 / 8+8 / 8+1 / 8$.
c. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.
d. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.
4. Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.
a. Understand a fraction $a / b$ as a multiple of $1 / b$. For example, use a visual fraction model to represent $5 / 4$ as the product $5 \times(1 / 4)$, recording the conclusion by the equation 5/4 $=5 \times(1 / 4)$.
b. Understand a multiple of $a / b$ as a multiple of $1 / b$, and use this understanding to multiply a fraction by a whole number. For example, use a visual fraction model to express $3 \times(2 / 5)$ as $6 \times(1 / 5)$, recognizing this product as 6/5. (In general, $n \times(a / b)=(n \times a) / b$.)
c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. For example, if each person at a party will eat $3 / 8$ of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?
[^16]
## Understand decimal notation for fractions, and compare decimal fractions.

5. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and $100 .{ }^{4}$ For example, express $3 / 10$ as $30 / 100$, and add $3 / 10+4 / 100=34 / 100$.
6. Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.
7. Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or <, and justify the conclusions, e.g., by using a visual model.

## Measurement and Data

## Solve problems involving measurement and conversion of

 measurements from a larger unit to a smaller unit.1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; I, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a twocolumn table. For example, know that 1 ft is 12 times as long as 1 in . Express the length of a 4 ft snake as 48 in . Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), ...
2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.
3. Apply the area and perimeter formulas for rectangles in real world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.

## Represent and interpret data.

4. Make a line plot to display a data set of measurements in fractions of a unit ( $1 / 2,1 / 4,1 / 8$ ). Solve problems involving addition and subtraction of fractions by using information presented in line plots. For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.

Geometric measurement: understand concepts of angle and measure angles.
5. Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement:
a. An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through $1 / 360$ of a circle is called a "one-degree angle," and can be used to measure angles.
b. An angle that turns through $n$ one-degree angles is said to have an angle measure of $n$ degrees.
${ }^{4}$ Students who can generate equivalent fractions can develop strategies for adding fractions with unlike denominators in general. But addition and subtraction with unlike denominators in general is not a requirement at this grade.

6．Measure angles in whole－number degrees using a protractor．Sketch angles of specified measure．
7．Recognize angle measure as additive．When an angle is decomposed into non－overlapping parts，the angle measure of the whole is the sum of the angle measures of the parts．Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems，e．g．，by using an equation with a symbol for the unknown angle measure．

## Geometry

Draw and identify lines and angles，and classify shapes by properties of their lines and angles．

1．Draw points，lines，line segments，rays，angles（right，acute，obtuse）， and perpendicular and parallel lines．Identify these in two－dimensional figures．
2．Classify two－dimensional figures based on the presence or absence of parallel or perpendicular lines，or the presence or absence of angles of a specified size．Recognize right triangles as a category，and identify right triangles．
3．Recognize a line of symmetry for a two－dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts．Identify line－symmetric figures and draw lines of symmetry．

## Mathematics | Grade 5

In Grade 5, instructional time should focus on three critical areas: (1) developing fluency with addition and subtraction of fractions, and developing understanding of the multiplication of fractions and of division of fractions in limited cases (unit fractions divided by whole numbers and whole numbers divided by unit fractions); (2) extending division to 2-digit divisors, integrating decimal fractions into the place value system and developing understanding of operations with decimals to hundredths, and developing fluency with whole number and decimal operations; and (3) developing understanding of volume.
(1) Students apply their understanding of fractions and fraction models to represent the addition and subtraction of fractions with unlike denominators as equivalent calculations with like denominators. They develop fluency in calculating sums and differences of fractions, and make reasonable estimates of them. Students also use the meaning of fractions, of multiplication and division, and the relationship between multiplication and division to understand and explain why the procedures for multiplying and dividing fractions make sense. (Note: this is limited to the case of dividing unit fractions by whole numbers and whole numbers by unit fractions.)
(2) Students develop understanding of why division procedures work based on the meaning of base-ten numerals and properties of operations. They finalize fluency with multi-digit addition, subtraction, multiplication, and division. They apply their understandings of models for decimals, decimal notation, and properties of operations to add and subtract decimals to hundredths. They develop fluency in these computations, and make reasonable estimates of their results. Students use the relationship between decimals and fractions, as well as the relationship between finite decimals and whole numbers (i.e., a finite decimal multiplied by an appropriate power of 10 is a whole number), to understand and explain why the procedures for multiplying and dividing finite decimals make sense. They compute products and quotients of decimals to hundredths efficiently and accurately.
(3) Students recognize volume as an attribute of three-dimensional space. They understand that volume can be measured by finding the total number of same-size units of volume required to fill the space without gaps or overlaps. They understand that a 1 -unit by 1 -unit by 1 -unit cube is the standard unit for measuring volume. They select appropriate units, strategies, and tools for solving problems that involve estimating and measuring volume. They decompose three-dimensional shapes and find volumes of right rectangular prisms by viewing them as decomposed into layers of arrays of cubes. They measure necessary attributes of shapes in order to determine volumes to solve real world and mathematical problems.

## Grade 5 Overview

Operations and Algebraic Thinking

- Write and interpret numerical expressions.
- Analyze patterns and relationships.


## Number and Operations in Base Ten

- Understand the place value system.
- Perform operations with multi-digit whole numbers and with decimals to hundredths.

Number and Operations-Fractions

- Use equivalent fractions as a strategy to add and subtract fractions.
- Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

Measurement and Data

- Convert like measurement units within a given measurement system.
- Represent and interpret data.
- Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.


## Geometry

- Graph points on the coordinate plane to solve real-world and mathematical problems.
- Classify two-dimensional figures into categories based on their properties.


## Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

## Operations and Algebraic Thinking

## Write and interpret numerical expressions.

1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation "add 8 and 7 , then multiply by 2 " as $2 \times(8+7)$. Recognize that $3 \times(18932+921)$ is three times as large as $18932+921$, without having to calculate the indicated sum or product.

## Analyze patterns and relationships.

3. Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. For example, given the rule "Add 3 " and the starting number 0 , and given the rule "Add 6" and the starting number 0 , generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.

## Number and Operations in Base Ten

## Understand the place value system.

1. Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and $1 / 10$ of what it represents in the place to its left.
2. Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10 . Use whole-number exponents to denote powers of 10 .
3. Read, write, and compare decimals to thousandths.
a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392=3 \times 100+4 \times$ $10+7 \times 1+3 \times(1 / 10)+9 \times(1 / 100)+2 \times(1 / 1000)$.
b. Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.
4. Use place value understanding to round decimals to any place.

Perform operations with multi-digit whole numbers and with decimals to hundredths.
5. Fluently multiply multi-digit whole numbers using the standard algorithm.
6. Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

## Use equivalent fractions as a strategy to add and subtract fractions.

1. Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example, $2 / 3+5 / 4=8 / 12+15 / 12=23 / 12$. (In general, $a / b+c / d=(a d+b c) / b d$.
2. Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. For example, recognize an incorrect result $2 / 5+1 / 2=3 / 7$, by observing that $3 / 7<1 / 2$.

## Apply and extend previous understandings of multiplication and

 division to multiply and divide fractions.3. Interpret a fraction as division of the numerator by the denominator $(a / b=a \div b)$. Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. For example, interpret $3 / 4$ as the result of dividing 3 by 4, noting that 3/4 multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size $3 / 4$. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?
4. Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.
a. Interpret the product $(a / b) \times q$ as $a$ parts of a partition of $q$ into $b$ equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. For example, use a visual fraction model to show $(2 / 3) \times 4=8 / 3$, and create a story context for this equation. Do the same with $(2 / 3) \times(4 / 5)=8 / 15$. (In general, $(a / b) \times(c / d)=a c / b d$.)
b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.
5. Interpret multiplication as scaling (resizing), by:
a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.
b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a / b=$ $(n \times a) /(n \times b)$ to the effect of multiplying $a / b$ by 1 .
6. Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem
7. Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. ${ }^{1}$
a. Interpret division of a unit fraction by a non-zero whole number,

[^17] Use the relationship between multiplication and division to explain that $(1 / 3) \div 4=1 / 12$ because $(1 / 12) \times 4=1 / 3$.
b. Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for $4 \div(1 / 5)$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $4 \div(1 / 5)=20$ because $20 \times(1 / 5)=4$.
c. Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. For example, how much chocolate will each person get if 3 people share $1 / 2 \mathrm{lb}$ of chocolate equally? How many $1 / 3$-cup servings are in 2 cups of raisins?

## Measurement and Data

## Convert like measurement units within a given measurement system.

1. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m ), and use these conversions in solving multi-step, real world problems.

## Represent and interpret data.

2. Make a line plot to display a data set of measurements in fractions of a unit ( $1 / 2,1 / 4,1 / 8$ ). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.

## Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

3. Recognize volume as an attribute of solid figures and understand concepts of volume measurement
a. A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume.
b. A solid figure which can be packed without gaps or overlaps using $n$ unit cubes is said to have a volume of $n$ cubic units.
4. Measure volumes by counting unit cubes, using cubic cm , cubic in, cubic ft, and improvised units.
5. Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.
a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.
b. Apply the formulas $V=I \times w \times h$ and $V=b \times h$ for rectangular prisms to find volumes of right rectangular prisms with wholenumber edge lengths in the context of solving real world and mathematical problems.
c. Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.

## Geometry

Graph points on the coordinate plane to solve real－world and mathematical problems．

1．Use a pair of perpendicular number lines，called axes，to define a coordinate system，with the intersection of the lines（the origin） arranged to coincide with the $O$ on each line and a given point in the plane located by using an ordered pair of numbers，called its coordinates．Understand that the first number indicates how far to travel from the origin in the direction of one axis，and the second number indicates how far to travel in the direction of the second axis，with the convention that the names of the two axes and the coordinates correspond（e．g．，$x$－axis and $x$－coordinate，$y$－axis and $y$－coordinate）．

2．Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane，and interpret coordinate values of points in the context of the situation．

## Classify two－dimensional figures into categories based on their properties．

3．Understand that attributes belonging to a category of two－ dimensional figures also belong to all subcategories of that category． For example，all rectangles have four right angles and squares are rectangles，so all squares have four right angles．

4．Classify two－dimensional figures in a hierarchy based on properties．

## Mathematics | Grade 6

In Grade 6, instructional time should focus on four critical areas: (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; and (4) developing understanding of statistical thinking.
(1) Students use reasoning about multiplication and division to solve ratio and rate problems about quantities. By viewing equivalent ratios and rates as deriving from, and extending, pairs of rows (or columns) in the multiplication table, and by analyzing simple drawings that indicate the relative size of quantities, students connect their understanding of multiplication and division with ratios and rates. Thus students expand the scope of problems for which they can use multiplication and division to solve problems, and they connect ratios and fractions. Students solve a wide variety of problems involving ratios and rates.
(2) Students use the meaning of fractions, the meanings of multiplication and division, and the relationship between multiplication and division to understand and explain why the procedures for dividing fractions make sense. Students use these operations to solve problems. Students extend their previous understandings of number and the ordering of numbers to the full system of rational numbers, which includes negative rational numbers, and in particular negative integers. They reason about the order and absolute value of rational numbers and about the location of points in all four quadrants of the coordinate plane.
(3) Students understand the use of variables in mathematical expressions. They write expressions and equations that correspond to given situations, evaluate expressions, and use expressions and formulas to solve problems. Students understand that expressions in different forms can be equivalent, and they use the properties of operations to rewrite expressions in equivalent forms. Students know that the solutions of an equation are the values of the variables that make the equation true. Students use properties of operations and the idea of maintaining the equality of both sides of an equation to solve simple one-step equations. Students construct and analyze tables, such as tables of quantities that are in equivalent ratios, and they use equations (such as $3 x=y$ ) to describe relationships between quantities.
(4) Building on and reinforcing their understanding of number, students begin to develop their ability to think statistically. Students recognize that a data distribution may not have a definite center and that different ways to measure center yield different values. The median measures center in the sense that it is roughly the middle value. The mean measures center in the sense that it is the value that each data point would take on if the total of the data values were redistributed equally, and also in the sense that it is a balance point. Students recognize that a measure of variability (interquartile range or mean absolute deviation) can also be useful for summarizing data because two very different sets of data can have the same mean and
median yet be distinguished by their variability．Students learn to describe and summarize numerical data sets，identifying clusters，peaks，gaps，and symmetry，considering the context in which the data were collected．

Students in Grade 6 also build on their work with area in elementary school by reasoning about relationships among shapes to determine area， surface area，and volume．They find areas of right triangles，other triangles， and special quadrilaterals by decomposing these shapes，rearranging or removing pieces，and relating the shapes to rectangles．Using these methods，students discuss，develop，and justify formulas for areas of triangles and parallelograms．Students find areas of polygons and surface areas of prisms and pyramids by decomposing them into pieces whose area they can determine．They reason about right rectangular prisms with fractional side lengths to extend formulas for the volume of a right rectangular prism to fractional side lengths．They prepare for work on scale drawings and constructions in Grade 7 by drawing polygons in the coordinate plane．

## Grade 6 Overview

Ratios and Proportional Relationships

- Understand ratio concepts and use ratio reasoning to solve problems.

The Number System

- Apply and extend previous understandings of multiplication and division to divide fractions by fractions.
- Compute fluently with multi-digit numbers and find common factors and multiples.
- Apply and extend previous understandings of numbers to the system of rational numbers.


## Expressions and Equations

- Apply and extend previous understandings of arithmetic to algebraic expressions.
- Reason about and solve one-variable equations and inequalities.
- Represent and analyze quantitative relationships between dependent and independent variables.

Geometry

- Solve real-world and mathematical problems involving area, surface area, and volume.


## Statistics and Probability

- Develop understanding of statistical variability.
- Summarize and describe distributions.


## Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

## Ratios and Proportional Relationships

## Understand ratio concepts and use ratio reasoning to solve

 problems.1. Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate $A$ received, candidate C received nearly three votes."
2. Understand the concept of a unit rate $a / b$ associated with a ratio $a: b$ with $b \neq 0$, and use rate language in the context of a ratio relationship. For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is $3 / 4$ cup of flour for each cup of sugar." "We paid $\$ 75$ for 15 hamburgers, which is a rate of $\$ 5$ per hamburger."
3. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.
a. Make tables of equivalent ratios relating quantities with wholenumber measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.
b. Solve unit rate problems including those involving unit pricing and constant speed. For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?
c. Find a percent of a quantity as a rate per 100 (e.g., $30 \%$ of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.
d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.

The Number System

## Apply and extend previous understandings of multiplication and

 division to divide fractions by fractions.1. Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. For example, create a story context for (2/3) $\div(3 / 4)$ and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that $(2 / 3) \div(3 / 4)=8 / 9$ because $3 / 4$ of $8 / 9$ is $2 / 3$. (In general, $(a / b) \div(c / d)=a d / b c$.) How much chocolate will each person get if 3 people share $1 / 2 \mathrm{lb}$ of chocolate equally? How many 3/4-cup servings are in $2 / 3$ of a cup of yogurt? How wide is a rectangular strip of land with length $3 / 4 \mathrm{mi}$ and area $1 / 2$ square mi ?

## Compute fluently with multi-digit numbers and find common factors and multiples.

2. Fluently divide multi-digit numbers using the standard algorithm.
3. Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.
4. Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12 . Use the distributive property to express a sum of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express $36+8$ as $4(9+2)$.
${ }^{1}$ Expectations for unit rates in this grade are limited to non-complex fractions.

