

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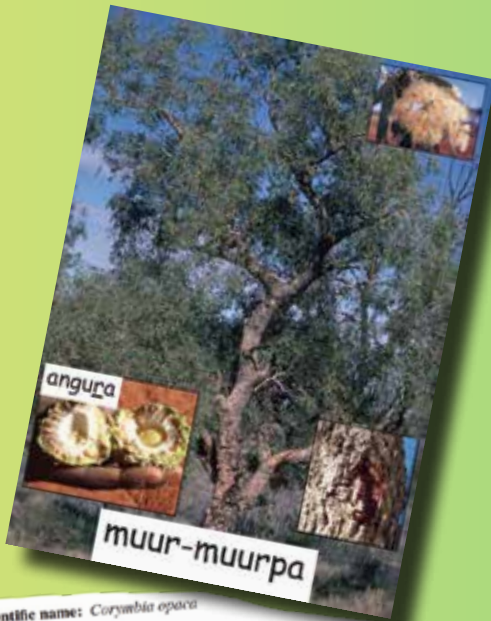
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**Nganana kuulangka nintiringangi
tjatangka munu raikingka walka tjuta
palyantjaku, panya tjata munu raikingka
nganana nyalpi kutjupa-kutjupanguru
mantjira tjunangi munula manta metal
karunguru kulu magnet-pangka mantjira
tjungunu tjaltu munu vinegar-ngka.**

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_larinytjaku.

Nyangatja ainkura kala
yalauwana kulu.



***Pisolithus tinctorius* (puffball)**

FAMILY: SCLERODERMATACEAE

Alyawarr

Anmatyerr

Eastern Arrente

Western Arrente

Pitjantjatjara

arrank-arrank, irrkweg

irrkweg

apweke-apweke, arngene-arngene, irrkweg

irngene-irngene, fwcke-fwcke

ainkura, ayinkura



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



itaga



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:

Uses: 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
warungu mantjira.

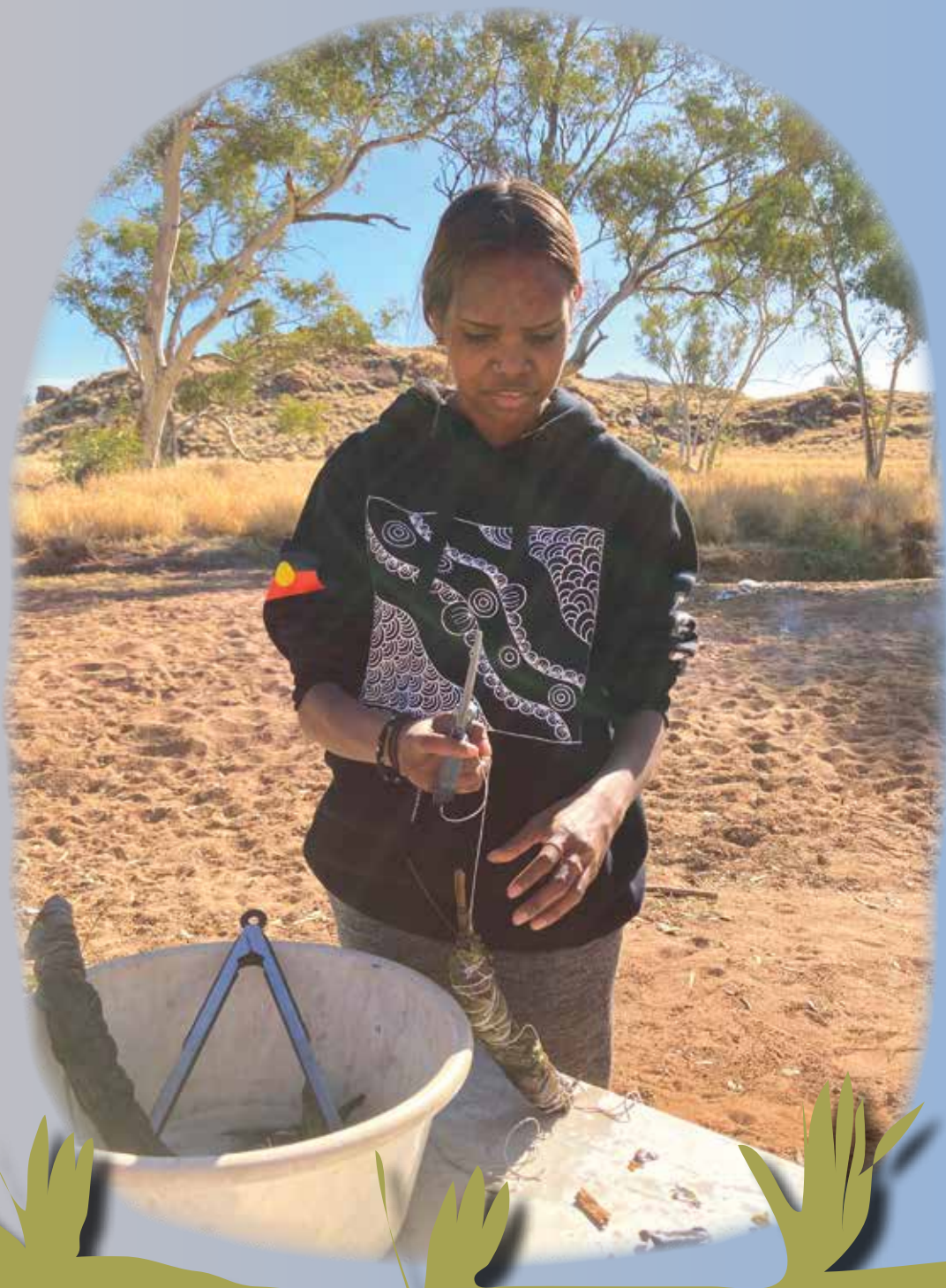
Brianna is carefully removing the bundles of tied
cloth from the boiling water using tongs.




