

# Punu Munu Manta Walkatjunkunytjaku

Ernabella Anangu School

Botanical Printing  
Using Plants and Minerals  
(rocks and metals)

To Make Colours And Designs On Fabric.



Botanical printing activities and book production were carried out at Ernabella Anangu School with senior students, supported by Teachers Anna Chen, Kyla Lawrie-Windlass and Tangentyere Land and Learning project officer Adelaide Church.

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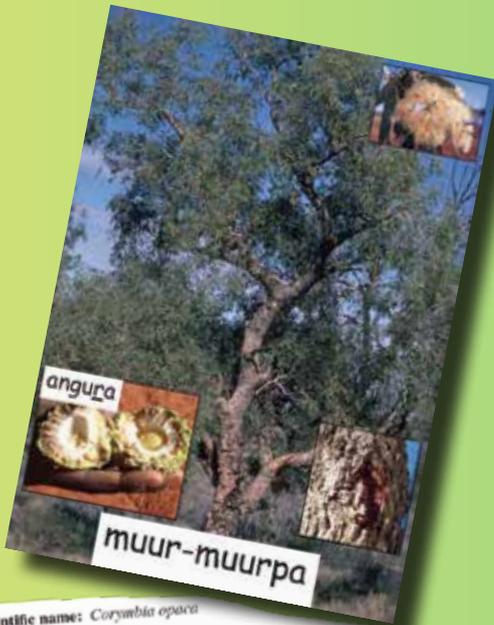
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**Nganana kuulangka nintiringangi  
tjatangka munu raikingka walka tjuta  
palyantjaku, panya tjata munu raikingka  
nganana nyalpi kutjupa-kutjupanguru  
mantjira tjunangi munula manta metal  
karunguru kulu magnet-pangka mantjira  
tjungunu tjaltu munu vinegar-ngka.**

These year 12 students are learning about how to use plants, bark, flowers and minerals to create interesting beautiful patterns and designs on fabric.

This is a lovely way to combine science, art and culture.



angura

muur-muurpa

Scientific name: *Santalum lanceolatum*

English name: bush plum

Type of country it grows in (habitat): many habitats

When available: after rain any time of year, except the two coldest months

Uses: The fruits are a popular food. You boil up the bark or wood to make a drinking tonic. You can use red juice from the fruit as a dye, and some people make a paste from the kernels to use as a rubbing medicine.

Eastern Arrente: ankweye, arrankweye

Western Arrarnta: kupaarta

Luritja: arrnguli

Worlpiri: marrkirdi, mukaki, yankurlayi

Pitjantjatjara: arrnguli



arrnguli

Scientific name: *Corymbia opaca*

English name: bloodwood

Type of plant (habit): tree Type of country it grows in (habitat): many different habitats

When available: coconuts are ready in the cool time

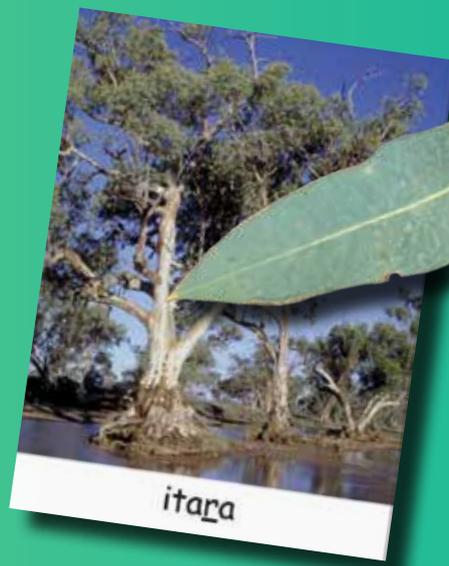
Uses: The white flesh and the grubs inside bush coconuts are eaten. Also the sweet, white lerp scales on the leaves. The flower nectar is used to make a sweet drink. Sugarbag honey from native bees is often found in bloodwood trees. The gum from wounds in the trunk is a powerful medicine to heal sores, like scabies, and burns.



pilani, punti  
untunu

English name: Cassia

Scientific name: *Senna artemisioides*



itara



**Nganana nyalpi, inuntji  
munu punu likara mantjinu  
munula iniku kulu  
nintiringangi.**

**We collected and identified leaves, bark and flowers  
from the bush.**

**Nganana mantangka ayana  
mantjini magnet-pangka  
karunguru.**





We are collecting iron filings from the sand in the creek with a magnet.