## Apply and extend previous understandings of numbers to the system of rational numbers.

5. Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of $O$ in each situation.
6. Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.
a. Recognize opposite signs of numbers as indicating locations on opposite sides of $O$ on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., $-(-3)=3$, and that 0 is its own opposite.
b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.
c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.
7. Understand ordering and absolute value of rational numbers.
a. Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. For example, interpret $-3>-7$ as a statement that -3 is located to the right of -7 on a number line oriented from left to right.
b. Write, interpret, and explain statements of order for rational numbers in real-world contexts. For example, write $-3^{\circ} \mathrm{C}>-7^{\circ} \mathrm{C}$ to express the fact that $-3^{\circ} \mathrm{C}$ is warmer than $-7^{\circ} \mathrm{C}$.
c. Understand the absolute value of a rational number as its distance from $O$ on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. For example, for an account balance of -30 dollars, write $|-30|=30$ to describe the size of the debt in dollars.
d. Distinguish comparisons of absolute value from statements about order. For example, recognize that an account balance less than -30 dollars represents a debt greater than 30 dollars.
8. Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.

## Expressions and Equations

Apply and extend previous understandings of arithmetic to algebraic expressions.

1. Write and evaluate numerical expressions involving whole-number exponents.
2. Write, read, and evaluate expressions in which letters stand for numbers.
a. Write expressions that record operations with numbers and with letters standing for numbers. For example, express the calculation "Subtract y from 5" as 5-y.
b. Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. For example, describe the expression $2(8+7)$ as a product of two factors; view $(8+7)$ as both a single entity and a sum of two terms.
c. Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving wholenumber exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). For example, use the formulas $V=s^{3}$ and $A=6 s^{2}$ to find the volume and surface area of a cube with sides of length $s=1 / 2$.
3. Apply the properties of operations to generate equivalent expressions. For example, apply the distributive property to the expression $3(2+x)$ to produce the equivalent expression $6+3 x$; apply the distributive property to the expression $24 x+18 y$ to produce the equivalent expression $6(4 x+3 y)$; apply properties of operations to $y+y+y$ to produce the equivalent expression $3 y$.
4. Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). For example, the expressions $y+y+y$ and $3 y$ are equivalent because they name the same number regardless of which number y stands for.

## Reason about and solve one-variable equations and inequalities.

5. Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.
6. Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.
7. Solve real-world and mathematical problems by writing and solving equations of the form $x+p=q$ and $p x=q$ for cases in which $p, q$ and $x$ are all nonnegative rational numbers.
8. Write an inequality of the form $x>c$ or $x<c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x>c$ or $x<c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.

## Represent and analyze quantitative relationships between dependent and independent variables.

9. Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation $d=65 t$ to represent the relationship between distance and time.

## Geometry

## Solve real-world and mathematical problems involving area, surface

 area, and volume.1. Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.
2. Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V=I W h$ and $V=b h$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.
3. Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.
4. Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.

## Statistics and Probability

## Develop understanding of statistical variability.

1. Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.
2. Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.
3. Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.

## Summarize and describe distributions.

4. Display numerical data in plots on a number line, including dot plots, histograms, and box plots.
5. Summarize numerical data sets in relation to their context, such as by:
a. Reporting the number of observations.
b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.
c. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.
d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.

## Mathematics｜Grade 7

In Grade 7，instructional time should focus on four critical areas：（1） developing understanding of and applying proportional relationships； （2）developing understanding of operations with rational numbers and working with expressions and linear equations；（3）solving problems involving scale drawings and informal geometric constructions，and working with two－and three－dimensional shapes to solve problems involving area，surface area，and volume；and（4）drawing inferences about populations based on samples．
（1）Students extend their understanding of ratios and develop understanding of proportionality to solve single－and multi－step problems． Students use their understanding of ratios and proportionality to solve a wide variety of percent problems，including those involving discounts， interest，taxes，tips，and percent increase or decrease．Students solve problems about scale drawings by relating corresponding lengths between the objects or by using the fact that relationships of lengths within an object are preserved in similar objects．Students graph proportional relationships and understand the unit rate informally as a measure of the steepness of the related line，called the slope．They distinguish proportional relationships from other relationships．
（2）Students develop a unified understanding of number，recognizing fractions，decimals（that have a finite or a repeating decimal representation），and percents as different representations of rational numbers．Students extend addition，subtraction，multiplication，and division to all rational numbers，maintaining the properties of operations and the relationships between addition and subtraction，and multiplication and division．By applying these properties，and by viewing negative numbers in terms of everyday contexts（e．g．，amounts owed or temperatures below zero），students explain and interpret the rules for adding，subtracting， multiplying，and dividing with negative numbers．They use the arithmetic of rational numbers as they formulate expressions and equations in one variable and use these equations to solve problems．
（3）Students continue their work with area from Grade 6，solving problems involving the area and circumference of a circle and surface area of three－ dimensional objects．In preparation for work on congruence and similarity in Grade 8 they reason about relationships among two－dimensional figures using scale drawings and informal geometric constructions，and they gain familiarity with the relationships between angles formed by intersecting lines．Students work with three－dimensional figures，relating them to two－ dimensional figures by examining cross－sections．They solve real－world and mathematical problems involving area，surface area，and volume of two－and three－dimensional objects composed of triangles，quadrilaterals， polygons，cubes and right prisms．
（4）Students build on their previous work with single data distributions to compare two data distributions and address questions about differences between populations．They begin informal work with random sampling to generate data sets and learn about the importance of representative samples for drawing inferences．

## Grade 7 Overview

Ratios and Proportional Relationships

- Analyze proportional relationships and use them to solve real-world and mathematical problems.

The Number System

- Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

Expressions and Equations

- Use properties of operations to generate equivalent expressions.
- Solve real-life and mathematical problems using numerical and algebraic expressions and equations.


## Geometry

- Draw, construct and describe geometrical figures and describe the relationships between them.
- Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.


## Statistics and Probability

- Use random sampling to draw inferences about a population.
- Draw informal comparative inferences about two populations.
- Investigate chance processes and develop, use, and evaluate probability models.


## Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

## Ratios and Proportional Relationships

## Analyze proportional relationships and use them to solve real-world

 and mathematical problems.1. Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. For example, if a person walks $1 / 2$ mile in each $1 / 4$ hour, compute the unit rate as the complex fraction $1 / 2 / 1 / 4$ miles per hour, equivalently 2 miles per hour.
2. Recognize and represent proportional relationships between quantities.
a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.
b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
c. Represent proportional relationships by equations. For example, if total cost $t$ is proportional to the number $n$ of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as $t=p n$.
d. Explain what a point $(x, y)$ on the graph of a proportional relationship means in terms of the situation, with special attention to the points $(0,0)$ and $(1, r)$ where $r$ is the unit rate.
3. Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.

The Number System
Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
a. Describe situations in which opposite quantities combine to make O. For example, a hydrogen atom has O charge because its two constituents are oppositely charged.
b. Understand $p+q$ as the number located a distance $|q|$ from $p$, in the positive or negative direction depending on whether $q$ is positive or negative. Show that a number and its opposite have a sum of O (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.
c. Understand subtraction of rational numbers as adding the additive inverse, $p-q=p+(-q)$. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
d. Apply properties of operations as strategies to add and subtract rational numbers.
2. Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.
a. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1)=1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
b. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If $p$ and $q$ are integers, then $-(p / q)=(-p) / q=$ $p /(-q)$. Interpret quotients of rational numbers by describing realworld contexts.
c. Apply properties of operations as strategies to multiply and divide rational numbers.
d. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in Os or eventually repeats.
3. Solve real-world and mathematical problems involving the four operations with rational numbers. ${ }^{1}$

## Expressions and Equations

## Use properties of operations to generate equivalent expressions.

1. Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.
2. Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. For example, $a+0.05 a=1.05 a$ means that "increase by $5 \%$ " is the same as "multiply by 1.05."

## Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies. For example: If a woman making $\$ 25$ an hour gets a 10\% raise, she will make an additional 1/10 of her salary an hour, or $\$ 2.50$, for a new salary of $\$ 27.50$. If you want to place a towel bar 9 3/4 inches long in the center of a door that is $271 / 2$ inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.
4. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.
a. Solve word problems leading to equations of the form $p x+q=r$ and $p(x+q)=r$, where $p, q$, and $r$ are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. For example, the perimeter of a rectangle is 54 cm . Its length is 6 cm . What is its width?
b. Solve word problems leading to inequalities of the form $p x+q>r$ or $p x+q<r$, where $p, q$, and $r$ are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. For example: As a salesperson, you are paid $\$ 50$ per week plus \$3 per sale. This week you want your pay to be at least $\$ 100$. Write an inequality for the number of sales you need to make, and describe the solutions.

## Geometry

## Draw, construct, and describe geometrical figures and describe the relationships between them.

1. Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.
[^18]2．Draw（freehand，with ruler and protractor，and with technology） geometric shapes with given conditions．Focus on constructing triangles from three measures of angles or sides，noticing when the conditions determine a unique triangle，more than one triangle，or no triangle．
3．Describe the two－dimensional figures that result from slicing three－ dimensional figures，as in plane sections of right rectangular prisms and right rectangular pyramids．

## Solve real－life and mathematical problems involving angle measure，

 area，surface area，and volume．4．Know the formulas for the area and circumference of a circle and use them to solve problems；give an informal derivation of the relationship between the circumference and area of a circle．

5．Use facts about supplementary，complementary，vertical，and adjacent angles in a multi－step problem to write and solve simple equations for an unknown angle in a figure．

6．Solve real－world and mathematical problems involving area，volume and surface area of two－and three－dimensional objects composed of triangles，quadrilaterals，polygons，cubes，and right prisms．

## Statistics and Probability

## Use random sampling to draw inferences about a population．

1．Understand that statistics can be used to gain information about a population by examining a sample of the population；generalizations about a population from a sample are valid only if the sample is representative of that population．Understand that random sampling tends to produce representative samples and support valid inferences．
2．Use data from a random sample to draw inferences about a population with an unknown characteristic of interest．Generate multiple samples （or simulated samples）of the same size to gauge the variation in estimates or predictions．For example，estimate the mean word length in a book by randomly sampling words from the book；predict the winner of a school election based on randomly sampled survey data．Gauge how far off the estimate or prediction might be．

## Draw informal comparative inferences about two populations．

3．Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities，measuring the difference between the centers by expressing it as a multiple of a measure of variability．For example，the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team， about twice the variability（mean absolute deviation）on either team；on a dot plot，the separation between the two distributions of heights is noticeable．
4．Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations．For example，decide whether the words in a chapter of a seventh－grade science book are generally longer than the words in a chapter of a fourth－grade science book．

## Investigate chance processes and develop，use，and evaluate

 probability models．5．Understand that the probability of a chance event is a number between $O$ and 1 that expresses the likelihood of the event occurring． Larger numbers indicate greater likelihood．A probability near 0 indicates an unlikely event，a probability around $1 / 2$ indicates an event that is neither unlikely nor likely，and a probability near 1 indicates a likely event．

6．Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long－run relative frequency，and predict the approximate relative frequency given the probability．For example，when rolling a number cube 600 times，predict that a 3 or 6 would be rolled roughly 200 times，but probably not exactly 200 times．

7．Develop a probability model and use it to find probabilities of events． Compare probabilities from a model to observed frequencies；if the agreement is not good，explain possible sources of the discrepancy．
a．Develop a uniform probability model by assigning equal probability to all outcomes，and use the model to determine probabilities of events．For example，if a student is selected at random from a class，find the probability that Jane will be selected and the probability that a girl will be selected．
b．Develop a probability model（which may not be uniform）by observing frequencies in data generated from a chance process． For example，find the approximate probability that a spinning penny will land heads up or that a tossed paper cup will land open－end down．Do the outcomes for the spinning penny appear to be equally likely based on the observed frequencies？

8．Find probabilities of compound events using organized lists，tables， tree diagrams，and simulation．
a．Understand that，just as with simple events，the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs．
b．Represent sample spaces for compound events using methods such as organized lists，tables and tree diagrams．For an event described in everyday language（e．g．，＂rolling double sixes＂）， identify the outcomes in the sample space which compose the event．
c．Design and use a simulation to generate frequencies for compound events．For example，use random digits as a simulation tool to approximate the answer to the question：If $40 \%$ of donors have type A blood，what is the probability that it will take at least 4 donors to find one with type A blood？

## Mathematics | Grade 8

In Grade 8, instructional time should focus on three critical areas: (1) formulating and reasoning about expressions and equations, including modeling an association in bivariate data with a linear equation, and solving linear equations and systems of linear equations; (2) grasping the concept of a function and using functions to describe quantitative relationships; (3) analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem.
(1) Students use linear equations and systems of linear equations to represent, analyze, and solve a variety of problems. Students recognize equations for proportions $(y / x=m$ or $y=m x)$ as special linear equations $(y=m x+b)$, understanding that the constant of proportionality $(m)$ is the slope, and the graphs are lines through the origin. They understand that the slope $(m)$ of a line is a constant rate of change, so that if the input or $x$-coordinate changes by an amount $A$, the output or $y$-coordinate changes by the amount $m \cdot A$. Students also use a linear equation to describe the association between two quantities in bivariate data (such as arm span vs. height for students in a classroom). At this grade, fitting the model, and assessing its fit to the data are done informally. Interpreting the model in the context of the data requires students to express a relationship between the two quantities in question and to interpret components of the relationship (such as slope and $y$-intercept) in terms of the situation.

Students strategically choose and efficiently implement procedures to solve linear equations in one variable, understanding that when they use the properties of equality and the concept of logical equivalence, they maintain the solutions of the original equation. Students solve systems of two linear equations in two variables and relate the systems to pairs of lines in the plane; these intersect, are parallel, or are the same line. Students use linear equations, systems of linear equations, linear functions, and their understanding of slope of a line to analyze situations and solve problems.
(2) Students grasp the concept of a function as a rule that assigns to each input exactly one output. They understand that functions describe situations where one quantity determines another. They can translate among representations and partial representations of functions (noting that tabular and graphical representations may be partial representations), and they describe how aspects of the function are reflected in the different representations.
(3) Students use ideas about distance and angles, how they behave under translations, rotations, reflections, and dilations, and ideas about congruence and similarity to describe and analyze two-dimensional figures and to solve problems. Students show that the sum of the angles in a triangle is the angle formed by a straight line, and that various configurations of lines give rise to similar triangles because of the angles created when a transversal cuts parallel lines. Students understand the statement of the Pythagorean Theorem and its converse, and can explain why the Pythagorean Theorem holds, for example, by decomposing a square in two different ways. They apply the Pythagorean Theorem to find distances between points on the coordinate plane, to find lengths, and to analyze polygons. Students complete their work on volume by solving problems involving cones, cylinders, and spheres.

## Grade 8 Overview

The Number System

- Know that there are numbers that are not rational, and approximate them by rational numbers.

Expressions and Equations

- Work with radicals and integer exponents.
- Understand the connections between proportional relationships, lines, and linear equations.
- Analyze and solve linear equations and pairs of simultaneous linear equations.

Functions

- Define, evaluate, and compare functions.
- Use functions to model relationships between quantities.