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



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

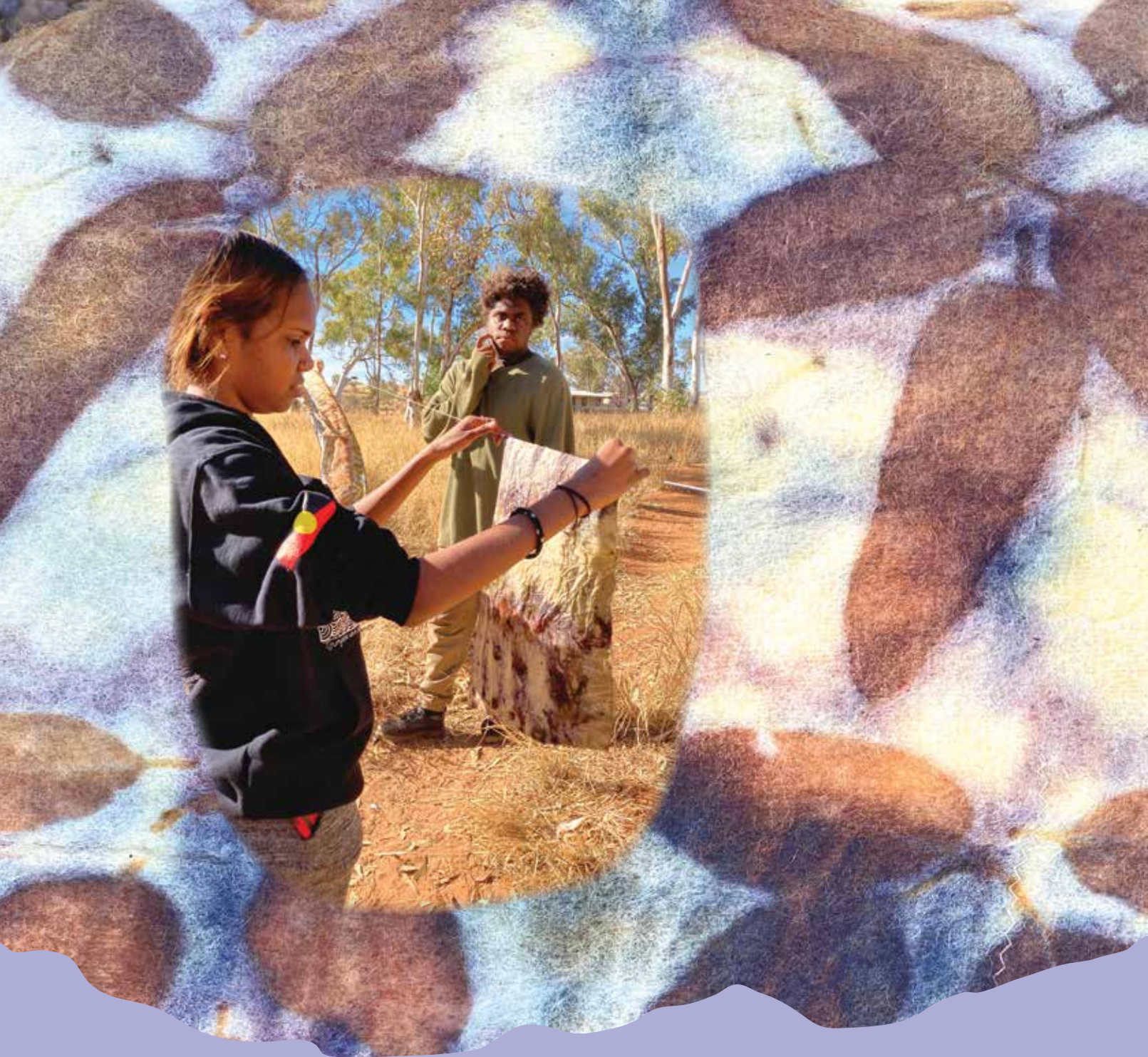




**Nganana raiki araltjanangi panya
nganana nyangangi walka wiru
nyalpinguru munu likaranguru palyantja.**



**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.**



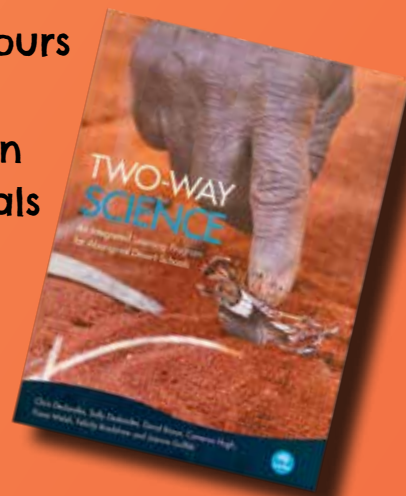
**We made patterns on silk scarves and t-shirts.
I like what I've made.**

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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