SEA LIFE
Sydney

Self-guided tour

Conservation

Key Questions

- What does conservation mean?
- Why do we need to protect marine animals?
- Why are some animals endangered and others are not?
- How are humans affecting animal habitats? Negatively and positively?
- What steps can we take to help to support and save endangered species?

Vocabulary

Ecosystem
All of the living and nonliving things in an area.

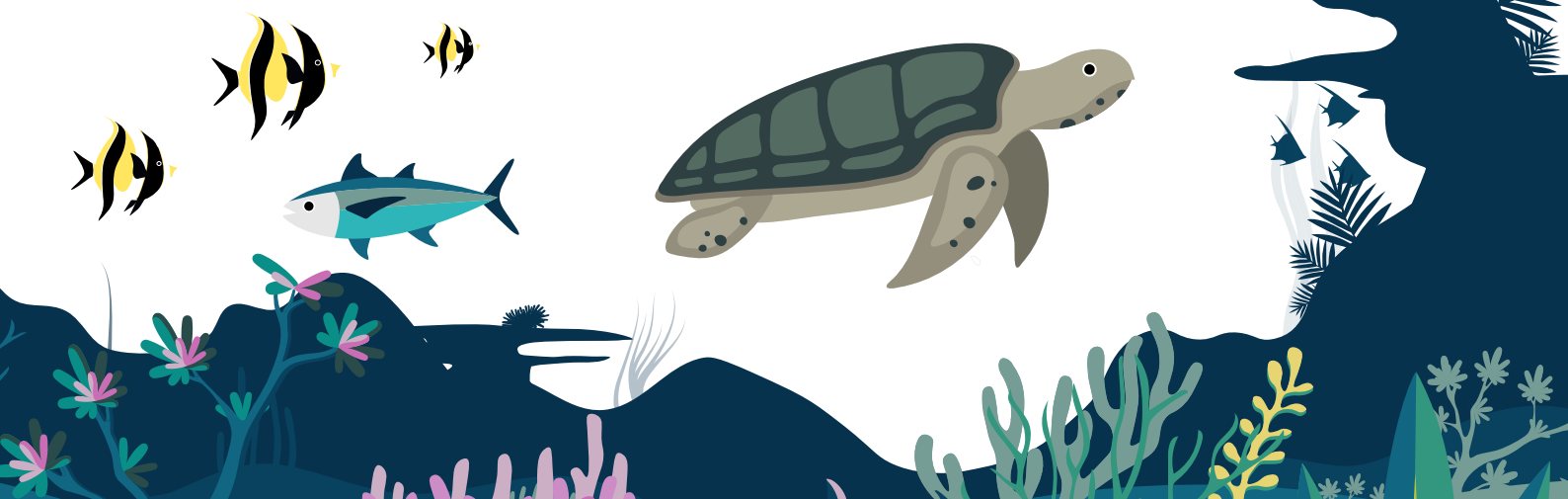
Conservation
To maintain and protect something where possible, to enhance or increase quality or numbers.

Endangered
Any type of plant or animal that is in danger of disappearing forever.

Extinct:
When an entire species or type of animal dies out.

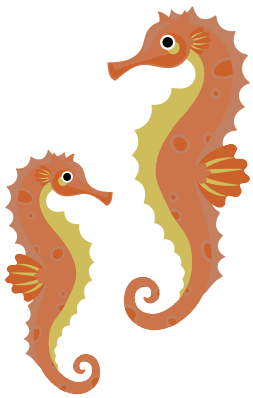
Habitat
A natural environment or home of an animal or plant.

Conservation
Reducing the amount of garbage that is thrown away by reusing it or turning it into something new.



Pre-Visit Activities

Lower Primary



Activity 1.

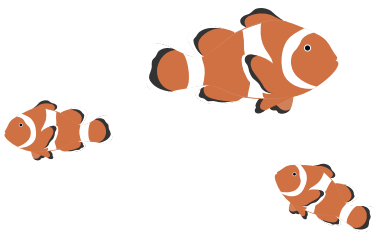
Create a word wall to build oral language and vocabulary about the topic of marine animals with drawings by students or from samples provided. Encourage children to use these words in their writing before and after their visit.

Activity 2.

Borrow books from the school library about marine animals and have students explore and read these to familiarise themselves with the topics. Students can bring books from home and share their interests and knowledge about the ocean. See the following suggestions from previous list.

Activity 3.

What can you do to look after the environment? Ask students to split at A4 paper into two, illustrating what different actions can be taken at school and at home e.g. not picking flowers, turning off the tap, whole school clean ups etc.



Pre-Visit Activities

Upper Primary

Activity 1.

What animal are you most interested in learning about? Draw your animal (see example) and all the things it needs to survive and how it lies in its habitat. Think of adaptations it may have to survive.

Activity 2.

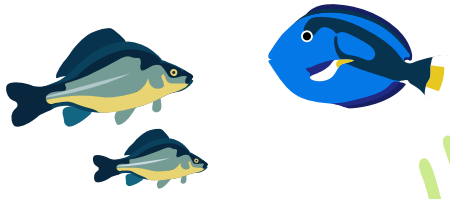
Prior to your visit, watch the Marine Stewardship Council (MSC) video on ocean sustainability. Discuss what 'ocean sustainability' means and why oceans are threatened. Watch the video for a second time and ask students to take notes and recall facts.
Video: https://www.msc.org/for-teachers/teach-learn-about-ocean-sustainability

Activity 3.

Learn about marine conservation and explore the Marine Conservation website to find more information on sustainable seafood, plastic pollution and variety of different topics.
Link: https://www.marineconservation.org.au/campaigns/

Activity 4.

Test your knowledge about sharks! Take our 'Fact or Fiction' quiz to find out how much you know about sharks before you visit SEA LIFE.



SEA LIFE Fact Tour Guide

Use this SEA LIFE Fact Tour Guide to help you guide your students learning through SEA LIFE Sydney Aquarium! For each themed zone within the aquarium, we have highlighted key creatures you should point out to the students, plus provided you with some unique facts that only our keepers know about our amazing animals!

Zone: Southcoast Shipwreck

Key creatures to look for in this habitat!

Little penguins

White's seahorses

Sieve Eel

Port Jackson sharks

How this ecosystem works

This area is a Temperate environment – Temperate climates are generally defined as **environments** with moderate rainfall spread across the year or portion of the year with sporadic drought, mild to warm summers and cool to cold winters. Little penguins occur in temperate seas with temperatures between 13 degrees and within this region, the little penguin feeds mainly in inshore waters around the coast. The penguins usually nest in burrows where they set up colonies in sand dune vegetation but can also be found amongst rocks and sea caves. The ocean is the little penguin's natural environment. Their wings help them 'fly' under the water. They generally spend their day swimming while they return to the shore after dark. Beach – are often very sandy areas. Beaches also include rocks dunes and crashing waves.

The Port Jackson shark is a bottom dwelling and is found in the temperate water off of the southern half of Australia. They are found both close to shore and off the shelf in waters as deep as 275 metres.

Did you know facts about this habitat!

What's so special about penguin feathers?

- Their Blue/black feathers on their backs blend into the colour of the ocean. So, when predators from above such as larger birds go in to capture their prey, it is the penguin's fast movement and colouration that helps them escape. It's the same camouflage idea with the white feathers on their underside. Larger predators from below such as seals or sharks see white feathers with a background of light from the sun above which aids escapism and protects birds from the cold.
- Their feathers are much more vital to their survival then just colour. These penguins live in our temperature and like us they get cold in the winter and hot in the summer. How they adapt to changing temperatures is by altering their feathers. At the base of their tails, they have a gland that produces oil. They use their beaks to push the oil through the feathers which not only makes them waterproof for then they are in the water, but they repeat this behaviour out of the water to protect themselves from the elements. In the summer when the temperature is much warmer, they adapt by shedding or moulting layers. This process takes about three weeks and they can't go in the water during this time because their skin is too itchy so before they start to moult, they catch and eat enough food to last until the moulting process has been completed and they can re-enter the water.

