

Teacher Guide



Forest Education
Foundation
The stories behind our trees

Tremendous Trees - Prep to Year 2

Contents

About Forest in a Box	1
Forest Literacy	2-3
Learning Outcomes	4
Curriculum Links	5
Teacher Guide	
What is a Forest?	6
Trees in the Forest	7
Forest Ecosystems	8
Habitat Trees	9
Forest Glossary	10
Interactive Roll Over	11
Suggested Activities	
Tree Thinking	12
Adopt a Tree	13-14
Parts of a Tree	15
Forest Calendar	16
Leaf Litter	17-18
Habitat Tree	19
Nature Musical	20
Wonderful Wood	21
How can we care for forests?	22
Support Material	
<ul style="list-style-type: none">• My Tree Observations• Scientific Observation• See/Think/Wonder• Habitat Tree• Wonderful Wood	
Song Time	



About Forest in a Box



Tremendous Trees

Forest in a Box is a loan package that provides activities and resources to support teachers to integrate curriculum aligned forest education into their classrooms. There are a range of kits catering from Prep to Year 6. The kits are not presented as units of learning, but stand alone experiences and tools that can be weaved into any program. Forest in a Box activities support the development of the knowledge and skills involved in forest literacy.

Tremendous Trees enables students to understand forest systems and how they function. The kit includes, microscopes, specimens, *Tree Time Tasks* and a range of activities to tune students into the different forest types of Tasmania, their features and the ways living things are adapted to their surroundings. The kit activities are supported by online interactive content accessed on the *Forest Interconnections Teacher Portal*: <http://www.forest-education.com/forest-interconnections/>

The Forest Education Foundation also offers incursions and excursions to further explore these topics with your students. Visit our website to find out more <http://www.forest-education.com>



Forest Literacy



Tremendous Trees

The Suggested Activities in Forest in a Box support the *Tasmanian Forest Education Plan: A Framework for supporting forest education in Tasmania*.

The Plan illustrates how forest literacy can be integrated across the curriculum through teaching and learning.

Forest literacy refers to the knowledge and skills involved in understanding forests and our interactions with these environments.

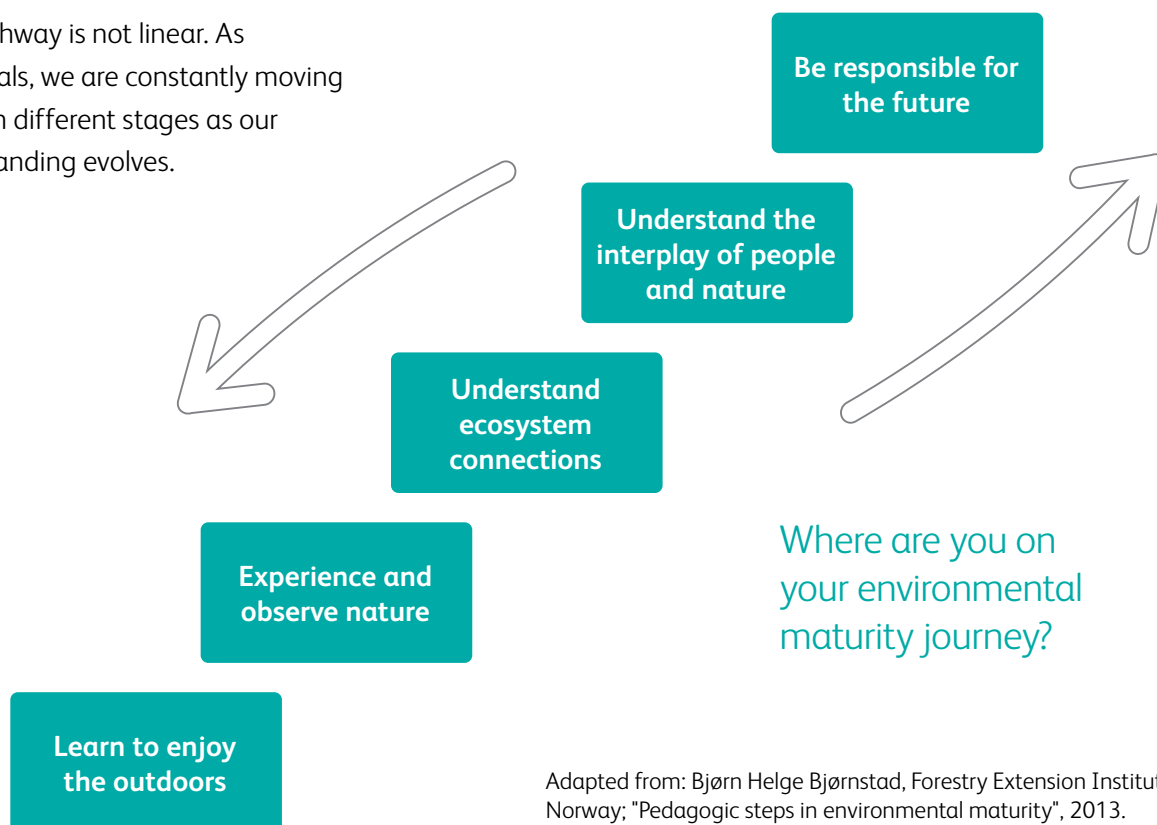
A forest literate individual can use their knowledge and skills to make informed decisions about natural and managed forest landscapes.

