KAURNA **FOOD&FIBRE**

at Karrandongga - Hindmarsh

Curriculum

Developed by the Students and Staff
of St Joseph's School Hindmarsh

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Acknowledgements

Acknowledgement of Country

Niina marni.

We acknowledge that this program has been developed and shared with you from the traditional Country of the Kaurna people of the Adelaide Plains. We pay our respects to Elders, past, present and emerging, and value their ongoing spiritual and cultural connection to this Land.

Personal Acknowledgements

Firstly, we wish to acknowledge and thank Trent Hill, Uncle Frank Wanganeen, Uncle Mickey Kumatpi Marrutya O'Brien and Drew Kilner. *Ngaityalya*. Furthermore, we would like to acknowledge the Walking Together with Kaurna and Marra Dreaming organisations. These individuals, elders and organisations have provided invaluable insights and assistance, significantly enriching the development of this curriculum.

We also extend our gratitude to the St Joseph's School Hindmarsh staff and students for their pivotal role in developing the Kaurna Food & Fibre Curriculum. Special thanks to the students for their artwork and research, and to Antoinette Di Paolo, Deidre Knight, Debbie Loke, and the Australian Association for Environmental Education SA Chapter for their invaluable support and collaboration.

We also wish to thank Green Adelaide for their support with this project.

St Joseph's School
HINDMARSH

aaee
Australian Association for Environmental Education

GREEN ADELAIDE

Logo Concept with Drew Kilner
Kaurna Cultural Advisor

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Kaurna Food & Fibre Project

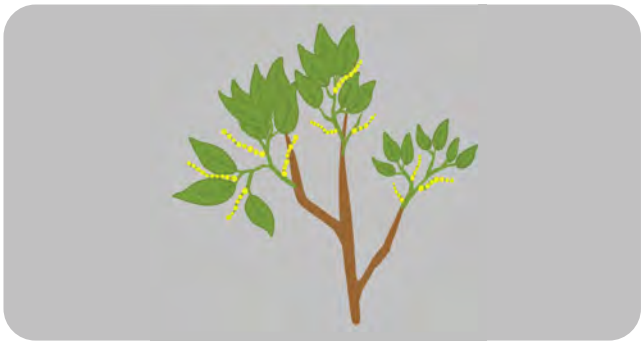
These plants were selected because to me they symbolise sustainability.

The Golden wattle (Acacia pycnantha) is one of the most recognisable plants. The seeds can be ground and turned into damper, the sap is a source of sugar and at the tree base is the bardi grub of the ghost moth that appears in the first rains of autumn. The grub is high in protein.

The Grass tree (Xanthorrhoea genus) is very recognisable. It aids navigation as the flowerhead faces north. The soaked flower head makes a sweet drink and you can make damper from the seeds and tastes like an anzac biscuit. The base of the flower spike and leaves are edible and the main part of the spike was used as a spear that can float on water. This main stem can also be cut and dried to make the base and tip of fire starters where the tip was rapidly spun on the base. Trunk base produces very high quality resin used to make glue for tools, weapons, coating or varnish on a canoe. The roots are also edible

Weaving rushes - Lomandra is called matt rush and Isolepis nodosa is the knobby club rush. They can be used to make fish traps, fishing nets, cast nets, sitting mats, rope and twine to make spears.

Golden Wattle (Acacia Pycnantha)



Grass tree (Xanthorrhoea genus)

Weaving rushes - Lomandra

Kaurna Food & Fibre Curriculum

Introduction

Welcome to the Kaurna Food and Fibre program for Years 5 and 6. This program was devised in collaboration with First Nations people to be used by educators on Kaurna Miyurna land. We hope you will find this program helpful as it covers Kaurna Miyurna culture through the endemic species lens with links to Aboriginal and Torres Strait Islander Histories and Cultures and the Sustainability Cross Curriculum Priorities. Science, Geography, Kaurna language, artistic and research skills, will be further developed as they deepen their understanding of the need to 'Care for Country.'

By the end of this program, students will have a deeper appreciation of the ways endemic plant species were embedded in Kaurna Miyurna culture through food, tool making, basketry, twine, medicine and other traditional uses. Within this is an appreciation of their keen observation of seasonal changes and botanical knowledge. Throughout this endeavour, students will learn species propagation, appropriate use of Kaurna Miyurna words, landscape design and artistic interpretation.

Transfer

Students will be able to independently use their learning to influence family, friends and community to think and then act mindfully when caring for our common home otherwise known as 'Caring for Country' as shown by First Nations' leaders.

Key Outcomes

Understandings Student will understand: • Kaurna Miyurna Seasons • Kaurna Miyurna and botanical vocabulary • Species selection and propagation • Healing and health benefits of traditional foods and medicines • Uses for and purpose of natural fibres • Site analysis and landscape design • Botanical and cultural art and craft • Natural seed dispersal processes • Honouring Kaurna Miyurna culture and caring for country	**Essential Questions** Students will consider: • What makes a sustainable environment? • How can we learn more about Kaurna Miyurna people? • Why was the Kaurna Miyurna understanding of seasonal change critical to survival? • Creation. Whose responsibility? • What does it mean to 'care for country'? • Meanings of these works exotic, native, endemic • How do living things survive in changing environments? • What is necessary for the survival of certain plant species?
Knowledge Students will be able to: • Use Kaurna words • Identify, propagate & grow endemic species • Understand how Kaurna Miyurna people used these species • Understand principles of site analysis and landscape design • Effectively contribute to 'caring for country'	**Skills** Students will be able to: • Propagate • Develop research skills • Collect and analyse data • Design and implement an endemic garden • Learn basic twine making and basketry skills • Explore, identify, problem solve, collaborate

Curriculum Links and Cross-Curricular Priorities

This program aligns strongly with both Year 5 HASS (Geography) and Year 6 Science (Biological sciences) of the Australian Curriculum v9 and can be used to cover the required content of either or both of these subject areas. There are also multiple links to other curriculum areas (in English, Maths, Design Technology, Art and History) and cross-curricular priorities.

Year 5 HASS

Content Description	Elaborations
Geography AC9HS5K04 The influence of people, including First Nations Australians and people in other countries, on the characteristics of a place.	• identifying how First Nations Australian communities altered the environment and sustained ways of living through their methods of land and resource management. • exploring the extent of change in the local environment over time and evaluating the effects of change on economic development and environmental sustainability. • exploring examples of positive influences people have on the characteristics of places.
Geography AC9HS5K05 The management of Australian environments, including managing severe weather events such as bushfires, floods, droughts or cyclones, and their consequences.	• exploring how environments are used and managed, such as the practices and laws that aim to manage human impact, the creation of wildlife corridors and national parks. • examining how changes due to environmental practices create issues, such as water shortages and increased floods and bushfires, the impact of issues on places and communities, and how people can mitigate the impacts.
History AC9HS5K02 The impact of the development of British colonies in Australia on the lives of First Nations Australians, the colonists and convicts, and on the natural environment.	• recognising the impact that settlement patterns had on the local environment and its ecosystems by comparing the present and past landscape, and the flora and fauna of the local community.
Questioning & Researching AC9HS5S01 Develop questions to investigate people, events, developments, places and systems.	• developing different types of questions for different purposes. • developing questions to guide the identification and location of useful sources for an investigation or project.
Concluding and Decision-making AC9HS5S05 Develop evidence-based conclusions	• drawing conclusions based on identified evidence from primary and secondary sources that consider differing information.

Curriculum Links and Cross-Curricular Priorities

Year 5 HASS (continued)

Content Description	Elaborations
Concluding and decision-making AC9HS5S06 Propose actions or responses to issues or challenges and use criteria to assess the possible effects	• undertaking a project that responds to an identified challenge or issue with strategies to be used that will achieve desired outcomes. • asking questions to consider potential effects. • making judgements about how effectively challenges have been addressed in the past. • using criteria to evaluate the possible options that people could take to resolve challenges.
Communicating AC9HS5S07 Present descriptions and explanations, drawing ideas, findings and viewpoints from sources, and using relevant terms and conventions	• selecting and referencing ideas and viewpoints.

