



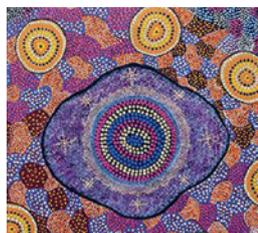
Jane Goodall's
roots&shoots

Living Landscapes:

*A journey through Australia's rich and
diverse Indigenous cultures*

VOLUME 1

Teacher Resources



Jane Goodall Institute
Australia



Jane Goodall's
Roots & Shoots



Aboriginal and Torres Strait Islander readers are advised that the following pages may contain images, voices and names of people who have died.

All images from Living with Landscapes: A journey through Australia's rich and diverse Indigenous Cultures Vol 1. See Image credits page 158 for details.

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The Jane Goodall Institute Australia and Petaurus Education Group acknowledge with deep respect the First Nations of this land we now call Australia.

We recognise their continuing connection to Country and acknowledge that they never ceded sovereignty. We thank them for caring for our living landscapes since time immemorial.

We acknowledge and respect the continuation of cultural, spiritual and educational practices. We pay our respects to Elders past and present and emerging and extend that respect to all First Nations people reading this book.

About the Roots & Shoots program

Congratulations for being a Roots & Shoots school!

Roots & Shoots is a global community action program founded by Dr. Jane Goodall in 1991. The program aims to inspire, empower and encourage young people all over the world.

It shows them how to follow their passions, take actions together and become the change our world needs. That way, we can all ensure a better future for people, animals and the environment.

About the resource box

The Roots & Shoots Resource Box is designed for use by teachers and students in primary schools, or by homeschoolers. As well as the four stunning books within, the Box offers several exciting learning opportunities to further foster optimism for our future:

WOODiWILD (woodiwild.org) enables schools to join a national tree planting program, while also raising funds for your own school needs.

One Earth Film Festival (oneearthfilmfestival.org) enables young story tellers to create thought provoking, transformative films to understand climate change, sustainability and the power of human involvement.

AIME and IMAGI-NATION UNIVERSITY offer mentoring to young changemakers focusing on creating a fairer world in school and beyond. Head to aimementoring.com/secret-school-site to learn more.

This teacher resource

This resource aims to more deeply engage teachers and students with the amazing and inspiring content of the 2021 Roots & Shoots Resource Box. Moving beyond simply reading and viewing the beautiful pages of these books, through these learning sequences it is hoped all can be inspired to take action towards a better future.

The Living Landscapes Volume 1 book is a compilation of primary resources and perspectives from First Nations peoples and in this way, is an important teacher professional learning resource. It supports teachers towards achieving **Australian Professional Standards for Teachers 2.4: Understand and respect Aboriginal and Torres Strait Islander people to promote reconciliation between Indigenous and non-Indigenous Australians.**

Teachers can choose to undertake part, or all, of these learning sequences, however it is recommended to follow the complete sequence in order to achieve the best outcomes.

Completing the activities in these Learning Sequences will enable students:

- to achieve outcomes in upper primary Geography and Science courses – [see Page 6](#) for full curriculum links
- to engage deeply with the content of the Living Landscapes book
- to think creatively and engage with alternative perspectives about their environment

These learning sequences apply the 5 E's instructional model and the 8 Ways of Learning – see pages [2](#) & [3](#) for a more complete summary of these pedagogical approaches.

All registered Roots & Shoots schools can access the full digital versions of all books in the Resource Box via the Roots & Shoots website.

Join Jane! [MAKE A DIFFERENCE.]

GET STARTED

TAKE ACTION.

- 1 sign up.**
Join hundreds of thousands of Roots & Shoots members making a difference around the globe.
CLICK TO SIGN UP.
- 2 Take action NOW**
Start making a difference right away. Click here to join your peers in a 1-CLICK CAMPAIGN
- 3 Gather your team**
 - friends
 - family
 - community members
 - classroomsCREATE YOUR FREE ACCOUNT
- 4 DESIGN a campaign**
Design a campaign that addresses issues in your community that matter most to you.
LEARN THE FORMULA

"EVERY INDIVIDUAL MAKES A DIFFERENCE."
– Dr. Jane Goodall

Pedagogical approaches applied in these resources

These learning sequences embed inquiry-based learning into a modified 5Es instructional model (Bybee, 1997), with the five phases: Engage, Explore, Explain, Elaborate and Evaluate.



5E's	Main ideas / skills
Engage	Identifying and defining Connect past with present Create interest
Explore	Researching and planning Encourage creative thinking Give common set of experiences Challenge own ideas
Explain	Apply new vocabulary
Elaborate	Producing and implementing Apply to new experiences
Evaluate	Testing and evaluating. Have you changed your thinking?

8 ways of learning Aboriginal pedagogy approach

We acknowledge the Traditional Owners of western New South Wales where this pedagogy was developed.

For the best understanding of this pedagogy, and its value in applying it here and in your teaching, head to <https://www.8ways.online/>. The following summary is from that website.

This is a pedagogy framework that allows teachers to include Aboriginal perspectives by using Aboriginal learning techniques.

This Aboriginal pedagogy framework is expressed as eight interconnected pedagogies involving narrative-driven learning, visualised learning processes, hands-on/reflective techniques, use of symbols/metaphors, land-based learning, indirect/synergistic logic, modelled/scaffolded genre mastery, and connectedness to community.

Throughout this resource you will see the symbols in the picture below. These indicate where these practises are incorporated into the learning sequences.

The meaning of each symbol is summarised simply below – for a more complete understanding head to the 8 ways website.

Story Sharing: Approaching learning through narrative.

Learning Maps: Explicitly mapping/visualising processes.

Non-verbal: Applying intra-personal and kinaesthetic skills to thinking and learning.

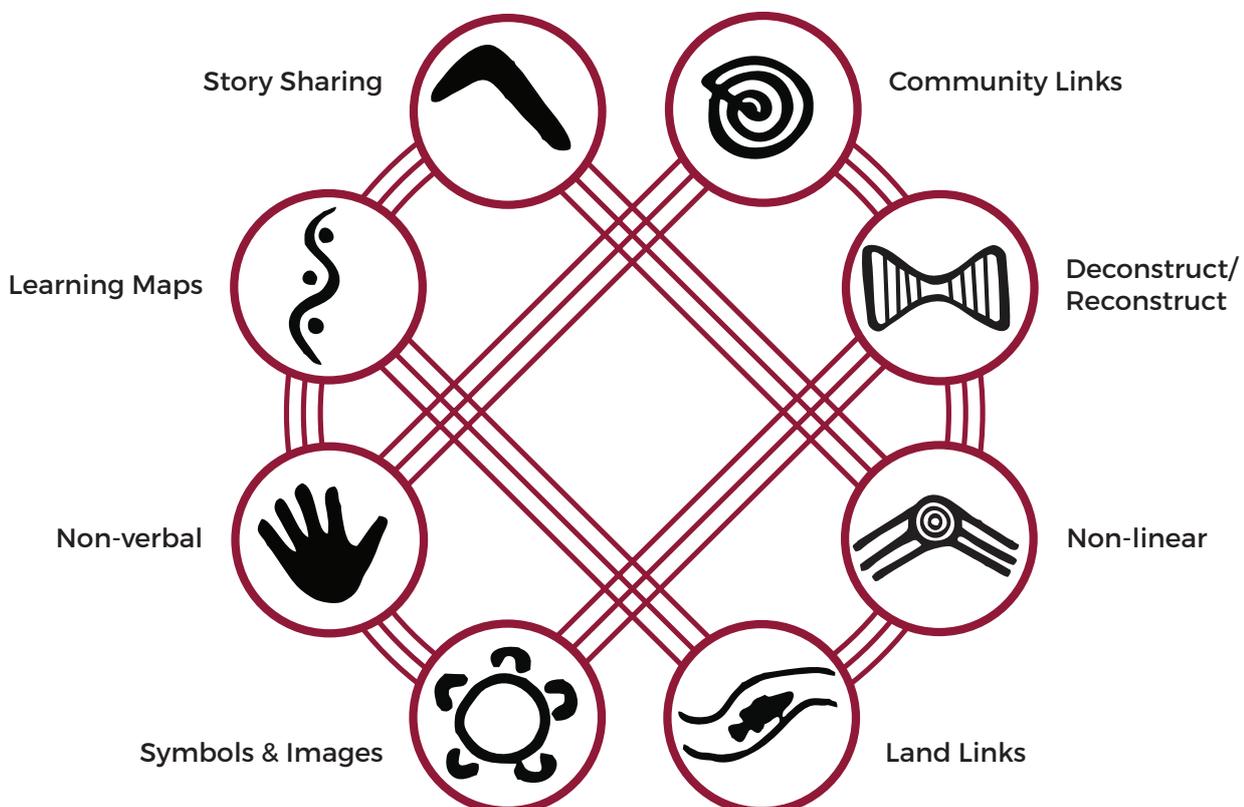
Symbols and Images: Using images and metaphors to understand concepts and content.

Land Links: Place-based learning, linking content to local land and place.

Non-linear: Producing innovations and understanding by thinking laterally or combining systems.

Deconstruct/Reconstruct: Modelling and scaffolding, working from wholes to parts (watch then do).

Community Links: Centring local viewpoints, applying learning for community benefit.



About Petaurus Education Group

*This Teacher Resource is written by
Petaurus Education Group.*

Petaurus Education Group Inc. is a not-for-profit organisation named after the threatened Squirrel Glider (*Petaurus norfolcensis*) that lives around Albury, NSW, in Wiradjuri Country. Petaurus was set up as an independent entity in 2015 to source funding for local environmental projects. Petaurus develops and delivers a range of natural resource management, sustainable agriculture and cultural education activities.

With hubs in Albury, Hay and Gol Gol in NSW, Petaurus has serviced schools across the entire Murray-Darling basin, spanning 1,059,000 km² or 14% of Australia's land area. Petaurus has also recently increased in remote learning capacity, directly engaging with thousands of students every year. Petaurus identifies, develops and delivers a range of learning and curriculum experiences, resources and initiatives for schools and community groups. Our goal is to help connect communities and individuals with natural resource management topics such as land, water, biodiversity, productive farming and sustainability, as well as support cultural awareness initiatives. Many Petaurus staff and board members have worked at local, state and federal government levels.