Forest literacy enables students to:

- Appreciate our forests and their place in them.
- Understand the ecological web.
- Comprehend the interactions and outcomes of cycles and flows in forest systems.
- Realise their connection and dependence on forests landscapes.
- Recognise the complexities of managing dynamic natural resources for a range of purposes.
- Make informed decisions and act as stewards for the future of forest landscapes and resources.

The *Environmental Maturity Model* is a conceptual pathway for developing greater forest literacy.

This pathway is not linear. As individuals, we are constantly moving between different stages as our understanding evolves.



Adapted from: Bjørn Helge Bjørnstad, Forestry Extension Institute, Norway; "Pedagogic steps in environmental maturity", 2013.

Conceptual Framework Questions



Tremendous Trees

The Forest Education Foundation's four *Guiding Questions* (outlined below) are designed to build upon each other as a scaffolding tool, enabling students to progress from a fundamental awareness to a deeper understanding of forests. See how they can be used to integrate forest literacy from Prep to Year 12 in the *Tasmanian Forest Education Plan*.





Learning Outcomes

- Students explore the relationships between living and non-living things in a forest.
- Students explore the basic needs of trees, forests and the living things that live among them.
- Students examine the parts of a tree/forest and explore how other living things rely on trees for food and shelter.
- Students identify how they can care for and support the basic needs of living things.
- Students explore the relationship between tiny living things (invertebrates) and leaf litter.
- Students identify the different ways people use forest products in their daily life.
- Students explore the ways that they can care for forest environments.

Curriculum Links



Tremendous Trees

Learning Area	Strand	Code	Content Descriptions
Science Understanding	Biological Sciences	AC9SFU01	Observe external features of plants and animals and describe ways they can be grouped based on these features
		AC9S1U01	Identify the basic needs of plants and animals, including air, water, food or shelter, and describe how the places they live meet those needs
	Science as a Human Endeavour	AC9S2H01	Describe how people use science in their daily lives, including using patterns to make scientific predictions
	Physical Sciences	AC9S2U02	Explore different actions to make sounds and how to make a variety of sounds, and recognise that sound energy causes objects to vibrate
	Chemical Sciences	AC9S2U03	Recognise that materials can be changed physically without changing their material composition and explore the effect of different actions on materials including bending, twisting, stretching and breaking into smaller pieces
Science Inquiry Skills	Questioning and Predicting	AC9S1I01 AC9S2I01	Pose questions to explore observed simple patterns and relationships and make predictions based on experiences
	Planning and Conducting	AC9S1I03 AC9S2I03	Make and record observations, including informal measurements, using digital tools as appropriate
HASS	Geography	AC9HS1K03	The natural, managed and constructed features of local places, and their location
		AC9HS1K04	How places change and how they can be cared for by different groups including First Nations Australians
		AC9HS2K03	How places can be spatially represented in geographical divisions from local to regional to state/territory, and how people and places are interconnected across those scales
		AC9HS2K04	The interconnections of Australian First Nations Peoples to a local Country/Place
HASS Skills	Questioning and Researching	AC9HS1S01 AC9HS2S01	Develop questions about objects, people, places and events in the past and present
	Interpreting, analysing and evaluating	AC9HS1S04 AC9HS2S04	Discuss perspectives related to objects, people, places and events.
Design and Technologies	Food and Fibre	AC9TDE2K03	Explore how plants and animals are grown for food, clothing and shelter



Tremendous Trees

Teacher Guide

Content

What is a Forest?	6
Trees in the Forest	7
Eucalypt Life Cycle	8-9
Habitat Trees	10
Forest Glossary	11
Interactive Roll Over	12



What is a Forest?