Curriculum Links and Cross-Curricular Priorities

Year 6 Science

Content Description	Elaborations
Biological Sciences AC9S6U01 Investigate the physical conditions of a habitat and analyse how the growth and survival of living things is affected by changing physical conditions	• identifying the physical conditions in a terrestrial habitat and how they change over time. • investigating how changes to physical conditions such as salinity, soil type, sunlight or temperature affect plant growth • investigating changes in physical conditions that are the result of human activity and exploring the impact of these on living things. • recognising that environmental conditions can affect stages of life. • investigating First Nations Australians' knowledges and understandings of the physical conditions necessary for the survival of certain plants and animals.
Nature and development of science AC9S6H01 Examine why advances in science are often the result of collaboration or build on the work of others	• investigating how contemporary restorative ecology adapts and builds on the traditional ecological knowledges of First Nations Australians. • examining why ecologists collaborate with engineers and computer scientists to develop remote sensing techniques, identify patterns in habitat change and make predictions.
Use and influence of science AC9S6H02 Investigate how scientific knowledge is used by individuals and communities to identify problems, consider responses and make decisions	• considering how decisions are made to farm particular crops or animals depending on local habitats, such as considering their ability to withstand drought or cold weather. • examining how communities use knowledge of erosion processes to design landscape features that reduce erosion in fragile environments.
Questioning & Predicting AC9S6I01 Pose investigable questions to identify patterns and test relationships and make reasoned predictions	• posing investigable questions to identify patterns and to test relationships. • discussing and refining questions to enable scientific investigation.
Planning and conducting AC9S6I012 Plan and conduct repeatable investigations to answer questions	• determining which is the variable being tested and which variable is being measured, and which other variables might affect their investigations and need to be kept the same.

Curriculum Links and Cross-Curricular Priorities

Year 6 Science (continued)

Content Description	Elaborations
Planning and conducting AC9S6I013 Use equipment to observe, measure and record data with reasonable precision	• recording data in tables and diagrams. • recording data using standard units.
Evaluating AC9S6I015 Compare methods and findings with those of others, recognise possible sources of error, pose questions for further investigation and select evidence to draw reasoned conclusions	• working collaboratively to identify the strengths and weaknesses of their own investigations. • recognising errors that could have occurred during investigations. • comparing and contrasting evidence selected by different individuals or groups from similar data.
Communicating AC9S6I016 Write and create texts to communicate ideas and findings for specific purposes and audiences, including selection of language features, using digital tools as appropriate	• constructing a scientific report to share findings.

Cross-Curricular Priorities

Aboriginal and Torres Strait Islander Histories and Cultures

Through the Aboriginal and Torres Strait Islander Histories and Cultures cross-curriculum priority, the Australian Curriculum:

...provides Aboriginal and Torres Strait Islander students with the ability to see themselves, their identities and cultures reflected in the curriculum; and allows all students to engage in reconciliation, respect and recognition of the world's oldest continuous living cultures.

English	• appreciate literature created by First Nations Australian authors and illustrators • engage with and respond to literature about the histories, cultures and perspectives of First Nations Australians • examine texts that include events, Country/Place, identities and languages of First Nations Australians • identify and discuss the representation of First Nations Australians' histories and cultures • explore oral narrative traditions of First Nations Australians and their importance for connections to people, Country/Place and cultural identity.
Health & Physical Education	• students explore how First Nations Australians have long successfully developed complete diets that meet nutritional requirements • they see how foods were and continue to be used for medicinal purposes
Languages	• provides opportunities for all students to learn languages of First Nations Australians
Science	• students have opportunities to learn that Australian First Nations Peoples have longstanding scientific knowledge traditions and developed knowledge about the world by making observations, using all the senses, engaging in prediction, hypothesising and testing (trial and error), and making generalisations within specific contexts such as the use of food, natural materials, navigation and sustainability of the environment
Technology	• students can investigate how First Nations Australians' knowledges of natural materials have developed over millennia and have culminated in deep knowledge of their properties and performance • students can investigate the diverse food and fibre production techniques developed by First Nations Australian communities • through the context of material culture production techniques such as weaving, students can be introduced to designing algorithms and exploring how such practices can be converted into programmable automation

Cross-Curricular Priorities

Sustainability

The Sustainability cross-curriculum priority explores the knowledge, skills, values and world views necessary for people to act in ways that contribute to a sustainable future. Designing solutions and actions for a sustainable future requires an understanding of the ways environmental, social and economic systems interact, and an ability to make balanced judgements based on present and future impacts.

Health & Physical Education	• students explore how they can interact with natural and outdoor settings, and with people in their social networks and wider communities. • they consider the role of these connections in supporting the wellbeing of individuals and the community now and into the future
Science	• students appreciate that science provides the basis for decision-making in many areas of society and that these decisions can impact the sustainability of environmental, social and economic systems • students can also explore the contributions of First Nations Australians in designing sustainable products, environments and services such as fire management, habitat restoration and water management, and how First Nations Australians' knowledges and contemporary science can be used to advance scientific understanding and to care for Country/Place

Useful Suggestions

Units of work

The following lessons can be used in their entirety or individually to suit your classroom environment. They are numbered as an indication only of the sequence in which to proceed but you may choose to interchange them to suit the context of your school or class setting. For example, students may do their research in the cooler months or on very hot days in readiness for the propagating season. These plans work in tandem with the Kaurna Food and Fibre Manual which provides detailed species information as well as how and when to propagate. Note that some lessons may take a number of sessions to complete.

Feel free to select lesson plans that work best for you. You may choose not to propagate but rather purchase tube stock from a local endemic plant nursery. Similarly, the curriculum links are indicators of how you may choose to approach each lesson. Each lesson has been labelled with the key learning area(s) covered, i.e. Science, Geography.

Invaluable Excursions and Incursions

Taking students to the **Botanic Gardens** to meet Trent Hill who will guide them through the garden and share this knowledge. This is a very affordable excursion and is a wonderful way to support student understanding of the link between Aboriginal and Torres Strait Islander Histories and Cultures and Sustainability.

Invite **Walking Together with Kaurna** to your school to share cultural knowledge and increase understanding of the effect of colonisation on the Kaurna Miyurna people. Kaurna Elder Uncle Frank Wanganeen and early childhood educator Liesl von der Borch created meaningful experiences for children on Country.

Teacher resource for **Aboriginal Plant Use** - Primary Years Education Trail

Invite **Marra Dreaming** to your school. They foster cultural awareness by running arts and crafts programs

Glossary or Word Wall

As the lessons progress, you can add more relevant Kaurna Miyurna and English words to a glossary. Consider creating a highly visible 'Word Wall' for these words. A useful resource to support this is the **Kaurna Warrapiipa Dictionary Kaurna-English/English-Kaurna** by Rob Amery, Susie Greenwood and Jasmin Morely (Publisher Wakefield Press).

Establishing a propagating area at school

Consider building an automatically irrigated propagation area. Do you have a sunny location near a tap that is fenced off for protection? Can you find materials at school to use a bench to hold plants? If not, can you ask the maintenance person and/or parents to source some sturdy wooden pallets that can be made into a bench and secured with screws or nails? Can they help you set up an automated irrigation system with a cheap battery-operated automatic watering timer like this?

Planting site

Do you intend to plant your seedlings on site? If so, do you have a sunny location with access to water? If not, are there council grounds that would benefit from more biodiversity? Most councils are willing partners in this type of collaboration. Contact Ward Councillors for your school's suburb or council environment staff.

Local Nurseries and stockists of endemic seeds and tubestock

- Blackwood Seeds (*please note, there are others throughout the Greater Adelaide region)*
- State Flora, Belair
- Provenance Nursery, Salisbury

Seasons through the Kaurna Miyurna lens

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Seasons through the Kaurna Miyurna lens

Lesson 01

Learning Intentions

Students will have a clear understanding of how Kaurna Miyurna people used their keen observational skills when identifying seasonal change.