Our vision: A balanced, productive and resilient regional landscape with engaged communities.

Our mission: To encourage, support and connect our regional communities with the natural and cultural environment through the development and delivery of quality engagement, education and communication that promotes positive change.

Learn more about our work: www.petaurus.org.au



Petaurus
EDUCATION GROUP



Introduction to Living Landscapes Volume 1

Living Landscapes Volume 1 is a compilation of knowledge and perspectives freely contributed by the First Nation organisations you will meet in its pages, and it belongs to them.

Through these valuable contributions, readers can learn from primary sources of information; from the knowledge holders themselves.

The Jane Goodall Institute Australia and Petaurus Education Group have striven to ensure full, prior and informed consent in the inclusion of all text and images you can see in the book, guided by the Our Knowledge, Our Way guidelines*.

This first volume will take you on a journey towards understanding some of the work First Nations are doing to Care for Country, and why they are doing it.

There are countless more stories to tell from Australia's living landscapes, and we hope these can be shared in future volumes of this book.

We acknowledge that each chapter has a different voice and language, and that some language is less accessible for younger readers. In this way, we encourage educators to use this book as background information, as well as a resource for students. In the learning sequences that follow, teachers will be directed to the most useful sections of the book to develop their own background.

The Living Landscapes Volume 1 book would not have been possible without the generous contribution of the following First Nation groups, whose stories and words appear in its pages.



* www.csiro.au/en/research/indigenous-science/indigenous-knowledge/our-knowledge-our-way – teacher resource

Useful links and professional learning

Roots & Shoots

If you've an idea to benefit animals, people and environment – no matter how big or small – we want to help you. Across Australia, our Roots & Shoots local leaders are ready to guide our members in planning, creating and realising your activity. Whether you're an individual, youth group or school we provide the skills, tools and mentoring to make your activity a success.

The Learn More sections of the living landscape book

Additional resources related to the First Nations group or topic are compiled here, as well as social media platforms through which you can remain up to date with events like ranger group formation, seasonal burning, and results of biodiversity surveys and monitoring.

Reconciliation Australia

Narragunnawali supports schools and early learning services to foster knowledge and pride in Aboriginal and Torres Strait Islander histories, cultures and contributions. Create a Reconciliation Action Plan (RAP) for your school or Centre. Tap into professional learning. Bring more awesome curriculum resources into your teaching.

Australian Curriculum

These Learning Sequences are designed to be used by teachers and students across Australia and are therefore linked to Australian Curriculum outcomes. For latest developments and additional resources to support the teaching of [Australian Curriculum](#), head to that website.

Be You Cultural Actions Catalogue

Although developed as a place-based resource for primary and secondary school educators in the Kimberley and Pilbara, the Be You Cultural Actions Catalogue can be adapted and applied in any learning community, anywhere in Australia. This includes early learning services. Consider the resource a starting point to think about how your learning community can be more inclusive, culturally responsive and incorporate Aboriginal and Torres Strait Islander cultures and history.



Summary of learning sequences

Learning Sequence	Learning intentions	Main ACARA curriculum links	Main learning experiences	Page
<p>Life Giving Waterways</p> <p>Estimated 8 lessons</p> <p>General Capabilities:</p> <p>Literacy</p> <p>Critical & creative thinking</p>	<p>Describe the characteristics of a waterway environment, including the interconnections between the environment and people</p> <p>Interpret visual representations and maps of waterways</p> <p>Present features of a waterway environment using maps or models</p>	<p><i>Year 2 HASS:</i> The idea that places are parts of the Earth's surface that have been named by people, and how places can be defined at a variety of scales (ACHASSK048)</p> <p><i>Year 2 HASS:</i> Reflect on learning to propose how to care for places and sites that are important or significant (ACHASSI042)</p> <p><i>Year 4 Geography:</i> The importance of environments, including natural vegetation, to animals and people (ACHASSK088)</p> <p><i>Year 5 Geography:</i> The environmental and human influences on the location and characteristics of a place and the management of spaces within them (ACHASSK113)</p> <p><i>Year 5: HASS Skills:</i> Locate and collect relevant information and data from primary sources and secondary sources (ACHASSI095)</p> <p><i>Year 5: HASS Skills:</i> Organise and represent data in a range of formats including tables, graphs and large- and small-scale maps, using discipline-appropriate conventions (ACHASSI096)</p> <p><i>Year 4 Science:</i> Living things depend on each other and the environment to survive (ACSSU073)</p>	<p>Field trip to a waterway</p> <p>Interpreting a variety of maps</p> <p>Listening to stories from Custodians</p> <p>Making a map or building a model</p>	<p>9</p>
<p>Counting on Country</p> <p>Estimated 7 lessons</p>	<p>Describe how changing physical conditions in the environment affect the growth and survival of living things</p>	<p><i>Year 4 HASS:</i> Record, sort and represent data (ACHASSI0175)</p> <p><i>Year 4 Geography:</i> The importance of environments, including natural vegetation, to animals and people (ACHASSK088)</p> <p><i>Year 2:</i> People use science in their daily lives, including when caring for their environment and living things (ACSHE035)</p> <p><i>Year 2:</i> Science involves observing, asking questions about, and describing changes in, objects and events (ACSHE034)</p> <p><i>Year 3 Science:</i> Knowledge helps people to understand the effect of their actions (ACSHE051)</p> <p><i>Year 4 Science:</i> Living things depend on each other and the environment to survive (ACSSU073)</p> <p><i>Year 6 Science:</i> The growth and survival of living things are affected by physical conditions of their environment (ACSSU094)</p>	<p>Mini biodiversity survey</p> <p>Using First Nations languages</p> <p>Create a plant profile</p>	<p>15</p>



Learning Sequence	Learning intentions	Main ACARA curriculum links	Main learning experiences	Page
<p>Useful Plants</p> <p>Estimated 10 lessons</p>	<p>Investigate food technologies and techniques used to produce healthy food – follow a recipe</p> <p>Design, plan and produce a product, system or environment to support the growth of plant and or animal that could be used in a healthy meal</p>	<p><i>Year 4 Geography:</i> The importance of environments, including natural vegetation, to animals and people (ACHASSK088)</p> <p><i>Year 2 Science:</i> Earth’s resources are used in a variety of ways (ACSSU032)</p> <p><i>Year 4 Science:</i> Living things depend on each other and the environment to survive (ACSSU073)</p>	<p>Field trip to a food garden</p> <p>Class display of local plant resources</p> <p>Working with recipes</p> <p>Plan a food garden</p>	<p>22</p>
<p>Caring for Country</p> <p>Estimated 8 lessons</p>	<p>Investigate the ways people value environments</p>	<p><i>Year 2 Geography:</i> The ways in which Aboriginal and Torres Strait Islander Peoples maintain special connections to particular Country/Place (ACHASSK049)</p> <p><i>Year 3 Geography:</i> The importance of Country/Place to Aboriginal and/or Torres Strait Islander Peoples who belong to a local area (ACHASSK062)</p> <p><i>Year 4 Geography:</i> The custodial responsibility Aboriginal and Torres Strait Islander Peoples have for Country/Place, and how this influences views about sustainability (ACHASSK089)</p> <p><i>Year 4 Science:</i> Science knowledge helps people to understand the effect of their actions (ACSHE062)</p>	<p>Image and film interpretation</p> <p>Create a “One Pager”</p> <p>Guest speaker</p>	<p>28</p>
<p>Seasons At My Place</p> <p>Estimated 10 lessons plus</p>	<p>Examines seasonal calendars</p> <p>Describes the features and characteristics of places and environments, including the Country on which the learning is happening</p> <p>Observes and records features of the environment</p> <p>Describes the ways people, places and environments interact and are interconnected</p>	<p><i>Year 3 Geography:</i> Locate and collect information and data from different sources, including observations (ACHASSI053)</p> <p><i>Year 3 Geography:</i> Similarities and differences between the climates of different places (ACHASSK068)</p> <p><i>Year 4 Geography:</i> The importance of environments, including natural vegetation, to animals and people (ACHASSK088)</p> <p><i>Year 2 Science:</i> People use science in their daily lives, including when caring for their environment and living things (ACSHE035)</p> <p><i>Year 4 Science:</i> Living things depend on each other and the environment to survive (ACSSU073)</p>	<p>Nature Journaling: observation and recording</p> <p>Interpreting seasonal calendars</p>	<p>34</p>

Learning sequence:

Life Giving Waterways

Overarching inquiry questions:

How does the environment support the lives of people and other living things?

Learning intentions:

Describe the characteristics of a waterway environment, including the interconnections between the environment and people.

Interpret visual representations and maps of waterways.

Present features of a waterway environment using maps or models.

Success criteria:

All must recognise and describe (diverse) human and physical features of a waterway environment; interpret some features of maps and represent some data

Most should describe interconnections between people, places and the waterway environment including how people use it for livelihood recreation and wellbeing, cultural connections and by flora and fauna.

Some could describe in detail well-reasoned interconnections between people, places and the waterway environment including how people use it for livelihood, recreation and wellbeing, cultural connections and as habitat for flora and fauna.

KEY VOCABULARY

Waterway

BOLTS

Landform

Landscape

Natural vegetation

Field sketch

Acknowledgment of
Country

Characteristics

Custodians



Main outcomes

- Geography:**
- Year 2 HASS:** The idea that places are parts of the Earth's surface that have been named by people, and how places can be defined at a variety of scales (ACHASSK048)
 - Year 2 HASS:** Reflect on learning to propose how to care for places and sites that are important or significant (ACHASS1042)
 - Year 4:** The importance of environments, including natural vegetation, to animals and people (ACHASSK088)
 - Year 5:** The environmental and human influences on the location and characteristics of a place and the management of spaces within them (ACHASSK113)
 - Year 5:** HASS Skills - Locate and collect relevant information and data from primary sources and secondary sources (ACHASSI095)
 - Year 5:** HASS Skills - Organise and represent data in a range of formats including tables, graphs and large- and small-scale maps, using discipline-appropriate conventions (ACHASSI096)
- Science:**
- Year 4 Science:** Living things depend on each other and the environment to survive (ACSSU073)

SPECIAL NOTES

Icons like this:

-  indicate opportunity for differentiation, including up and down learning stages
-  indicate how this relates to the 8 ways of learning pedagogy
-  indicate a page number in the Living Landscapes book

TEACHER NOTES

Refer to the Living Landscapes book for all of the following sources.