How do sharks survive under water?

Breathing:

- Port Jackson sharks can eat and breathe at the same time. They are a type of shark that doesn't need to keep moving to have the water rush over their gills to gain oxygen. It can lie on the bottom for long periods of time which helps them spot any animal they might be able to grab and eat.

Conservation

Seahorse Case Study: why we need to protect them!

The primary cause for the decline in abundance of White's Seahorse is the loss of natural habitats across their range in eastern Australia. The seahorses occur within coastal estuaries and embayments which are areas subject to population pressure. Within Port Stephens, over 90% of the soft coral and sponge habitats have declined at sites where the seahorse used to be abundant. Habitats in Port Stephens have been destroyed through the installation of boat moorings, boat anchors and the inundation of habitat by sand movement. Within Sydney Harbour, population pressure has caused their natural habitats to decline and, as a result the species is now predominantly found on man-made swimming nets within the harbour. These nets are periodically cleaned to remove the marine growth and repair the structural integrity of the nets which can lead to further displacement of seahorses and cause populations to dramatically decline. DPI Fisheries has been working with councils to develop practices which avoid damage to seahorses during net cleaning and repair.

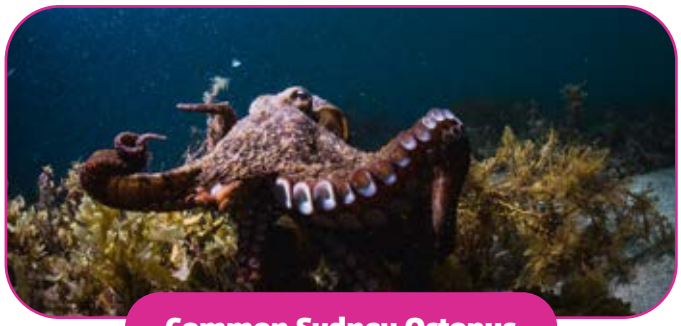
For more on how to protect check out these resources:

https://youtu.be/CFAt65S6aXE
https://youtu.be/xVfbW9-Mocc

Zone: Jurassic Seas

Key creatures to look for in this habitat!

Black and white clownfish



Common Sydney Octopus

Lungfish

Mudskippers

Creature Feature in Focus! Sydney Common Octopus

Adaptations

So many arms! - They use their eight suckered arms to creep about over rock surfaces in search of food. Marine biologists have recently stated that two of its eight limbs act more like legs helping it push off for swimming and walking on the seafloor. They can also taste with their suckers!

The power of regeneration - If a tentacle is lost, they can regenerate that limb.

Camouflage – the octopus can change the colour of its skin and shape. The Sydney Common octopus is often seen to imitate seaweed.

Sharp beak – most of their food is hard to get to. They use this sharp beak to break through the exoskeleton (shell) of animals such as crabs, snails and mussels. They can inject venom that weakens its prey after using its rasp like tongue to file holes within the hard-shell animals.

Brain cells EVERYWHERE! Mostly in the tentacles which makes them very intelligent creatures. They also have amazing eyesight.

Ink Sac – that when they feel threatened, they use. When scared they contract the muscles around the sac, releasing a black substance. This adaptation is a defence mechanism used by the octopus to escape predators.

Very maternal – To prevent crabs and fish from eating its offspring the female octopus will place rocks and shells in the entrance of the den the eggs were laid.

Habitat

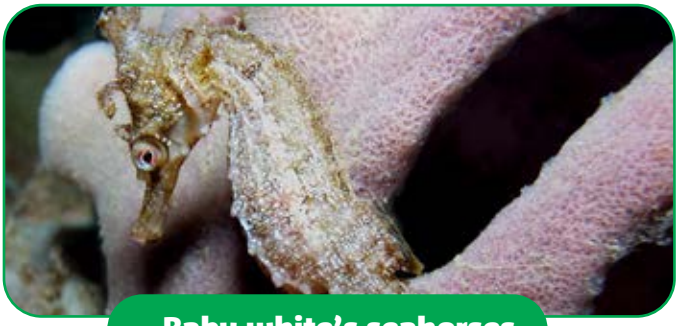
The Common Sydney Octopus is found on the intertidal rocky shores and in the ocean. IT has been suggested are more commonly associated with rocky reef habitats during the breeding season but tend to spend a considerable portion of their life in the sandy habitats throughout subtropical eastern Australia and Northern New Zealand.

Zone: Conservation Quay

In this zone check out our White's Seahorse nursey.

This is where our curatorial team are raising our baby white's seahorses.

Key creatures to look for in this habitat!



Baby white's seahorses

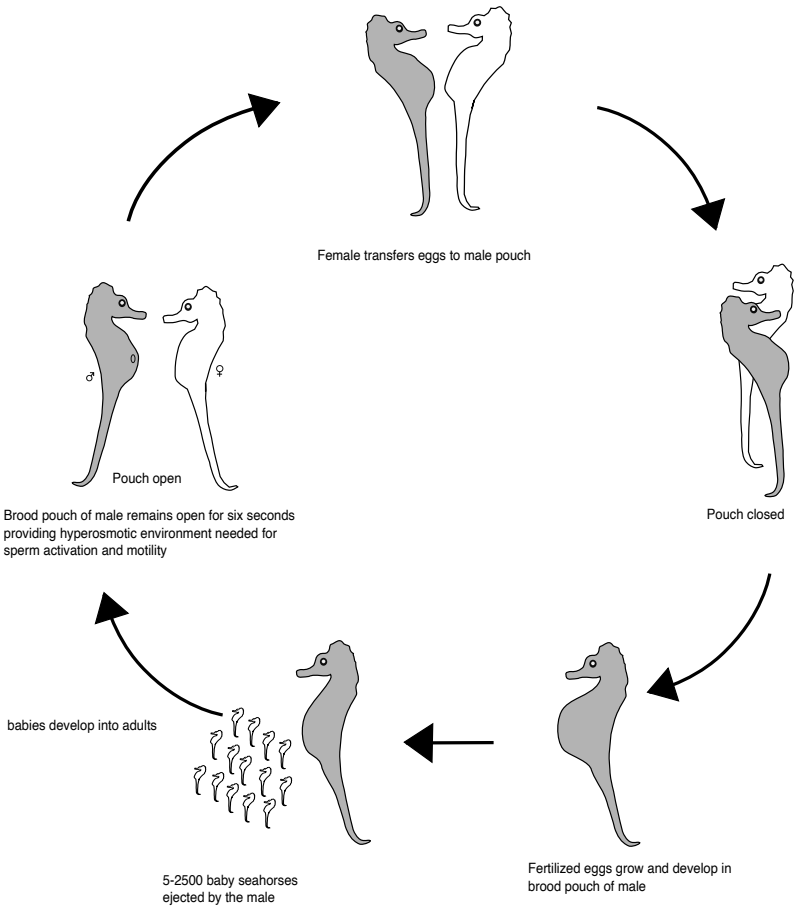
Cuttlefish

Did you know facts about this habitat!

How does a seahorse have a baby?

Lifecycle

A female seahorse lays dozens, sometimes hundreds, of eggs in a pouch on the male seahorses abdomen. This is called the brood pouch. Depending on the seahorse species, the eggs remain in the brood pouch for up to 45 days, until the eggs are ready to hatch. The new baby seahorses find other baby seahorses and float together in small groups, clinging to each other using their tails. They need to find food and hide from predators as soon as they are born.



Zone: Sydney Harbour

Key creatures to look for in this habitat!