Sharona-lu metal tjunanyi kapi  
warungka ka Lorna-lu tjaltu tjunanyi  
kapi warungka ka  
Anna-lu vinegar tjutini kapi warungka.



6 Sharona is adding the iron filings to a pot of water on  
the fire. Lorna is adding salt and Anna is adding vinegar.

**Panya raikingka kala tjakatjunkunytjaku.**



**This combination of vinegar and salt and rusty metal is used to make a 'mordant' to help the colour stay on the fabric.**

Nyangatja paluru tjana raiki  
tjunanyi mixture-ngka panya  
paluru tjana mixture palyanu  
metal, tjaltu munu  
vinegar-nguru panya kala  
tjatangka munu raikingka  
tjakatjunkunytjaku.

Sharona, Anna and Brianna are putting the cloth into the mordant to make it ready for printing.



Anna-lu tjutinu turmeric  
pot-angka kala yalauwana  
tjanya<sub>l</sub>arinytjaku.

Nyangatja ainkura kala  
yalauwana kulu.



***Pisolithus tinctorius* (puffball)**

FAMILY: SCLERODERMATACEAE

|                  |   |
|------------------|---|
| Alyawarr         | <i>arrank-arrank, irrkweg</i>                   |
| Anmatyerr        | <i>irrkweg</i>                                  |
| Eastern Arrernte | <i>apwcke-apwcke, armgene-arrmgene, irrkweg</i> |
| Western Arrernte | <i>irrmgenye-irrmgenye, fwcke-fwcke</i>         |
| Pitjantjatjara   | <i>ainkura, ayinkura</i>                        |



A fungus about as big as a man's fist with light brown, scaly skin. Occurring more or less throughout the area, it is most common in the north where it is usually found at the base of trees or shrubs.

Anmatyerr and Pitjantjara people eat this fungus while it is still young and soft, either raw or cooked.

Anna is putting turmeric into a pot  
to make a bright yellow colour. This puff ball can also  
be used to make a nice yellow colour.

**Kuwari Anna-lu nyalpi tjunanyi.**



**Now Anna is laying leaves on the silk scarf**



Sharona-lu nyalpi tjuta tjunu raikingka  
panya nyalpi walka raikingka munu  
tjatangka utiringkunyjtaku.



Sharona is laying leaves on the cloth to make patterns.

**Scientific name:** *Eucalyptus camaldulensis*

**English name:** river red gum

**Type of country it grows in (habitat):** sandy creeks

**When available:** the grubs are found anytime

**Uses:** This tree has many uses. The sweet white lerp scales on the leaves and the fat grubs in the trunk are popular foods. The grubs in the roots are also eaten. River red gum wood is used for making carrying bowls and is a favourite firewood. The inside bark of the red gum is collected, beaten until it's soft, then cooked in water along with the leaves, to make a wash for sick people.

**Eastern Arrernte:** apere

**Western Arrarnta:** para

**Luritja:** itara, tjuta

**Warlpiri:** ngapiri, kunjumarra

**Pitjantjatjara:** itaga, pilpalya



Here she is using river red gum leaves and bark and some onion skins too.

# Tjana tjunu kurkara nyalpi.

Scientific name: *Allocasuarina deserticola*

English name: desert oak

Type of country it grows in (habitat): sandplain and sandhill country

When available:

Use: You lightly roast the cones to release the green seeds, which are eaten. You can suck sweet honey from the cones or soak them in water to make a sweet drink. The wood is used to make clubs and heavy fighting spears, and is popular firewood. The ash is used with tobacco. Water can be obtained from the roots.