Improve your understanding of key terms by reviewing the Glossary (Pg. 144 - 154).

Review the following chapters of the book, including the Learn More sections:

Darug Custodian Aboriginal Corporation (Pg. 48) – stories and culture of special sites along Dyarubbin (the Hawkesbury River NSW).

Yarkuwa Indigenous Knowledge Centre (Pg. 62) – restoring wetlands and knowing animals in local language.

Mirning Council of Elders (Pg. 72) - the Mirning story of Jeedara that talks about the creation of Mirning Country (South Australia) and the importance of whales.

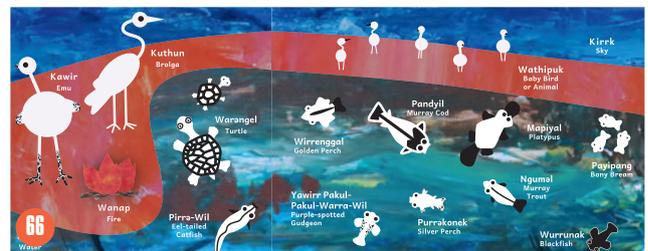
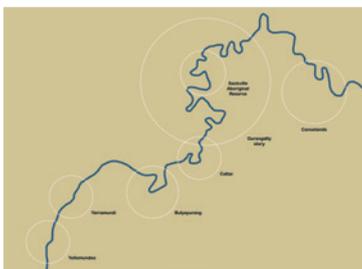
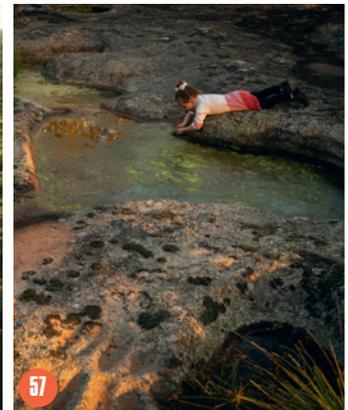
Martuwarra Fitzroy River Council (Pg. 106) – custodians, young and old, speak about their connections with the river in the Kimberley region, WA

Dhimurru Aboriginal Corporation (Arnhem Land NT) (Pg. 130) – a Learning on Country experience is centred around an ancient fish trap for many reasons.

Learning sequence: Life Giving Waterways

Lesson 1

Content	Teaching learning and assessment	Resources
<p>ENGAGE</p> <p>General capabilities:</p> <p>Literacy</p> <p>Critical & Creative Thinking</p>	<p>What is a life-giving waterway anyway?</p> <p>Students brainstorm Who, What, When, Where, Why and How questions about these images. Use a question matrix to guide if necessary.</p> <p>Find these images in the Living Landscapes book. Can you answer any of your questions by reading and looking at the book?</p>	<p>Teacher resources:</p> <p>Relevant chapters of the Living Landscape book that surround these images – see Teacher Notes section for page references</p> <p>A question matrix to support you in guiding discussion (optional, <i>not provided</i>)</p> <p>Lesson resources:</p> <p>Digital copies of the Living Landscapes book</p>



Learning sequence: Life Giving Waterways

Lesson 2 & 3

Content	Teaching learning and assessment	Resources
<p>EXPLORE</p> <p>General capabilities:</p> <p>Personal & social capability</p> <p>Intercultural understanding</p>	<p>What life does my local waterway support?</p> <p>Field trip to a waterway</p> <p>Walk/bus to your local waterway, asking permission from and inviting your local First Nations group where you can. Meet your local waterway experts or managers - these could be Landcare groups, council officers, state government people, or the land owner. Be sure to do an Acknowledgment of Country (see Living Landscapes glossary).</p> <p>Explore the waterway area by:</p> <ul style="list-style-type: none"> • Listening, observing and feeling the waterway, for example, close your eyes and open your ears to all you can hear. Ask: What do you notice? What can you see and hear? • Finding a native plant such as a tree or shrub. Describe how it feels and how it looks. Take a picture or draw it. • Floating a leaf and discover the direction of flow of the water. What other signs show where the water flows? • Finding signs of animals (scats, scratches, feathers, webs, tracks, nests) using the waterway, making sure to think big and small, down in water and up into trees. Take photos and brainstorm a list. • Noting what signs there are that people are connected to this waterway? Look for seats, paths, rubbish, people, signs. These are "human features". • Stopping regularly to allow thinking and question time. Record all questions asked by students. • Allocating students the following roles: Photographer of Human Features, Photographer of Plants and Animals, Landscape Drawers, Questions Keeper and Time Keeper <p>Fieldtrip class story map:</p> <p>On return to school, create a large class story map of the waterway that includes photos, symbols, drawings, words, and sentences including questions. This is a visual recording of all that was learnt in the field trip.</p> <p>What can I learn from stories?</p> <p>Connect with your local Aboriginal Land Council or other First Nations organisation to ask about sharing stories of your local area.</p> <p>Read or listen to stories from First Nations Custodians of life-giving waterways in these chapters of Living Landscape:</p> <ul style="list-style-type: none"> - Darug Custodian Aboriginal Corporation – Custodians talk about putting together an exhibition on their river. There are quotes from them about each location on the river. Follow the Learn More links for radio interviews. - Mirning Council of Elders – Explain what it means to be custodians of Country. Senior Elder and Whale Songman tells a Dreaming story. Follow the Learn More links for videos. - Martuwarra Fitzroy River Council – Several custodians of the river explain their connections to it. Follow the Learn More links for videos. - Dhimurru Aboriginal Corporation – Explain why the local fish trap is an important location, particularly for learning and teaching. 	<p>Teacher resources:</p> <p>Living Landscapes glossary</p> <p>Lesson resources:</p> <p>Contact with a local waterway expert or manager</p> <p>Clipboards and sketching equipment</p> <p>Cameras</p> <p>Local plant and animal ID guides</p> <p>Large paper for the class story map</p>

Learning sequence: Life Giving Waterways

Lesson 4 & 5

Content	Teaching learning and assessment	Resources
<p>EXPLAIN</p> <p>General capabilities:</p> <p>Literacy</p> <p>Numeracy</p>	<p>What more can I learn from maps?</p> <p>Find and interpret maps (more than one is best) of local waterways and surrounding areas. Consider Google Maps, Google Earth, council maps, street directories, maps of national parks and reserves. Your local visitor information centre map be helpful.</p> <p>Build vocabulary (use a word wall if it suits) as you explore the following - you can do this as a class or allocate small groups to complete each point and report back:</p> <ul style="list-style-type: none"> • Where is the waterway located in relation to the school? E.g. Include directions, distance, route via roads • How are the waterways connected? E.g. Follow flows, topography and shape of the land • Where is the vegetation and does this change as you travel along the waterway? How is this presented by symbols and colours used on the map? • Does the map show any signs of animals using the waterway? E.g. Fish cleaning stations, animal names for features. Consider why this is not likely (animals can be transient or not considered as important as human features). • Where are the human features like roads, buildings, bridges, dams? Consider why they are located where they are • What features have names shown on the map? Notice how they are written on the map: language used, size of text, direction of text, colour and bold text • How much detail can you see on the maps when you compare one map to another? Discuss scale 	<p>Lesson resources:</p> <p>Multiple maps showing one or more local waterways</p>



Learning sequence: Life Giving Waterways

Lesson 6 & 7

Content	Teaching learning and assessment	Resources
<p>ELABORATE</p> <p>General capabilities:</p> <p>Literacy</p> <p>Critical & creative thinking</p>	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>How can a map, artwork or model show the character of a life-giving waterway?</p> <p>My Own Life-giving Waterway - draft version</p> <p>Make a map, artwork or go outside and create a model in a sandpit or the like, of an imagined waterway and surrounding areas. Imagine you and your community are using it.</p> <p>Include the following:</p> <ul style="list-style-type: none"> • Human features like tracks and roads, bridges, houses, shops, areas for play and recreation • Natural features like waterfalls, shallow areas, deep areas, types of vegetation, kinds of animals that are there • Make sure you give names to places (explain why you chose those names) and add BOLTS <p>Consider the following question starters in relation to each feature:</p> <ul style="list-style-type: none"> • Why is that located there? – E.g., Bridges and roads connected, housing near beautiful areas • Who is that useful to? – E.g., Individuals or whole community, needs of children, Elders, teenagers, families, passive users and active users • What is missing? – E.g. Is the access suitable to Elders or people with disabilities? • Why have you named it that? – E.g., language used • What is the impact of that feature on wildlife? – E.g. What is the result of more people using recreation areas or more housing developments on biodiversity (plants and animals)? • What time of year and day is this place at its best? • What might happen in the future? – E.g., Consider population growth, natural disasters, demand for more housing, more cultural knowledge shared • How can the place be managed and cared for to make sure the future is as good as the present? – E.g., Consider rules, zones, signage </div> </div>	<p>Lesson resources:</p> <p>Images used in the ENGAGE section can be used to as examples to scaffold students</p> <p>Large paper for maps and artworks OR large sand area</p> <p>Cardboard to use as signs in models</p> <p>Copy of BOLTS (optional, <i>not provided</i>)</p>

Learning sequence: Life Giving Waterways

Lesson 8

Content	Teaching learning and assessment
<p>EVALUATE</p> <p>General capabilities:</p> <p>Personal & social capability</p> <p>Critical & creative thinking</p>	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>How does my map / artwork / model show my learning?</p> <p>My Own Life-giving Waterway - final version</p> <p>Students act as tour guides to show their place to others who ask questions about why features are located where they are and give feedback about the place</p> <p>Students can then alter their map or model based on these questions and feedback, explaining the changes they make and why they made them</p> <p>Please share your maps, artworks and photographs of your models with us! Email the Rootsand Shoots team at rootsandshoots@janegoodall.org.au</p> </div> </div>

Learning sequence:

Counting On Country

Overarching inquiry question:

How can we improve a local environment to encourage living things to thrive?