Eastern Rock Lobster

Eastern Water Dragons

Lionfish

Porcupine fish

Cuttlefish

Did you know facts about this habitat?

- Like many other crustaceans, the crayfish has a carapace or shield which projects backwards from the head and covers the thorax. There are two functions for their carapace – firstly, it protects the delicate feather- gills that come from the base of the legs, and it also provides a water channel that is a constant flow of oxygenated water to pass over the gills and enables the crayfish to breathe.

Lifecycle: After mating, female Eastern Rock Lobsters carry hundreds of thousands of tiny organise eggs under their tail by fine hairs. The eggs hatch after about six months and, like more baby crustaceans, the juveniles look nothing like their parents. They go through many moults which means they change their exoskeleton as they grow before they reach adults stage. They will usually migrate to shallow waters in large number during this process.

Creature Feature in Focus! Eastern Water Dragons

Adaptation

Tail - the water dragon's tail is designed to help them swim. It is mainly muscle and is shaped with flattened sides, to help cut through the water like an oar. With this tail Water dragons can dive into the water to help them escape from danger.

Sleeping patterns – water dragons can sleep under water, with just their nostril protruding. In cold weather they go into winter dormancy, sleeping in the water overnight, is actually warmer than sleeping in the open.

Great runners – They generally run on all four legs but when they want to go faster, they arch their backs and lift their front legs off the ground and run on their back legs, like dinosaurs.

Camouflage – Their grey colour helps them blend into the rocks while sunbaking.

Habitat

The eastern water dragon inhabits the coastal water courses of eastern Australia from northern Queensland to Gippsland in eastern Victoria. It is a good tree climber and likes to laze on branches overhanging the water. If disturbed it will drop into the water and swim to the bottom to wait for the danger to pass, staying under for up to 30 minutes if necessary.

Lifecycle:
Breeding begins at the onset of the warmer seasons – females will usually start breeding at 5 years of age. Females will create nests by digging holes in sandy soil. She will lay up to 18 eggs within this nest. then the young are born they stay near the entrance of the burrow for some time before leaving home. When they finally leave the nest, they tend to group together away from the adult population.

Zone: Dugong Island

Key creatures to look for in this habitat!

Dugong

White spotted eagle ray

Creature in focus

White spotted eagle rays

Adaptations:

Pointy snout - Spotted Eagle Rays have a long, broad snout, which resembles a duckbill. This comes in handy when digging into the sand to find prey such as clams and oysters (Bester 2014). On occasion, Spotted Eagle Rays will turn over rocks and even poke their heads into caves and other small rock openings in search for food.

Eyes - The eyes are located on either side of the head and are useful for viewing immediate threats as well as prey.

Electroreception- Spotted Eagle Rays have jelly filled pores along their snout and jaw and around the eyes, creating a network that increases sensitivity to their awareness of prey while hunting. This adaptation means that eagle rays can detect the electrical and magnetic energy fields of prey even when they are buried deep in the sand.

Jaws and teeth - Once the eagle ray finds food, it sucks it into its mouth which has a strong jaw as well as broad, flat teeth that form a plate on the top and bottom. The lower jaw has 3-6 anterior teeth, which protrude beyond the upper tooth plate in order to crush shellfish when the mouth is closed. On the bottom and roof of their mouths Spotted Eagle Rays also have a row of six or seven papillae, which remove shells from the prey before it is ingested. The hard parts of the pray, such as shells, are spat out and the soft parts are ingested.

Countershading - Spotted Eagle Rays get their name from the white circular pattern on their darkly coloured backs. The eagle ray has a counter shading effect that helps it to be disguised from predators. The dark patterned topside, when viewed by predators from above, camouflages into the reefs. When viewed from the ventral side the light belly colour disappears into the ocean surface.

Flexible cartilaginous skeleton - Eagle rays to perform evasive manoeuvres when approached by predators such as sharp turns and sometimes even leaps out of the water if they are being chased.

Stinging barb - When predators are close, the Spotted Eagle Ray's final line of defence is the venomous sting from the spines located behind their dorsal fin. There are usually between two and six of these small, barb-tipped spines, which are quite powerful when utilized.

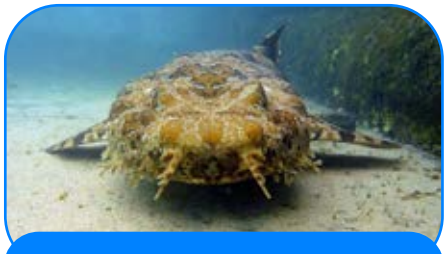
Habitat:

The Eagle Ray is a larger species of ray that live in tropical and temperate oceans over the globe. They are a bentho-pelagic species, meaning that they are capable of living in the open water column, called the pelagic zone, and also the deepest area of the ocean, called the benthic zone. Due to this wide geographic range, the Spotted Eagle ray can be found in many habitats.

Zone: Shark Valley

Key creatures to look for in this habitat!

Grey Nurse sharks



Wobbegongs

Port Jackson sharks

Smooth Ray

Black Cod

Creature in Focus Grey Nurse Shark

Adaptations:

BIG TEETH! The teeth of a grey nurse shark are constantly being replace. Older, damaged or blunt teeth on the exterior surfaces of the jaws are replaced with new teeth.

Electroreception – The underside of the Grey Nurse Shark's snout is dotted with pores. Each of these leads to an organ (Ampula of Lorenzini) which can detect electricity. Sharks can detect very weak electrical currents. This extra sense gives sharks the ability to detect and attack prey at close range without needing to see the prey item. This can be advantageous in murky water of it the dark is searching for food under the sand. The electroreception capabilities of sharks also gives them the ability to navigate using the Earth & magnetic field.

Shape of body – their bodies taper to pionts at both the snout and the tail, reducing water resistance.

Cartilage – Rather than bone, sharks have cartilage, which is much lighter and more flexible. Inaddition, their liver's produce squalene, a fatty oil that helps them remain afloat.

Pectoral fins – allow them to quickly change in direction, diving and swimming upward.

Buoyancy - The Grey nurse Shark also swallows air at the surface and holds it in the stomach. This provides buoyancy and enables the shark to hang almost motionless above the bottom.

Countershading – Grey nurse Sharks are countershaded, the dorsal (upper) part is dark, mostly a grey to bronzy colour whereas the ventral (lower) part of the body is pale. Many fishes that swim in open water are countershaded. This adaptation results in the fish being difficult to see from above because the dark colour of the dorsal surface of the fish blends into the dark colour of the water below. It helps to make the fish also less visible from below because the light colour of the underside of the fish is less noticeable against the light shining from above.

Habitat - The grey nurse shark lives in shallow coastal water from the surf zone down to 60 metres. During the day they like to spend time in the vicinity of drop offs, caves and ledges.

Lifecycle - Grey nurse sharks only breed once every two years. A pup is about one metre long at birth and will grow to between 2.2 metres and 3.6 metres, weighing in at up to 160 kilograms, as it reaches maturity.

Zone: Penguin Expedition

Key creatures to look for in this habitat!

King penguins

Gentoo penguins

How this ecosystem works!