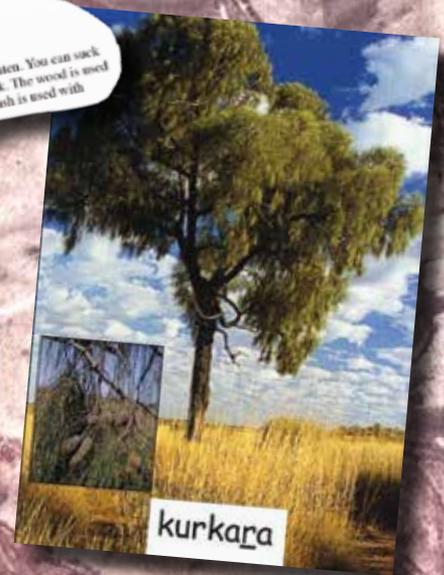
Eastern Arrernte: irrhepe

Western Arrernte: arrkapa

Luritja: kurkapi, nyierpi, kurkara

Wardliri: kurkara

Pitjantjatjara: kurkapi, kurkara



They are laying on leaves of the desert oak tree



Munula tjata munu raiki  
punungka tjungura puturungka  
karpira nyuti-nyutira tjunu kapi  
warungka munula tjunkula  
wantungu patura ngulaku.

Now we roll up the cloth tightly around a stick and tie string around the bundle.

We put this in a pot of boiling water for quite a while, at least an hour.



Brianna-lu raiki karpintja  
purkarangku araltjanangi kapi  
waranguru mantjira.

Brianna is carefully removing the bundles of tied  
cloth from the boiling water using tongs.