Success Criteria

- I can use Kaurna Miyurna words to name the season.
- I can identify some indicators of seasonal change.
- I can appreciate the skills required to identify seasonal change.
- I appreciate that the Kaurna Miyurna language is one of over 150 First Nations languages in Australia.

We thank Michael Kumatpi Marrutya O'Brien for permission to use the Kaurna calendar

There are four distinct weather periods recognised in the Kaurna Miyurna seasonal cycle, as well as winds which can act as seasonal indicators. The mapping of Kaurna seasons to the Australian calendar is approximate as the seasons are very changeable.

Warltati	Parnati	Kudlila	Wirltuti
Summer January - March	**Autumn** April - June	**Winter** July - September	**Spring** October - Dec
Hot season Warlta - hot, heat and warmth	**Windy season** Waitpi - windy	**Wet season** Kudlinthi - to wash the earth	**Mild warm season** Wirltu - The Eagle's Foot constellation

Permission to use the Kaurna seasonal calendar and related information on the Indigenous Weather Knowledge website is given by the Elders/Directors of Kaurna.

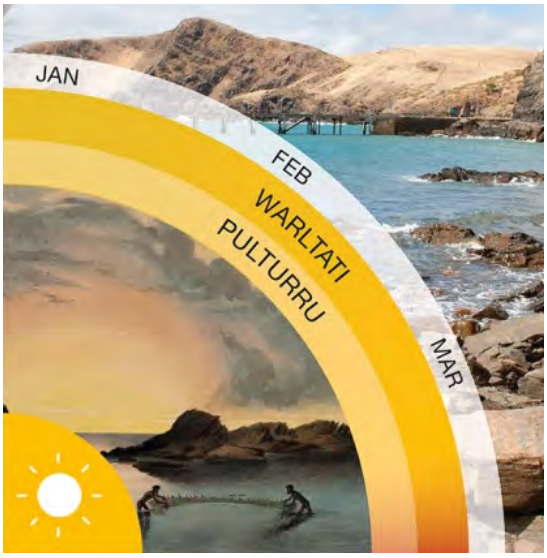
Thank you to the SA Museum for providing the image of well-known Kaurna Elder Ivaritji Wartapukarra – seen within the Kaurna Seasonal Calendar Wheel wrapped in possum skin. The photo was taken in 1928 Source: Australian Bureau of Meteorology

Seasons through the Kaurna Miyurna lens

Lesson 01

Warltati - Summer

Approximately January, February, March



Indicators

- Warlta (hot, heat and warmth)
- Astronomical indicator is the Sun (Tirntu). The sun cross co-ordinates on the northwest corner of Victoria Square in early January
- Piturru (thunder)
- Karntu (lightning)
- Pulturru (dry breeze)

Plant and animal indicators

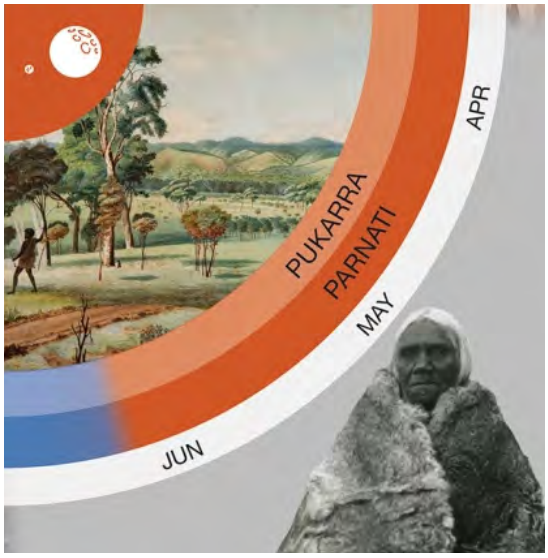
- Kangaroo chief supply of food
- Yabbies come out of the mud

Seasonal lifestyle

- A conference for all the nations to exchange knowledge and trade
- Controlled, low burning of fires lit in foothills
- Grey Teal fly north if the Murray Darling Basin floods

Parnati – Autumn

Approximately April, May, June



Indicators

- In April, Parna, a star near the Moon on the lower left side. Partinthi (sparkle)
- Pukarra (north/west wind)
- Cold mornings with Kudmu (fog/dew) on the ground
- highest rainfall causing kuntu and yartala (flooding), restricting movement
- Waadlawarnka (fallen trees)

Plant and animal indicators

- Mullet netted in shallows during high tides
- Small stone fruits eaten
- Roots, possums, kangaroos, wallabies and bandicoots caught and eaten
- Wild tobacco leaves/flower chewed and small stone fruits eaten
- Roots, yams, wild cabbage, seeds eaten
- Yellowfin whiting, mulloway, salmon trout in estuaries
- Reed beds turn to boggy swamp, birdlife plentiful

Seasonal lifestyle

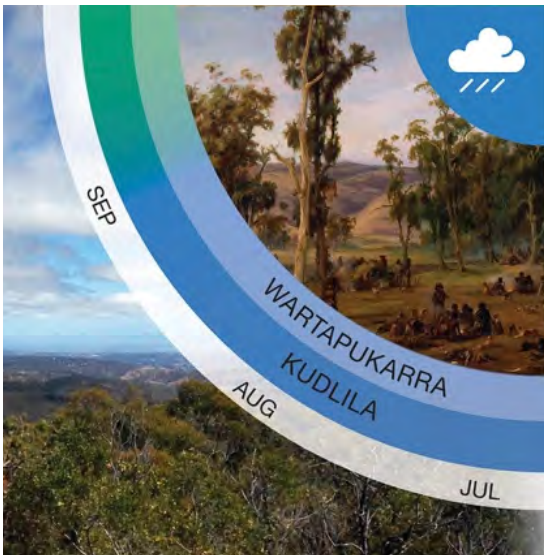
- Wattle gum used to cut canoes and make shelters - bark stripped from trees
- Movement inland towards foothills shelters built from fallen limbs
- Skin rugs and seaweed cloaks were made for Kudlila (winter)

Seasons through the Kaurna Miyurna lens

Lesson 01

Kudlila - Winter

Approximately July, August, September



Indicators

- Kudlinthi (to wash) - winter is when the earth is washed
- Wartapukkara (north/west wind, tempestuous weather)

Plant and animal indicators

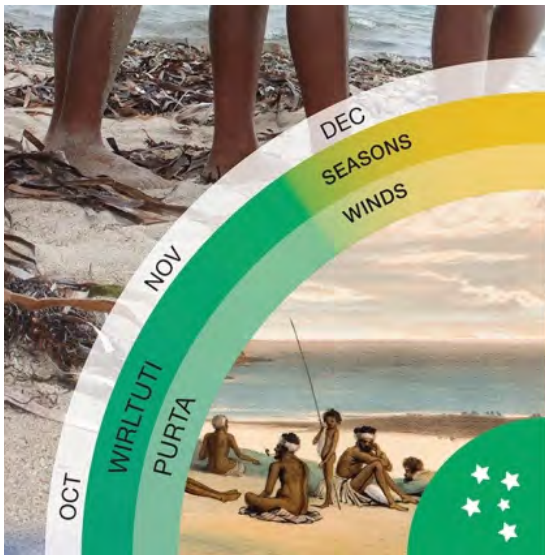
- Vegetables, grubs mainly eaten
- Bloodworms in mud
- Ducks/water birds nesting

Seasonal lifestyle

- Grubs collected from west sclerophyll scrub covering Mount Lofty Ranges - gum from Acacia trees collected for eating

Wirltuti - Spring

Approximately October, November, December



Indicators

- The Southern Cross in Kaurna culture is referred to as Wirltu (eagle's foot or eagle). Wirltuti is indicated by the position of the Southern Cross in October
- Mild warm temperatures
- Purta (to burn and blaze or rage like a storm) refers to the seasonal winds
- Warri (wind), Piturru (thunder) and Karntu (lightning)

Plant and animal indicators

- Eggs of young birds, lizards eaten
- Blue crabs, garfish abundant in shallows, shellfish, crustaceans collected
- Grass tree: heart of tree eaten raw
- Yabbies come out of mud
- Tiger, Brown and Black snakes and lizards come out of hibernation

Seasonal lifestyle

- Head back towards the coast
- Movement over plains to reed beds behind dunes
- Curing skins

Seasons through the Kaurna Miyurna lens

Lesson 01

Lesson Sequence

1. Create a Kaurna Miyurna Word Wall
2. Students view **James Tylor's and Jack Kanya Buckskin's** video **Kaurna Environment** local food, fibre, medicinal and traditional plants. Ensure students record these species, uses and Kaurna Miyurna words in their science book.
3. Write the seasons on the Word Wall
4. Write the indicators next to the Word Wall
5. Use the Kaurna Dictionary to further understand these words and meanings
6. Look for indicators for the season you are currently in as per the chart
7. Look for indicators for the following season
8. Students can write observations of indicators using the Lesson 1 worksheet : Kaurna Miyurna Seasonal Observations

Questions for Students

1. What differences do you identify between the Kaurna and 'Western' seasons?
2. Which do you think is the more reliable indicator of seasonal change and why?
3. What are the pros and cons of each approach?
4. What plants and animals did you identify?