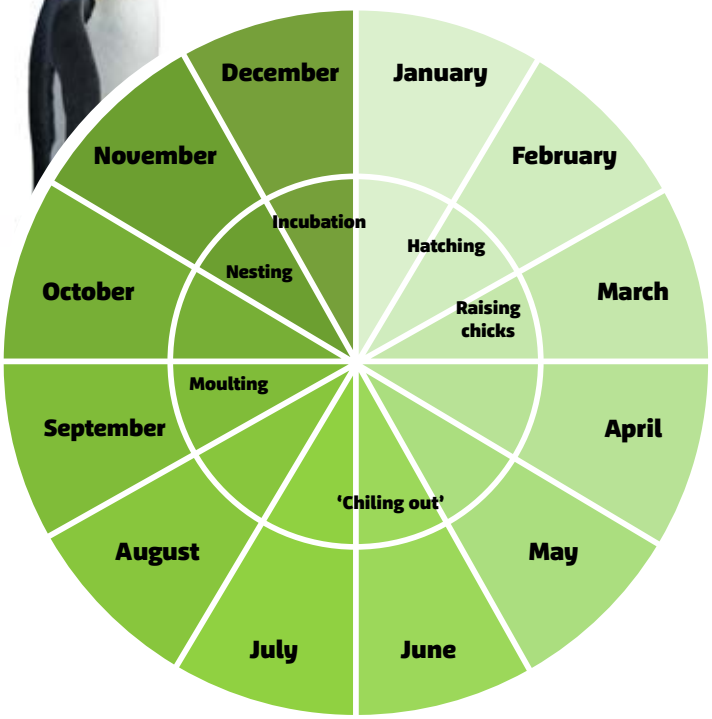
Colonies of King Penguins will occupy beaches, and valleys
Gentoo penguins – choose shallow coastal areas for their breeding grounds, building nests among tufts of grass and rocky grounds. Their colonies spread across man of the sub antarctic islands as well as the antarctic peninsula.

Why we need to save these species!

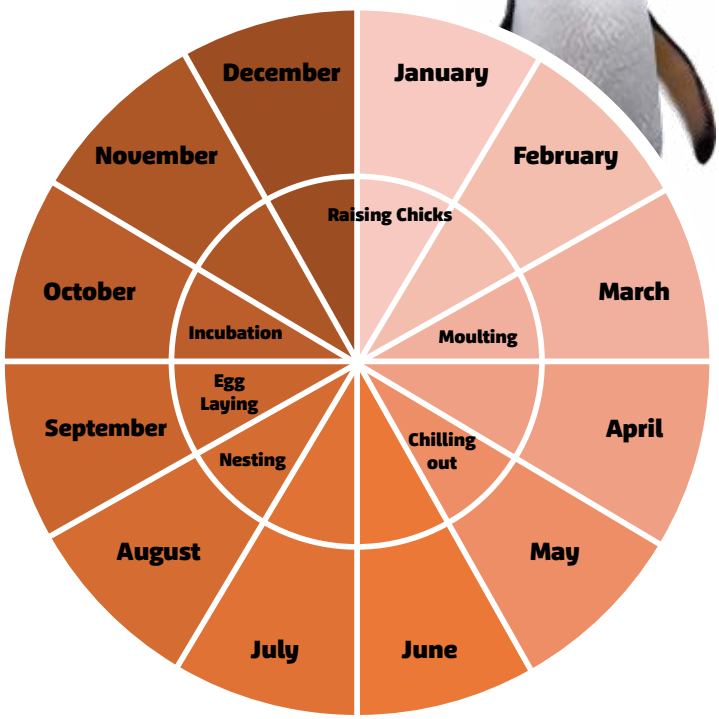
Gentoo penguins: The sub-Antarctic populations of Gentoo penguins are listed as Near Threatened. Currently it is thought that commercial fishing practices may be responsible for the falling population due to competition over food. The King penguin is of least concern. During the 19th and 20 th centuries, king penguins were harvested for blubber, oil, eggs and feathers until a commercial hunting ban was out into place in 1969

What are King Penguins up to?

This state of the art exhibit changes its lighting to mimic their natural habitat and ensure the penguins follow their normal moulting and breeding cycles.



What are Gentoo Penguins up to?



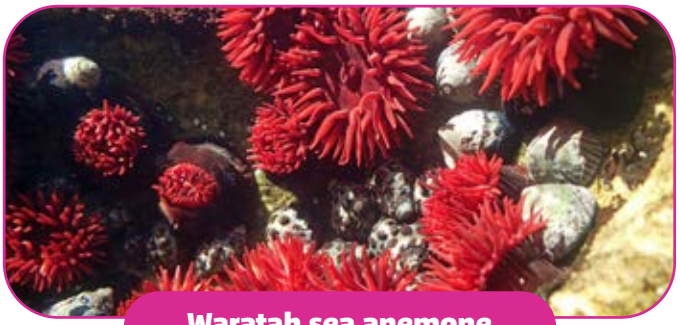
Zone: Discovery Rockpool

Key Creatures to look for in this habitat!

Sea Star

Shark egg

Hermit crabs



Waratah sea anemone

How this ecosystem works!

You'll find tidal pools in the intertidal zone, where land and sea meet. These pools usually form where there are areas of hard rock, and parts of the rock have eroded away to form depressions in the rock. At high tide, ocean water collects in these depressions. The tides of the ocean tend to change the physical characteristics of the pool and its surroundings

There are several advantages to living in a tide pool ecosystem.

- Algae and other intertidal plants grow in the abundant sunlight and support an entire food chain of animals.
- Constant wave action supplies the tide pool with nutrients and oxygen.
- Food is abundant.
- There tends to be a lot of rocks, sand and plants which provides hiding places and surfaces to cling to.

Challenges:

- Exposure to the sun. While this exposure can help grow algae, it can also dry up moisture and increase the water temperature
- There is a lot of competition for space amongst the animals that live with in a pool
- As the tide rises and falls, the level of salt in the water (what we call salinity constantly changes so the animals within this zone need to be well adapted to these extreme levels.
- There are a lot of waves in this zone which can risk animals being washed away. Most of the animals within this zone will have great ability to stick to the rock walls of their habitat

Zone: Day and Night on the Reef

Key Creatures to look for in this habitat!

Green sea turtles (Myrtle & Plugga)

Loggerhead sea turtles

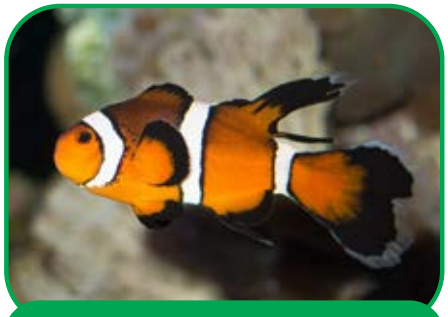
Leopard sharks

Freshwater sawfish

Queensland Grouper (Beau)

Black tip reef sharks

White tip reef sharks



Clownfish

Yellow Tang

Copperband butterfly fish

Banggai Cardinalfish

Sea anemones

Post-visit activities

Lower Primary

Read through '10 Steps to Save Our Seas' (see attached) & take the pledge to help preserve marine life!

Activity 1.

Check your lunchbox to see what items can be recycled, reused or composted. Can you improve this tomorrow? Who does it help when we reduce, reuse and recycle?

Activity 2.

Students are asked to place Australian marine animals on a map and learn about the animals in our backyard. Provide a map template and have students' research different locations of where to find animals, if they are endangered and how many are predicted to be left.