Geometry

- Understand congruence and similarity using physical models, transparencies, or geometry software.
- Understand and apply the Pythagorean Theorem.
- Solve real-world and mathematical problems involving volume of cylinders, cones and spheres.

Statistics and Probability

- Investigate patterns of association in bivariate data.
a.


## Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

## Know that there are numbers that are not rational, and approximate

## them by rational numbers.

1. Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.
2. Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g., $\pi^{2}$ ). For example, by truncating the decimal expansion of $\sqrt{ } 2$, show that $\sqrt{ } 2$ is between 1 and 2 , then between 1.4 and 1.5 , and explain how to continue on to get better approximations.

## Expressions and Equations 8.EE

## Work with radicals and integer exponents.

1. Know and apply the properties of integer exponents to generate equivalent numerical expressions. For example, $3^{2} \times 3^{-5}=3^{-3}=1 / 3^{3}=1 / 27$.
2. Use square root and cube root symbols to represent solutions to equations of the form $x^{2}=p$ and $x^{3}=p$, where $p$ is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that $\sqrt{ } 2$ is irrational.
3. Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. For example, estimate the population of the United States as $3 \times 10^{8}$ and the population of the world as $7 \times 10^{9}$, and determine that the world population is more than 20 times larger.
4. Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology.

Understand the connections between proportional relationships, lines, and linear equations.
5. Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.
6. Use similar triangles to explain why the slope $m$ is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation $y=m x$ for a line through the origin and the equation $y=m x+b$ for a line intercepting the vertical axis at $b$.

## Analyze and solve linear equations and pairs of simultaneous linear equations.

7. Solve linear equations in one variable.
a. Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form $x=a, a=a$, or $a=b$ results (where $a$ and $b$ are different numbers).
b. Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.
8. Analyze and solve pairs of simultaneous linear equations.
a. Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously.
b. Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. For example, $3 x+2 y=5$ and $3 x+$ $2 y=6$ have no solution because $3 x+2 y$ cannot simultaneously be 5 and 6.
c. Solve real-world and mathematical problems leading to two linear equations in two variables. For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.

## Functions

## Define, evaluate, and compare functions.

1. Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output. ${ }^{1}$
2. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.
3. Interpret the equation $y=m x+b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. For example, the function $A=s^{2}$ giving the area of a square as a function of its side length is not linear because its graph contains the points $(1,1)$, $(2,4)$ and $(3,9)$, which are not on a straight line.

## Use functions to model relationships between quantities.

4. Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two $(x, y)$ values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.
5. Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.

## Geometry

Understand congruence and similarity using physical models, transparencies, or geometry software.

1. Verify experimentally the properties of rotations, reflections, and translations:
a. Lines are taken to lines, and line segments to line segments of the same length.
b. Angles are taken to angles of the same measure.
c. Parallel lines are taken to parallel lines.
2. Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.
[^19]3．Describe the effect of dilations，translations，rotations，and reflections on two－dimensional figures using coordinates．
4．Understand that a two－dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations， reflections，translations，and dilations；given two similar two－ dimensional figures，describe a sequence that exhibits the similarity between them．

5．Use informal arguments to establish facts about the angle sum and exterior angle of triangles，about the angles created when parallel lines are cut by a transversal，and the angle－angle criterion for similarity of triangles．For example，arrange three copies of the same triangle so that the sum of the three angles appears to form a line，and give an argument in terms of transversals why this is so．

## Understand and apply the Pythagorean Theorem．

6．Explain a proof of the Pythagorean Theorem and its converse．
7．Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real－world and mathematical problems in two and three dimensions．

8．Apply the Pythagorean Theorem to find the distance between two points in a coordinate system．

## Solve real－world and mathematical problems involving volume of cylinders，cones，and spheres．

9．Know the formulas for the volumes of cones，cylinders，and spheres and use them to solve real－world and mathematical problems．

## Statistics and Probability

## Investigate patterns of association in bivariate data．

1．Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities． Describe patterns such as clustering，outliers，positive or negative association，linear association，and nonlinear association．

2．Know that straight lines are widely used to model relationships between two quantitative variables．For scatter plots that suggest a linear association，informally fit a straight line，and informally assess the model fit by judging the closeness of the data points to the line．

3．Use the equation of a linear model to solve problems in the context of bivariate measurement data，interpreting the slope and intercept． For example，in a linear model for a biology experiment，interpret a slope of $1.5 \mathrm{~cm} / \mathrm{hr}$ as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height．
4．Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two－way table．Construct and interpret a two－way table summarizing data on two categorical variables collected from the same subjects． Use relative frequencies calculated for rows or columns to describe possible association between the two variables．For example，collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home．Is there evidence that those who have a curfew also tend to have chores？

## Mathematics Standards for High School

The high school standards specify the mathematics that all students should study in order to be college and career ready. Additional mathematics that students should learn in order to take advanced courses such as calculus, advanced statistics, or discrete mathematics is indicated by ( + ), as in this example:
(+) Represent complex numbers on the complex plane in rectangular and polar form (including real and imaginary numbers).

All standards without a (+) symbol should be in the common mathematics curriculum for all college and career ready students. Standards with a (+) symbol may also appear in courses intended for all students.

The high school standards are listed in conceptual categories:

- Number and Quantity
- Algebra
- Functions
- Modeling
- Geometry
- Statistics and Probability

Conceptual categories portray a coherent view of high school mathematics; a student's work with functions, for example, crosses a number of traditional course boundaries, potentially up through and including calculus.

Modeling is best interpreted not as a collection of isolated topics but in relation to other standards. Making mathematical models is a Standard for Mathematical Practice, and specific modeling standards appear throughout the high school standards indicated by a star symbol (*). The star symbol sometimes appears on the heading for a group of standards; in that case, it should be understood to apply to all standards in that group.

## Mathematics | High School-Number and Quantity

Numbers and Number Systems. During the years from kindergarten to eighth grade, students must repeatedly extend their conception of number. At first, "number" means "counting number": $1,2,3 \ldots$ Soon after that, 0 is used to represent "none" and the whole numbers are formed by the counting numbers together with zero. The next extension is fractions. At first, fractions are barely numbers and tied strongly to pictorial representations. Yet by the time students understand division of fractions, they have a strong concept of fractions as numbers and have connected them, via their decimal representations, with the base-ten system used to represent the whole numbers. During middle school, fractions are augmented by negative fractions to form the rational numbers. In Grade 8, students extend this system once more, augmenting the rational numbers with the irrational numbers to form the real numbers. In high school, students will be exposed to yet another extension of number, when the real numbers are augmented by the imaginary numbers to form the complex numbers.

With each extension of number, the meanings of addition, subtraction, multiplication, and division are extended. In each new number system-integers, rational numbers, real numbers, and complex numbers-the four operations stay the same in two important ways: They have the commutative, associative, and distributive properties and their new meanings are consistent with their previous meanings.

Extending the properties of whole-number exponents leads to new and productive notation. For example, properties of whole-number exponents suggest that $\left(5^{1 / 3}\right)^{3}$ should be $5^{(1 / 3) 3}=5^{1}=5$ and that $5^{1 / 3}$ should be the cube root of 5 .
Calculators, spreadsheets, and computer algebra systems can provide ways for students to become better acquainted with these new number systems and their notation. They can be used to generate data for numerical experiments, to help understand the workings of matrix, vector, and complex number algebra, and to experiment with non-integer exponents.

Quantities. In real world problems, the answers are usually not numbers but quantities: numbers with units, which involves measurement. In their work in measurement up through Grade 8, students primarily measure commonly used attributes such as length, area, and volume. In high school, students encounter a wider variety of units in modeling, e.g., acceleration, currency conversions, derived quantities such as person-hours and heating degree days, social science rates such as per-capita income, and rates in everyday life such as points scored per game or batting averages. They also encounter novel situations in which they themselves must conceive the attributes of interest. For example, to find a good measure of overall highway safety, they might propose measures such as fatalities per year, fatalities per year per driver, or fatalities per vehicle-mile traveled. Such a conceptual process is sometimes called quantification. Quantification is important for science, as when surface area suddenly "stands out" as an important variable in evaporation. Quantification is also important for companies, which must conceptualize relevant attributes and create or choose suitable measures for them.

## Number and Quantity Overview

The Real Number System

- Extend the properties of exponents to rational exponents
- Use properties of rational and irrational numbers


## Quantities

- Reason quantitatively and use units to solve problems

The Complex Number System

- Perform arithmetic operations with complex numbers
- Represent complex numbers and their operations on the complex plane
- Use complex numbers in polynomial identities and equations

Vector and Matrix Quantities

- Represent and model with vector quantities.
- Perform operations on vectors.
- Perform operations on matrices and use matrices in applications.


## Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

## The Real Number System

 N-RNExtend the properties of exponents to rational exponents.

1. Explain how the definition of the meaning of rational exponents follows from extending the properties of integer exponents to those values, allowing for a notation for radicals in terms of rational exponents. For example, we define $5^{1 / 3}$ to be the cube root of 5 because we want $\left(5^{1 / 3}\right)^{3}=5^{(1 / 3) 3}$ to hold, so $\left(5^{1 / 3}\right)^{3}$ must equal 5.
2. Rewrite expressions involving radicals and rational exponents using the properties of exponents.

## Use properties of rational and irrational numbers.

3. Explain why the sum or product of two rational numbers is rational; that the sum of a rational number and an irrational number is irrational; and that the product of a nonzero rational number and an irrational number is irrational.

Quantities*

## Reason quantitatively and use units to solve problems.

1. Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.
2. Define appropriate quantities for the purpose of descriptive modeling.
3. Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

## The Complex Number System

## Perform arithmetic operations with complex numbers.

1. Know there is a complex number $i$ such that $i^{2}=-1$, and every complex number has the form $a+b i$ with $a$ and $b$ real.
2. Use the relation $i^{2}=-1$ and the commutative, associative, and distributive properties to add, subtract, and multiply complex numbers.
3. (+) Find the conjugate of a complex number; use conjugates to find moduli and quotients of complex numbers.

## Represent complex numbers and their operations on the complex

 plane.4. (+) Represent complex numbers on the complex plane in rectangular and polar form (including real and imaginary numbers), and explain why the rectangular and polar forms of a given complex number represent the same number.
5. (+) Represent addition, subtraction, multiplication, and conjugation of complex numbers geometrically on the complex plane; use properties of this representation for computation. For example, $(-1+\sqrt{3} i)^{3}=8$ because $\left(-1+\sqrt{3}\right.$ i) has modulus 2 and argument $120^{\circ}$.
6. (+) Calculate the distance between numbers in the complex plane as the modulus of the difference, and the midpoint of a segment as the average of the numbers at its endpoints.

## Use complex numbers in polynomial identities and equations.

7. Solve quadratic equations with real coefficients that have complex solutions.
8. (+) Extend polynomial identities to the complex numbers. For example, rewrite $x^{2}+4$ as $(x+2 i)(x-2 i)$.
9. (+) Know the Fundamental Theorem of Algebra; show that it is true for quadratic polynomials.

## Vector and Matrix Quantities

## Represent and model with vector quantities.

1. (+) Recognize vector quantities as having both magnitude and direction. Represent vector quantities by directed line segments, and use appropriate symbols for vectors and their magnitudes (e.g., $\boldsymbol{v},|\boldsymbol{v}|$, $\|\boldsymbol{v}\|, v)$.
2. (+) Find the components of a vector by subtracting the coordinates of an initial point from the coordinates of a terminal point.
3. (+) Solve problems involving velocity and other quantities that can be represented by vectors.

## Perform operations on vectors.

4. (+) Add and subtract vectors.
a. Add vectors end-to-end, component-wise, and by the parallelogram rule. Understand that the magnitude of a sum of two vectors is typically not the sum of the magnitudes.
b. Given two vectors in magnitude and direction form, determine the magnitude and direction of their sum.
c. Understand vector subtraction $\boldsymbol{v}-\boldsymbol{w}$ as $\boldsymbol{v}+(-\boldsymbol{w})$, where $-\boldsymbol{w}$ is the additive inverse of $\boldsymbol{w}$, with the same magnitude as $\boldsymbol{w}$ and pointing in the opposite direction. Represent vector subtraction graphically by connecting the tips in the appropriate order, and perform vector subtraction component-wise.
5. (+) Multiply a vector by a scalar.
a. Represent scalar multiplication graphically by scaling vectors and possibly reversing their direction; perform scalar multiplication component-wise, e.g., as $c\left(v_{x}, v_{y}\right)=\left(c v_{x}, c v_{y}\right)$.
b. Compute the magnitude of a scalar multiple $c v$ using $\|c v\|=|c| v$. Compute the direction of $c v$ knowing that when $|c| v \neq 0$, the direction of $c \boldsymbol{v}$ is either along $\boldsymbol{v}$ (for $c>0$ ) or against $\boldsymbol{v}$ (for $c<0$ ).

## Perform operations on matrices and use matrices in applications.

6. (+) Use matrices to represent and manipulate data, e.g., to represent payoffs or incidence relationships in a network.
7. (+) Multiply matrices by scalars to produce new matrices, e.g., as when all of the payoffs in a game are doubled.
8. (+) Add, subtract, and multiply matrices of appropriate dimensions.
9. (+) Understand that, unlike multiplication of numbers, matrix multiplication for square matrices is not a commutative operation, but still satisfies the associative and distributive properties.
10. (+) Understand that the zero and identity matrices play a role in matrix addition and multiplication similar to the role of $O$ and 1 in the real numbers. The determinant of a square matrix is nonzero if and only if the matrix has a multiplicative inverse.
11. (+) Multiply a vector (regarded as a matrix with one column) by a matrix of suitable dimensions to produce another vector. Work with matrices as transformations of vectors.
12. (+) Work with $2 \times 2$ matrices as transformations of the plane, and interpret the absolute value of the determinant in terms of area.

## Mathematics | High School-Algebra

Expressions. An expression is a record of a computation with numbers, symbols that represent numbers, arithmetic operations, exponentiation, and, at more advanced levels, the operation of evaluating a function. Conventions about the use of parentheses and the order of operations assure that each expression is unambiguous. Creating an expression that describes a computation involving a general quantity requires the ability to express the computation in general terms, abstracting from specific instances.

Reading an expression with comprehension involves analysis of its underlying structure. This may suggest a different but equivalent way of writing the expression that exhibits some different aspect of its meaning. For example, $p+0.05 p$ can be interpreted as the addition of a $5 \%$ tax to a price $p$. Rewriting $p+0.05 p$ as $1.05 p$ shows that adding a tax is the same as multiplying the price by a constant factor.
Algebraic manipulations are governed by the properties of operations and exponents, and the conventions of algebraic notation. At times, an expression is the result of applying operations to simpler expressions. For example, $p+0.05 p$ is the sum of the simpler expressions $p$ and $0.05 p$. Viewing an expression as the result of operation on simpler expressions can sometimes clarify its underlying structure.
A spreadsheet or a computer algebra system (CAS) can be used to experiment with algebraic expressions, perform complicated algebraic manipulations, and understand how algebraic manipulations behave.