Learning intentions:

Describe how changing physical conditions in the environment affect the growth and survival of living things.

Understand that scientific and technological knowledge is used to solve problems and inform personal and community decisions.

Success criteria:

All must observe and collect information about a variety of living things and make observations about their interdependence.

Most should describe the physical conditions that affect the growth and survival of these living things.

Some could describe how changes in the physical conditions of the environment, including the actions of people to care for the environment, can affect the number of living things present within it.

Main Outcomes

Science:

Year 2: Science involves observing, asking questions about, and describing changes in, objects and events (ACSHE034)

Year 2: People use science in their daily lives, including when caring for their environment and living things (ACSHE035)

Year 3: Science knowledge helps people to understand the effect of their actions (ACSHE051)

Year 4: Living things depend on each other and the environment to survive (ACSSU073)

Year 6: The growth and survival of living things are affected by physical conditions of their environment (ACSSU094)

Geography:

Year 2 HASS: Reflect on learning to propose how to care for places and sites that are important or significant (ACHASS1042)

Year 4: Locate and collect information and data from different sources, including observations (ACHASSI053)

Year 4 HASS: Record, sort and represent data (ACHASSI0175)

Year 4 Geography: The importance of environments, including natural vegetation, to animals and people (ACHASSK088)

KEY VOCABULARY

Habitat

Threats

Diet

Species profile

Biodiversity

Sustainability

Predators

SPECIAL NOTES

Icons like this:

 indicate opportunity for differentiation, including up and down learning stages

 indicate how this relates to the 8 ways of learning pedagogy

 indicate a page number in the Living Landscapes book

TEACHER NOTES

Refer to the Living Landscapes book for all of the following sources.

Understand the importance of using local First Nations language (part of cultural knowledge) when working on Country – from Masig (Pg. 14-16); from Darug (Pg. 50); from Yarkuwa (Pg. 65-168)

Research the various activities undertaken by Ranger groups and others Caring for Country, particularly Giringun Rangers (Pg. 28-30); Banbai Ranger (Pg. 34-47); Yarkuwa Indigenou Knowledge Centre (Pg. 64-71); Kiwirrkurra Rangers (Pg. 94-105); Dhimurru Aboriginal Corporation (Pg. 130-141);

Seek information about your local bird and insect species, and local threatened species. Understand their dependence on flora for habitat and diet. Check your library for field guides. Reach out to local experts – see other suggested sources in the activities below.

Learning sequence: Counting On Country

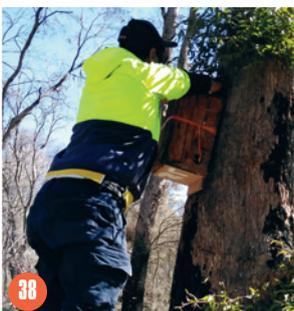
Lesson 1

Content	Teaching learning and assessment	Resources
<p>ENGAGE</p> <p>General capabilities:</p> <p>Literacy</p> <p>Critical & Creative Thinking</p>	<p>What does counting have to do with sustainability and managing resources?</p> <p>Take a good look at the images and text extracts below from Living Landscapes.</p> <p>What counting could be done here?</p> <p>What might it have to do with sustainability and managing natural resources?</p>	<p>Teacher resources:</p> <p>Review each photo in context in the Living Landscapes book</p> <p>Lessons resources:</p> <p>Digital image extracts from the Living Landscapes book</p>

66 "We plant native vegetation to provide a better habitat for native fish and have reintroduced threatened species like the Yawirr Pakul-Pakul-Warra-Wil (purple spotted gudgeon) and Pirra-Wil (eel-tailed catfish).

The wetlands are now home to countless birds, fish, amphibians and other native species.

We know them in their Wamba Wamba / Wemba Wemba name and their English name."



69 Warangel (Murray River Turtle)

Emydura macquarii

The Warangel lives in the Koley River system. They are a threatened species and Yarkuwa Indigenous Knowledge Centre is learning more about where they live so that we can help protect them from predators like foxes. We measure them and track where they move in and out of wetlands throughout the year.

Learning sequence: Counting On Country

Lesson 2 & 3+

Content	Teaching learning and assessment	Resources
<p>EXPLORE</p> <p>General capabilities:</p> <p>Literacy</p> <p>Numeracy</p> <p>Intercultural understanding</p>	<p>How can I count living things on the Country where I am?</p> <p>Mini biodiversity survey</p> <p>Provide the Counting on Country template to your local First Nations group and invite a person who knows some language to help you complete it. Extend the invitation to local fauna experts – try Landcare, Field Naturalist societies.</p> <p>Use the Counting on Country template to complete a mini biodiversity survey focussing on birds and insects.</p> <p>Use all local language names that you can, and count in language if you can. Use the Wamba Wamba / Wemba Wemba counting guide from the Yarkuwa chapter of Living Landscapes (below and on Pg. 70-71) if you can't access your local language.</p> <p>If you have a week, complete a survey over multiple days.</p> <p>If you have a day, try completing a survey in the morning, and after lunch.</p> <p>Create a suitable graph showing the number of each species observed.</p>	<p>Teacher resources:</p> <p>Review online school biodiversity audit/survey tools to understand what sorts of plants and animals can be found (optional, <i>not provided</i>)</p> <p>Lessons resources:</p> <p>Counting on Country template (page 21)</p>

Counting on Country

A way of measuring how healthy our local ecosystems are is to count the animals and plants. When we are working on Country, we count in our local language, Wamba Wamba / Wemba Wemba. Our counting is based on our fingers and hands.

70

1		one - kepin pronounced keh-pin	1		kepin one	6		kepin manye pa kepin one hand and one
2		two - pulety pronounced puul-eh-tcha	2		pulety two	7		kepin manye pulety one hand and two
5		five - manye pronounced mahn-yeh	3		pulety pa kepin two and one	8		kepin manye pulety pa kepin one hand and two and one
			4		pulety pulety two and two	9		kepin manye pulety pulety one hand and two and two
			5		manye five - a whole hand	10		pulety manye two hands

Learning sequence: Counting On Country

Lesson 4 & 5

Content	Teaching learning and assessment	Resources
<p>EXPLAIN</p> <p>General capabilities:</p> <p>Literacy</p> <p>ICT</p>	<p>What conditions do (insert my choice of living thing) need to survive?</p> <p>Different species need different things to survive (habitat and diet), and these are plentiful at different times and in different places.</p> <p>Example: Particular bird species require different shelters that may include hollows, shrubs to hide in, tall trees or wetlands and a diet that may specifically or partially be of nectar, seeds, insects, flowering plants or carrion.</p> <p> Local species profile:</p> <p>Research the diet and habitat needs of your choice of species, and include its local language name.</p> <p> Using the various species profiles from Living Landscapes chapters (see Pg. 9), or a template that suits you, present a summary of the diet and habitat needs of your chosen species. This works well if students work in pairs, and each pair does a different species. You could choose:</p> <ul style="list-style-type: none"> • Any of the species you counted in your biodiversity survey • Other species in your area you would like to attract to your school <p>Use available resources, including:</p> <ul style="list-style-type: none"> • Relevant pages of your local animal field guides • Local experts (try your Aboriginal Land Council or Landcare coordinator) • The index of Living Landscapes and other Resource Box books • Searching for your species using the Atlas of Living Australia • Apps and information for specific animal groups such as birds E.g. BirdLife Australia <p>Threatened species profile:</p> <p>Find a threatened species in your local area, or one close by.</p> <p>As above, research diet, habitat needs and local language name AND why the species is threatened.</p> <p>Use the WoodiWild website to see which threatened species are being helped through tree plantings on farmland in NSW.</p>	<p>Teacher resources:</p> <p>Various species profiles from Living Landscapes chapters (see Pg. 9)</p> <p>Lessons resources:</p> <p>Species profile template that suits you</p> <p>Resources such as books, apps and websites</p>

Learning sequence: Counting On Country

Lesson 6

Content	Teaching learning and assessment	Resources
<p>ELABORATE</p> <p>General capabilities:</p> <p>Literacy</p> <p>Critical & creative thinking</p> <p>Ethical understanding</p>	<p>What could we do to make the number of species we count go up or down*?</p> <p>Species profile showcase:</p> <p>Display all the species profiles from the activities above.</p> <p>Why do some animals choose to live at your school? – E.g., Australasian crows may reside in your school because they are brave scavengers and like to perch in high branches.</p> <p>Why can't other animals live at your school? – predators, habitat needs, diet e.g. A Powerful Owl needs a tree hollow and small mammals to eat each night</p> <p>What would we need to do to attract more diversity? – E.g., Provide and protect habitat and diet that is suited to particular species and manage threats like predators.</p> <p>Consider inviting a local person working to manage threatened species into your classroom to talk about their work - this could be a Landcare expert. Show them this learning sequence and be open to paying them for their time.</p> <p>Discussion:</p> <p>What would you need to provide to attract the following species to live at your school? Read the species profiles in Living Landscapes to find out what resources they need to survive, and you will need to do some additional research too!</p> <ul style="list-style-type: none"> • Longfin eel (Pg. 60) • Mahogany glider (Pg. 28-32) • Spotted-tailed quoll (Pg. 45-47, 60) • The species shown in the photos used in ENGAGE – powerful owl, Tjalapa, Warengal • A threatened species of bird or other animal that lives where you are E.g. regents honeyeater, glossy black cockatoo <p>What are these people doing that might make the number of species go up or down?</p>	<p>Lessons resources:</p> <p>All species profiles created in previous activity</p> <p>Digital images from Living Landscapes book</p>
		
<p><i>Growing the right plants that are food or habitat for animals</i></p>	<p>WoodiWild</p> <p>Consider planting trees for wildlife, the environment and your school through WoodiWild. WOODiWILD has been created with the sole purpose of re-planting trees on farms across Australia to provide habitat for our threatened wildlife and to help address climate change. Every tree has its own map location and you can watch your forest grow!</p> <p>In addition, while fundraising to purchase trees for WoodiWild, a portion of the proceeds goes to your own school's fundraising needs.</p>	<p><i>Building and installing nest boxes as habitat for species who can't find hollows</i></p>

Learning sequence: Counting On Country

Lesson 7

Content	Teaching learning and assessment
<p>EVALUATE</p> <p>General capabilities:</p> <p>Critical & creative thinking</p>	<p>Complete the following sentences, using local language where possible:</p> <p>____ (insert number) _____ (insert species) can live in our school because we have _____ (insert habitat and diet resources provided in the school) _____.</p> <p>____ (insert number) _____ (insert species) can't live in our school because we don't have _____ (insert habitat and diet resources requirements) _____.</p> <p>Consider sharing your biodiversity surveys, videos of your counting on Country and your species profiles with us! Email the Roots & Shoots team via our website at rootsandshoots@janegoodall.org.au</p>



Learning sequence: Counting On Country Biodiversity survey

Location & Country:	Date: _____ Season (English / language): _____ / _____ Start time: _____ Finish time: _____	Your Name:
--------------------------------	---	------------

Species name	Photo or drawing of species	Tally of observations
English: <i>Willy wagtail</i> Language: <i>Djitty djitty</i>		Final number observed:

Learning sequence:

Useful Plants

Overarching inquiry questions:

How do humans use plants and animals?