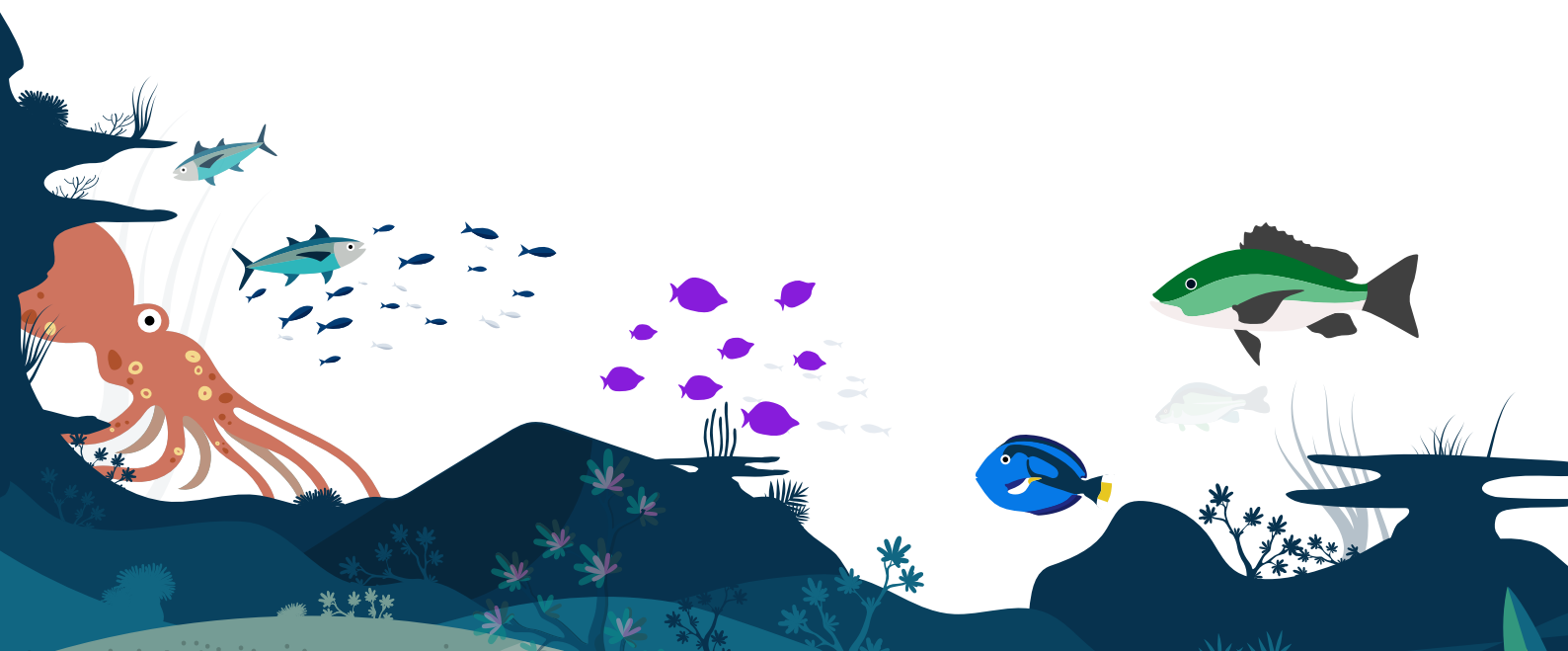
Activity 3.

In small groups or as individuals, students read articles & ocean stories about sustainability on the WWF website. They are then asked to share a summary and the key facts from the article. This allows many issues to be explored and discussed.
Link: https://www.worldwildlife.org/stories?initiative_id=oceans

Curriculum links

These SEA LIFE self-guided resources packs can be used and adapted to meet the followingK-6 NSW Science and Technology Syllabus.

Early Stage 1	Early Stage 2	Early Stage 3	Early Stage 4
A student: STe-3LW-ST explores the characteristics, needs and uses of living things	**ST1-4LW-S** describes observable features of living things and their environments	**ST2-4LW-S** compares features and characteristics of living and non-living things	**ST3-4LW-S** examines how the environment affects the growth, survival and adaptation of living things
STe-6ES-S identifies how daily and seasonal changes in the environment affect humans and other living things	**ST1-5LW-T** identifies how plants and animals are used for food and fibre products	**ST2-5LW-T** describes how agricultural process-es are used to grow plants and raise animals for food, clothing and shelter	**ST3-5LW-T** explains how food and fibre are produced sustainably in managed environments for health and nutrition



Resources

Pre-visit activities

King Penguin adaptations

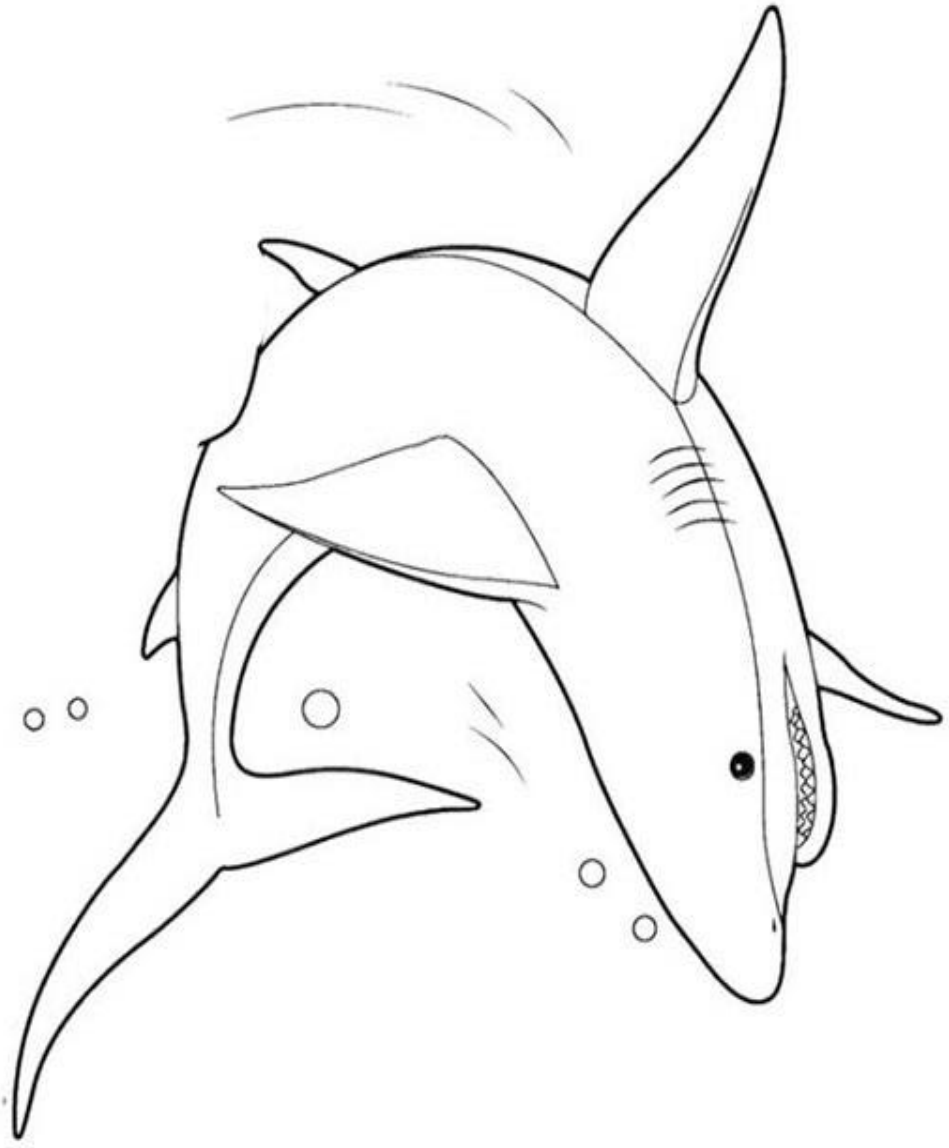
Hooks along tongue to stop slippery prey escaping