Equations and inequalities. An equation is a statement of equality between two expressions, often viewed as a question asking for which values of the variables the expressions on either side are in fact equal. These values are the solutions to the equation. An identity, in contrast, is true for all values of the variables; identities are often developed by rewriting an expression in an equivalent form.
The solutions of an equation in one variable form a set of numbers; the solutions of an equation in two variables form a set of ordered pairs of numbers, which can be plotted in the coordinate plane. Two or more equations and/or inequalities form a system. A solution for such a system must satisfy every equation and inequality in the system.
An equation can often be solved by successively deducing from it one or more simpler equations. For example, one can add the same constant to both sides without changing the solutions, but squaring both sides might lead to extraneous solutions. Strategic competence in solving includes looking ahead for productive manipulations and anticipating the nature and number of solutions.

Some equations have no solutions in a given number system, but have a solution in a larger system. For example, the solution of $x+1=0$ is an integer, not a whole number; the solution of $2 x+1=0$ is a rational number, not an integer; the solutions of $x^{2}-2=0$ are real numbers, not rational numbers; and the solutions of $x^{2}+2=0$ are complex numbers, not real numbers.

The same solution techniques used to solve equations can be used to rearrange formulas. For example, the formula for the area of a trapezoid, $A=\left(\left(b_{1}+b_{2}\right) / 2\right) h$, can be solved for $h$ using the same deductive process.
Inequalities can be solved by reasoning about the properties of inequality. Many, but not all, of the properties of equality continue to hold for inequalities and can be useful in solving them.

Connections to Functions and Modeling. Expressions can define functions, and equivalent expressions define the same function. Asking when two functions have the same value for the same input leads to an equation; graphing the two functions allows for finding approximate solutions of the equation. Converting a verbal description to an equation, inequality, or system of these is an essential skill in modeling.

## Algebra Overview

Seeing Structure in Expressions

- Interpret the structure of expressions
- Write expressions in equivalent forms to solve problems

Arithmetic with Polynomials and Rational Expressions

- Perform arithmetic operations on polynomials
- Understand the relationship between zeros and factors of polynomials
- Use polynomial identities to solve problems
- Rewrite rational expressions


## Creating Equations

- Create equations that describe numbers or relationships

Reasoning with Equations and Inequalities

- Understand solving equations as a process of reasoning and explain the reasoning
- Solve equations and inequalities in one variable
- Solve systems of equations
- Represent and solve equations and inequalities graphically


## Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

## Seeing Structure in Expressions A-SSE

## Interpret the structure of expressions

1. Interpret expressions that represent a quantity in terms of its context.^
a. Interpret parts of an expression, such as terms, factors, and coefficients.
b. Interpret complicated expressions by viewing one or more of their parts as a single entity. For example, interpret $P(1+r)^{n}$ as the product of $P$ and a factor not depending on $P$.
2. Use the structure of an expression to identify ways to rewrite it. For example, see $x^{4}-y^{4}$ as $\left(x^{2}\right)^{2}-\left(y^{2}\right)^{2}$, thus recognizing it as a difference of squares that can be factored as $\left(x^{2}-y^{2}\right)\left(x^{2}+y^{2}\right)$.

## Write expressions in equivalent forms to solve problems

3. Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression. ${ }^{\star}$
a. Factor a quadratic expression to reveal the zeros of the function it defines.
b. Complete the square in a quadratic expression to reveal the maximum or minimum value of the function it defines.
c. Use the properties of exponents to transform expressions for exponential functions. For example the expression $1.15^{\mathrm{t}}$ can be rewritten as $\left(1.15^{1 / 12}\right)^{12 t} \approx 1.012^{12 t}$ to reveal the approximate equivalent monthly interest rate if the annual rate is $15 \%$.
4. Derive the formula for the sum of a finite geometric series (when the common ratio is not 1), and use the formula to solve problems. For example, calculate mortgage payments.*

## Arithmetic with Polynomials and Rational Expressions A-APR

## Perform arithmetic operations on polynomials

1. Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.

## Understand the relationship between zeros and factors of polynomials

2. Know and apply the Remainder Theorem: For a polynomial $p(x)$ and a number $a$, the remainder on division by $x-a$ is $p(a)$, so $p(a)=0$ if and only if $(x-a)$ is a factor of $p(x)$.
3. Identify zeros of polynomials when suitable factorizations are available, and use the zeros to construct a rough graph of the function defined by the polynomial.

## Use polynomial identities to solve problems

4. Prove polynomial identities and use them to describe numerical relationships. For example, the polynomial identity $\left(x^{2}+y^{2}\right)^{2}=\left(x^{2}-y^{2}\right)^{2}+$ $(2 x y)^{2}$ can be used to generate Pythagorean triples.
5. (+) Know and apply the Binomial Theorem for the expansion of ( $x$ $+y)^{n}$ in powers of $x$ and $y$ for a positive integer $n$, where $x$ and $y$ are any numbers, with coefficients determined for example by Pascal's Triangle. ${ }^{1}$
[^20]
## Rewrite rational expressions

6. Rewrite simple rational expressions in different forms; write $a(x) / b(x)$
in the form $q(x)+r(x) / b(x)$, where $a(x), b(x), q(x)$, and $r(x)$ are polynomials with the degree of $r(x)$ less than the degree of $b(x)$, using inspection, long division, or, for the more complicated examples, a computer algebra system.
7. (+) Understand that rational expressions form a system analogous to the rational numbers, closed under addition, subtraction, multiplication, and division by a nonzero rational expression; add, subtract, multiply, and divide rational expressions.

## Creating Equations*

## Create equations that describe numbers or relationships

1. Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.
2. Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.
3. Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.
4. Rearrange formulas to highlight a quantity of interest, using the same reasoning as in solving equations. For example, rearrange Ohm's law $V=$ $I R$ to highlight resistance $R$.

Reasoning with Equations and Inequalities

## Understand solving equations as a process of reasoning and explain

 the reasoning1. Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.
2. Solve simple rational and radical equations in one variable, and give examples showing how extraneous solutions may arise.

## Solve equations and inequalities in one variable

3. Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.
4. Solve quadratic equations in one variable.
a. Use the method of completing the square to transform any quadratic equation in $x$ into an equation of the form $(x-p)^{2}=q$ that has the same solutions. Derive the quadratic formula from this form.
b. Solve quadratic equations by inspection (e.g., for $x^{2}=49$ ), taking square roots, completing the square, the quadratic formula and factoring, as appropriate to the initial form of the equation. Recognize when the quadratic formula gives complex solutions and write them as $a \pm b i$ for real numbers $a$ and $b$.

## Solve systems of equations

5. Prove that, given a system of two equations in two variables, replacing one equation by the sum of that equation and a multiple of the other produces a system with the same solutions.
6. Solve systems of linear equations exactly and approximately (e.g., with graphs), focusing on pairs of linear equations in two variables.
7. Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically. For example, find the points of intersection between the line $y=-3 x$ and the circle $x^{2}+$ $y^{2}=3$.
8. (+) Represent a system of linear equations as a single matrix equation in a vector variable.
9. (+) Find the inverse of a matrix if it exists and use it to solve systems of linear equations (using technology for matrices of dimension $3 \times 3$ or greater).

## Represent and solve equations and inequalities graphically

10. Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).
11. Explain why the $x$-coordinates of the points where the graphs of the equations $y=f(x)$ and $y=g(x)$ intersect are the solutions of the equation $f(x)=g(x)$; find the solutions approximately, e.g., using technology to graph the functions, make tables of values, or find successive approximations. Include cases where $f(x)$ and/or $g(x)$ are linear, polynomial, rational, absolute value, exponential, and logarithmic functions.*
12. Graph the solutions to a linear inequality in two variables as a halfplane (excluding the boundary in the case of a strict inequality), and graph the solution set to a system of linear inequalities in two variables as the intersection of the corresponding half-planes.

## Mathematics | High School-Functions

Functions describe situations where one quantity determines another. For example, the return on $\$ 10,000$ invested at an annualized percentage rate of $4.25 \%$ is a function of the length of time the money is invested. Because we continually make theories about dependencies between quantities in nature and society, functions are important tools in the construction of mathematical models.
In school mathematics, functions usually have numerical inputs and outputs and are often defined by an algebraic expression. For example, the time in hours it takes for a car to drive 100 miles is a function of the car's speed in miles per hour, $v$; the rule $T(v)=100 / v$ expresses this relationship algebraically and defines a function whose name is $T$.
The set of inputs to a function is called its domain. We often infer the domain to be all inputs for which the expression defining a function has a value, or for which the function makes sense in a given context.

A function can be described in various ways, such as by a graph (e.g., the trace of a seismograph); by a verbal rule, as in, "I'll give you a state, you give me the capital city;" by an algebraic expression like $f(x)=a+b x$; or by a recursive rule. The graph of a function is often a useful way of visualizing the relationship of the function models, and manipulating a mathematical expression for a function can throw light on the function's properties.
Functions presented as expressions can model many important phenomena. Two important families of functions characterized by laws of growth are linear functions, which grow at a constant rate, and exponential functions, which grow at a constant percent rate. Linear functions with a constant term of zero describe proportional relationships.

A graphing utility or a computer algebra system can be used to experiment with properties of these functions and their graphs and to build computational models of functions, including recursively defined functions.

## Connections to Expressions, Equations, Modeling, and Coordinates.

Determining an output value for a particular input involves evaluating an expression; finding inputs that yield a given output involves solving an equation. Questions about when two functions have the same value for the same input lead to equations, whose solutions can be visualized from the intersection of their graphs. Because functions describe relationships between quantities, they are frequently used in modeling. Sometimes functions are defined by a recursive process, which can be displayed effectively using a spreadsheet or other technology.

## Functions Overview

## Interpreting Functions

- Understand the concept of a function and use function notation
- Interpret functions that arise in applications in terms of the context
- Analyze functions using different representations


## Building Functions

- Build a function that models a relationship between two quantities
- Build new functions from existing functions


## Linear, Quadratic, and Exponential Models

- Construct and compare linear, quadratic, and exponential models and solve problems
- Interpret expressions for functions in terms of the situation they model


## Trigonometric Functions

- Extend the domain of trigonometric functions using the unit circle
- Model periodic phenomena with trigonometric functions
- Prove and apply trigonometric identities


## Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

## Interpreting Functions

## Understand the concept of a function and use function notation

1. Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If $f$ is a function and $x$ is an element of its domain, then $f(x)$ denotes the output of $f$ corresponding to the input $x$. The graph of $f$ is the graph of the equation $y=f(x)$.
2. Use function notation, evaluate functions for inputs in their domains, and interpret statements that use function notation in terms of a context.
3. Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. For example, the Fibonacci sequence is defined recursively by $f(0)=f(1)=1, f(n+1)=f(n)+$ $f(n-1)$ for $n \geq 1$.

## Interpret functions that arise in applications in terms of the context

4. For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.*
5. Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. For example, if the function $h(n)$ gives the number of person-hours it takes to assemble $n$ engines in a factory, then the positive integers would be an appropriate domain for the function.*
6. Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph. ${ }^{\star}$

## Analyze functions using different representations

7. Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases.^
a. Graph linear and quadratic functions and show intercepts, maxima, and minima.
b. Graph square root, cube root, and piecewise-defined functions, including step functions and absolute value functions.
c. Graph polynomial functions, identifying zeros when suitable factorizations are available, and showing end behavior.
d. (+) Graph rational functions, identifying zeros and asymptotes when suitable factorizations are available, and showing end behavior.
e. Graph exponential and logarithmic functions, showing intercepts and end behavior, and trigonometric functions, showing period, midline, and amplitude.
8. Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.
a. Use the process of factoring and completing the square in a quadratic function to show zeros, extreme values, and symmetry of the graph, and interpret these in terms of a context.
b. Use the properties of exponents to interpret expressions for exponential functions. For example, identify percent rate of change in functions such as $y=(1.02)^{t}, y=(0.97)^{t}, y=(1.01)^{12 t}, y=(1.2)^{t / 10}$, and classify them as representing exponential growth or decay.
9. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). For example, given a graph of one quadratic function and an algebraic expression for another, say which has the larger maximum.

## Building Functions

## Build a function that models a relationship between two quantities

1. Write a function that describes a relationship between two quantities.*
a. Determine an explicit expression, a recursive process, or steps for calculation from a context.
b. Combine standard function types using arithmetic operations. For example, build a function that models the temperature of a cooling body by adding a constant function to a decaying exponential, and relate these functions to the model.
c. (+) Compose functions. For example, if $T(y)$ is the temperature in the atmosphere as a function of height, and $h(t)$ is the height of a weather balloon as a function of time, then $T(h(t))$ is the temperature at the location of the weather balloon as a function of time.
2. Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms. ${ }^{\star}$

## Build new functions from existing functions

3. Identify the effect on the graph of replacing $f(x)$ by $f(x)+k, k f(x)$, $f(k x)$, and $f(x+k)$ for specific values of $k$ (both positive and negative); find the value of $k$ given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them.
4. Find inverse functions.
a. Solve an equation of the form $f(x)=c$ for a simple function $f$ that has an inverse and write an expression for the inverse. For example, $f(x)=2 x^{3}$ or $f(x)=(x+1) /(x-1)$ for $x \neq 1$.
b. (+) Verify by composition that one function is the inverse of another.
c. (+) Read values of an inverse function from a graph or a table, given that the function has an inverse.
d. (+) Produce an invertible function from a non-invertible function by restricting the domain.
5. (+) Understand the inverse relationship between exponents and logarithms and use this relationship to solve problems involving logarithms and exponents.
Linear, Quadratic, and Exponential Models ${ }^{\star}$
Construct and compare linear, quadratic, and exponential models and solve problems
6. Distinguish between situations that can be modeled with linear functions and with exponential functions.
a. Prove that linear functions grow by equal differences over equal intervals, and that exponential functions grow by equal factors over equal intervals.
b. Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.
c. Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.
7. Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).
8. Observe using graphs and tables that a quantity increasing exponentially eventually exceeds a quantity increasing linearly, quadratically, or (more generally) as a polynomial function.
9. For exponential models, express as a logarithm the solution to $a b^{c t}=d$ where $a, c$, and $d$ are numbers and the base $b$ is 2,10 , or $e$; evaluate the logarithm using technology.

## Interpret expressions for functions in terms of the situation they model

5. Interpret the parameters in a linear or exponential function in terms of a context.

## Trigonometric Functions

Extend the domain of trigonometric functions using the unit circle

1. Understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle.
2. Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle.
3. (+) Use special triangles to determine geometrically the values of sine, cosine, tangent for $\pi / 3, \pi / 4$ and $\pi / 6$, and use the unit circle to express the values of sine, cosine, and tangent for $\pi-x, \pi+x$, and $2 \pi-x$ in terms of their values for $x$, where $x$ is any real number.
4. (+) Use the unit circle to explain symmetry (odd and even) and periodicity of trigonometric functions.

## Model periodic phenomena with trigonometric functions

5. Choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline. ${ }^{\star}$
6. (+) Understand that restricting a trigonometric function to a domain on which it is always increasing or always decreasing allows its inverse to be constructed.
7. (+) Use inverse functions to solve trigonometric equations that arise in modeling contexts; evaluate the solutions using technology, and interpret them in terms of the context.*

## Prove and apply trigonometric identities

8. Prove the Pythagorean identity $\sin ^{2}(\theta)+\cos ^{2}(\theta)=1$ and use it to find $\sin (\theta), \cos (\theta)$, or $\tan (\theta)$ given $\sin (\theta), \cos (\theta)$, or $\tan (\theta)$ and the quadrant of the angle.
9. (+) Prove the addition and subtraction formulas for sine, cosine, and tangent and use them to solve problems.