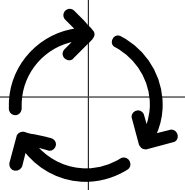
Worksheet: Kaurna Miyurna Seasonal Observations

Lesson 01

Write down the changes that you see in the weather and in nature in each season
Include examples of specific species of plants and animals.

Warltati (Summer)
January - March

Parnati (Autumn)
April - June



Wirltuti (Spring)
October - December

Kudlila (Winter)
July - September

Kaurna Miyurna: Uses of local plants

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Kaurna Miyurna: Uses of local plants

Lesson 02

Learning Intentions

Students will appreciate the deep knowledge of 'country' held by the Kaurna Miyurna people, the diversity of endemic plant species and their uses. Through individual and collective online research and cross referencing, they will learn the botanical binomial, Kaurna and common names and properties of relevant plant species. They will begin to understand the Greek and Latin underpinnings of botanical naming. This knowledge will be applied to persuasive text to potential supporters of this program.

Success Criteria

- I can efficiently use online search engines to find relevant information
- I can cross reference selected species with seed availability from local providers
- I understand that botanical names often have Greek and Latin words that describe features of the plant
- I understand the Linnaean binomial system'
- I can write persuasive text to potential supporters of this project

Materials Needed

- computers
- science books
- a copy of the Plant Selection Matrix worksheet

Teacher Notes

This may take up to 3 or more lessons

Online Resources - Videos

Kaurna Environment: Plants, Animals, Seasons, Culture & History by James Tylor and Jack Kanya Buckskin

This is an excellent video as many of the Kaurna Miyurna names are provided along with extensive information about species discussed. *Suggestion: Fast track to James' and Jack's narration then show this video in 10 minute snippets as the information takes time to digest.*

Before Colonisation: Murnong Daisies presented by Aunty Julie McHale

A good video explaining the abundance of this food stable and similar species native to our region.

Two Way Science. Central Australian Plant Identification

Optional: Use this video to compare and contrast species and their uses in each zone. Are there species growing in both locations?

More online resources on next page.

Kaurna Miyurna uses of local plants

Lesson 02

Online Resources - Downloads

Wild Food and Traditional Uses

This information sheet is a great starter as it names species and their used believed to be used by the Kaurna Miyurna.

Seed for Change Fact Sheets

This collection of over 90 Southern Lofty species may provide more detailed information about your selected species. They also contain propagation information such as pre-treatment and when to sow.

Blackwood Seeds

Download the catalogue and show students how to cross reference their selected species with this site's seed availability.

Online Resources - Links

Botanic Gardens Plant Selector

This is fairly simple to use. Key in the botanical or common name of the selected species in the section directly below suburb or postcode. This website is useful to visually identify each species, ensure it is from the Southern Lofty area (SL) Botanical Region and record their dimensions & uses.

The Tree Project

Whilst this is a Victorian site many of their plants are also found in the Southern Lofty area.
This site has more in depth info such as pre-treatment methods, germination time etc.

Kaurna Miyurna uses of local plants

Lesson 02

Lesson Sequence

1. Ensure students have their Science books to record what they find. You may prefer to create a simple matrix like the one below to capture all the relevant information. Use the icons to shortcut written explanations.
2. Replay James Tylor's and Jack Kanya Buckskin's video Kaurna Environment: Plants, Animals, Seasons, Culture & History. Ensure students record these species, uses and Kaurna Miyurna words in their science book.
3. In addition to the above, refer to copies of Wild Food and Traditional Uses which introduces more species and uses
4. Follow up with the Botanic Gardens Plant Selector site where students will confirm the plant is from the Southern Lofty (SL) region, its family and images as well as dimensions and uses.
5. At this stage, students should have recorded at least 20 species for further research. Seeds for Change fact sheets and the Tree Project site are excellent sources for more detailed propagation information.
6. Students should now have their final list of plants they wish to grow from seed or purchase as tube stock. They can now cross reference these plants with seed availability from Blackwood Seeds.

Instructions and questions for students

1. After reviewing Jack's and James' video, record information about plants, their names and uses. What do we know about how the Kaurna Miyurna used plants in their environment?
2. Write Kaurna Miyurna words and translations on your Word Wall
3. How can you ensure the information you found is correct?
4. Read 'Wild Food and Traditional Uses' sheet and select species to research more deeply on the Plant Selector site
5. When looking through the Plant Selector site can you confirm these species were from the Southern Lofty region? If so, draw and record species dimensions and features in your Science book.
6. Was there any information about their use by the Kaurna Miyurna? If so, record this information in your Science book.
7. What was each species used for?
8. Eliminate any species identified as unsafe from your final selection.
9. Were some species used for more than one thing? Hint: Supermarket Tree
10. Compare and contrast Southern Lofty species with the ones described in the Central Australia. View the Two Way Science resource link. What does this tell us?
11. Cross reference species selection with seed availability from Blackwood Seeds
12. Calculate how many species you want to grow and the total cost of purchase. Then place your order with Blackwood Seeds with a letter explaining what you are doing and why.

Worksheet: Plant Selection Matrix

Lesson 02

Plant name Botanical Common Kaurna Miyurna	**Identification** Colour Dimensions	**When to Grow**	**Uses** Food Fibre Medicine Traditional	**Seed Availability** Blackwood Seeds Yes/No	**Pre-treatment**	**Cuttings**

Seed Pre-treatment

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Seed Pre-treatment

Lesson 03

Learning Intentions

Students will understand that some species require pre-treatment to grow outside of their normal ecological niche. They will know the range of pre-treatment methods and when to apply them.

Success Criteria

- I can research which species require pre-treatment
- I know the range of pre-treatment methods
- I can read and follow instructions
- I can safely apply these techniques to selected species

You will need:

- Seeds – chosen & ordered in previous lesson
- Containers – for storing seeds
- Hot water
- Fridge

Teacher Notes

This may take up to 2 lessons.

Online Resources - Videos

Seed immersion in smoke water

Here is a youtube video showing how to make smoke water.

Online Resources - Downloads

Seed for Change Fact Sheets

This collection of over 90 Southern Lofty species may provide more detailed information about your selected species. They also contain propagation information such as pre-treatment and when to sow.

Online Resources - Links

Smoults Horticultural Supplies

A smoke-water product called Smokemaster has been created and is readily available from Smoults Horticultural Supplies

The Tree Project

Whilst this is a Victorian site many of their plants are also found in the Southern Lofty area.
This site has more in depth info such as pre-treatment methods, germination time etc.

Pre-treatment Methods

Lesson 03

Lesson Sequence

Once species have been selected, check if seed pre-treatment if any is needed. Some seeds will only germinate in their natural habitat when conditions are just right, so pre-treatment methods have been devised to mimic these conditions. Below are several pre-treatment methods which can be used.
Safety Tip Only adults to use hot water.