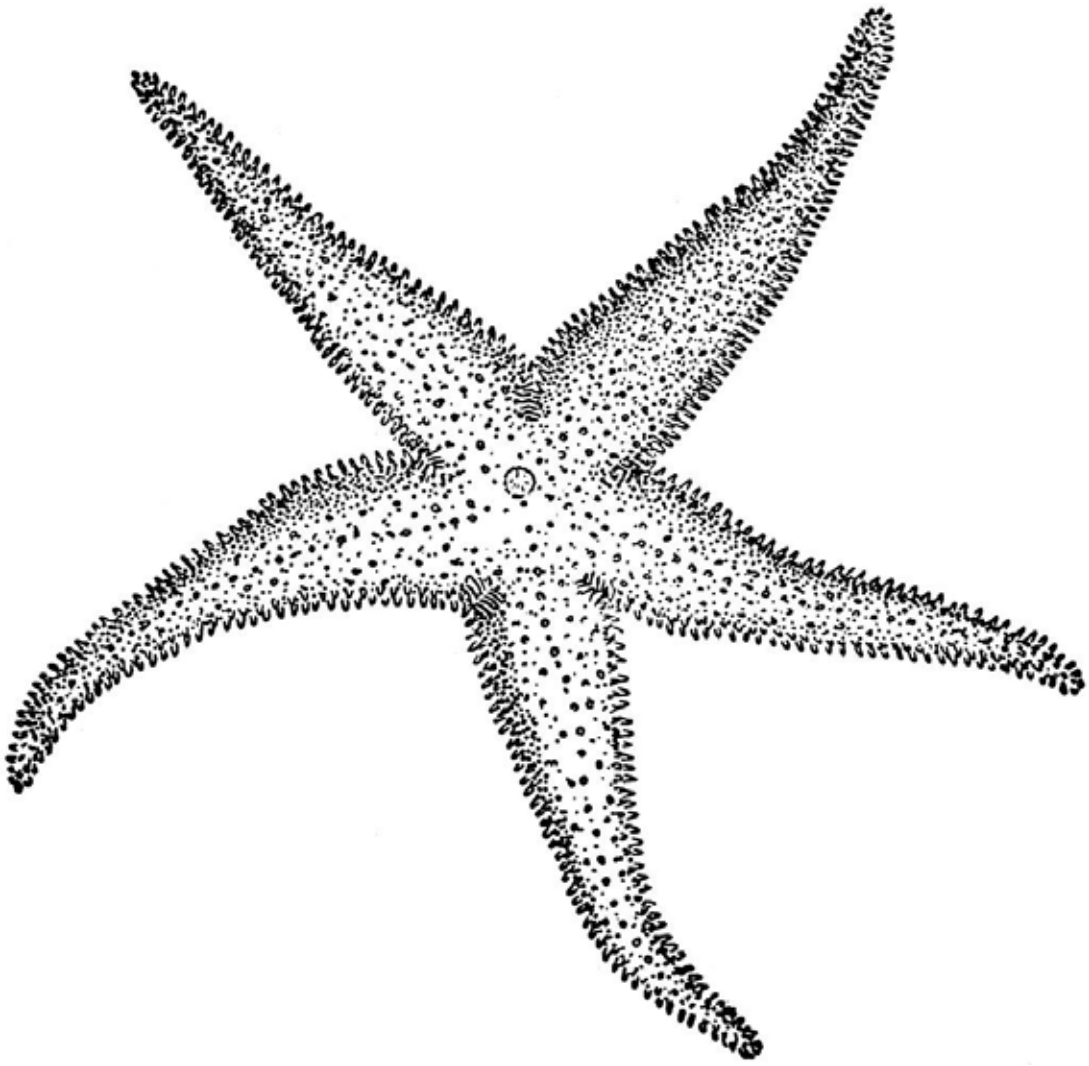
Paddle shaped wings

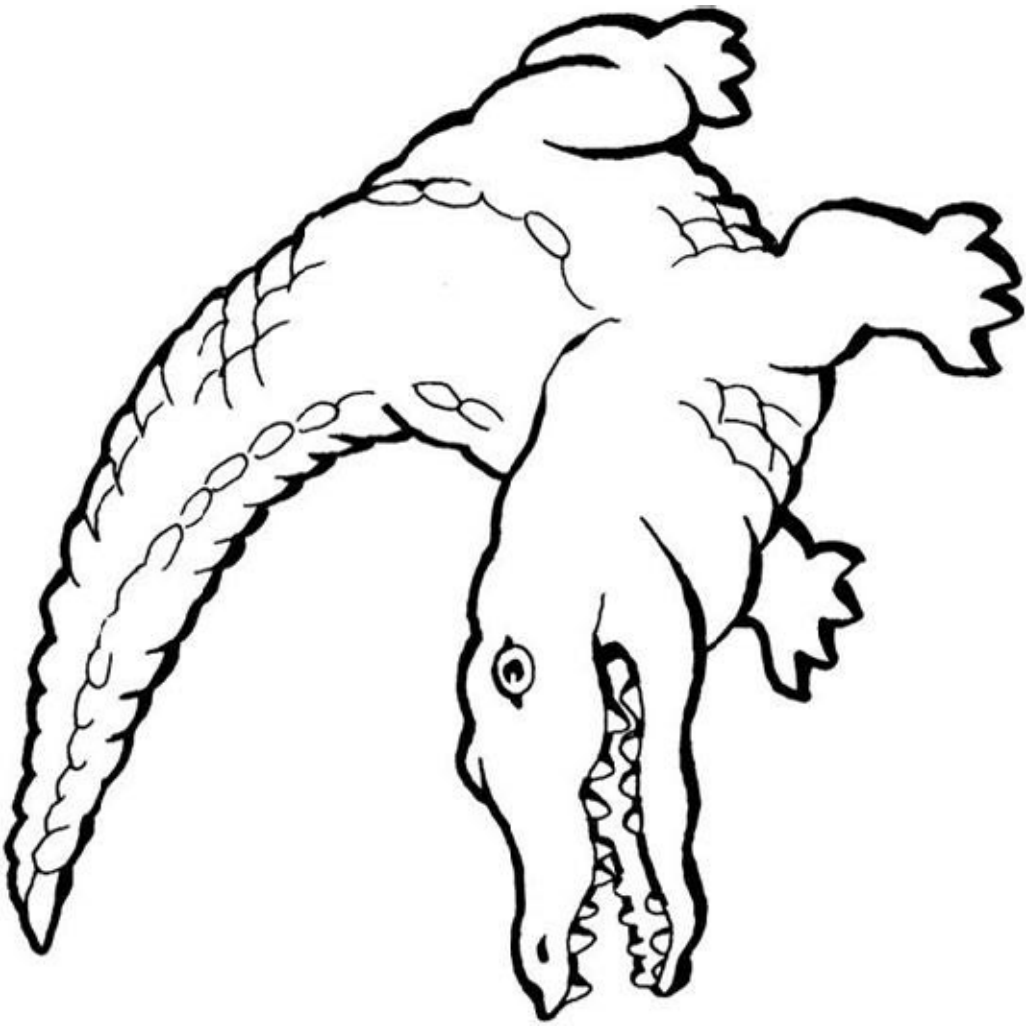
Feathers for insulation

Thicker skin on feet for padding

Counter-shading for camouflage

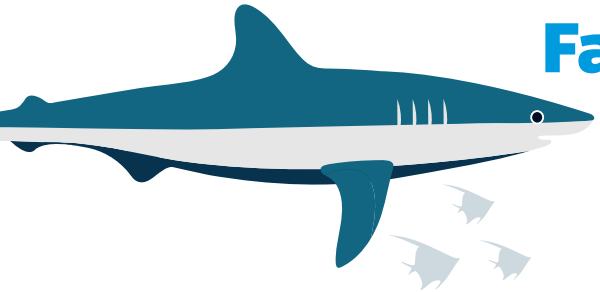


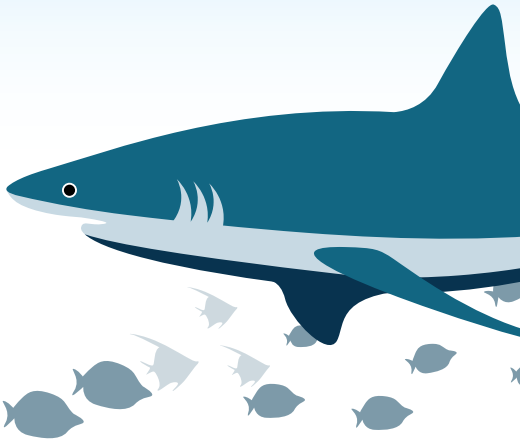




Sharks

Fact or Fiction?