How do we create food products from animals and plants?

Learning intentions:

Investigate useful plants to understand different ways in which humans use plants

Describe the growing conditions a plant needs to survive

Follow a recipe incorporating a local useful plant

Design and plan an environment to support the growth of a useful plant

Success criteria:

All must identify a variety of useful plants, identify some ways they are useful, and outline the basic environmental conditions required for them to grow

Most should explain why a variety of local plants are useful using recipes, clearly describe the environmental conditions required for them to grow

Some could plan an environment that will successfully support the production of a locally useful plant based on its usefulness in a recipe

Main outcomes

Science: **Year 2 Science:** Earth's resources are used in a variety of ways (ACSSU032)

Year 4 Science: Living things depend on each other and the environment to survive (ACSSU073)

Geography: **Year 4:** the importance of environments, including natural vegetation, to animals and people (ACHASSK088)

KEY VOCABULARY

Parts of a plant

Growing conditions

Seasons

Soil

SPECIAL NOTES

Icons like this:

 indicate opportunity for differentiation, including up and down learning stages

 indicate how this relates to the 8 ways of learning pedagogy

 indicate a page number in the Living Landscapes book

TEACHER NOTES

Refer to the Living Landscapes book for all of the following sources.

Please note this Learning Sequence requires access to TWO books in the Resource Box – Living Landscapes and What on Earth: The Amazing Plants You've Never Heard Of

Enliven your understanding of plant parts by reviewing the following sections from What on Earth:

Plant Parts (Pg. 16)

Fruits & Seeds (Pg. 42)

Use the Living Landscapes Vol 1 book to review the various cultural uses of plants, particularly the Ubar Tree illustration from Masig Country (Pg. 20-21) and seasonal calendars (Pg. 16-19, 40-45, 88-89)

Spend time researching if there is any cultural knowledge of plants recorded in your local area – these could be called “ethnobotanical guides”, “bush tucker” or “bush foods” guides

Connect with your local food plant specialists – try a community garden, Aboriginal Land Council or nursery. Showing them this learning sequence can help maximise their time and useful input. Reach out early, and discuss possible payment for their time

Learning sequence: Useful Plants

Lesson 1

Content	Teaching learning and assessment	Resources
<p>ENGAGE</p> <p>General capabilities:</p> <p>Literacy</p> <p>Numeracy</p>	<p>What is the most useful plant we have?</p> <p>Brainstorm all the species of plants we use in our lives – prompt with food, fibre, medicine, recreation, shelter</p> <p>Introduce the Ubar Tree illustration from Masig Country (below, Pg. 20-21 of Living Landscapes Vol 1), and interpret to count/tally how many ways the tree is used by people and animals</p> <p>Explore the Book: What on Earth: The Most Amazing Plants You've Never Heard Of!</p> <p>Check out some of these amazing food plants from What on Earth? The Most Amazing Plants You've Never Heard Of!</p> <p>– can you find them in the book?</p>	<p>Teacher resources:</p> <p>Following sections from What on Earth: The Most Amazing Plants You've Never Heard Of!</p> <p>Plant Parts (Pg. 16)</p> <p>Fruits & Seeds (Pg. 42)</p> <p>Vanilla (Pg. 89)</p>



The Ubar (Wongai) Tree
The Ubar (Wongai) tree is a culturally significant plant for Masig families and throughout the Torres Strait

ABUS (Young Green Fruit)
Sagerr Time

KOBEI (Red/ Orange Fruit)
Sagerr Time

GHEE (Black Fruit)
Naigai Time

KAUSA (Flowers)
Kuki or Early Sagerr Time

KAIGAI (Dried Fruit)
All Year

AK tree (*Drypetes deplanchei*)
Use: Leaves cut and dried and placed into sacks with Kaigai to preserve

Ubar wood is prized for carving, the making of Whaps (turtle or dugong spears) and for firewood

Weiba (rose crowned fruit dove, left) and Gainau (Torres Strait pigeon, right) feed on fruits

Ubar tree bark

1. Fallen Kobei collected from the ground

UBAL (Ubar seeds) are used to make traditional and modern jewellery, decorations and Zamiak (dance apparatus)

2. Kobei Ubar fruits are dried in the sun on mats of Nguzuru (Dodder Laurel) and turned by hand until dry

Serr Sarr (twigs) are used to separate different stages of drying

Sections are called Thab

Dried stems of Nguzuru

3. Kaigai (dried Ubar fruit) is placed in sack bags or Ubar Niss (Coconut leaf) baskets and layered with dried Ak leaves to preserve for use all year

Ak leaves

Kaigai ubar

Ubar is found on the majority of Masig Islands and the fruit is used as a food source by Masigalgal and by birds.

The timber is used for the carving of Whaps (dugong and turtle spears) and as also a firewood. The seeds are used to make jewellery.

When the fruit of Ubar are ripe, this tell us that it is Sulwal (turtle mating season) around Masig. Important birds such as Weiba (rose-crowned fruit dove) and Gainau (Torres Strait pigeon) eat the fruit.

Ubar trees are traditionally marked with a Gellare (Urab Niss / coconut leaf) when the tree flowers in order to mark ownership. The Ubar leaf is either cut or hung in the branches of the Ubar tree or wrapped around the trunk.



Learning sequence: Useful Plants

Lesson 2, 3 & 4

Content	Teaching learning and assessment	Resources
<p>EXPLORE</p> <p>General capabilities:</p> <p>Personal & social capability</p> <p>Intercultural understanding</p> <p>Literacy</p>	<p>What are some important plants in my local environment?</p> <p>Field trip to identify local species of useful plants:</p> <p>Visit a food garden in your area and ask a guide to accompany you – this could be a community garden volunteer, an enthusiastic local gardener, a school kitchen garden or agriculture teacher. Show them this learning sequence and invite their involvement.</p> <p>Make sure to do an Acknowledgment of Country before you start learning at this special place</p> <ul style="list-style-type: none"> • What plants are used by you? • What part of the plant is used? – Take photographs or draw the whole plant • What plants are used by other living things? E.g., insects, pollinators, possums, bats, soil bacteria? • What threatens the plant? E.g., pests, disease, pollution, extreme weather • How are the plants cared for? E.g., record tools used, supports such as trellis, pot size or type • Which plants are useful now, and which are not useable now? <p>Your area may have a cultural ethnobotany book (a guide to Indigenous plants and their uses by local First Nations). You could contact a First Nations person who may be able to show you plants with cultural uses including medicine, food, fibre, timber. Show them this learning resource and ask if they can help out!</p> <p>What do these useful plants need to survive?</p> <p>Growing conditions:</p> <p>Find a care guide for some of the plants you have seen – this could be on a plant label, in a book, on the internet or from your expert.</p> <ul style="list-style-type: none"> • What amount of sun and warmth does it need to grow? • How much water does it need? • What type of soil does it like to grow in? • Does it need a pot, a pond, a trellis, or any other special equipment? • What other plants does it need around it? • Consider one animal interaction that this plant has – does the animal assist or attack the plant? <p>What grows when?:</p> <p>Find a seasonal growing chart for your area – an example is “New South Wales South West Slopes Planting Guide”</p> <p>What food plants are growing now? What could you plan to plant in a garden for the future? What time of year has the most number of food plants you enjoy eating?</p> <p>Explore one of the amazing First Nations recorded seasonal calendars in the Living Landscapes Vol 1 book – check out the Seasons At My Place learning sequence for structured activities. Can you identify from which seasons plants provide the most food as per the Ubar Tree example? Can you find food sources shown in each season?</p>	<p>Teacher resources:</p> <p>Your local expert food gardener</p> <p>Ethnobotany book / local bush foods book</p> <p>The Masigalgal and South West Land and Sea Corporation chapters of the Living Landscapes Vol 1 book</p> <p>Lesson resources:</p> <p>Local food garden and guide</p> <p>Plant care labels</p> <p>Seasonal guide</p>

Learning sequence: Useful Plants

Lesson 5 & 6

Content

EXPLAIN

General capabilities:

Literacy
Critical & creative thinking

Teaching learning and assessment

What are some important plants in my local environment?

Build a class display of local plant resources

Students choose at least one plant that you use in your life. It can be one you have seen growing - good examples are potatoes, banana, tomatoes, spinach/silverbeet, to make an informative poster.

Use a template if required. Try the Ubar Tree illustration page 20-21 of Living Landscapes, or the Parts of a Plant page 16 of What on Earth). Most plant field guides are a useful guide as well.