It's a web of life - a dynamic, constantly changing community of living things - from the subsoil to the canopy, a forest is much more than its trees.

A forest is a complex ecosystem characterised by a dominance of tree cover- a living web of many different animal and plant species. No two forests are the same and are a result of the interactions and interdependence between biotic (living) and abiotic (non-living) components of the environment.

Forests play a vital role in sustaining the life forms and atmosphere of our planet. Forests provide a habitat for all the living things contained within them. Beyond the trees, the forest is also made up of soil, water, other plants, animals, birds and insects. Many of these living things are dependent on other living and non-living things within the forest for their survival.



Tremendous Trees



Trees in the Forest



Tremendous Trees

One of the defining characteristics of forests is the trees within them. A tree is defined as a plant over 2m tall with a woody stem (trunk). Students in Tasmania are surrounded by trees, whether they live in an urban or rural location. As trees play an important role ecologically, socially, culturally and economically; understanding how they function and their interactions in forest ecosystems is important when considering future perspectives.



The different parts of a tree help it to meet its needs and stay healthy.

Flowers / Fruit

The flowers/fruit help a tree to grow, change and to create new plants. Eucalyptus flowers hold nectar, which is food for insects, birds and small mammals. By feeding on the nectar these living things help pollinate the flower. Pollination is an important part of creating healthy seeds.

Leaves

Plants are able to make their own food, by taking in energy from the sun, through their leaves, to help them grow. Just as a King wears a crown on his head, the top of a tree is called a crown. The crown can tell you a lot about the health of a tree.

Branches

The branches of a tree help the leaves reach out and stretch towards the sun.

Trunk

The trunk of a tree holds it tall and straight.

Bark

The bark of a tree helps to protect the tree, just like our skin protects us! The bark protects the tree from the heat of the sun and drying winds. It also prevents damage from fungi, insects and mammals.

Roots

Roots take in water and nutrients from the soil and hold the tree in the ground. While we might not be able to see them the roots of a tree can be as long as the tree itself.

Seed

A tree begins its life as a seed. One tree can drop hundreds or even thousands of seeds. A seed needs food, water, space and sunlight to grow. Not every seed will become a mature tree.