Hot water
This is the most common pre-treatment method and is most commonly used with seeds in the 'pea family' (Fabaceae) like Senna, Acacia, Hardenbergia and Kennedia in which the hard seed coat prevents cold water from entering the seed. These plants are often native to areas where bushfires regularly happen.
The heat of the fire cracks the hard coat and allows moisture to reach the embryo inside.

Hot water pretreatment methods:

1. Plain hot water: Place seed into a container with hot, NOT BOILING water from the tap. Soak for at least 6 hours. Remove and sow immediately. Seeds that soften and swell to 2 times their original size can be sown; those that don't swell are retreated.
2. Hot and cold water: In some cases, seeds will not tolerate excessive time in boiling water and respond better to brief immersion in boiling water followed by cooling down in cold water. Place seeds into a sieve and dip into hot but NOT BOILING water for 30 seconds. Immediately immerse in cold water and soak for 6 hours. Remove and sow immediately. Floating seeds are usually infertile and can be discarded.

Stratification
This is a type of dormancy that often happens with seed of species that are sown in winter. They need a period of cold conditions prior to germination. This can be mimicked by placing seed in a closed container (containing moist vermiculite or similar material) in a refrigerator for 1-3 months before sowing.

Seed immersion in smoke water
Trays containing sown seeds can be sprayed with undiluted smoke-water and carefully watered for the first 6-10 days to ensure adequate penetration of smoke compounds. Recent scientific research has found that smoke is a critical factor in germinating many of our native seed species. This has paved the way to more successful seed propagation and habitat restoration. Here is a youtube video showing how to make smoke water. A smoke-water product called Smokemaster has been created and is readily available from Smoults Horticultural Supplies

Lesson sequence

1. Explain that some seeds require specific pre-treatments before they can germinate.
2. Share the information about the 3 main pre-treatment methods.
3. Research the germination requirements of species selected in the previous lesson. These sites have detailed information about most species' germination requirements.
4. Follow the pre-treatment methods indicated for the seed species that require time before sowing the seeds.

Tasks and questions for students

1. Read the seed pre-treatment instructions
2. Watch the related video
3. Take notes about each of the pre-treatment methods
4. Identify and record key words and their meaning
5. Do you feel confident to pre-treat relevant seeds?

Worksheet: Pre-treatment Methods

Lesson 03

Describe the process for each seed pre-treatment method.
Include examples of seeds that require each method.

Seed Immersion in Hot Water

Method 1:

Method 2:

Stratification

Seed Immersion in Smoke Water

Twine & Cordage Making

4

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Twine & Cordage Making

Lesson 04

Learning Intentions

Students will have an appreciation of the range of local fibre plants used by the Kaurna Miyurna people. They will understand what was made from these species and know how to make cordage.

Success Criteria

- I can research cordage making methods
- I can make cordage
- I know which species were used to make cordage, baskets and nets

Activity

Twine making using the method used by Kaurna Miyurna. This peaceful activity is perfect on very hot days when outside play is not possible. Other students have reported a deep sense of satisfaction as they were learning this skill.

Online Resources

Creating an Aboriginal Reed Necklace - Yenbena Marrinbidja

Lesson Sequence

1. Click on the youtube video link and scroll forward 5 minutes to watch the process.
2. Harvest Dianella revoluta or Lomandra species leaves or other researched relevant non-toxic species.
3. Students can work in pairs and hold the ends of each other's leaves to make twining easier.
4. Remaining leaves can go home with students to practice and share their new skill with their family
5. Record how students feel when doing this activity?

Questions

1. What other plants did the Kaurna Miyurna use to make twine and cordage?
2. Identify other native fibre plants used by the Kaurna Miyurna people
3. How many ways are native fibres used?
4. Research this and record it in your science book.

Seed Propagation

5

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Seed Propagation

Lesson 05

Learning Intentions

Students will know which materials to purchase when propagating endemic species. They will be able to follow written instructions and use percentages, decimals, fractions and graphs to measure species growth variability and calculate the amount and cost of materials needed. They will understand how environmental situations can determine species germination and growth.

Success Criteria

- I can follow written procedures.
- I can use fractions and percentages in graphs to compare and contrast species germination and growth rates I can calculate the cost of propagation materials
- I can calculate the cost of each plant
- I understand that Australian soils are ancient and that native plants have adapted to these conditions over millennia

Teacher Notes

Learning to propagate at an early age contributes to lifelong learning about the wonder of nature and creating the best conditions to ensure germination. As noted above this may include propagation medium, relevant fertilizer, seed pre-treatment and seasonal variation.

Online Resources

Native Seed Germination
Josh Byrne Gardening Australia
This video demonstrates how to propagate native plants from seeds,

How seeds become plants
Nick Hardcastle Gardening Australia
This video demonstrates how to propagate native plants from seeds,

Grower Manual: A guide to propagating indigenous seedlings
Tree Project
Helpful publication on how to grow healthy, happy seedlings.

Materials Needed

Below is a list of materials you will need for propagating native plants from seed and some advice on where you can source them.

- **Native potting mix**
  such as Osmocote Native Potting Mix
- **Fine gravel**
  can be found at Sloan's Sands and Smoults
- **Propagating tubes and crates**
  Propagation Tubes (TRD5000) and Crates for tubes (T50SN00) can be sourced Garden City Plastics
- **Chinagraph white and black pencils**
  from the stationer
- **Smoke water** *(if required for pre-treatment)*
  Smokemaster water can be sourced from Smoults Horticultural Supplies

Seeds

Lesson 05

Safety Considerations

Health: Wear a mask when opening the potting mix bag. If it is dry, keep your mask on and wear gloves then gently spray the potting mix with water. Refer to this website for more information

Propagation procedure

1. Students prepare seed tubes by filling with native potting mix filled to 1 cm below the top of the tube. Each tray contains 50 tubes
2. Press another tube gently down on top of the filled tube to ensure compaction.
3. The seeds are then placed on top of the potting mix as per species instruction and covered with fine gravel. Seeds can only be sourced from reputable seed suppliers such as Blackwood Seeds.
4. Some species benefit from the application of smoke water for higher germination rates. Australian native plants as many species will only germinate after a fire. See YouTube video
5. Write the species name and date on the side of the container with relevant chinagraph pencil.
6. Water with a fine mist and place it on the irrigation bench.
7. Ensure they are watered daily during hot weather

Questions for students

1. Did you find the procedures easy to follow, why or why not?
2. How could they be improved?

Scientific Investigation and Reporting

This is a fantastic opportunity to conduct and write up a scientific investigation relating to Seed Germination.

Focus question *Your choice*	The investigation could focus either on the rate of germination success rate for one or more plant species; the germination or growth rate of different plant species; the impact of pre-treatment compared with not pre-treating seeds
Predictions	students can make a prediction about what they think will happen.
Variables	students identify the variables that will be changed, measured/observed and those that will need to be kept constant.
Materials	List of materials required to sow seeds and care for seeds.
Procedure	Individually or as a class write up the procedure for sowing seeds and the method for carrying out and recording observation
Results	The following page has a table that you can use to record **Seed Germination Data wosksheet**. The relevant results can then be graphed and analysed.
Reflection & Conclusion	Students reflect on the procedure and investigation overall. They can then consider the implications of their findings.

Mathematical learning tasks

1. What was the purchase price of potting mix, gravel, tubes, trays, fertilizer and seeds? Record the total cost.
2. Record the number of propagated tubes and the date they were sown.
3. Record the number unsuccessful and germinated plants.
4. Record germination times of each species.
5. Which grew the fastest, longest, slowest?
6. What percentage of all propagated plants does each species represent?
7. Chart each species' growth rate every week on the same day by measuring their length.
8. Chart this information then compare and contrast species growth over this period.
9. What are the best methods for presenting data to illustrate the results of investigations?
10. Justify the choice of representations.
11. Use the cost of materials to calculate the cost of each plant.
12. What price would you charge per plant to 'break even'?
13. Decide on profit margin and how profits could be used.