	True/False
1. All sharks are man-eaters.	
2. All sharks are big with lots of sharp teeth.	
3. Sharks are important for the ecosystem.	
4. Sharks do not have any predators.	
5. 50 million sharks are killed each year by people.	
6. Hippos are more dangerous than sharks.	
7. Sharks only live in saltwater.	
8. Shark populations are increasing, and we need to control them.	
9. All sharks need to keep moving of they will die.	
10. There are 200 different species of sharks.	
11. Great White Sharks can grow up to 6 metres.	
12. If a shark fin is cut off, it will just grow back.	
13. Shark can lose up to thousands of teeth in a lifetime!	
14. Shark skin is covered in teeth.	
15. All sharks lay eggs.	
16. Some shark pups begin hunting before they are even born.	
17. Sharks are only found in a few of the world's oceans.	

Fact or Fiction?

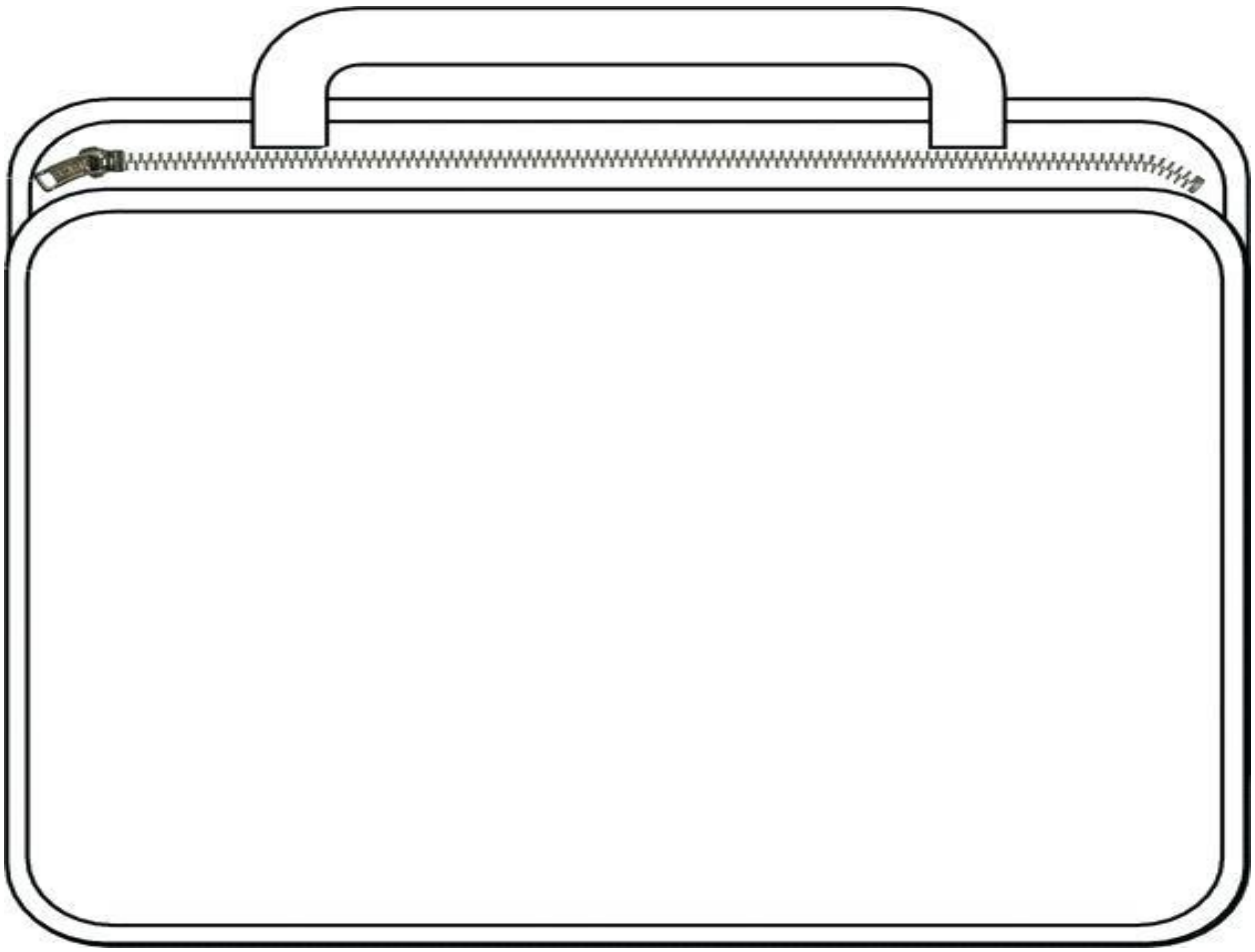
All sharks are man-eaters.	**False**	Most sharks are not dangerous to humans!
All sharks are big with lots of sharp teeth.	**False**	There are 400 different shark species and most sharks are smaller than your average human.
50 million sharks are killed each year by people.	**True**	More than 100 million sharks are killed each year, hunted for their fins, for meat and even some kinds of traditional medicine. Sharks are also caught up in nets (bycatch) so this number is likely to be much greater.
Sharks are important for the ecosystem.	**False**	Sharks play an extremely role in the ecosystem by maintaining the food chain, keeping populations of other fish healthy and in proportion.
Sharks do not have any predators.	**False**	People pose the largest threat to sharks and are causing a lot of damage to shark populations.
Hippos are more dangerous than sharks.	**True**	Hippos claim the lives to 2900 people around the world each year compared to an average of six deaths due to shark attacks.
Sharks only live in saltwater.	**False**	Most sharks can only survive in salt water, however some, like the Bull Shark, can live in both fresh and salt water.
Shark populations are increasing, and we need to control them.	**False**	Sharks are one of the most threatened groups of animals in the world and are crucial to healthy oceans.
All sharks need to keep moving or they will die.	**False**	It is true that sharks receive oxygen by having water pass over their gills, however only some species need to be continuously moving.
There are 200 different species of sharks.	**False**	There are 400 different shark species
Great White Sharks can grow up to 6 metres.	**True**	On average, they grow to around 4.6m long, but some great whites have been measured at 6 metres - that's half the length of a bus!
If a shark's fin is cut off, it will just grow back.	**False**	Sharks cannot grow back fins that are cut off.
Shark can lose up to thousands of teeth in a lifetime.	**True**	Constantly growing and replacing teeth like a conveyer belt, sharks can grow and lose around 20000 teeth it's in lifetime.
Shark skin is covered in teeth.	**True**	These are called dermal denticles.
Sharks lay eggs.	**False**	Some large sharks have live births and others have eggs. These are often called a 'mermaids purse'.
Some shark pups begin hunting before they are even born.	**True**	Some shark embryos cannibalize their siblings in the womb, with the largest embryo eating all but one of its siblings.
Sharks are only found in a few of the world's oceans.	**False**	Sharks are found in every ocean of the world.

Resources

Post-visit activities


Pacific Ocean
Coral Seas
Northern Territory
Western Australia
Queensland
South Australia
New South Wales
Victoria
Tasman Seas
Indian Ocean
Southern Ocean
Tasmania

_____ Lunchbox!



Draw what you brought for snack and lunch today.
Are there any items that can be recycled, reused or composted?