## Mathematics | High School—Modeling

Modeling links classroom mathematics and statistics to everyday life, work, and decision-making. Modeling is the process of choosing and using appropriate mathematics and statistics to analyze empirical situations, to understand them better, and to improve decisions. Quantities and their relationships in physical, economic, public policy, social, and everyday situations can be modeled using mathematical and statistical methods. When making mathematical models, technology is valuable for varying assumptions, exploring consequences, and comparing predictions with data.
A model can be very simple, such as writing total cost as a product of unit price and number bought, or using a geometric shape to describe a physical object like a coin. Even such simple models involve making choices. It is up to us whether to model a coin as a three-dimensional cylinder, or whether a two-dimensional disk works well enough for our purposes. Other situations-modeling a delivery route, a production schedule, or a comparison of loan amortizations-need more elaborate models that use other tools from the mathematical sciences. Real-world situations are not organized and labeled for analysis; formulating tractable models, representing such models, and analyzing them is appropriately a creative process. Like every such process, this depends on acquired expertise as well as creativity.

Some examples of such situations might include:

- Estimating how much water and food is needed for emergency relief in a devastated city of 3 million people, and how it might be distributed.
- Planning a table tennis tournament for 7 players at a club with 4 tables, where each player plays against each other player.
- Designing the layout of the stalls in a school fair so as to raise as much money as possible.
- Analyzing stopping distance for a car.
- Modeling savings account balance, bacterial colony growth, or investment growth.
- Engaging in critical path analysis, e.g., applied to turnaround of an aircraft at an airport.
- Analyzing risk in situations such as extreme sports, pandemics, and terrorism.
- Relating population statistics to individual predictions.

In situations like these, the models devised depend on a number of factors: How precise an answer do we want or need? What aspects of the situation do we most need to understand, control, or optimize? What resources of time and tools do we have? The range of models that we can create and analyze is also constrained by the limitations of our mathematical, statistical, and technical skills, and our ability to recognize significant variables and relationships among them. Diagrams of various kinds, spreadsheets and other technology, and algebra are powerful tools for understanding and solving problems drawn from different types of real-world situations.

One of the insights provided by mathematical modeling is that essentially the same mathematical or statistical structure can sometimes model seemingly different situations. Models can also shed light on the mathematical structures themselves, for example, as when a model of bacterial growth makes more vivid the explosive growth of the exponential function.

The basic modeling cycle is summarized in the diagram. It involves (1) identifying variables in the situation and selecting those that represent essential features, (2) formulating a model by creating and selecting geometric, graphical, tabular, algebraic, or statistical representations that describe relationships between the variables, (3) analyzing and performing operations on these relationships to draw conclusions, (4) interpreting the results of the mathematics in terms of the original situation, (5) validating the conclusions by comparing them with the situation, and then either improving the model or, if it
is acceptable, (6) reporting on the conclusions and the reasoning behind them. Choices, assumptions, and approximations are present throughout this cycle.
In descriptive modeling, a model simply describes the phenomena or summarizes them in a compact form. Graphs of observations are a familiar descriptive modelfor example, graphs of global temperature and atmospheric $\mathrm{CO}_{2}$ over time.
Analytic modeling seeks to explain data on the basis of deeper theoretical ideas, albeit with parameters that are empirically based; for example, exponential growth of bacterial colonies (until cut-off mechanisms such as pollution or starvation intervene) follows from a constant reproduction rate. Functions are an important tool for analyzing such problems.
Graphing utilities, spreadsheets, computer algebra systems, and dynamic geometry software are powerful tools that can be used to model purely mathematical phenomena (e.g., the behavior of polynomials) as well as physical phenomena.

Modeling Standards Modeling is best interpreted not as a collection of isolated topics but rather in relation to other standards. Making mathematical models is a Standard for Mathematical Practice, and specific modeling standards appear throughout the high school standards indicated by a star symbol (*).

## Mathematics｜High School－Geometry

An understanding of the attributes and relationships of geometric objects can be applied in diverse contexts－interpreting a schematic drawing，estimating the amount of wood needed to frame a sloping roof，rendering computer graphics，or designing a sewing pattern for the most efficient use of material．

Although there are many types of geometry，school mathematics is devoted primarily to plane Euclidean geometry，studied both synthetically（without coordinates）and analytically（with coordinates）．Euclidean geometry is characterized most importantly by the Parallel Postulate，that through a point not on a given line there is exactly one parallel line．（Spherical geometry，in contrast，has no parallel lines．）
During high school，students begin to formalize their geometry experiences from elementary and middle school，using more precise definitions and developing careful proofs．Later in college some students develop Euclidean and other geometries carefully from a small set of axioms．

The concepts of congruence，similarity，and symmetry can be understood from the perspective of geometric transformation．Fundamental are the rigid motions： translations，rotations，reflections，and combinations of these，all of which are here assumed to preserve distance and angles（and therefore shapes generally）．Reflections and rotations each explain a particular type of symmetry，and the symmetries of an object offer insight into its attributes－as when the reflective symmetry of an isosceles triangle assures that its base angles are congruent．

In the approach taken here，two geometric figures are defined to be congruent if there is a sequence of rigid motions that carries one onto the other．This is the principle of superposition．For triangles，congruence means the equality of all corresponding pairs of sides and all corresponding pairs of angles．During the middle grades，through experiences drawing triangles from given conditions，students notice ways to specify enough measures in a triangle to ensure that all triangles drawn with those measures are congruent．Once these triangle congruence criteria（ASA，SAS，and SSS）are established using rigid motions，they can be used to prove theorems about triangles，quadrilaterals， and other geometric figures．
Similarity transformations（rigid motions followed by dilations）define similarity in the same way that rigid motions define congruence，thereby formalizing the similarity ideas of＂same shape＂and＂scale factor＂developed in the middle grades． These transformations lead to the criterion for triangle similarity that two pairs of corresponding angles are congruent．

The definitions of sine，cosine，and tangent for acute angles are founded on right triangles and similarity，and，with the Pythagorean Theorem，are fundamental in many real－world and theoretical situations．The Pythagorean Theorem is generalized to non－ right triangles by the Law of Cosines．Together，the Laws of Sines and Cosines embody the triangle congruence criteria for the cases where three pieces of information suffice to completely solve a triangle．Furthermore，these laws yield two possible solutions in the ambiguous case，illustrating that Side－Side－Angle is not a congruence criterion．
Analytic geometry connects algebra and geometry，resulting in powerful methods of analysis and problem solving．Just as the number line associates numbers with locations in one dimension，a pair of perpendicular axes associates pairs of numbers with locations in two dimensions．This correspondence between numerical coordinates and geometric points allows methods from algebra to be applied to geometry and vice versa．The solution set of an equation becomes a geometric curve，making visualization a tool for doing and understanding algebra．Geometric shapes can be described by equations，making algebraic manipulation into a tool for geometric understanding， modeling，and proof．Geometric transformations of the graphs of equations correspond to algebraic changes in their equations．
Dynamic geometry environments provide students with experimental and modeling tools that allow them to investigate geometric phenomena in much the same way as computer algebra systems allow them to experiment with algebraic phenomena．

Connections to Equations．The correspondence between numerical coordinates and geometric points allows methods from algebra to be applied to geometry and vice versa．The solution set of an equation becomes a geometric curve，making visualization a tool for doing and understanding algebra．Geometric shapes can be described by equations，making algebraic manipulation into a tool for geometric understanding， modeling，and proof．

## Geometry Overview

## Congruence

- Experiment with transformations in the plane
- Understand congruence in terms of rigid motions
- Prove geometric theorems
- Make geometric constructions

Similarity, Right Triangles, and Trigonometry

- Understand similarity in terms of similarity transformations
- Prove theorems involving similarity
- Define trigonometric ratios and solve problems involving right triangles
- Apply trigonometry to general triangles


## Circles

- Understand and apply theorems about circles
- Find arc lengths and areas of sectors of circles

Expressing Geometric Properties with Equations

- Translate between the geometric description and the equation for a conic section
- Use coordinates to prove simple geometric theorems algebraically


## Geometric Measurement and Dimension

- Explain volume formulas and use them to solve problems
- Visualize relationships between twodimensional and three-dimensional objects

Modeling with Geometry

- Apply geometric concepts in modeling situations


## Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

## Congruence

## Experiment with transformations in the plane

1. Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.
2. Represent transformations in the plane using, e.g., transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not (e.g., translation versus horizontal stretch).
3. Given a rectangle, parallelogram, trapezoid, or regular polygon, describe the rotations and reflections that carry it onto itself.
4. Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.
5. Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another.

## Understand congruence in terms of rigid motions

6. Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent.
7. Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.
8. Explain how the criteria for triangle congruence (ASA, SAS, and SSS) follow from the definition of congruence in terms of rigid motions.

## Prove geometric theorems

9. Prove theorems about lines and angles. Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.
10. Prove theorems about triangles. Theorems include: measures of interior angles of a triangle sum to $180^{\circ}$; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point.
11. Prove theorems about parallelograms. Theorems include: opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals.

## Make geometric constructions

12. Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). Copying a segment; copying an angle; bisecting a segment; bisecting an angle; constructing perpendicular lines, including the perpendicular bisector of a line segment; and constructing a line parallel to a given line through a point not on the line.
13. Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.

## Understand similarity in terms of similarity transformations

1. Verify experimentally the properties of dilations given by a center and a scale factor:
a. A dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a line passing through the center unchanged.
b. The dilation of a line segment is longer or shorter in the ratio given by the scale factor.
2. Given two figures, use the definition of similarity in terms of similarity transformations to decide if they are similar; explain using similarity transformations the meaning of similarity for triangles as the equality of all corresponding pairs of angles and the proportionality of all corresponding pairs of sides.
3. Use the properties of similarity transformations to establish the $A A$ criterion for two triangles to be similar.

## Prove theorems involving similarity

4. Prove theorems about triangles. Theorems include: a line parallel to one side of a triangle divides the other two proportionally, and conversely; the Pythagorean Theorem proved using triangle similarity.
5. Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.

## Define trigonometric ratios and solve problems involving right

 triangles6. Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles.
7. Explain and use the relationship between the sine and cosine of complementary angles.
8. Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.*

## Apply trigonometry to general triangles

9. (+) Derive the formula $A=1 / 2 a b \sin (C)$ for the area of a triangle by drawing an auxiliary line from a vertex perpendicular to the opposite side.
10. (+) Prove the Laws of Sines and Cosines and use them to solve problems.
11. (+) Understand and apply the Law of Sines and the Law of Cosines to find unknown measurements in right and non-right triangles (e.g., surveying problems, resultant forces).

## Circles

## Understand and apply theorems about circles

1. Prove that all circles are similar.
2. Identify and describe relationships among inscribed angles, radii, and chords. Include the relationship between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle.
3. Construct the inscribed and circumscribed circles of a triangle, and prove properties of angles for a quadrilateral inscribed in a circle.
4. (+) Construct a tangent line from a point outside a given circle to the circle.

## Find arc lengths and areas of sectors of circles

5. Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius, and define the radian measure of the angle as the constant of proportionality; derive the formula for the area of a sector.

## Expressing Geometric Properties with Equations

## Translate between the geometric description and the equation for a conic section

1. Derive the equation of a circle of given center and radius using the Pythagorean Theorem; complete the square to find the center and radius of a circle given by an equation.
2. Derive the equation of a parabola given a focus and directrix.
3. (+) Derive the equations of ellipses and hyperbolas given the foci, using the fact that the sum or difference of distances from the foci is constant.

## Use coordinates to prove simple geometric theorems algebraically

4. Use coordinates to prove simple geometric theorems algebraically. For example, prove or disprove that a figure defined by four given points in the coordinate plane is a rectangle; prove or disprove that the point $(1, \sqrt{3})$ lies on the circle centered at the origin and containing the point $(0,2)$.
5. Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems (e.g., find the equation of a line parallel or perpendicular to a given line that passes through a given point).
6. Find the point on a directed line segment between two given points that partitions the segment in a given ratio.
7. Use coordinates to compute perimeters of polygons and areas of triangles and rectangles, e.g., using the distance formula.*

## Geometric Measurement and Dimension

G-GMD

## Explain volume formulas and use them to solve problems

1. Give an informal argument for the formulas for the circumference of a circle, area of a circle, volume of a cylinder, pyramid, and cone. Use dissection arguments, Cavalieri's principle, and informal limit arguments.
2. (+) Give an informal argument using Cavalieri's principle for the formulas for the volume of a sphere and other solid figures.
3. Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.*

## Visualize relationships between two-dimensional and threedimensional objects

4. Identify the shapes of two-dimensional cross-sections of threedimensional objects, and identify three-dimensional objects generated by rotations of two-dimensional objects.

## Modeling with Geometry G-MG

## Apply geometric concepts in modeling situations

1. Use geometric shapes, their measures, and their properties to describe objects (e.g., modeling a tree trunk or a human torso as a cylinder).^
2. Apply concepts of density based on area and volume in modeling situations (e.g., persons per square mile, BTUs per cubic foot).^
3. Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).*

## Mathematics | High School-Statistics and Probability ${ }^{\star}$

Decisions or predictions are often based on data-numbers in context. These decisions or predictions would be easy if the data always sent a clear message, but the message is often obscured by variability. Statistics provides tools for describing variability in data and for making informed decisions that take it into account.
Data are gathered, displayed, summarized, examined, and interpreted to discover patterns and deviations from patterns. Quantitative data can be described in terms of key characteristics: measures of shape, center, and spread. The shape of a data distribution might be described as symmetric, skewed, flat, or bell shaped, and it might be summarized by a statistic measuring center (such as mean or median) and a statistic measuring spread (such as standard deviation or interquartile range). Different distributions can be compared numerically using these statistics or compared visually using plots. Knowledge of center and spread are not enough to describe a distribution. Which statistics to compare, which plots to use, and what the results of a comparison might mean, depend on the question to be investigated and the real-life actions to be taken.
Randomization has two important uses in drawing statistical conclusions. First, collecting data from a random sample of a population makes it possible to draw valid conclusions about the whole population, taking variability into account. Second, randomly assigning individuals to different treatments allows a fair comparison of the effectiveness of those treatments. A statistically significant outcome is one that is unlikely to be due to chance alone, and this can be evaluated only under the condition of randomness. The conditions under which data are collected are important in drawing conclusions from the data; in critically reviewing uses of statistics in public media and other reports, it is important to consider the study design, how the data were gathered, and the analyses employed as well as the data summaries and the conclusions drawn.

Random processes can be described mathematically by using a probability model: a list or description of the possible outcomes (the sample space), each of which is assigned a probability. In situations such as flipping a coin, rolling a number cube, or drawing a card, it might be reasonable to assume various outcomes are equally likely. In a probability model, sample points represent outcomes and combine to make up events; probabilities of events can be computed by applying the Addition and Multiplication Rules. Interpreting these probabilities relies on an understanding of independence and conditional probability, which can be approached through the analysis of two-way tables.
Technology plays an important role in statistics and probability by making it possible to generate plots, regression functions, and correlation coefficients, and to simulate many possible outcomes in a short amount of time.

Connections to Functions and Modeling. Functions may be used to describe data; if the data suggest a linear relationship, the relationship can be modeled with a regression line, and its strength and direction can be expressed through a correlation coefficient.