Worksheet: Seed Germination Data

Lesson 05

Plant Name	Seed Sowing Date	Number of Seeds Sown	Height of Seedling (mm) 1 week	Height of Seedling (mm) 2 weeks	Height of Seedling (mm) 3 weeks	Height of Seeadling (mm) 4 weeks	Number of Successful Germinations and Percentage

Propagating cuttings

6

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Propagating Cuttings

Lesson 06

Learning Intentions

Students read and follow procedures to name, propagate and label endemic species from cuttings.

Success Criteria

- I can follow written instructions
- I know how to make cutting mix
- I know which part of the plant to take cuttings from
- I can name and date species labels

Teacher Notes

This may take up to 2 or more lessons.

Resources

How to take native cuttings
Gardening Australia

Local Plants Fact Sheet
Seeds for Change

Materials needed:

Coir peat
View online here

Propagating sand

Native potting mix
View online here

Polystyrene boxes

Sharp cutting snips

Propagating Cuttings

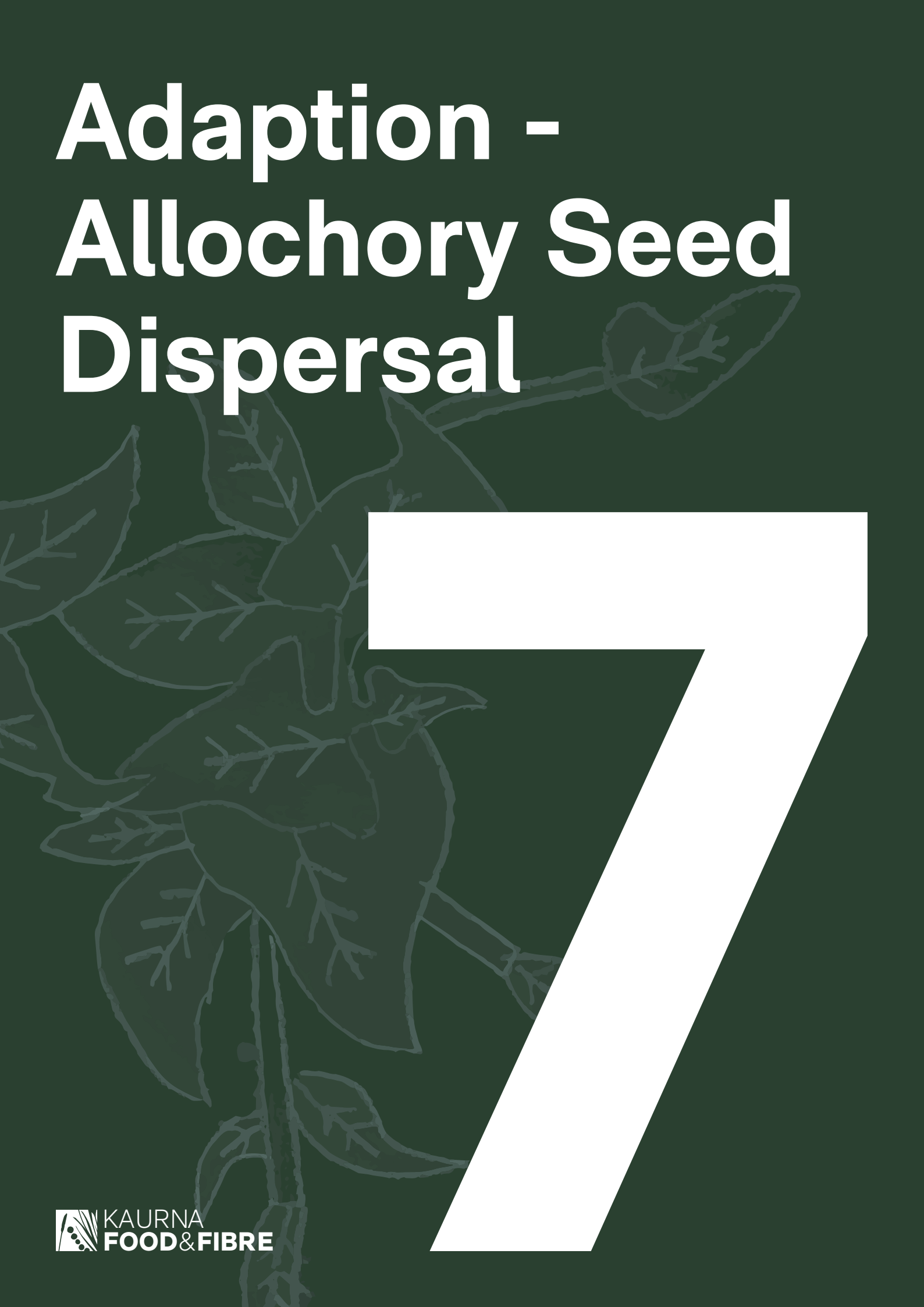
Lesson 06

Step by step procedure for 'Propagation from Plant Cuttings':

1. Hygiene: Before taking cuttings ensure your snips are sterile by wiping them with a paper towel dipped in cleaning vinegar. This will limit contamination.
2. Get cuttings from your selected species and keep them hydrated
3. Does your polystyrene box have holes at the bottom? If not, get an adult to help you drill at least 6 holes evenly across the bottom of the box.
4. The coir comes in a compact brick form and must be soaked in water to expand until it is soft. Place it in a large bucket of water and leave it for at least an hour.
5. The cutting mix consists of: 2 parts native potting mix with native fertilizer, 1 part propagating sand and 1 part coir peat. Mathematics: ratios
6. This is then well mixed and placed in clean polystyrene containers then smoothed ready for the cuttings.
7. Watch Gardening Australia cuttings video
8. Confirm the plants you wish to take cutting from are suitable for this purpose by going to the Seeds for Change Fact Sheets
9. Trim the cuttings to the required size and removed most foliage from the bottom.
10. Dip the base of the cuttings in unheated pure honey. It has antibacterial properties and will help prevent disease.
11. Use pencils to drill holes in this mix to a depth of at least 7 cm and place your cuttings in.
12. Label the container with the name of the plant and the date they were propagated.
13. Relocate the container to propagation benches with an automatic water misting system located in a sunny location

Adaption - Allochory Seed Dispersal

7



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Adaptation - Allochory Seed Dispersal

Lesson 07

Learning Intentions

Students will understand and know the various ways seeds are dispersed. They will know the names of dispersal types by secondary agents.

Success Criteria

- I understand that certain species have adapted to ensure reproduction
- I know the different forms of seed dispersal.
- I can use the scientific terms for each for form of dispersal.

Resources

Seed Dispersal by Ants
Australian Museum

Teacher Notes

This may take up to 2 lessons.

Lesson Plan

1. Explain what allochory is and the different methods of seed dispersal.
2. The following page has a worksheet that can be used to explore the different types of allochory.
3. Watch the Seed Dispersal by Ants video.
   There are quite a few videos on YouTube that show a variety of other forms of allochory.
4. Students can research different seed dispersal methods used by plants endemic to the Kaurna Miyurna region.

Adaptation - Allochory Seed Dispersal

Lesson 07

Background Teacher Information

Allochory

Interesting fact: The suffixes ‘chory’ and ‘chasy’ relate to the Greek word for dispersal.

There are many ways seeds can be dispersed using secondary agents such as wind, water, and animals. Different plants spread their seeds in different ways to ensure the greatest chance of germination. The simplest way to do this is with gravity where seeds drop to the ground, but with this method they can only spread over a wider area if they are on a steep slope. Below is a table with scientific terms for each type of seed distribution or dispersal.

Students may have observed the variety of seed types and what ‘strategy’ they use to ensure dispersal, for example Dodonea viscosa or Sticky Hop Bush seeds have ‘wings’ which can be transported by air (wind) to another location. Billiardiera cymosa or apple berry contains many seeds whose berries drop to the ground (gravity) and begin to rot. When the situation is right the seeds will germinate and thus begin the next generation.