Forest Ecosystems



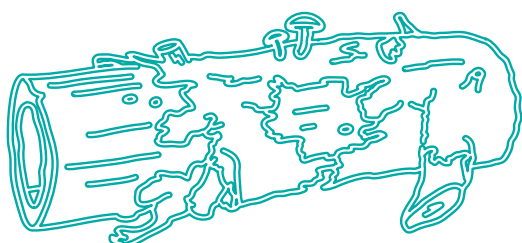
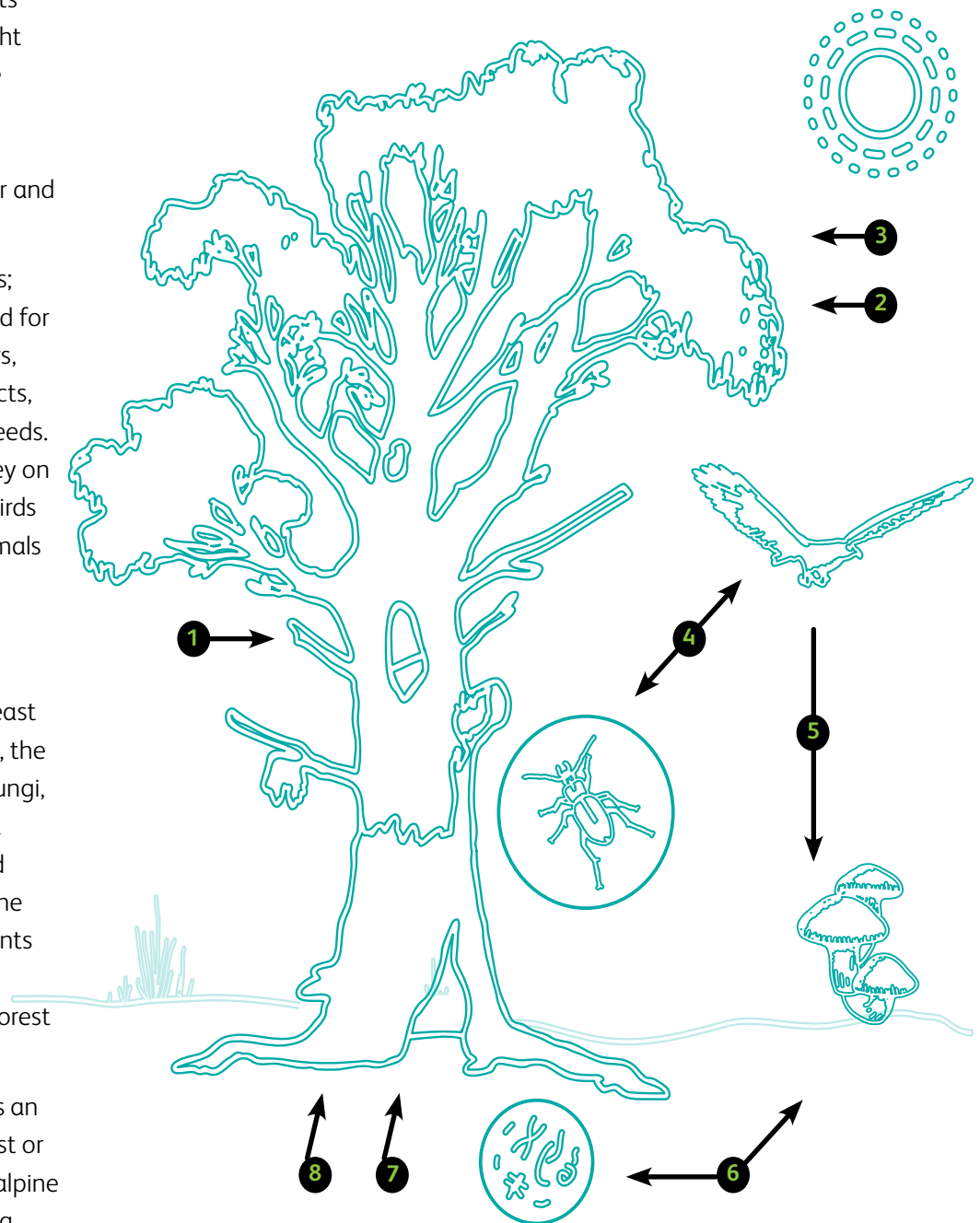
Tremendous Trees

In a forest ecosystem, life starts with the sun. Its ultra-violet light enables green plants to create their own nutrients through photosynthesis, using simple chemicals present in soil, water and air.

These plants are the producers; as they grow, they provide food for some of the forest's consumers, plant-eating animals and insects, which browse on leaves and seeds. Other animals in the forest prey on the consumers themselves – birds eat insects, carnivorous mammals scavenge for carrion.

But all the producers and consumers put together are greatly outnumbered by the least obvious creatures in the forest, the decomposers. These are the fungi, invertebrates and soil bacteria that break down the plant and animal material that falls on the forest floor, recycling its nutrients to nourish new growth and to ensure the cycle of life in the forest ecosystem continues.

An ecosystem can be as big as an entire cool temperate rainforest or as small as a pool of water in alpine heathland. Both may support a community of interdependent plants and animals.



Forests provide a wonderful, authentic context for exploring how habitats meet the basic needs of living things for shelter, air, water and food. All these basic needs can be met and explored in forests, for humans and animals alike.

Habitat Trees

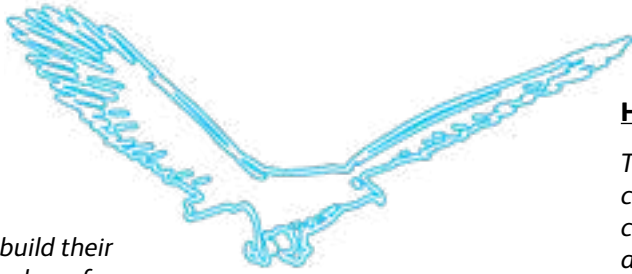


Tremendous Trees

Habitat trees are mature to old trees which contain hollows, cracks and crevices of various sizes. They create nesting sites for many different animals to live, shelter or breed in. They also provide perfect conditions for other plants and fungi to grow. The best habitat trees can take years to grow and form.