## Statistics and Probability Overview

Interpreting Categorical and Quantitative Data

- Summarize, represent, and interpret data on a single count or measurement variable
- Summarize, represent, and interpret data on two categorical and quantitative variables
- Interpret linear models

Making Inferences and Justifying Conclusions

- Understand and evaluate random processes underlying statistical experiments
- Make inferences and justify conclusions from sample surveys, experiments and observational studies

Conditional Probability and the Rules of Probability

- Understand independence and conditional probability and use them to interpret data
- Use the rules of probability to compute probabilities of compound events in a uniform probability model


## Using Probability to Make Decisions

- Calculate expected values and use them to solve problems
- Use probability to evaluate outcomes of decisions

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

## Summarize, represent, and interpret data on a single count or measurement variable

1. Represent data with plots on the real number line (dot plots, histograms, and box plots).
2. Use statistics appropriate to the shape of the data distribution to compare center (median, mean) and spread (interquartile range, standard deviation) of two or more different data sets.
3. Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).
4. Use the mean and standard deviation of a data set to fit it to a normal distribution and to estimate population percentages. Recognize that there are data sets for which such a procedure is not appropriate. Use calculators, spreadsheets, and tables to estimate areas under the normal curve.

## Summarize, represent, and interpret data on two categorical and quantitative variables

5. Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and trends in the data.
6. Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.
a. Fit a function to the data; use functions fitted to data to solve problems in the context of the data. Use given functions or choose a function suggested by the context. Emphasize linear, quadratic, and exponential models.
b. Informally assess the fit of a function by plotting and analyzing residuals.
c. Fit a linear function for a scatter plot that suggests a linear association.

## Interpret linear models

7. Interpret the slope (rate of change) and the intercept (constant term) of a linear model in the context of the data.
8. Compute (using technology) and interpret the correlation coefficient of a linear fit.
9. Distinguish between correlation and causation.
Making Inferences and Justifying Conclusions S-IC

## Understand and evaluate random processes underlying statistical

 experiments1. Understand statistics as a process for making inferences about population parameters based on a random sample from that population.
2. Decide if a specified model is consistent with results from a given data-generating process, e.g., using simulation. For example, a model says a spinning coin falls heads up with probability 0.5 . Would a result of 5 tails in a row cause you to question the model?

Make inferences and justify conclusions from sample surveys, experiments, and observational studies
3. Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each.
4. Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling.
5. Use data from a randomized experiment to compare two treatments; use simulations to decide if differences between parameters are significant.
6. Evaluate reports based on data.

## Conditional Probability and the Rules of Probability

Understand independence and conditional probability and use them to interpret data

1. Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events ("or," "and," "not").
2. Understand that two events $A$ and $B$ are independent if the probability of $A$ and $B$ occurring together is the product of their probabilities, and use this characterization to determine if they are independent.
3. Understand the conditional probability of $A$ given $B$ as $P(A$ and $B) / P(B)$, and interpret independence of $A$ and $B$ as saying that the conditional probability of $A$ given $B$ is the same as the probability of $A$, and the conditional probability of $B$ given $A$ is the same as the probability of $B$.
4. Construct and interpret two-way frequency tables of data when two categories are associated with each object being classified. Use the two-way table as a sample space to decide if events are independent and to approximate conditional probabilities. For example, collect data from a random sample of students in your school on their favorite subject among math, science, and English. Estimate the probability that a randomly selected student from your school will favor science given that the student is in tenth grade. Do the same for other subjects and compare the results.
5. Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations. For example, compare the chance of having lung cancer if you are a smoker with the chance of being a smoker if you have lung cancer.

## Use the rules of probability to compute probabilities of compound events in a uniform probability model

6. Find the conditional probability of $A$ given $B$ as the fraction of $B$ 's outcomes that also belong to $A$, and interpret the answer in terms of the model.
7. Apply the Addition Rule, $P(A$ or $B)=P(A)+P(B)-P(A$ and $B)$, and interpret the answer in terms of the model.
8. (+) Apply the general Multiplication Rule in a uniform probability model, $P(A$ and $B)=P(A) P(B \mid A)=P(B) P(A \mid B)$, and interpret the answer in terms of the model.
9. (+) Use permutations and combinations to compute probabilities of compound events and solve problems.
Using Probability to Make Decisions S-MD

## Calculate expected values and use them to solve problems

1. (+) Define a random variable for a quantity of interest by assigning a numerical value to each event in a sample space; graph the corresponding probability distribution using the same graphical displays as for data distributions.
2. (+) Calculate the expected value of a random variable; interpret it as the mean of the probability distribution.
3. (+) Develop a probability distribution for a random variable defined for a sample space in which theoretical probabilities can be calculated; find the expected value. For example, find the theoretical probability distribution for the number of correct answers obtained by guessing on all five questions of a multiple-choice test where each question has four choices, and find the expected grade under various grading schemes.
4. (+) Develop a probability distribution for a random variable defined for a sample space in which probabilities are assigned empirically; find the expected value. For example, find a current data distribution on the number of TV sets per household in the United States, and calculate the expected number of sets per household. How many TV sets would you expect to find in 100 randomly selected households?

## Use probability to evaluate outcomes of decisions

5. (+) Weigh the possible outcomes of a decision by assigning probabilities to payoff values and finding expected values.
a. Find the expected payoff for a game of chance. For example, find the expected winnings from a state lottery ticket or a game at a fastfood restaurant.
b. Evaluate and compare strategies on the basis of expected values. For example, compare a high-deductible versus a low-deductible automobile insurance policy using various, but reasonable, chances of having a minor or a major accident.
6. (+) Use probabilities to make fair decisions (e.g., drawing by lots, using a random number generator).
7. (+) Analyze decisions and strategies using probability concepts (e.g., product testing, medical testing, pulling a hockey goalie at the end of a game).

## Note on courses and transitions

The high school portion of the Standards for Mathematical Content specifies the mathematics all students should study for college and career readiness. These standards do not mandate the sequence of high school courses. However, the organization of high school courses is a critical component to implementation of the standards. To that end, sample high school pathways for mathematics - in both a traditional course sequence (Algebra I, Geometry, and Algebra II) as well as an integrated course sequence (Mathematics 1, Mathematics 2, Mathematics 3) - will be made available shortly after the release of the final Common Core State Standards. It is expected that additional model pathways based on these standards will become available as well.

The standards themselves do not dictate curriculum, pedagogy, or delivery of content. In particular, states may handle the transition to high school in different ways. For example, many students in the U.S. today take Algebra I in the 8th grade, and in some states this is a requirement. The K-7 standards contain the prerequisites to prepare students for Algebra I by 8th grade, and the standards are designed to permit states to continue existing policies concerning Algebra I in 8th grade.
A second major transition is the transition from high school to post-secondary education for college and careers. The evidence concerning college and career readiness shows clearly that the knowledge, skills, and practices important for readiness include a great deal of mathematics prior to the boundary defined by (+) symbols in these standards. Indeed, some of the highest priority content for college and career readiness comes from Grades 6-8. This body of material includes powerfully useful proficiencies such as applying ratio reasoning in real-world and mathematical problems, computing fluently with positive and negative fractions and decimals, and solving real-world and mathematical problems involving angle measure, area, surface area, and volume. Because important standards for college and career readiness are distributed across grades and courses, systems for evaluating college and career readiness should reach as far back in the standards as Grades 6-8. It is important to note as well that cut scores or other information generated by assessment systems for college and career readiness should be developed in collaboration with representatives from higher education and workforce development programs, and should be validated by subsequent performance of students in college and the workforce.

## Glossary

Addition and subtraction within 5, 10, 20, 100, or $\mathbf{1 0 0 0}$. Addition or subtraction of two whole numbers with whole number answers, and with sum or minuend in the range $0-5,0-10,0-20$, or $0-100$, respectively. Example: $8+2=10$ is an addition within $10,14-5=9$ is a subtraction within 20 , and $55-18=37$ is a subtraction within 100.
Additive inverses. Two numbers whose sum is 0 are additive inverses of one another. Example: $3 / 4$ and $-3 / 4$ are additive inverses of one another because $3 / 4+(-3 / 4)=(-3 / 4)+3 / 4=0$.
Associative property of addition. See Table 3 in this Glossary.
Associative property of multiplication. See Table 3 in this Glossary.
Bivariate data. Pairs of linked numerical observations. Example: a list of heights and weights for each player on a football team.
Box plot. A method of visually displaying a distribution of data values by using the median, quartiles, and extremes of the data set. A box shows the middle $50 \%$ of the data. ${ }^{1}$
Commutative property. See Table 3 in this Glossary.
Complex fraction. A fraction $A / B$ where $A$ and/or $B$ are fractions ( $B$ nonzero).
Computation algorithm. A set of predefined steps applicable to a class of problems that gives the correct result in every case when the steps are carried out correctly. See also: computation strategy.
Computation strategy. Purposeful manipulations that may be chosen for specific problems, may not have a fixed order, and may be aimed at converting one problem into another. See also: computation algorithm.
Congruent. Two plane or solid figures are congruent if one can be obtained from the other by rigid motion (a sequence of rotations, reflections, and translations).

Counting on. A strategy for finding the number of objects in a group without having to count every member of the group. For example, if a stack of books is known to have 8 books and 3 more books are added to the top, it is not necessary to count the stack all over again. One can find the total by counting on-pointing to the top book and saying "eight," following this with "nine, ten, eleven. There are eleven books now."
Dot plot. See: line plot.
Dilation. A transformation that moves each point along the ray through the point emanating from a fixed center, and multiplies distances from the center by a common scale factor.
Expanded form. A multi-digit number is expressed in expanded form when it is written as a sum of single-digit multiples of powers of ten. For example, $643=$ $600+40+3$.
Expected value. For a random variable, the weighted average of its possible values, with weights given by their respective probabilities.
First quartile. For a data set with median $M$, the first quartile is the median of the data values less than M. Example: For the data set \{1, 3, 6, 7, 10, 12, 14, 15, 22, $120\}$, the first quartile is $6 .{ }^{2}$ See also: median, third quartile, interquartile range.
Fraction. A number expressible in the form $a / b$ where $a$ is a whole number and $b$ is a positive whole number. (The word fraction in these standards always refers to a non-negative number.) See also: rational number.
Identity property of $\mathbf{0}$. See Table 3 in this Glossary.
Independently combined probability models. Two probability models are said to be combined independently if the probability of each ordered pair in the combined model equals the product of the original probabilities of the two individual outcomes in the ordered pair.
${ }^{1}$ Adapted from Wisconsin Department of Public Instruction, http://dpi.wi.gov/ standards/mathglos.html, accessed March 2, 2010.
${ }^{2}$ Many different methods for computing quartiles are in use. The method defined here is sometimes called the Moore and McCabe method. See Langford, E., "Quartiles in Elementary Statistics," Journal of Statistics Education Volume 14, Number 3 (2006).

Integer. A number expressible in the form a or -a for some whole number a.
Interquartile Range. A measure of variation in a set of numerical data, the interquartile range is the distance between the first and third quartiles of the data set. Example: For the data set $\{1,3,6,7,10,12,14,15,22,120\}$, the interquartile range is $15-6=9$. See also: first quartile, third quartile.

Line plot. A method of visually displaying a distribution of data values where each data value is shown as a dot or mark above a number line. Also known as a dot plot. ${ }^{3}$
Mean. A measure of center in a set of numerical data, computed by adding the values in a list and then dividing by the number of values in the list. ${ }^{4}$ Example: For the data set $\{1,3,6,7,10,12,14,15,22,120\}$, the mean is 21 .
Mean absolute deviation. A measure of variation in a set of numerical data, computed by adding the distances between each data value and the mean, then dividing by the number of data values. Example: For the data set $\{2,3,6,7,10$, $12,14,15,22,120\}$, the mean absolute deviation is 20 .
Median. A measure of center in a set of numerical data. The median of a list of values is the value appearing at the center of a sorted version of the list-or the mean of the two central values, if the list contains an even number of values. Example: For the data set $\{2,3,6,7,10,12,14,15,22,90\}$, the median is 11.
Midline. In the graph of a trigonometric function, the horizontal line halfway between its maximum and minimum values.
Multiplication and division within 100. Multiplication or division of two whole numbers with whole number answers, and with product or dividend in the range 0-100. Example: $72 \div 8=9$.
Multiplicative inverses. Two numbers whose product is 1 are multiplicative inverses of one another. Example: $3 / 4$ and $4 / 3$ are multiplicative inverses of one another because $3 / 4 \times 4 / 3=4 / 3 \times 3 / 4=1$.
Number line diagram. A diagram of the number line used to represent numbers and support reasoning about them. In a number line diagram for measurement quantities, the interval from 0 to 1 on the diagram represents the unit of measure for the quantity.
Percent rate of change. A rate of change expressed as a percent. Example: if a population grows from 50 to 55 in a year, it grows by $5 / 50=10 \%$ per year.
Probability distribution. The set of possible values of a random variable with a probability assigned to each.
Properties of operations. See Table 3 in this Glossary.
Properties of equality. See Table 4 in this Glossary.
Properties of inequality. See Table 5 in this Glossary.
Properties of operations. See Table 3 in this Glossary.
Probability. A number between 0 and 1 used to quantify likelihood for processes that have uncertain outcomes (such as tossing a coin, selecting a person at random from a group of people, tossing a ball at a target, or testing for a medical condition).

Probability model. A probability model is used to assign probabilities to outcomes of a chance process by examining the nature of the process. The set of all outcomes is called the sample space, and their probabilities sum to 1 . See also: uniform probability model.
Random variable. An assignment of a numerical value to each outcome in a sample space.
Rational expression. A quotient of two polynomials with a non-zero denominator.
Rational number. A number expressible in the form $a / b$ or $-a / b$ for some fraction $a / b$. The rational numbers include the integers.
Rectilinear figure. A polygon all angles of which are right angles.
Rigid motion. A transformation of points in space consisting of a sequence of

[^21]
#### Abstract

one or more translations, reflections, and/or rotations. Rigid motions are here assumed to preserve distances and angle measures. Repeating decimal. The decimal form of a rational number. See a/so: terminating decimal. Sample space. In a probability model for a random process, a list of the individual outcomes that are to be considered.

Scatter plot. A graph in the coordinate plane representing a set of bivariate data. For example, the heights and weights of a group of people could be displayed on a scatter plot. ${ }^{5}$ Similarity transformation. A rigid motion followed by a dilation. Tape diagram. A drawing that looks like a segment of tape, used to illustrate number relationships. Also known as a strip diagram, bar model, fraction strip, or length model.

Terminating decimal. A decimal is called terminating if its repeating digit is 0 . Third quartile. For a data set with median $M$, the third quartile is the median of the data values greater than $M$. Example: For the data set $\{2,3,6,7,10,12,14$, $15,22,120\}$, the third quartile is 15 . See a/so: median, first quartile, interquartile range. Transitivity principle for indirect measurement. If the length of object $A$ is greater than the length of object $B$, and the length of object $B$ is greater than the length of object $C$, then the length of object $A$ is greater than the length of object C. This principle applies to measurement of other quantities as well. Uniform probability model. A probability model which assigns equal probability to all outcomes. See also: probability model. Vector. A quantity with magnitude and direction in the plane or in space, defined by an ordered pair or triple of real numbers.