Anemochory	dispersed by wind
Autochory	assisted by the parent plant, such as swaying in the wind
Ballochory	propulsive mechanism in the seed pod
Barochory	gravity drops seeds to the ground
Chamaechory	rolling along the ground, helped by wind

Zoochory

Animal dispersal, includes the following:

Myrmecochory	dispersed by ants
Ornithichory	dispersed by birds
Mammalochory	dispersed by mammals
Endozoochory	dispersed by being eaten, digested and defecated by animals
Epizochory	when seeds are carried in fur, feathers or feet

Worksheet: Allochory Seed Dispersal

Lesson 07

Scientific term	Type of dispersal	Can you find examples of these types of dispersal on Kaurna Miyurna land?
Anemochory	Wind	
Autochory	Assisted by the actions of the parent plant such as swaying in the wind	
Ballochory	Propulsive mechanisms - ballistic	
Barochory	Propulsive mechanisms - ballistic	
Barochory	Unassisted where gravity causes seeds to drop to the ground	
Chamaechory	Rolling along the ground helped by the wind	
Hydrochory	Water	

Zoochory Animal Dispersal - *See different types of animal dispersal below*

Myrmecochory	Ant	
Ornithochory	Bird	
Mammalochory	Animal, where the seeds are eaten, digested and defecated	
Epizoochory	Animal, where seed are carried in fur, feathers, feet	

Botanical & Non-Botanical Art

8

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Botanical and Non-Botanical Art

Lesson 08

Learning Intentions

Students will be able to differentiate botanical and non-botanical art. They will know the parts of a flower and know how to draw them scientifically and artistically. They will appreciate and learn the art forms used by First Nations peoples.

They will know the history and importance of this skill throughout the centuries. They will understand the basics of botanical drawing and First Nations art forms.

Success Criteria

- I know the difference between scientific and creative drawing.
- I know that botanical drawing was important to advancing species identification.
- I understand the basics of botanical drawing.

Teacher Notes

This may take up to 2 lessons.

Suggestion:
Contact Marra Dreaming who use art as a means for greater cultural awareness. They conduct school incursions where various indigenous and non-indigenous artists share their techniques so students can create their own work of art. They provide all the materials needed. They also introduce students to traditional basket weaving.

Botanical Drawing

This is a form of art where the artist draws a plant exactly as it looks. Botanical drawing combines art and science in a useful and beautiful way. This form of illustration accurately depicts plant characteristics for scientific purposes, whereas a flower painting is created only to be admired.

Adapted from excerpts from 'Drawing Aussie Flora'. The complete document can be found at this link.

Resources

Fun with Flowers - Digital @ The Arts Unit Creative Classes

Botany of Kamay - history, science and geography learning resource

Rosa Fiveash, Botanical Illustrator - South Australian pioneer

Drawing Aussie Flora
Top Draw

Background Teacher Information: History

- 18th century botanist Carl von Linnaeus created a more accurate way to name and classify plants into groups. They could accurately draw species and print copies to be shared with colleagues for identification.
- Botanist Joseph Banks brought naturalists and botanical artists to identify and draw images of their findings on the ship Endeavour captained by James Cook. This voyage was to the 'great south land' which was later named Australia. Many plants were unknown to western science.hey came to Botany Bay in NSW was so named because of the
- Botanical drawing is preferred to photography because a plant's stages of development can be accurately depicted in one page.

Botanical and Non-Botanical Art

Lesson 08

Observing a plant specimen

If you have some endemic species growing nearby, collect some specimens for students to dissect.

Observing a plant specimen

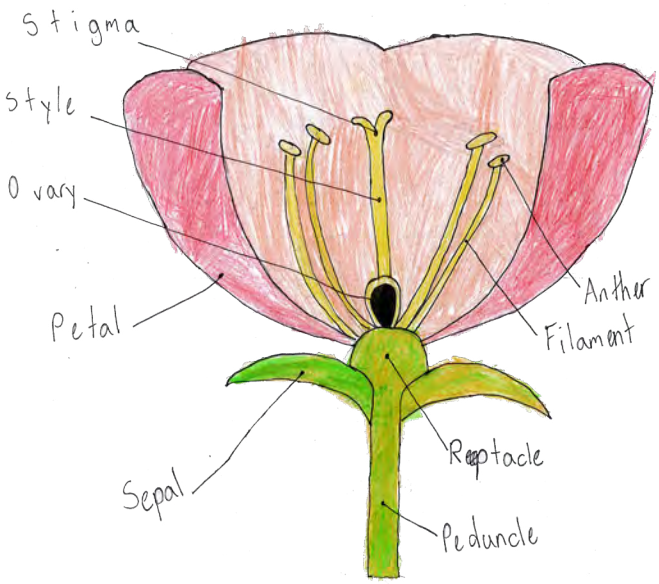
1. Pick a flower from the garden with flowers and leaves. Do not take specimens from the bush
2. Use a magnifying glass to observe it slowly. Observe the petals colour, number and shape the leaf shape and arrangements, the stem, the back, the tip.
3. Pull it apart carefully, leaf-by-leaf, petal-by-petal. Look at the shapes of the leaves, their veins and margins. Take the flower apart and count the sepals and petals. Look at the flower parts and a leaf and a piece of stem through a magnifying glass or a microscope if you have one. Can you see the stamens and ovary with style and stigma?

Botanical Drawing Materials

- a sharp 'B' pencil
- an eraser
- A4 paper
- your flower
- a magnifying glass

Drawing tips for teachers and beginners

1. Place your flower on blank paper near your drawing paper.
2. Choose a point to start drawing.
3. Focus on one area then draw with light strokes, but when colour darkens use a stronger line.
4. Notice the shapes. Note the edges and joins and how the petals overlap. Work slowly as your image grows.
5. Think ahead to see where you are going.
6. If it doesn't look right, use your eraser to change it.
7. This may be a new skill you are learning which takes time to master



Site Analysis

9

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Site Analysis

Lesson 09

Learning Intentions

Students will hone their observational skills to identify features unique to a specific site and how best to work within those limits. They will know how to record their observations and calculate perimeter and area.

Success Criteria

- I can observe and record aspects of a specific site such as aspect, soil type, drainage, prevailing wind, slope and water source'.
- I know how to calculate perimeter and area of the site.

Teacher Notes

This may take up to 2 lessons.

Background Teacher Information

What is Site Analysis and why do we do it?
Knowing your proposed planting site is the first step in creating your landscape design.

Once you have recorded the features such as location, aspect, soil type, topography and climate you can then design to maximize the opportunities whilst anticipating potential issues.

Lesson Sequence

1. Explain that it is important to take several factors into consideration when choosing an appropriate site for a garden.
2. Go through the Landscape **Site Analysis Checklist** below (the following 2 page) and open a discussion with students as to why each element might be important to consider when choosing a location for a native Food and Fibre garden.
3. As a class, or in groups, carry out the site analysis.
4. After this, students can write their analysis and can reflect on the suitability of the site (or compare potential sites).

Worksheet: Landscape Site Analysis Checklist

Lesson 09

Sheet 1

CLIMATE AND MICROCLIMATE CONSIDERATIONS	YES/NO	NOTE
What is the length, width and square meterage of this site?		
Is the site north facing?		
Is the site in full sun? If so, for how long?		
Are there any existing plants or structures that block sunlight?		
Is there a prevailing wind that will keep the site dry?		
What are the temperature extremes in Adelaide?		
Is the site exposed to salt?		
If so, what is the level of exposure to salt? Does the area receive direct spray or is it protected?		

SOIL AND DRAINAGE CONSIDERATIONS	YES/NO	NOTE
What is the soil texture at the planting site? Sand, silt, clay, or a mixture?		
Is the soil texture consistent? If soil has been added it may not be consistent.		
Has the soil pH been analysed?		
Is there any construction debris in the soil? If so, remove it.		
Perform a soil drainage test. Does the drainage need improvement?		
Is it possible to select plants that survive with slow soil drainage?		
Are there steep slopes that require retention walls or terracing?		
Does the area serve as a collection area for rain runoff?		