EPBC Act List of Threatened Fauna

Fishes that are Extinct in the wild (1 EPBC species)

Galaxias pedderensis	Pedder Galaxias	06-Jun-2005

Fishes that are critically endangered (8 EPBC species)

Bidyanus bidyanus	Silver Perch, Bidyan	21-Dec -2013
Brachionichthys hirsutus	Spotted Handfish	11-Oct-2012
Carcharias taurus (east coast population)	Grey Nurse Shark (east coast population)	16-Oct-2001
Galaxias rostratus	Flathead Galaxias, Beaked Minnow, Flat- headed Galaxias, Flat-headed Jollytail, Flat-headed Minnow	05 -May-2016
Galaxias truttaceus (Western Australian population)	Western Trout Minnow	18-Aug-2006
Glyphis glyphis	Speartooth Shark	16-Oct-2001
Stiphodon semoni	Opal Cling Goby	16-Feb-2011
Thymichthys politus	Red Handfish	11-Oct-2012

Fishes that are endangered (17 EPBC species)

Chlamydogobius micopterus	Elizabeth Springs Goby	16- Jul -2000
Craterocephalus fluviatilis	Murray Hardyhead	16-Mar-2012
Galaxias auratus	Golden Galaxias	06-Jun-2005
Galaxias fontanus	Swan Galaxias	16-Jul -2000
Galaxias fuscus	Barred Galaxias	16-Jul -2000
Galaxias johnstoni	Clarence Galaxias	16-Jul -2000
Galaxiella nigrostriata	Blackstriped Dwarf Galaxias, Black-stripe Minnow	11- May-2018
Glyphis garricki	Northern River Shark, New Guinea River Shark	16-Oct-2001
Maccullochella ikei	Clarence River Cod, Eastern Fresh Water Cod	16-Jul -2000
Maccullochella macquariensis	Trout Cod	16-Jul -2000
Maccullochella mariensis	Mary River Cod	16-Jul -2000
Macquaria australasica	Macquarie Perch	16-Jul -2000
Melanotaenia eachamensis	Lake Eacham Rainbowfish	16-Jul -2000
Nannoperca oxleyana	Oxleyan Pygmy Perch	16-Jul -2000
Paragalaxias mesotes	Arthurs Paragalaxias	06-Jun-2005
Scaturiginichthys vermeilpinnis	Redfin Blue Eye, Redfin Blue-eye	16-Jul -2000
Zearaja maugeana	Maugean Skate, Port Davey Skate	4-Mar-2004

EPBC Act List of Threatened Fauna

Fishes that are endangered (17 EPBC species)

Brachiopsilus ziebelli	Ziebell's Handfish, Waterfall Bay Handfish	16-Jul-2000
Carcharias taurus (west coast population)	Grey Nurse Shark (west coast population)	16 -Oct -2001
Carcharodon carcharias	White Shark, Great White Shark	16-Jul-2000
Chlamydogobius squamigenus	Edgbaston Goby	16-Jull-2000
Epinephelus daemelii	Black Rockcod, Black Cod, Saddled Rockcod	04-Apr-2012
Galaxias parvus	Swamp Galaxias	24-Nou-2006
Galaxias tanycephalus	Saddled Galaxias	16-Jul-2000
Galaxiella pusilla	Eastern Dwarf Galaxias, Dwarf Galaxias	16 -Jul-2000
Maccullochella peelii	Murray Cod	03-Jul-2003
Milyeringa veritas	Blind Gudgeon	16-Jul-2000
Mogurnda clivicola	Flinders Ranges Mogurnda, Flinders Ranges Purple-spotted Gudgeon	16-Jul-20 00
Nannatherina balstoni	Balston's Pygmy Perch	24-Nou-2006
Nannoperca obscura	Yarra Pygmy Perch	16- Jul-2000
Nannoeperca variegata	Vari ated Pygmy Perch, Ewens Pygmy Perch, Golden Pygmy Perch	16-Jul-20 00
Neoceratodus forsteri	Australian Lungfish, Queensland Lungfish	06-Aug-2003
Ophistenon candidum	Blind Cave Eel	16-Jul-2000
Paragalaxias dissimilis	Shannon Paragalaxias	24-Nou-2006
Paragalaxias eleotroides	Great Lake Paragalaxias	24 -Nou-2006
Pristis clavate	Dwarf Sawfish, Queensland Sawfish	20-oct-2009
Pristis pristis	Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish	16-Jul-2000
Pristis zijsron	Green Sawfish, Dindagubba, Narrowsnout Sawfish	07-Mar-2008
Prototroctes maraena	Australian Grayling	16-Jul-2000
Pseudomugil mellis	Honey Blue-eye	16-Jul-2000
Rhincodon typus	Whale Shark	16-Oct-2001

Fishes that are Conservation Dependent (8 EPBC species)

Centrophorus harrissoni	Harrisson's Dogfish, Endeavour Dogfish, Dumb Gulper Shark, Harrison's Deepsea Dogfish	14-Jun-2013
Centrophorus zeehaani	Southern Dogfish, Endeavour Dogfish, Little Gulper Shark	14-Jun-2013
Galeorhinus galeus	School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark	22-Jan-2009
Hoplostethus atlanticus	Orange Roughy, Deep-sea Perch, Red Roughy	05-Dec-2006
Australian Rexea solandri (eastern population)	Eastern Gemfish	22-Jan-2009
Seriolella brama	Blue Warehou	14- Feb-2015
Sphyrna lewini	Scalloped Hammerhead	15-Mar-2018
Thunnus maccoyii	Southern Bluefin Tuna	15-Dec-2010

Save Our Seas

Dear teachers and students,

We hope you enjoyed your excursion to SEA LIFE Melbourne Aquarium for our Conservation program. We hope you are inspired by our animals to work towards a more sustainable future for our seas. We have listed 10 actions that you can take to help preserve sea life.

From SEA LIFE Sydney Aquarium

Ten Easy Steps to SAVE OUR SEAS!

1. Reduce climate change and carbon emissions: Walk or ride a bike instead of driving, turn off lights and electronics when you're not using them. Sign school up for Walk To School and be rewarded for every step you take! https://www.walktoschool.vic.gov.au/
2. Choose sustainable seafood: Download the Marine Stewardship Council (MSC) app and use it when shopping for fish, or look for the MSC logo on packaging to be sure it is sustainable. https://www.sustainableseafood.org.au/
3. Choose souvenirs carefully: before buying animals products, consider where these animals came from. Avoid products made from shells, coral, sea stars and sea horses. Only purchase farmed crocodile products.
4. Use less plastic: Use a reusable drink bottle and plastic containers, avoid plastic wrap, plastic bags, straws and coffee cups.
5. Use the bins: Never litter and recycle whenever possible. Organise 'Tidy School or 'Waste Free Lunch' days to encourage the whole school to participate.
   http://kab.org.au/eco-schools/
   https://healthy-kids.com.au/waste-free-lunch/
6. Don't release balloons; blow bubbles instead: Take the pledge at https://balloonsblow.org/
7. Tread carefully in marine environments: Be careful not step on plants when exploring dunes and explore rock pools without disturbing the animals that live there. When swimming or snorkelling with coral be careful not to touch or kick it with fins.
8. Choose pets responsibly: Marine fish are often difficult to care for and should not be taken from the wild. Choose fish that are bred in captivity and that you are confident in taking care of properly. Never release pets back into the wild.
9. Reduce and reuse paper: so that fewer trees are being cut down. Try your best to use both sides of every piece of paper and always recycle paper or cardboard wastes. https://www.sustainability.vic.gov.au/schools
10. Learn more about our amazing sea life: and share your knowledge with others! Help us spread the message! We would love to hear about how your students or school community is taking action to protect our wild areas. Please email us at education@sydneyaquarium.com.au with your stories and photos so we can inspire more classes to take action. We are also always happy to answer any questions you have after your visit, and would love to hear your feedback from the day.

Thank You!