Visual fraction model. A tape diagram, number line diagram, or area model. Whole numbers. The numbers $0,1,2,3, \ldots$.


[^22]Table 1. Common addition and subtraction situations. ${ }^{6}$

|  | Result Unknown | Change Unknown | Start Unknown |
| :---: | :---: | :---: | :---: |
| Add to | Two bunnies sat on the grass. Three more bunnies hopped there. How many bunnies are on the grass now? $2+3=?$ | Two bunnies were sitting on the grass. Some more bunnies hopped there. Then there were five bunnies. How many bunnies hopped over to the first two? $2+?=5$ | Some bunnies were sitting on the grass. Three more bunnies hopped there. Then there were five bunnies. How many bunnies were on the grass before? $?+3=5$ |
| Take from | Five apples were on the table. I ate two apples. How many apples are on the table now? $5-2=?$ | Five apples were on the table. I ate some apples. Then there were three apples. How many apples did I eat? $5-?=3$ | Some apples were on the table. I ate two apples. Then there were three apples. How many apples were on the table before? $?-2=3$ |
| Put Together/ Take Apart² | Total Unknown | Addend Unknown | Both Addends Unknown ${ }^{1}$ |
|  | Three red apples and two green apples are on the table. How many apples are on the table? $3+2=?$ | Five apples are on the table. Three are red and the rest are green. How many apples are green? $3+?=5,5-3=?$ | Grandma has five flowers. How many can she put in her red vase and how many in her blue vase? $\begin{aligned} & 5=0+5,5=5+0 \\ & 5=1+4,5=4+1 \\ & 5=2+3,5=3+2 \end{aligned}$ |
|  | Difference Unknown | Bigger Unknown | Smaller Unknown |
|  | ("How many more?" version): <br> Lucy has two apples. Julie has five apples. How many more apples does Julie have than Lucy? | (Version with "more"): <br> Julie has three more apples than Lucy. Lucy has two apples. How many apples does Julie have? | (Version with "more"): <br> Julie has three more apples than Lucy. Julie has five apples. How many apples does Lucy have? |
| Compare ${ }^{3}$ | ("How many fewer?" version): <br> Lucy has two apples. Julie has five apples. How many fewer apples does Lucy have than Julie? $2+?=5,5-2=?$ | (Version with "fewer"): <br> Lucy has 3 fewer apples than Julie. Lucy has two apples. How many apples does Julie have? $2+3=?, 3+2=?$ | (Version with "fewer"): <br> Lucy has 3 fewer apples than Julie. Julie has five apples. How many apples does Lucy have? $5-3=?, ?+3=5$ |

${ }^{1}$ These take apart situations can be used to show all the decompositions of a given number. The associated equations, which have the total on the left of the equal sign, help children understand that the $=$ sign does not always mean makes or results in but always does mean is the same number as.
${ }^{2}$ Either addend can be unknown, so there are three variations of these problem situations. Both Addends Unknown is a productive extension of this basic situation, especially for small numbers less than or equal to 10.
${ }^{3}$ For the Bigger Unknown or Smaller Unknown situations, one version directs the correct operation (the version using more for the bigger unknown and using less for the smaller unknown). The other versions are more difficult.

[^23]Table 2. Common multiplication and division situations. ${ }^{7}$

|  | Unknown Product | Group Size Unknown ("How many in each group?" Division) | Number of Groups Unknown ("How many groups?" Division) |
| :---: | :---: | :---: | :---: |
|  | $3 \times 6=$ ? | $3 \times ?=18$, and $18 \div 3=?$ | $? \times 6=18$, and $18 \div 6=?$ |
| Equal Groups | There are 3 bags with 6 plums in each bag. How many plums are there in all? <br> Measurement example. You need 3 lengths of string, each 6 inches long. How much string will you need altogether? | If 18 plums are shared equally into 3 bags, then how many plums will be in each bag? <br> Measurement example. You have 18 inches of string, which you will cut into 3 equal pieces. How long will each piece of string be? | If 18 plums are to be packed 6 to a bag, then how many bags are needed? <br> Measurement example. You have 18 inches of string, which you will cut into pieces that are 6 inches long. How many pieces of string will you have? |
| Arrays, ${ }^{4}$ <br> Area ${ }^{5}$ | There are 3 rows of apples with 6 apples in each row. How many apples are there? <br> Area example. What is the area of a 3 cm by 6 cm rectangle? | If 18 apples are arranged into 3 equal rows, how many apples will be in each row? <br> Area example. A rectangle has area 18 square centimeters. If one side is 3 cm long, how long is a side next to it? | If 18 apples are arranged into equal rows of 6 apples, how many rows will there be? <br> Area example. A rectangle has area 18 square centimeters. If one side is 6 cm long, how long is a side next to it? |
| Compare | A blue hat costs $\$ 6$. A red hat costs 3 times as much as the blue hat. How much does the red hat cost? <br> Measurement example. A rubber band is 6 cm long. How long will the rubber band be when it is stretched to be 3 times as long? | A red hat costs $\$ 18$ and that is 3 times as much as a blue hat costs. How much does a blue hat cost? <br> Measurement example. A rubber band is stretched to be 18 cm long and that is 3 times as long as it was at first. How long was the rubber band at first? | A red hat costs $\$ 18$ and a blue hat costs $\$ 6$. How many times as much does the red hat cost as the blue hat? <br> Measurement example. A rubber band was 6 cm long at first. Now it is stretched to be 18 cm long. How many times as long is the rubber band now as it was at first? |
| General | $a \times b=$ ? | $a \times ?=p$, and $p \div a=$ ? | $? \times b=p$, and $p \div b=?$ |

${ }^{4}$ The language in the array examples shows the easiest form of array problems. A harder form is to use the terms rows and columns: The apples in the grocery window are in 3 rows and 6 columns. How many apples are in there? Both forms are valuable.
${ }^{5}$ Area involves arrays of squares that have been pushed together so that there are no gaps or overlaps, so array problems include these especially important measurement situations.
${ }^{7}$ The first examples in each cell are examples of discrete things. These are easier for students and should be given before the measurement examples.

Table 3. The properties of operations. Here $a, b$ and $c$ stand for arbitrary numbers in a given number system. The properties of operations apply to the rational number system, the real number system, and the complex number system.

| Associative property of addition | $(a+b)+c=a+(b+c)$ |
| ---: | :---: |
| Commutative property of addition | $a+b=b+a$ |
| Additive identity property of 0 | $a+0=0+a=a$ |
| Existence of additive inverses | For every $a$ there exists $-a$ so that $a+(-a)=(-a)+a=0$. |
| Associative property of multiplication | $(a \times b) \times c=a \times(b \times c)$ |
| Commutative property of multiplication | $a \times b=b \times a$ |
| Multiplicative identity property of 1 | $a \times 1=1 \times a=a$ |
| Existence of multiplicative inverses | For every $a \neq 0$ there exists $1 / a$ so that $a \times 1 / a=1 / a \times a=1$. |
| Distributive property of multiplication over addition | $a \times(b+c)=a \times b+a \times c$ |

Table 4. The properties of equality. Here $a, b$ and $c$ stand for arbitrary numbers in the rational, real, or complex number systems.

| Reflexive property of equality | $a=a$ |
| ---: | :---: |
| Symmetric property of equality | If $a=b$, then $b=a$. |
| Transitive property of equality | If $a=b$ and $b=c$, then $a=c$. |
| Addition property of equality | If $a=b$, then $a+c=b+c$. |
| Subtraction property of equality | If $a=b$, then $a-c=b-c$. |
| Multiplication property of equality | If $a=b$, then $a \times c=b \times c$. |
| Division property of equality | If $a=b$ and $c \neq 0$, then $a \div c=b \div c$. |
| Substitution property of equality | If $a=b$, then $b$ may be substituted for $a$ |

TABLE 5. The properties of inequality. Here $a, b$ and $c$ stand for arbitrary numbers in the rational or real number systems.

Exactly one of the following is true: $a<b, a=b, a>b$.

$$
\begin{gathered}
\text { If } a>b \text { and } b>c \text { then } a>c \text {. } \\
\text { If } a>b \text {, then } b<a . \\
\text { If } a>b \text {, then }-a<-b . \\
\text { If } a>b \text {, then } a \pm c>b \pm c \text {. } \\
\text { If } a>b \text { and } c>0 \text {, then } a \times c>b \times c \text {. } \\
\text { If } a>b \text { and } c<0 \text {, then } a \times c<b \times c . \\
\text { If } a>b \text { and } c>0 \text {, then } a \div c>b \div c . \\
\text { If } a>b \text { and } c<0 \text {, then } a \div c<b \div c .
\end{gathered}
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## Sample of Works Consulted

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## Common Core State Standards

Lee Ann J. Kendrick, M.Ed.
Regional Advocacy Specialist

## Benefits for Students

- The new standards emphasize the highlevel, core skills that students will need in the future to be successful in college and career.
- The common core encourages students to read the kinds of material they will see in the workplace, along with literature and history.


## Benefits for Students

- The consistency of the standards across jurisdictions ensures that students will not fall behind if they switch schools or move to a different city or state.
- The high standards and expectations embedded in the common core will ensure that all students have the opportunity to succeed, no matter where they live or what their backgrounds are.


## Benefits for Students

- High school graduates who attain proficiency on the common core will arrive at college without the need for expensive remedial courses.


## Benefits for Teachers

- Teachers will be asked to teach fewer topics in ELA and math but to teach them differently and in greater depth.
- Teachers will have clearer direction about what they need to emphasize so that their students will be successful.


## Benefits for Teachers

- Teachers will retain flexibility over how to teach.
- Teachers will have the opportunity to collaborate with colleagues across the country who will be teaching the same standards.


## Common Core Pushback

- Myths about the Standards
- Concerns about Implementation
- Concerns about Assessments/Accountability
- Concerns about Data


# Myths about the Standards 

- www.pta.org


## Concerns about Implementation

## - CCSS State Resources

## Concerns about Assessments/ Accountability

- PTA Assessment Guides


## Concerns about Assessments/ Accountability

- Require critical thinking, finding solutions to complex, real-world problems, and writing persuasively based on evidence
- Ask students to answer questions in different formats-such as short answers and extended responses-rather than just filling in bubbles on multiple-choice questions


## Concerns about Assessments/

## Accountability

- Indicate whether students are likely to succeed in entry-level, credit-bearing courses in college without having to take remedial courses that don't count towards a college degree
- Signal whether students have the critical thinking and problem-solving skills they need to succeed in today's workforce


# Concerns about Assessments/ Accountability 

## http://www.pta.org/about/content.cfm?

ItemNumber=1385

That National PTA and its constituent organizations support a balanced accountability system that uses multiple measures in order to improve academic achievement for all students.

## Concerns about Data

- CCSS Resources
- http://www.dataqualitycampaign.org/why-education-data/data-faqs/
- http://www.dataqualitycampaign.org/why-education-data/communicating-data/


## What can you do?

- Read the standards
- Find out what is going on in your school/ district/state
- Make sure PTA is involved!
- Ask for help


## Questions?



For more information contact:
Chrystal Jones, Senior State Advocacy Strategist
(571)329-9343
cjones@pta.org

## Lee Ann Kendrick, Regional Advocacy Specialist <br> (571)329-9365 <br> lkendrick@pta.org

## PT/ everychild.onevoice. <br> Common Core Resources by Audience

## Resources for Parents

- National PTA Common Core State Standards (CCSS) Frequently Asked Questions (FAQs) FAQs tackle topics related to the CCSS, including background, process, assessments, and what the CCSS means for students, teachers, and schools. http://www.pta.org/files/Advocacy/CCSSIToolkit/Common\ Core\ State\ Standards\  Resources/PTA\%20CCSSI\%20FAQ.pdf
- National PTA Advocacy Toolkit - Comprehensive toolkit includes CCSS issue-specific briefs, the ELA and mathematics standards in their entirety, Parent Guides to Student Success, PowerPoint presentations, and CCSS collateral.
http://www.pta.org/advocacy/content.cfm?ItemNumber=3552
- Data Quality Campaign/National PTA Data Sheet | What Every Parent Should Be Asking about Education Data - A compendium of questions parents and guardians can ask school officials in order to ensure that their children are on track to graduate college and career ready. Includes questions on data collection, privacy, and access. http://www.pta.org/files/CCSSI\ ToolKit\ 2013/Common\ Core\ State\ Standards\% 20Resources/DQC\%20PTA\%20Data\%20Guide\%20for\%20Parents.pdf
- National PTA CCSS Policy Briefs - These two documents provide parents with a history of the Common Core State Standards Initiative (CCSSI), why the CCSS are important to parents, and why the PTA supports adoption and implementation.
Brief / 5 Pages
http://www.pta.org/files/Common\ Core\ State\ Standards\ Resources/Common\  Core\%20Research/PTA\%20CCSSI\%2OIssue\%20Brief 1360778991623 1.pdf

Overview | 2 Pages
http://www.pta.org/files/Common\ Core\ State\ Standards\ Resources/Common\  Core\%20Research/PTA\%20CCSSI\%20Issue\%20Brief\%202\%20page.pdf

- National PTA Assessment Guides - These guides have been compiled for the 45 states that have adopted the CCSS. Each guide includes custom, state-by-state information about the new Common Core-aligned assessments and the new accountability systems.
http://www.pta.org/advocacy/content.cfm?ltemNumber=3816


## PTH everychild.onevoice. <br> Common Core Resources by Audience

- National PTA's Parents' Guides to Student Success - Created for grades K-8 high school English language arts/literacy and mathematics, the guides provide clear, consistent expectations for what students should be learning at each grade in order to be prepared for college and career.