Worksheet: Landscape Site Analysis Checklist

Lesson 09

Sheet 2

SOIL AND DRAINAGE CONSIDERATIONS	YES/NO	NOTE
Will existing plants limit new plant growth?		
Is there access to a water source for watering during the important plant establishment period?		
Will you irrigate the site? If so, what type of irrigation has the best water efficiency?		

DESIGN CONSIDERATIONS	YES/NO	NOTE
Does the planting area need screening for wind, sound, sun or privacy?		
Does wildlife currently use the area and how will they be affected by the new landscape? The four essential features to help attract and maintain wildlife on your property are food, fresh water, cover and space.		

EXISTING PLANT MATERIAL CONSIDERATIONS	YES/NO	NOTE
Are there invasive exotic plants that need to be removed prior to planting?		
Does the planting area already contain too many plants?		
Are there any plants that are native to Karrandongga that should be protected and preserved?		
How much time should be spent on maintaining this site?		

Landscape Design Basics

10

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Landscape Design Basics

Lesson 10

Learning Intentions

Students will put their observational and planning skills to create their landscape design. Their understanding of grid representation will be applied.

Success Criteria

- I know how to use the grid coordinate system
- I can position relevant species inline with aspect and spatial requirements
- I can adapt my design to suit a specific purpose

Teacher Notes

This may take up to 2 lessons.
On completion of your site analysis begin work on your landscape plan.

Teacher Background Information

A landscape design provides a detailed visual representation before committing to construction. Set priorities and implement them in stages, taking one step at a time.

Mud Map

A simplified diagram or sketch of a route, containing only essential features.

1. Create a map of your site with graph paper eg: 1 square cm = 1 square m.
2. Number and letter your axes
3. Do you want a path running through your planting?
4. Design for an attractive arrangement of foreground, midground and background views. Consider where you want to plant your selected species by considering where the shortest species need to be planted on the most northerly side, followed by medium and later taller species.
5. Consider the dimensions of each species when fully grown and how much space you need to allow between plantings.
6. Also consider the shape and colour of foliage and flowers of each species and what colours go best together, checking that they flower at the same time of the year.

Steps to successful planting

KAURNA FOOD&FIBRE

Planting out

Lesson 11

Once you have finalised your landscape design, it's time to plant.

Learning Intentions

Students will be able to confidently prepare the site, plant out and water their plants.

Success Criteria

- I know how to follow planting instructions

Resources

Preparing your native garden site
St Joseph's School Hindmarsh

6 steps to planting a native plant
Green Adelaide

Student HASS and Writing Task (and Unit Assessment)

Write a persuasive or information text about one of the following:

1. Growing and eating native edible plants endemic to the area is more sustainable.
2. Planting native edible plants is vital for habitat redevelopment.
3. The detrimental impact of farming non-native crops on our soils.
4. The detrimental impact of farming non-native crops on our natural water systems.
5. The detrimental impact of farming non-native crops on native habitats and species.
6. The importance of learning how to successfully germinate native plants.

Steps to successful planting

Lesson 11

Steps to successful planting

In Adelaide the ideal times to plant native species are autumn, winter or early spring. Natural rainfall during these times promotes plant establishment. Correct planting is the first step to ensure plant growth.

Watch this video where the students of St Joseph's School Hindmarsh show you how to prepare your native garden

1. **Soak the plant's roots.**
   Soak your plant in its pot in a bucket of water. This makes it easier to remove from the pot while also hydrating the roots.
   Place the whole pot in water but be careful not to submerge the whole plant. When the air bubbles have stopped remove your plant from the water.

   Suggestion: Add a small amount of seaweed extract to the water to stimulate root growth. You can buy this at your local plant nursery.

2. **Mulch removal**
   Scrape back any mulch from the site to prevent it getting in the hole you will dig.

3. **Dig hole**
   The hole for your plant should be twice as deep and wide as the plant container. Put the soil you dig out in a pile next to your hole as you will need this to fill it back in again.

   If the soil is hard or has a high clay content, you'll need to avoid creating a hole with smooth sides that look almost polished – this is called 'glazing'. A hole like this will restrict the root's growth in the same way a pot does, causing the plant to become root bound thus preventing successful growth.

   Smooth edges can be avoided by using a garden fork to loosen the soil around the walls and base of the hole. Basically, you want the hole to look a bit rough.

   If the soil is really hard and compact, you can fill the hole with water and allow it to soak into the ground before breaking it up with a garden fork.

Steps to successful planting

Lesson 11

The easiest way to remove your plant from the container

4. **'Tap, tap, tap.... peace sign..... tip, tip, tip'**
   Hold the hydrated plant with one hand and with the other hand use the flat of your trowel to briskly tap the top of your tube while ensuring the leaves are out of the way. Inertia will cause the plant to 'pop up'.

   Then make a peace sign and slip your index and middle fingers over the base of the plant.

   Then tip the plant upside down gently slide the plant out of the tube and into the prepared hole.

5. **Backfill soil**
   First, check how far up the stem the soil goes. Plant the seedling to the same level it was in the pot.

   Hold the seedling in place with one hand, while scooping the soil back into the hole, filling in under the plant and around the sides. It's best to leave a small dip around the plant – this will act as a water bowl to capture water and help keep the plant stay moist.

   When the hole is full, press down firmly but avoid over-compacting, as this will stop water soaking in.

6. **Water immediately**
   Always water new plants straight away. This will reduce the chance of the plant going into transplant shock. Newly planted seedlings need a good soaking – not just a light sprinkle. It takes a lot of water to reach the roots under the soil so we suggest using about half a bucket or half a watering can's worth. Deep watering reduces water evaporation and encourages the roots to become stronger, by growing deeper and looking for moisture.

Reference Library

KAURNA
FOOD&FIBRE

References

Lesson 02

Kaurna Environment: Plants, Animals, Seasons, Culture & History by James Tylor and Jack Kanya Buckskin

This is an excellent video as many of the Kaurna Miyurna names are provided along with extensive information about species discussed.

Suggestion: Fast track to James' and Jack's narration then show this video in 10 minute snippets as the information takes time to digest.

Before Colonisation: Murnong Daisies presented by Aunty Julie McHale

A good video explaining the abundance of this food stable and similar species native to our region.

Two Way Science. Central Australian Plant Identification

Optional: Use this video to compare and contrast species and their uses in each zone. Are there species growing in both locations?

Wild Food and Traditional Uses

This information sheet is a great starter as it names species and their used believed to be used by the Kaurna Miyurna.

Seed for Change Fact Sheets

This collection of over 90 Southern Lofty species may provide more detailed information about your selected species. They also contain propagation information such as pre-treatment and when to sow.

Blackwood Seeds

Download the catalogue and show students how to cross reference their selected species with this site's seed availability.

Botanic Gardens Plant Selector

This is fairly simple to use. Key in the botanical or common name of the selected species in the section directly below suburb or postcode. This website is useful to visually identify each species, ensure it is from the Southern Lofty area (SL) Botanical Region and record their dimensions & uses.

The Tree Project

Whilst this is a Victorian site many of their plants are also found in the Southern Lofty area. This site has more in depth info such as pre-treatment methods, germination time etc.

References

Lesson 03

Seed immersion in smoke water

Here is a youtube video showing how to make smoke water.

Seed for Change Fact Sheets

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Smoults Horticultural Supplies

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Lesson 04

Creating an Aboriginal Reed Necklace - Yenbena Marrinbidja

Lesson 05

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Grower Manual: A guide to propagating indigenous seedlings Tree Project

Helpful publication on how to grow healthy, happy seedlings.

Lesson 06

How to take native cuttings Gardening Australia

Local Plants Fact Sheet Seeds for Change

References

Lesson 07

Seed Dispersal by Ants Australian Museum

Lesson 08

Fun with Flowers Digital @ The Arts Unit Creative Classes

Botany of Kamay History, science and geography learning resource

Rosa Fiveash, Botanical Illustrator South Australian pioneer

Drawing Aussie Flora Top Draw

Lesson 11

Preparing your native garden site St Joseph's School Hindmarsh

6 steps to planting a native plant Green Adelaide

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