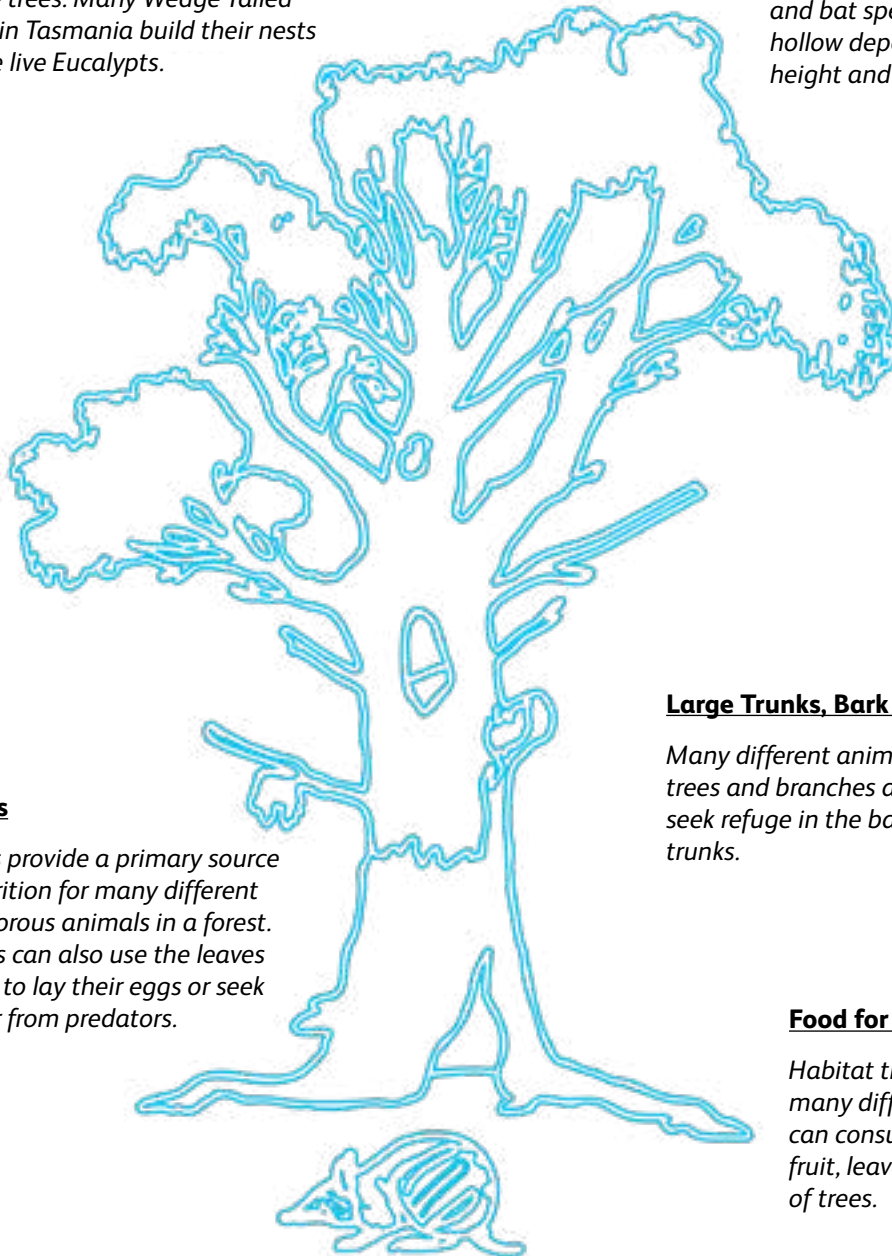
High Branches

Some birds prefer to build their nests in the high branches of mature trees. Many Wedge Tailed Eagles in Tasmania build their nests in large live Eucalypts.



Hollows

Tree hollows come in all shapes and sizes, including, circular openings on the trunk of a tree and a small crack at the base of a branch. In Tasmania there are a number of animals that rely on hollows to survive and reproduce, including, owls, marsupials and bat species. The type of animal that uses a hollow depends on the size of the opening, the height and specific location on the tree.



Dead Branches

Dead branches provide birds with a site for roosting, sunning and preening. It also allows them a lookout site to watch for prey and protect themselves, if suddenly approached by predators.

Large Trunks, Bark and Branches

Many different animals use the trunk of trees and branches as a hunting site, others seek refuge in the bark, or hollowed out trunks.

Food for Wildlife

Habitat trees provide food sources for many different living things. Animals can consume the nectar, pollen, sap, fruit, leaves, seed, wood and leaf litter of trees.