Information Poster:

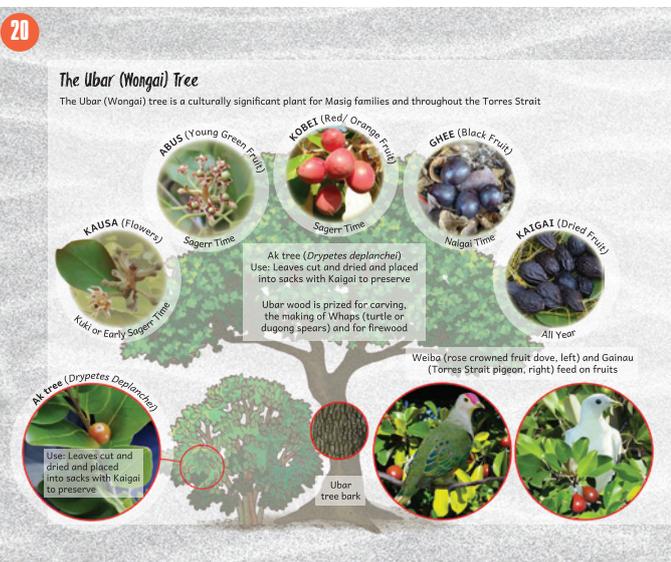
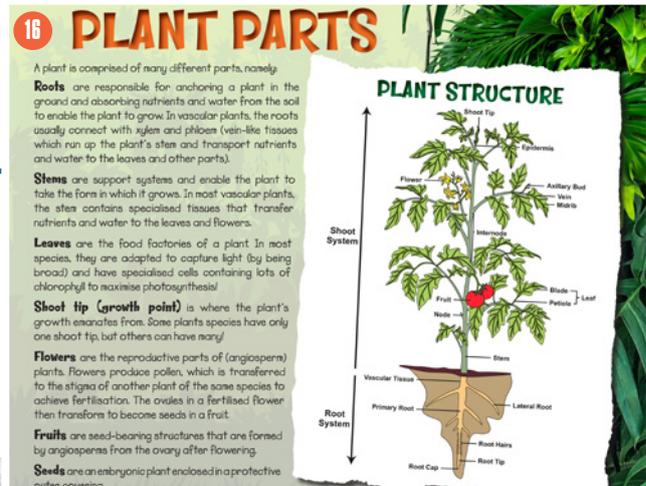
- Draw a labelled diagram
- Indicate what part of the plant is used
- Show what time in the seasonal cycle the plant is ready to use
- Show what conditions it needs to grow (warmth, sunlight, water)
- Does the plant need any animal interaction to support its survival?
- Explain, using drawings, photos and words, how the plant can be processed (cleaned, cut, cooked)



Resources

Lesson resources:

Large paper, at least A3 and other equipment to make a poster



1. Fallen Kobei collected from the ground



UBAL (Ubar seeds) are used to make traditional and modern jewelry, decorations and Zamiak (dance apparatus)



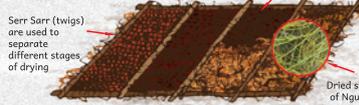
Ubar is found on the majority of Mesig Islands and the fruit is used as a food source by Masigalgal and by birds.

The timber is used for the carving of Whaps (dugong and turtle spears) and as also a firewood. The seeds are used to make jewelry.

When the fruit of Ubar are ripe, this tell us that it is Sulwal (turtle mating season) around Mesig. Important birds such as Weiba (rose-crowned fruit dove) and Gainau (Torres Strait pigeon) eat the fruit.

Ubar trees are traditionally marked with a Gellam (Ubar Niss / coconut leaf) when the tree flowers in order to mark ownership. The Ubar leaf is either cut and hung in the branches of the Ubar tree or wrapped around the trunk.

2. Kobei Ubar fruits are dried in the sun on mats of Nguzuru (Dodder Laurel) and turned by hand until dry



3. Kaigai (dried Ubar fruit) is placed in sack bags or Urah Niss (Coconut leaf) baskets and layered with dried Ak leaves to preserve for use all year



Learning sequence: Useful Plants

Lesson 7 & 8

Content	Teaching learning and assessment	Resources
<p>ELABORATE</p> <p>General capabilities:</p> <p>Critical & creative thinking</p> <p>ICT</p>	<p>Can I contribute to my classmates plant profiles?</p> <p>Review the class display - students show students</p> <p>Students come up with up to 3 questions or additional information they have about other plants</p> <p>Are there any additional ways the plant could be used?</p> <p>Tally or graph the plants useful in different seasons – is there one season that is more useful for your class than others?</p> <p>Allow time to discuss and conduct more research to answer questions if required. Consider inviting a guest from your local community, especially your local food garden expert, and have students guide them around your class display.</p> <p>How can I use a local plant or animal in a healthy meal?</p> <p>Local resource recipes</p> <p>Broaden your thinking to include meat and other food resources from your local environment – this can be local cropping, grazing, community gardens, bushfoods including fish and dairy products.</p> <p>In groups, research, write and/or follow a recipe that includes at least one natural resources from your local environment. Can you use more than one? Can you use ONLY local natural resources? – this will depend on where you live.</p> <p><i>Hint: Usually you can adapt a curry, stew and pizza recipe.</i></p> <p>Consider inviting a local First Nations person who can show you how to prepare and eat local ingredients. You could also research to find a First Nations chef using a common “bush food” such as quandong, Kakadu plum, lemon myrtle, kangaroo meat, fish.</p>	<p>Teacher Resources:</p> <p>A directory of local food producers would be useful</p> <p>Check out the <i>Taste of Kakadu</i> festival programs for ideas of bush foods and First Nations chefs</p> <p>Lesson resources:</p> <p>Access to simple recipes that can be modified to suit</p> <p>Access to a kitchen and ingredients (optional)</p>



Learning sequence: Useful Plants

Lesson 9 & 10

Content

EVALUATE

General capabilities:

Critical & creative thinking

Personal & social capability



Teaching learning and assessment

How can we plan a garden of useful plants that supports our needs?

A garden of useful plants: start to plan a food garden to grow

Developing your plan:

- Students contribute ideas for a “wish list” of useful plants to grow
- Make a list of all the species that you agree could be grown
- Draw a map or drawing showing what would be growing. Make sure you have enough to make a recipe or two!
- Do you need to make a different plan for different seasons?
- What are some obstacles to your garden being successful?
- Who might you need to involve in the garden and why?
- List or draw the tools you will need to look after these food plants

Once you have a good plan, consider talking to your school leaders about the barriers and benefits to making it happen! Consider registering your garden project with Roots & Shoots!

Reflection:

“I used to think the most useful plant I knew was _____,
but now I think it’s _____
because _____”



Learning sequence:

Caring For Country

Overarching inquiry questions:

How do people's perceptions of places influence their views about the protection of places?

Learning intentions:

Investigate the ways people value environments

Success criteria:

All must recognise and recall, through quotes and images, the ways people describe their connections with a place.

Most should recognise and recall, using culturally appropriate terms, the different ways people describe their connections with a place.

Some could recognise the diverse ways First Nations people care for the environment and how this contributes to sustainability.

Main outcomes

Science: **Year 4 Science:** Science knowledge helps people to understand the effect of their actions (ACSHE062)

Geography: **Year 2 HASS:** The ways in which Aboriginal and Torres Strait Islander Peoples maintain special connections to particular Country/Place (ACHASSK049)

Year 3 Geography: The importance of Country/Place to Aboriginal and/or Torres Strait Islander Peoples who belong to a local area (ACHASSK062)

Year 4 Geography: The custodial responsibility Aboriginal and Torres Strait Islander Peoples have for Country/Place, and how this influences views about sustainability (ACHASSK089)

KEY VOCABULARY

Traditional Owners

Elders

Indigenous Protected Area (IPA)

National Park

Future generations

Ranger group

Surveying and monitoring species

Burning country

Food species

Totems

SPECIAL NOTES

Icons like this:

-  indicate opportunity for differentiation, including up and down learning stages
-  indicate how this relates to the 8 ways of learning pedagogy
-  indicate a page number in the Living Landscapes book

TEACHER NOTES

Refer to the Living Landscapes book for all of the following sources.

Review the About this Book and Book Structure sections (Pg. 7-9) to understand how to easily find information in the book; Listen to the Voices of Martuwarra short films – available through the Learn More section (Pg. 119); read about how Mirning people describe Country as “full of energy, full of life and healing” (Pg. 76); read the statement from Yolngu Elder (Pg. 132-133); see the way Banbai Rangers look after Country (Pg. 38-39); hear how ancestral voices are still strong even in changed landscapes (Pg. 52-53); read about Caring for Country the Noongar way (Pg. 87); listen to Masig Rangers discussing the threat of climate change through the Learn More section (Pg. 23)

Review the following key vocabulary in the glossary – Country, Cultural burning, Elder, IPA, Kinship, lore, Ranger, TEK Traditional Owner

Learning sequence: Caring For Country

Lesson 1

Content	Teaching learning and assessment	Resources
<p>ENGAGE</p> <p>General capabilities:</p> <p>Literacy</p> <p>Intercultural understanding</p>	<p>What does Caring for Country mean?</p> <p>Watch a short film from Voices of Martuwarra</p> <p>Discuss the following images and quotes from the Living Landscape book, noting all questions and using a TWLH (Think I know, Want to know, What I Learnt, How we know) chart</p>	<p>Lesson resources:</p> <p>Insert teacher resources</p> <p>TWLH chart</p> <p>Digital copies of all images shown</p>



74 75 "Our yoola (land) is our Mother and the billia (sea) is our Father. Mirning means listen, learn, understand and observe, and then you will receive wisdom and knowledge. As Mirning People, our responsibility and duty is to follow the path that our ancestors started, to carry on the traditions and be keepers and custodians of our Mirning laws and customs. What was theirs is now ours."



41 "We are passing on knowledge that was passed down to us. We are passing it on to the next generation, so they know how to burn properly and have healthy Country to pass on to the generation after them."