**Sharona-lu nipa-nipangka raiki  
karpintja katara araltjananyi.**



**Sharona is using scissors to cut and untie the string  
from around the bundle of cloth.**

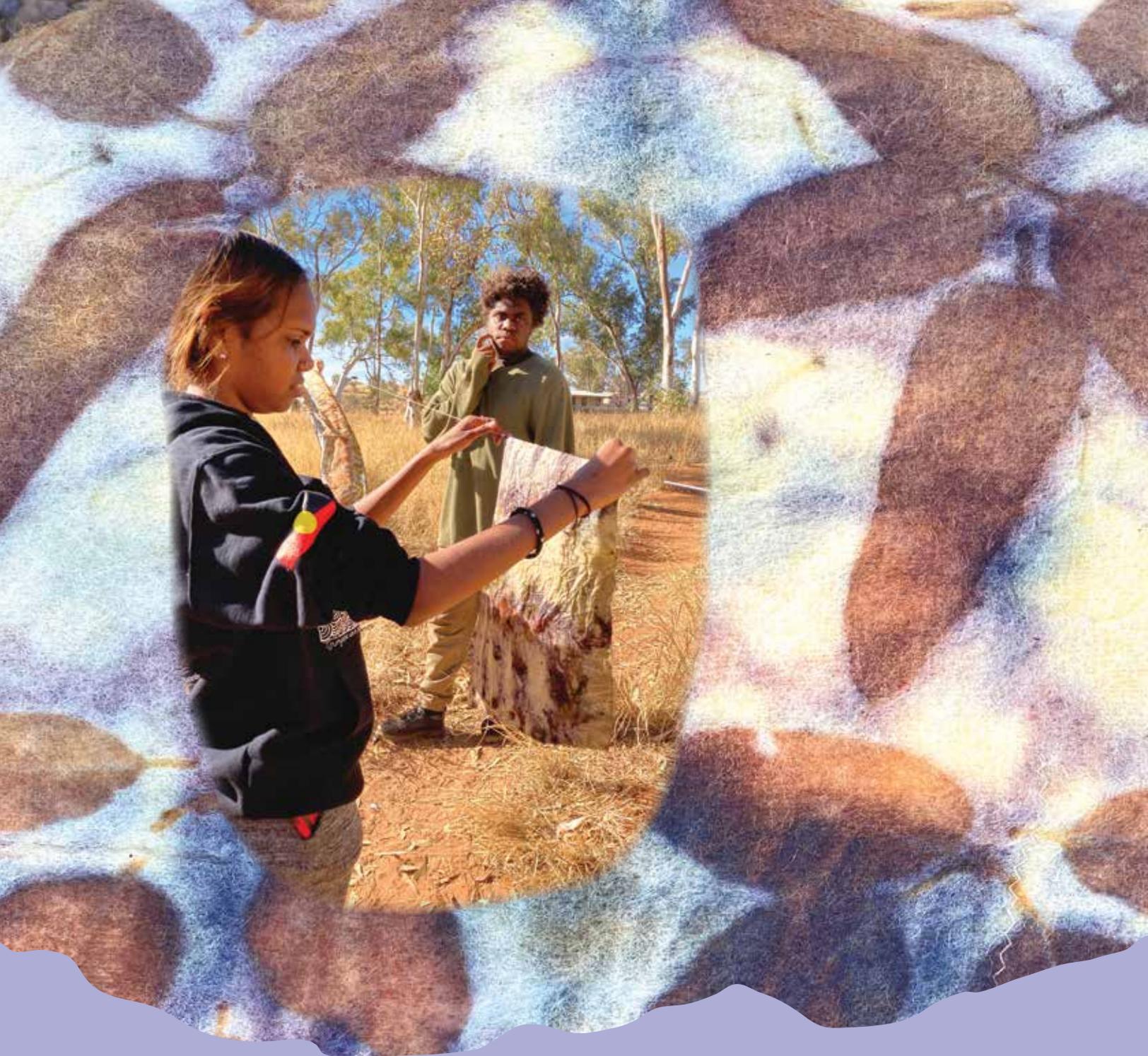




**Nganana raiki araltjanangi panya  
nganana nyangangi walka wiru  
nyalpinguru munu likaranguru palyantja.**



**We are opening the bundles and looking at the nice  
leaf patterns.**



Now we hang out the cloth to dry.

Nganana rikinarinyi  
nganampa scarf rikinanya  
kanyira. Nganana palyantja.



We are modelling the beautiful scarves we made.





We wrote about the plants and  
the mordants we used.  
We learned about science,  
plants and art.

**Nganana  
silk munu tjata palyanu.  
Ka ngayulu pukularinyi  
palyantjatjanu. Palya.**



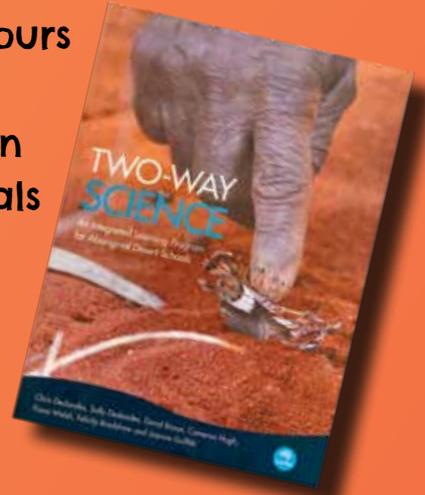
**We made patterns on silk scarves and t-shirts.  
I like what I've made.**

# Glossary

| Pitjantjatjara | English   |
|----------------|-----------|
| nyalpi         | leaf      |
| inuntji        | flower    |
| likara         | bark      |
| tarka          | stem      |
| kala           | colour    |
| walka          | designs   |
| ayana          | iron      |
| waru           | fire      |
| nyuti-nyutini  | bundle    |
| karpi-karpini  | tie up    |
| raiki          | cloth     |
| tjata          | shirt     |
| wirunya        | beautiful |

# Further Activity ideas

- \* Experiment with different plants to see what colours they produce on material/paper.
- \* Use Pitjantjatjara plant and animal cards to learn more about names and uses of plants and animals in the area.
- \* Notice what plants are flowering/fruiting at different times of the year.
- \* Draw plants and animals that you see.
- \* Learn traditional stories about the plants and animals.
- \* Use the Two-Way Science book for more great activities.



Scan this  
QR code to check out the Tangentyere  
Land and Learning page where you can find a PDF of  
this book, associated worksheets and lots of other great  
resources.



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