Leaves

Leaves provide a primary source of nutrition for many different herbivorous animals in a forest. Insects can also use the leaves as site to lay their eggs or seek shelter from predators.



Forest Glossary



Tremendous Trees

Bark: The tough outside covering that protects a tree.

Branch: The part of a tree that grows from the trunk of a tree and reaches for the sun.

Camouflage: When a living thing blends into its surroundings to hide from predators.

Canopy: The branches and leaves of trees at the top of a forest.

Carnivore: An animal that only eats meat.

Consumer: A living thing that gets its energy from eating other living things.

Crown: The branches at the top of a tree.

Decomposer: A living thing that recycles and keeps the forest healthy by breaking down dead material.

Ecosystem: All the living and non-living parts of a forest and the relationship between them.

Flower: The part of a plant that blooms and makes seeds to produce new plants.

Forest: A large area dominated by trees and other living and non-living things that depend on each other to survive.

Germination: The beginning stage of growth when a plant emerges from a seed.

Habitat: A home for living things that provides them with food, water, shelter and space.

Herbivore: An animal that eats plants.

Leaf: The often flat, green part of a plant that makes its food through photosynthesis.

Leaf Litter The bark, leaves and twigs that fall from a tree to the forest floor.

Nectar: A sugary liquid found in many flowers.

Omnivore: An animal that eats both plants and other animals.

Photosynthesis: The process of a green plant using energy from sunlight to make its food.

Predator: An animal that hunts other animals for food.

Prey: An animal that is eaten by another animal.

Pollination: A part of a plant's life cycle. Insects, animals and wind take pollen to other flowering plants to help produce seeds.

Renewable Resource: A natural material/energy that can be replenished by natural cycles.

Roost: A place where animals with wings nest or sleep.

Root: The part of a tree that grows underground and takes in water and nutrients.

Seed: The part of a plant that grows into a new plant.

Seed Capsule: A case that holds and protects a plant's seeds.

Tree: A tall woody plant over 2m tall with a trunk.

Tree Hollow: A hole in the trunk or branch of a tree that gives animals a place to shelter and nest.

Trunk: The woody stem of a tree.

Understory: The layer of trees and shrubs between the canopy and the forest floor.



Interactive Roll Over

The *Interactive Roll Over* is designed to support your students' learning experience as they interact with Forest in a Box. Click the illustrations which illuminate when you roll over them. Each icon presents a forest topic and includes either a definition, explanation, key information or link to video content. There are key questions in some content boxes which encourage critical thinking about new concepts and promote forest literacy.



The *Interactive Roll Over* content is grouped according to colour and aligned to the *Tasmanian Forest Education Plan's* Guiding Questions:

1. What is a forest?
2. Why are forests important?
3. How do we interact with forest landscapes?
4. What role do we play in the future of forests?

The Forest Education Foundation offers Professional Learning to teachers around the *Tasmanian Forest Education Plan* and its implementation. The *Tasmanian Forest Education Plan* is a framework that illustrates how forest education can be embedded from Prep to Year 12.

There is no prescribed way to use this resource. The resource may be used as provocation, to tune students into content or to prompt classroom discussion. It may also guide your unit planning.

Access the *Interactive Roll Over*: <http://www.forest-education.com/interactiverollover/>



Tremendous Trees

Suggested Activities

Content

Tree Thinking	12
Adopt a Tree	13-14
Parts of a Tree	15
Forest Calendar	16
Leaf Litter	17-18
Habitat Tree	19
Nature Musical	20
Wonderful Wood	21
How can we care for forests?	22



Tree Thinking



Tremendous Trees

Learning Intentions:

Determine students prior knowledge, promote questioning and guide inquiry.

FIB Resource: *Forest Thinking Pieces* (located inside *Forest Inquiry Cubes*)

Forest Thinking is a great way to assess students' knowledge and build connections. There is no prescribed way to utilise the cards - they may provide provocation for thought or guided discussion; they may be slowly presented to students as the unit progresses. Students can be encouraged to form inquiry questions related to different words as they are presented, or to predict and/or question their place in the forest ecosystem. This will also support your teaching plan, exposing students' interests, misconceptions and gaps in knowledge.