87 "Unless we have relationship with the land, with Country, with Budjar, it is very hard to love it and protect it"



Learning sequence: Caring For Country

Lesson 2 & 3

Content	Teaching learning and assessment	Resources
<p>EXPLORE</p> <p>General capabilities:</p> <p>Literacy</p> <p>Critical & creative thinking</p>	<p>How does this group describe their place, their connection to it, and the work they do to care for it?</p> <p>Exploring Language in a Focus Chapter</p> <p>Choose one of the images in the previous section (note those from the Banbai, Kiwirrkurra, Martuwarra, SWLASC and Dhimurru chapters are the most accessible). This image and the chapter it belongs to are your FOCUS CHAPTER and the group is your FOCUS GROUP.</p> <p>Ensure more than one focus group is explored so they can be compared and contrasted (next section).</p> <p>As a class, review the Book Structure (pages 8 & 9) to understand how to use the book.</p> <p> Review some of the following list of key words</p> <ul style="list-style-type: none"> • Traditional Owners • Elders • Indigenous Protected Area (IPA) • National Park • Future generations • Ranger group • Surveying and monitoring species • Burning country • Food species • Totems <p>Have students search and find these words in their focus chapter (note that not all words appear in every chapter!). Use the Living Landscape glossary, an internet image search and dictionaries to discuss their meaning.</p> <p>Discuss quotes and why they might be an important way to understand how people perceive places (i.e., primary resources)</p> <p> Revisit your TWLH questions – can you answer any now?</p>	<p>Lesson resources:</p> <p>Digital or hard copies of the Living Landscapes Vol 1 book</p> <p>Dictionaries</p> <p>Internet</p>

Learning sequence: Caring For Country

Lesson 4, 5 & 6

Content	Teaching learning and assessment	Resources
<p>EXPLAIN</p> <p>General capabilities:</p> <p>Literacy</p> <p>Critical & creative thinking</p> <p>Intercultural understanding</p>	<p>What does caring for Country look like?</p> <p>‘Caring for Country’ one pager</p> <p>Use the one pager template on page 33 to capture knowledge from your focus group from the book (I.e., Kiwirrkurra, Banbai etc). You will then share it with your classmates.</p> <p>Using as many of the key words explained in previous section as possible, plus images and symbols, complete the following:</p> <ul style="list-style-type: none"> • Describe the features of the environment or place these people work in – include plants, animals, vegetation, landscape, landforms, location, weather, climate, and history. • Find a quote from the chapter to learn how this First Nations group describes their place. • Add 2 chosen images that show key features of this environment or place. Try to draw one from the book. • Describe in words what their work is like and other actions they take to care for their place. • Find a quote about how and why they work and care for country. • Add 2 chosen images of people working and caring for country. Try to draw one from the book. <p>Guest speaker OR local research:</p> <p>Invite to your classroom a local who works to care for the environment of Country, or arrange a remote meeting. If this can't be a representative of your local First Nation, try a member of a Landcare group, council or a ranger who cares for a national park. Provide them with copies of the completed one pagers as a guide as to what you'd like them to talk about.</p> <p>If you can't access a local story teller, try researching to find a video or written story.</p> <p>What are the similar and different ways that people care for Country?</p> <p>One pager: Compare and contrast</p> <p>Use the one pagers made by the class to see how people care for their Country – you can use a Venn diagram or other familiar scaffold</p> <ul style="list-style-type: none"> • Compare your one pager to others who have explored the same First Nations group. How are your summaries different and why? • Compare your one pager to others from different groups – what is similar and different about how these people care for Country? 	<p>Lesson resources:</p> <p>Caring for Country one pager templates</p> <p>Colour pencils</p> <p>Thankyou letter for guest speaker</p> <p>Venn diagram templates (if using)</p>

Learning sequence: Caring For Country Lesson 7

Content	Teaching learning and assessment	Resources
<p>ELABORATE</p> <p>General capabilities:</p> <p>Personal & social capability</p>	<div style="text-align: center;">  </div> <p>How can I care for my own special place?</p> <p>'My own special place' one pager:</p> <p>Students consider a place important to them – this can be at any scale (E.g., chair, room, beach, park, backyard, vegetable patch, town, hill top, river or creek or swimming spot).</p> <p>Develop a quote that describes the way they feel about that place.</p> <p>Create a one pager for your own place. Include all the detail you added to your previous one. Create a logo and images.</p>	<p>Lesson resources:</p> <p>Caring for Country one pager templates</p> <p>Colour pencils</p>

Learning sequence: Caring For Country Lesson 8

Content	Teaching learning and assessment
<p>EVALUATE</p> <p>General capabilities:</p> <p>Critical & creative thinking</p>	<p>"I thought caring for Country meant _____.</p> <p>Now I know caring for Country means _____</p> <p>because _____"</p> <p>Discuss: Why is it important to care for Country?</p> <p>Please consider sharing your one pagers with us! Email the Roots & Shoots team via our website via rootsandshoots@janegoodall.org.au</p>

Learning sequence: Caring For Country

Activity sheet

Drawing of group logo

Name of the group

Map of Australia showing location of place
(show your location on an outline of Australia and show the location of the Country this group looks after)



Description of place (include plants, animals, vegetation, lanscape, landforms, weather, climate history)

Quote describing the place (how this First Nations group describes their place)

Image of place 1

Image of place 2

Description of work (describe what their work is like and other actions they take to care for their place)

Quote about work (how and why this First Nations group work and care for Country)

Image of caring for Country 1

Image of caring for Country 2

Learning sequence:

Seasons At My Place

Overarching inquiry questions:

- What can we learn from seasonal calendars?
- How do environmental features interconnect and change over time?
- In what ways do the weather and seasons affect the activities of people?
- What skills and resources do I need to create a seasonal calendar?

Learning intentions:

- Examines seasonal calendars
- Describes the features and characteristics of places and environments, including the Country on which the learning is happening
- Observes and records features of the environment. Describes the ways people, places and environments interact and are interconnected

Success criteria:

- All must** be able to identify or describe some observable features of the environment
- Most should** be able to describe some of the ways environment and people interact, including daily and seasonal patterns and their impact on people's activities
- Some could** describe observable features of places and environments both familiar and unfamiliar, and discuss the interconnectedness of features

Main outcomes

- Science:**
 - Year 2:** People use science in their daily lives, including when caring for their environment and living things (ACSHE035)
 - Year 4:** Living things depend on each other and the environment to survive (ACSSU073)
- Geography:**
 - Year 3:** Locate and collect information and data from different sources, including observations (ACHASSI053)
 - Year 3:** Similarities and differences between the climates of different places (ACHASSK068)
 - Year 4:** The importance of environments, including natural vegetation, to animals and people (ACHASSK088)

KEY VOCABULARY

Natural environment
Resources
Weather patterns
Seasons / seasonal
Sources
Continuity and change
Short term
Long term
Seasonal calendar
Connection

SPECIAL NOTES

Icons like this:

-  indicate opportunity for differentiation, including up and down learning stages
-  indicate how this relates to the 8 ways of learning pedagogy
-  indicate a page number in the Living Landscapes book

TEACHER NOTES

Refer to the Living Landscapes book for all of the following sources.

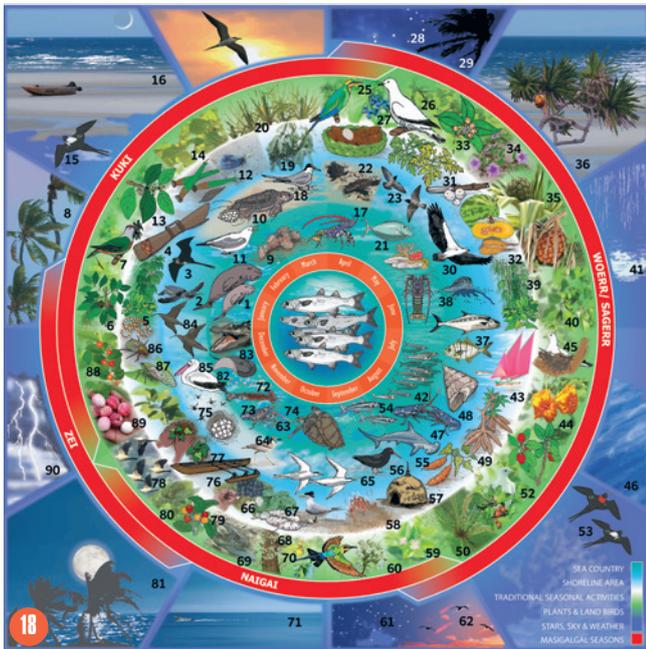
Why are seasonal calendars important to First Nations? Masig Chapter, particularly Pg. 16 and the Learn More section; Banbai Chapter, particularly Pg. 40; SWLASC Chapter, particularly Pg. 88

Important glossary terms (see Glossary Pg. 144-153): Traditional Ecological Knowledge, Country, First Nations, Traditional Owners, Cultural burning, Acknowledgment of Country.

Learning sequence: Seasons At My Place

Lesson 1

Content	Teaching learning and assessment	Resources
<p>ENGAGE</p> <p>General capabilities:</p> <p>Literacy</p> <p>Critical & creative thinking</p>	<p>What is so valuable about a seasonal calendar?</p> <p>Use these images, or a seasonal calendar local to you, to stimulate discussion and visual thinking for students. Document thinking by using a 'See Think Wonder' structure (a simple visual thinking tool).</p> <p>AND/OR</p> <p>use a TWLH (Think I know, Want to know, What I learnt, How we know) chart, focussing on T and W</p>	<p>Lesson resources:</p> <p>See Think Wonder chart (search to find one suitable)</p> <p>TWLH chart or similar</p> <p>Digital copies of these pages from the book</p>



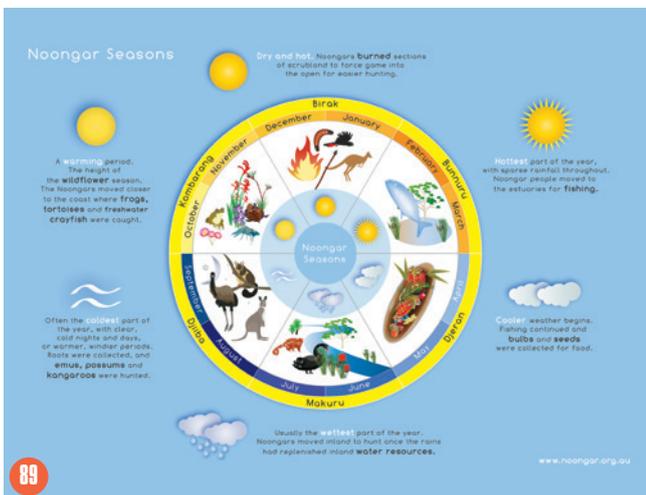
Winba = Fire

Barbali Fire and Seasons Calendar

Winba = Fire is an important communication tool.