The Guides include key items children should be learning in English language arts and mathematics in each grade, once Common Core Standards are fully implemented; activities that parents can do at home to support their child's learning; methods for helping parents build stronger relationships with their child's teacher; and tips for planning for college and career (high school only).
http://www.pta.org/parents/content.cfm?ltemNumber=2583

- National PTA's Common Core Webinar Series - This four-part series is designed to educate parents on the CCSS and empower them to support the transition at school and at home. The webinars highlight three key principles: the need for clear, consistent, and rigorous standards, standards reflect the relevant knowledge and skills needed to succeed, and PTA's goal is for parents to be knowledgeable and standards and assessments.
http://www.pta.org/advocacy/content.cfm?ItemNumber=3894
- National PTA CCSSI Advocacy Training Toolkit - Includes short videos on coalitions; advocacy; media; meeting with decision makers; and recruitment. http://www.pta.org/advocacy/content.cfm?ltemNumber=3551
- Families + Educators Working Together = Student Success - A National PTA/NEA publication that offers collaborative strategies to help students transition to the CCSS.
http://www.nea.org/assets/docs/NEA-PTA-CCSS-Student-Success-Brochure.pdf
- Families and Educators... Be an Advocate for Student Achievement - A National PTA/NEA publication that focuses on becoming an advocate for the CCSS. http://www.nea.org/assets/docs/NEA-PTA-CCSS-Advocacy-Brochure.pdf
- The Common Core State Standards: An Introduction for Families and Other Stakeholders -One-page flyer from the Aspen Institute about the CCSS and their importance (English and Spanish).
http://www.aspeninstitute.org/publications/common-core-state-standards-introduction-families-other-stakeholders
- Council of the Great City Schools Three-Minute Videos for Parents - Brief video introduction to the CCSS and how they will help students prepare for college and career (English and Spanish). http://www.commoncoreworks.org/domain/157


## PT/ <br> Common Core Resources by Audience everychild.onevoice.

- A Guide To Common Core - US News and World Report special report that provides insight and analysis on the Common Core, including a number of opinion pieces.
http://www.usnews.com/news/special-reports/a-guide-to-common-core
- Parent Roadmaps - Grade-by-grade guides the Council of the Great City Schools for parents about the expectations of the CCSS (also available in Spanish)

English language arts: http://www.commoncoreworks.org/domain/114
Mathematics: http://www.commoncoreworks.org/domain/149
Artes del lenguaje en inglés: http://www.commoncoreworks.org/Page/365
Matemáticas: http://www.commoncoreworks.org/Page/367

- NBC Education Nation Parent Toolkit - An easily accessible parent toolkit available as a website and mobile app to help parents understand the Common Core and participate in their children's academic success.
http://www.parenttoolkit.com
- Learn More, Go Further - A virtual toolkit developed by the Foundation for Excellence in Education and the Higher State Standards Partnership to help parents of K-12 students understand what Common Core State Standards mean for their kids.
http://commoncore.learnmoregofurther.org/parents/
- Conservatives for Higher Standards - This website by Foundation for Excellence in Education highlights the conservative arguments in favor of the Common Core.
http://highercorestandards.org
- Get2Core.org - This website by Stand for Children has a variety of information and resources for parents and teachers, walks through the standards, and gives helpful examples.
- Hunt Institute and CCSSO Common Core Videos - Videos featuring the authors of the CCSS covers how the Common Core were developed and how they will help students.
http://www.ccsso.org/Resources/Digital Resources/Common Core Implementation Vi deo Series.html
- Foundation for Excellent Education's Common Misconceptions - This page offers a comparative list of myths and facts about the Common Core. http://excelined.org/common-core-toolkit/information-common-misconceptions


## PT/A everychild.onevoice. <br> Common Core Resources by Audience

## Resources for Teachers

- National PTA Parents' Guide to Student Success - These parent guides in English and Spanish are designed to inform parents about the CCSS and how to support their children's success.
http://pta.org/parents/content.cfm?ItemNumber=2583
- Families + Educators Working Together = Student Success $\boldsymbol{-}$ A National PTA/NEA publication that offers collaborative strategies to help students transition to the CCSS. http://www.nea.org/assets/docs/NEA-PTA-CCSS-Student-Success-Brochure.pdf
- CGCS Teacher Training Videos - Videos developed by the Council of Great City Schools for central office and school-based staff and teachers as an introduction to the instructional shifts required by the CCSS.

English language arts and literacy: http://www.commoncoreworks.org/domain/127
Mathematics: http://www.commoncoreworks.org/Page/345

- Share My Lesson - Website by the American Federation of Teachers and TES Connect that offers information about the CCSS and high-quality resources aligned to the standards.
http://www.sharemylesson.com/article.aspx?storyCode=50000148
- Teaching Channel - Website that offers a free library of high-quality videos featuring real teachers demonstrating their best educational practices with videos aligned to the CCSS.
https://www.teachingchannel.org/videos?page=1\&categories=organizations national,t opics common-core\&load=1
- Common Core in Practice - Series of videos by America Achieves that demonstrate effective instruction aligned to the CCSS.
http://www.americaachieves.org/issues/common-core-in-practice-great-teachers-demonstrate-moving-to-deeper-learning
- Student Achievement Partners - Website that offers a variety of free, high-quality materials to help educators align their instruction to the Common Core.
http://www.achievethecore.org/
- EduCore - Tool that was developed by ASCD and provides secondary teachers with high-quality teaching and learning resources aligned to the CCSS.
http://educore.ascd.org/default.aspx


## PT/ everychild.onevoice. <br> Common Core Resources by Audience

- NEA Common Core State Standards Toolkit - Toolkit designed to ensure members have the knowledge and understanding necessary to prepare for the implementation of CCSS.
http://www.nea.org/assets/docs/EPP CommonCore Toolkit Final.pdf
- America Achieves' Common Core Website - Website that features a full library of videos that exemplify the key shifts that Common Core brings to classroom pedagogy, with editable lesson plans, resource evaluation tools, and links to more resources.
http://commoncore.americaachieves.org
- Toolkit for Evaluating Alignment of Instructional and Assessment Materials - Toolkit that contains interrelated, freely available instruments for evaluating alignment to the CCSS.
http://www.ccsso.org/Resources/Digital Resources/Toolkit for Evaluating Alignment of Instructional and Assessment Materials.html
- CCSSO iTunes U Site - iTunes content with toolkits and resources tailored to grade levels and focused on many aspects of implementation.
http://itunes.com/CCSSO
- PARCC Common Core Implementation Workbook - Workbook that lays out clear action steps for states and districts to help plan for the CCSS and then drive successful implementation.
http://www.parcconline.org/CommonCorelmplementationWorkbook
- Get2Core.org - This website by Stand for Children has a variety of information and resources for parents and teachers, walks through the standards, and gives helpful examples.


## Resources for Principals/District Superintendents

- Calendar of Questions - Resource for districts and schools by the Council of Great City Schools helps guide effective and high-quality implementation, by posing various questions to consider.
http://www.commoncoreworks.org/domain/163
- CGCS Teacher Training Videos - Videos developed by the Council of Great City Schools for central office and school-based staff and teachers as an introduction to the instructional shifts required by the CCSS.

English language arts and literacy: http://www.commoncoreworks.org/domain/127
Mathematics: http://www.commoncoreworks.org/Page/345

## PTH everychild.onevoice. <br> Common Core <br> Resources by Audience

- Toolkit for Evaluating Alignment of Instructional and Assessment Materials - Toolkit from CCSSO, Achieve, and Student Achievement Partners contains interrelated, freely available tools for evaluating instructional materials.
http://www.ccsso.org/Resources/Digital Resources/Toolkit for Evaluating Alignment of Instructional and Assessment Materials .html
- Get2Core.org - This website by Stand for Children has a variety of information and resources for parents and teachers, walks through the standards, and gives helpful examples.
- Learn More, Go Further - A virtual toolkit developed by the Foundation for Excellence in Education and the Higher State Standards Partnership to help teachers and administrators understand the Common Core State Standards.
http://commoncore.learnmoregofurther.org/teachers-school-leaders/
- More Work Ahead on Common Core - Infographic from Democrats for Education Reform which reports that only 28 percent of superintendents say their school districts are coordinating implementation of the standards with postsecondary education institutions.
http://www.dfer.org/blog/CCSS.pdf
- CDW-G Common Core Tech Report - Survey of IT professionals in public schools to understand how well prepared they are to meet the technology requirements of Common Core and new assessments.
http://www.cdwnewsroom.com/cdw-g-common-core-tech/


## Resources for State Policymakers

- On the Road to Implementation - Report from Achieve that identifies key areas that state policymakers will need to consider for effective implementation.
http://www.achieve.org/achievingcommoncore implementation
- Criteria for High Quality Assessment - Report from Stanford Center for Opportunity Policy in Education for developers and policymakers as they create and adopt assessments that promote deeper learning.
http://edpolicy.stanford.edu/sites/default/files/publications/criteria-higher-qualityassessment 1.pdf


## PT/ everychild.onevoice. <br> Common Core Resources by Audience

- NGA Member Briefs - The first brief focuses on policies to build the effectiveness of educators; the second brief focuses on communicating the need for, and a vision of, reform.
http://www.nga.org/cms/home/nga-center-for-best-practices/center-publications/page-edu-publications/col2-content/main-content-list/trends-in-state-implementation-o.html
http://www.nga.org/cms/home/nga-center-for-best-practices/center-publications/page-edu-publications/col2-content/main-content-list/trends-in-state-part-2.html
- CCSSO List of Tools and Resources - This document points states to promising practices and tools to support Common Core implementation and primarily lists resources developed by CCSSO and the lead writers.
http://www.ccsso.org/Resources/Publications/Common_Core_State_Standards_Imple mentation Tools and Resources.html\#sthash.qOSjZnz8.dpuf)


## Resources for Businesses

- Business Center for a College- and Career- Ready America - The GE Foundation and AT\&T, with Chevron and the Prudential and Travelers foundations, collaborated with Achieve to create resources to help businesses support college and career readiness for all students.
http://www.businessandeducation.org
- Conservatives for Higher Standards - Website by Foundation for Excellence in Education to highlight the conservative arguments in favor of the Common Core.
http://highercorestandards.org
- TheCommonCore.com - A business-led effort by ExxonMobil with The Business Roundtable and the U.S. Chamber of Commerce connects supporters of the Common Core directly with state legislators and provides alerts when new or increased opposition to the standards emerges.
- UpGrade America Toolkit - The Business Coalition for Student Achievement offers template materials, talking points, and supporting facts to help business leaders make the economic case for meaningful education reform.
http://www.biz4achievement.org/files/Upgrade \%20America Communications Toolkit 2013.pdf
- U.S. Chamber of Commerce Foundation Common Core E-Toolkit - Toolkit designed to help business leaders communicate with peers, employees and others about the new standards and assessments. The toolkit includes background materials to help users better understand and advocate for the standards.
http://www.businessforcore.org/


## PT/4 everychild.onevoice.

All

- CoreStandards.org - The official home of the CCSS contains information about the standards, information for parents, background on development and adoption and the standards themselves.
- SmarterBalanced.org and PARCConline.org - The official websites of the Smarter Balanced Assessment Consortium (Smarter Balanced) and the Partnership for Assessment of Readiness for College and Career (PARCC), the two state-led consortia working to develop next-generation assessments.


# COMMON CORE STATE STANDARDS TOOLKIT 

PTH


[^0]:    Strategy Exercise - State

[^1]:    **TIP** Not all parents are familiar with Robert's Rules. The structure of PTA meetings can be really confusing and daunting to new members. All members of the PTA leadership team should explain the steps of the meetings that pertain to their role throughout the meeting. This should be done in a casual, conversational manner. For instance: Hi, I am the President of XYZ PTA, and as such, I preside over all PTA meetings. Our treasure, Sue, handles all funds for our PTA and at each meeting will give a report of our finances. Sue, please share your report.

[^2]:    Have you included too much wording? (Remember, slides are meant
    If you're representing an organization, do your visual aids and slides match your organization's branding?

[^3]:    Tips for Educators

    - Dedicate extra time to explain the new Common Core instructional shifts to parents and what the shifts mean in the classroom.
    - Align student progress reports to

    Common Core standards.
    $>$ Make sure weekly folders and home communications include Common Core activities and provide incentives for completing them.
    > Use every school event as an opportunity to talk to parents about the standards and demonstrate the shifts.

    Host events with other school staff for parents to participate in Common Core aligned hands-on activities.
    $>$ Communicate electronically with parents and peers, explaining how curriculum will be aligned with the new standards.
    $>$ Invite parents to ask questions about Common Core.

    Teachers and education professionals should work together to help families feel welcome in schools.

[^4]:    反uoןe-peəy **

[^5]:    2. Write informative/explanatory texts to examine and convey complex ideas, organization, and analysis of content.

    Introduce a topic; organize complex ideas, concepts, and information so
    that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.

    Develop the topic thoroughly by selecting the most significant and relevant
    facts, extended definitions, concrete details, quotations, or other information facts, extended definitions, concrete details, quotations, or other information
    and examples appropriate to the audience's knowledge of the topic. Use appropriate and varied transitions and syntax to link the major sections
    of the text, create cohesion, and clarify the relationships among complex ideas and concepts.

    Use precise language, domain-specific vocabulary, and techniques such as Establish and maintain a formal style and objective tone while attending to
    the norms and conventions of the discipline in which they are writing.

    Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or
    ' $\tau$ Write informative/explanatory texts to examine and convey complex ideas,
    concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.
    a. Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g.,
    headings), graphics (e.g., figures, tables), and multimedia when useful to b. Develop the topic with well-chosen, relevant, and sufficient facts, extended appropriate to the audience's knowledge of the topic. Use appropriate and varied transitions to link the major sections of the text,
    create cohesion, and clarify the relationships among complex ideas and concepts.
    d. Use precise language and domain-specific vocabulary to manage the complexity of the topic. Establish and maintain a formal style and objective tone while attending to
    the norms and conventions of the discipline in which they are writing. Provide a concluding statement or section that follows from and supports the significance of the topic).
    ~

[^6]:    5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings,
    a. Interpret figures of speech (e.g. verbal irony,
    puns) in context.

    Use the relationship between particular words
    to better understand each of the words. c. Distinguish among the connotations
    (associations) of words with similar denotations
    (definitions) (e.g., bullheaded, willful, firm, persistent, resolute).

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[^7]:    ${ }^{1}$ Include groups with up to ten objects.
    ${ }^{2}$ Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)

[^8]:    ${ }^{3}$ Limit category counts to be less than or equal to 10.

[^9]:    ${ }^{1}$ Students should apply the principle of transitivity of measurement to make indirect comparisons, but they need not use this technical term.

[^10]:    ${ }^{2}$ See Glossary, Table 1.
    ${ }^{3}$ Students need not use formal terms for these properties.

[^11]:    ${ }^{4}$ Students do not need to learn formal names such as＂right rectangular prism．＂

[^12]:    ${ }^{1}$ See Glossary, Table 1.
    ${ }^{2}$ 2See standard 1.OA. 6 for a list of mental strategies.
    ${ }^{3}$ Explanations may be supported by drawings or objects.

[^13]:    ＂4See Glossary，Table 1.
    ${ }^{5}$ Sizes are compared directly or visually，not compared by measuring．

[^14]:    'See Glossary, Table 2.
    ${ }^{2}$ 2Students need not use formal terms for these properties.
    ${ }^{3}$ This standard is limited to problems posed with whole numbers and having wholenumber answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).

[^15]:    ${ }^{6}$ Excludes compound units such as $\mathrm{cm}^{3}$ and finding the geometric volume of a container.
    ${ }^{7}$ Excludes multiplicative comparison problems (problems involving notions of "times as much"; see Glossary, Table 2).

[^16]:    ${ }^{3}$ Grade 4 expectations in this domain are limited to fractions with denominators 2, $3,4,5,6,8,10,12$, and 100 .

[^17]:    ${ }^{1}$ Students able to multiply fractions in general can develop strategies to divide fractions in general, by reasoning about the relationship between multiplication and division. But division of a fraction by a fraction is not a requirement at this grade.

[^18]:    ${ }^{1}$ Computations with rational numbers extend the rules for manipulating fractions to complex fractions.

[^19]:    ${ }^{1}$ Function notation is not required in Grade 8.

[^20]:    ${ }^{1}$ The Binomial Theorem can be proved by mathematical induction or by a combinatorial argument.

[^21]:    ${ }^{3}$ Adapted from Wisconsin Department of Public Instruction, op. cit.
    ${ }^{4}$ To be more precise, this defines the arithmetic mean.

[^22]:    ${ }^{5}$ Adapted from Wisconsin Department of Public Instruction, op. cit.

[^23]:    ${ }^{6}$ Adapted from Box 2-4 of Mathematics Learning in Early Childhood, National Research Council (2009, pp. 32, 33).