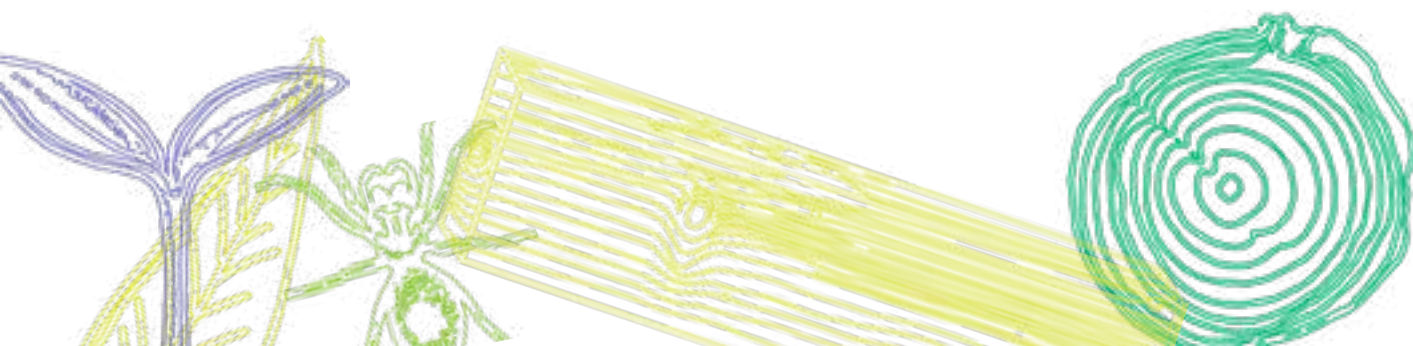
As your unit progresses the map can record your learning journey as students' knowledge builds and develops. As you make a new connection and evolve your students forest literacy you may introduce a new word or question to your map to explore. There are also blank cards for your students to develop their own *Forest Thinking* key words.

Why not display your map for students to reflect on and for families to share in your journey? You may like to develop this as a classroom display that can be added to as you learn more. You might encourage students to illustrate their thinking and record their new learnings, as your unit progresses. Pair this with a word wall to record new language students learn throughout the unit.

Tuning in:

Ask students: What is a Forest?

- Have students think of as many words and ideas as they can about forests.
- *Ask students:* Where would they fit on the *Forest Thinking* map?
- Write down the words and select their appropriate categories. You might see patterns start to develop that you can explore.
- *Ask students:* Do you have anything you are curious or wondering about forests?
- What scientific inquiries could relate to forest ecosystems?



Adopt a Tree



Tremendous Trees

Curriculum Links

Science - Prep Observe external features of plants and animals and describe ways they can be grouped based on these features (AC9SFU01)	Science - Year 1 Identify the basic needs of plants and animals, including air, water, food or shelter, and describe how the places they live meet those needs (AC9S1U01)
HASS - Year 1 The natural, managed and constructed features of local places, and their location (AC9HS1K03)	Science Inquiry Skills - Year 1/2 Make and record observations, including informal measurements, using digital tools as appropriate (AC9S1I03/AC9S2I03)

Learning Intentions:

Students observe and identify the features of trees.
Students identify the ways trees can meet the needs of other living things.

Materials: *My Tree Observations* activity sheet

Providing active and experiential learning opportunities in nature is vital for Early Years students to develop care, curiosity and begin to pose questions about forests. Adopting a tree encourages students to make a personal connection and experience hands on discovery, engaging their five senses.

Tuning in:

Ask students: What do you know about trees? We are going to adopt a tree here at school and learn all about how it grows and changes. Ask your students to choose a tree in your school yard. Students will adopt this tree for the length of your unit. Smell, touch, listen and look closely at your tree and its surroundings.

Guiding questions:

- What words can you use to describe the tree?
- Why are trees important?
- What kinds of animals are living in or around your tree?
- What other living things need trees to survive?
- How are trees connected to non-living things?
- How are people connected to trees?
- Is your tree alive? Is it healthy? How can you tell?

Finding out: Teach students how to draw labelled diagrams and record observations while completing the *My Tree Observations* activity sheet.

Adopt a Tree



Tremendous Trees

Taking your learning further:

- Draw a picture of your tree from different positions/angles.
- Make a bark rubbing. How does your tree's bark feel? Why is bark important?
- Who might use your tree? Use the picture books provided to follow up and identify the local wildlife that might interact with your tree. Do they live in the tree or do they eat it?
- Think about the parts of the tree and explore with students how each part helps the tree stay healthy and grow.
- Draw a picture of a leaf from your tree. Does it smell? How does it feel? Why might they be the shape they are?
- Write a descriptive sentence about the tree.
- Where is your tree? Create a map to show its location.
- Find out what type of tree it is? Does it have fruit, seeds, flowers or any features that will help you identify it?
- Visit your tree multiple times over your unit and observe the changes each visit. Record the changes to your tree. When do flowers or fruit start to appear? Do its leaves drop or change colour?
- Write a paragraph or poem describing your tree.
- Represent your trees connection to other living things in a role play or model.
- Write a story about the life of your tree and the living things that rely on it to survive.