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Learning sequence: Seasons At My Place

Lesson 2, 3, 4, 5 & 6

Content	Teaching learning and assessment				Resources		
<p>EXPLORE</p> <p>General capabilities:</p> <p>Literacy</p> <p>Personal & social capability</p>	    	<p>What changes over time in my natural world? What stays the same and what changes?</p> <p>How do environmental features interconnect and change over time?</p> <p>Nature journal:</p> <p>Over at least one week, keep a nature journal of your place. Use a combination of drawings, photographs, symbols, words, metaphors and sentences.</p> <p>Always remember to do an Acknowledgment of Country (see Glossary Pg.153) as you head out to observe.</p> <p>Send this lesson plan to your local First Nations group and see if they have capacity to support your learning.</p> <p>Environmental features to observe and record include:</p> <ul style="list-style-type: none"> • Atmosphere and weather: Clouds, wind direction and speed, temperature and rainfall (if you have a weather station, collect this data, otherwise access this data for your place from Bureau of Meteorology) • Animals: Bird observations (note small and large, residents and visitors), insect observations (note pollinators, ants, beetles, butterflies, soil creatures), other animals (note any signs of rodents, lizards, domestic animals) • Plants: Plants that are flowering, seeding or fruiting, plants that are losing or growing leaves, food growing • People: Behaviours, comfort levels, clothes wearing, heating and cooling systems used, sports and activities • Other: Moon phase, position of southern cross and other stars, tides <p>Students can work either individually or in groups to do this.</p>				<p>Teacher resources:</p> <p>Guides for establishing a nature journal are numerous – search terms can include nature-journaling-kids-template</p> <p>Acknowledgment of Country – see Pg. 153 as a start</p> <p>Lesson resources:</p> <p>Nature journaling guides (optional)</p> <p>Weather station including thermometer, rain gauge (optional)</p> <p>Moon chart</p> <p>Local seasonal produce / gardening guide</p> <p>Bird guide</p> <p>Pollinator guide</p>	
<p>If you have a day If you have a week If you have a term If you have a year</p>							
<p>Hourly observations</p> <p>Large poster</p>		<p>Daily observations at about same time</p> <p>Large poster mind map and/or individual journal</p>		<p>Daily observations</p> <p>Large story map on wall</p> <p>Individual or group journal</p>		<p>Large story map on wall</p> <p>Perpetual diary to be handed on to another class at school</p>	
	 	<p>How do environmental features change over time?</p> <p>Photographs then and now:</p> <p>Access historical photographs (they don't need to be old) of your place in different weather and seasons – can you find that photo point and take another photograph? What is the same and different between the photographs?</p> <p>Consider deforestation, colonisation, seasonal differences and time of day that is shown in the photo</p> <p>Seasonal Produce:</p> <p>Access a local gardening / seasonal produce guide for your place.</p> <p>Take a visit to your local food garden at school or community garden to see what food is growing now</p>					

Learning sequence: Seasons At My Place

Lesson 7

Content	Teaching learning and assessment	Resources
<p>EXPLAIN</p> <p>General capabilities:</p> <p>Literacy</p> <p>ICT</p> <p>Intercultural understanding</p>	<p>How do seasonal calendars show how the environment supports the lives of people and other living things?</p> <p>Seasons word wall:</p> <p>Build a library of words to describe weather, climate, seasons, resources and activities. Include unfamiliar words from the book (activities below), and use comparison of the three seasonal calendars.</p> <p>Examples of descriptive words used in the calendars:</p> <ul style="list-style-type: none"> • Cooler, drier, hotter • Gust, calm • Abundant, plentiful • Busy /active, restful <p>Deep dive into Country:</p> <p>Choose one or all the following seasonal calendars from the Living Landscapes book – these are in the Masig, Banbai and Noongar chapters. Have groups analyse a calendar each and report back to class, or complete as a whole class.</p> <p>For each calendar:</p> <ul style="list-style-type: none"> • Where is this Country? – use the Living Landscapes book, an atlas and/or the internet • Whose Country is this? Name the First Nation. • Find the current month on the calendar to complete the following: • What is the weather like at this time of year? Describe using the vocabulary developed above. • Describe what the environment is like for people on this Country now. Include descriptions of as many of the following as possible: <ul style="list-style-type: none"> > Stars, sky and weather > Birds > Plants > Sea Country • Do you think it is important to use the local language names for animals and plants in your descriptions? (Teachers can refer to Pg. 68 Animals in Our Stories) • What work / activity might people be doing now on this Country? Consider Ranger work, food growing or hunting. <p>Individually, have students find their birth month and do some or all the activities listed above.</p>	<p>Lesson resources:</p> <p>2 x large wall paper for making a Seasons Word Wall and a Weather Words list</p> <p>Digital copies of the seasonal calendars from the Living Landscapes book</p> <p>Atlases</p> <p>Internet (if using)</p>

Learning sequence: Seasons At My Place Calendars



Additional notes for the Masig calendar:

Note the numbers, and the key in the bottom right hand corner

Additional activity for the Banbai Winba=Fire calendar

Choose your birth month and one other month.

Create a number code for each image on the calendar – it will end up looking a bit like the Masig calendar (above).

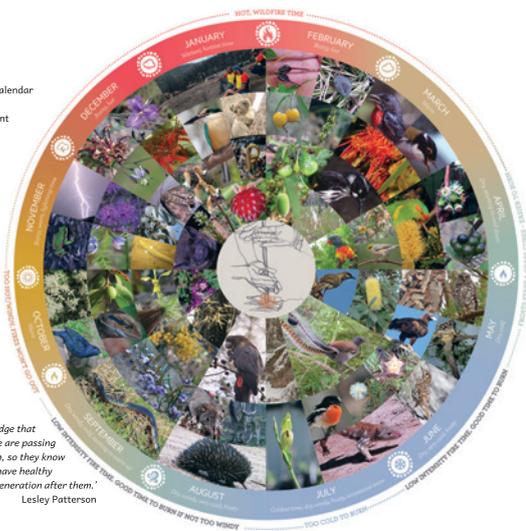
Match each photo with the written information and give the matching words and image the same number. For example:

There are 7 photos in November of which the bat would be the seventh image. Place a 7 next to the photo of the bat and write a sentence indicated by the number 7: 'A lot of bats are around, catching insects, including the threatened eastern false pipistrelle'.

Winba = Fire

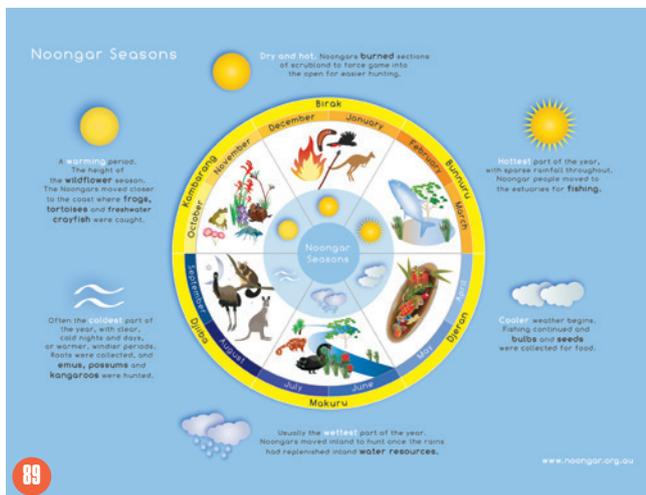
Banbai Fire and Seasons Calendar

Winba = Fire is an important communication tool.



"We are passing on knowledge that was passed down to us. We are passing it on to the next generation, so they know how to burn properly and have healthy Country to pass on to the generation after them."
Lesley Patterson

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Additional activity for the Noongar calendar:

Where are people living at this time of year and what resources would they be accessing?

Learning sequence: Seasons At My Place

Lesson 8 & 9

Content	Teaching learning and assessment	Resources
<p>ELABORATE</p> <p>General capabilities:</p> <p>Literacy</p> <p>Numeracy</p> <p>Critical & creative thinking</p>	<p>In what ways do the weather and seasons affect the activities of me and the people around me?</p> <p>Weather words:</p> <p>Define 'weather' vocabulary (E.g. weather, climate, and seasons) and how they relate to scales of time.</p> <p>Would I observe weather or climate in one day?</p> <p> Look up the weather forecast on weather apps and websites. Discuss the components of a weather forecast, the meanings of weather symbols, units of measurement and weather recording equipment. Discuss how and why people use weather forecasts.</p> <p>Do my resources change according to the weather and seasons?</p> <p>Define resources such as clothing, shelter, and food.</p> <p> Look up the weather forecast for the following day. Discuss the impacts of the forecast on the students, for example would it indicate they need to bring a raincoat or cold drink, pack a jumper or plan to play quietly in the shade?</p> <p>Access a local gardening / seasonal produce guide for your place. Check your local food garden at school or community garden to see what food is growing now.</p> <p> Revisit the seasonal calendars from the Living Landscapes book.</p> <p>Discuss each of the following questions using the vocabulary built above in the seasons word wall and in weather words:</p> <ul style="list-style-type: none"> • What time would you like to visit on a holiday and why? • What time would be the easiest to live in and why? • What time would be difficult to live in and why? • What season would be most enjoyable to work as a Ranger and why? 	<p>Lesson resources:</p> <p>Dictionary or internet for defining weather words</p> <p>Weather forecast – news video clip, app or other</p> <p>Local seasonal produce / gardening guide</p> <p>Digital copies of the seasonal calendars from the Living Landscapes book</p>

Learning sequence: Seasons At My Place

Lesson 10

Content	Teaching learning and assessment	Resources
<p>EVALUATE</p> <p>General Capabilities:</p> <p>Literacy</p> <p>Critical & creative thinking</p>	<p>What skills and resources do I need to create a seasonal calendar?</p> <p>Reflect on the nature journal you have created and revisit seasonal calendars</p> <ul style="list-style-type: none"> • How long would it take to collect the knowledge shown in the seasonal calendars? • What skills and resources do I need to create a seasonal calendar? • How could people use this calendar? <p>Revisit the TWLH or See Think Wonder chart from the first lesson to plan where your learning goes from here...</p> <p>Please consider showing us your nature journaling! Email the Roots & Shoots team via our website rootsandshoots@janegoodall.org.au</p>	<p>Lesson resources:</p> <p>Nature journals</p> <p>Seasonal calendars</p> <p>TWLH charts or See, Think, Wonder charts (if used)</p>







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