Parts of a Tree



Tremendous Trees

Curriculum Links

Science - Prep

Observe external features of plants and animals and describe ways they can be grouped based on these features (AC9SFU01)

Science - Foundation

Identify the basic needs of plants and animals, including air, water, food or shelter, and describe how the places they live meet those needs (AC9S1U01)

Learning Intentions:

Students observe and identify the features of trees and how they grow.
Students explore the basic needs of trees and how their needs are met.

Materials: *Mystery Bag - Parts of a Tree*, magnifying glasses, *Parts of a Tree* online interactive

Tuning in: *Ask students:* What do trees need to survive? How do they get those things? Every part of a tree is important and helps it to grow and stay healthy. We are going to explore the parts of a tree and why they might be important.

Use *Mystery Bag - Parts of a Tree* to examine the parts of a tree.

Let's find out:

1. Access *Parts of a Tree* online interactive.
2. Have students name and describe all the parts of a tree using the image as stimulus.
3. Roll the cursor over the icons to identify each tree part. Click the icon to find out its role and expose a question to explore.

Taking your learning further:

- Create a tree collage to represent the texture of your tree and its features.
- Sing a *tree song*.
- Use *Parts of a Tree Magnets* to explore and label the features of a tree.
- Role play or represent the way a tree meets its needs - How does the sun, soil, rain help it survive?
- Collect a range of tree parts for an investigation and/or art station.
- Use magnifying glasses to look closer at the parts of the tree.
- Draw scientific representations of the parts of a tree.
- Setup a tree parts sorting and classifying station.
- Create a nature collectors' station and encourage students to bring in interesting parts of trees they have found.

Forest Calendar



Tremendous Trees

Curriculum Links	
Science - Prep Observe external features of plants and animals and describe ways they can be grouped based on these features (AC9SFU01)	Science - Year 2 Describe how people use science in their daily lives, including using patterns to make scientific predictions (AC9S2H01)
Science - Year 1 Describe daily and seasonal changes in the environment and explore how these changes affect everyday life (AC9S1U02)	Science Inquiry Skills - Year 1/2 Pose questions to explore observed simple patterns and relationships and make predictions based on experiences (AC9S1I01/AC9S2I01)

Learning Intentions:

Students make observations

Materials: *Mystery Bag - Parts of a Tree*, magnifying glasses, *Parts of a Tree* online interactive <http://www.forest-education.com/parts-of-a-tree-interactive-page/>

Tuning in: Ask students to describe the weather outside. Brainstorm words which describe the weather and which seasons you more commonly experience each type of weather.

Finding out: Explore with the images on the season cards of the calendar. Read the rhymes that go with each season and explore what else could happen in that season. *Ask students:* What would you see in the forest in Winter? Repeat with other seasons, researching and naming seasonal changes yourself where required. *Ask students:* What would you wear in the forest in Summer? Encourage them to identify other changes, such as temperature, during the seasons.

Use the calendar each morning to check in with the key date and weather information for the day. Refer to digital records (e.g., weather reports) to confirm specific temperatures.

Taking your learning further:

- Act it out! Go on a pretend bushwalk through the forest in Winter, Summer, Spring or Autumn.
- Have students create drawings, collages or even dioramas of the forest in a chosen season.
- Explore the role of meteorologists in noticing weather patterns and creating weather reports.
- Consider common patterns in weather in the season you're in and have students predict the weather for the following day. Make sure they give their supporting evidence!
- Explore why animals might commonly reproduce in Spring over Winter. How does seasonal change affect animals? How does it affect humans?

Leaf Litter

Reading



Tremendous Trees



Tuning in: Look closely at the cover of *Leaf Litter* by Rachel Tonkin. Ask students: What might this book be about? What are the pictures/words telling us? What does the term *leaf litter* make you think?

Explain to students that the book explores the forest floor - somewhere we might often forget to look.

Choose a page or two from *Leaf Litter* by Rachel Tonkin to read as a class. Explore the images throughout the book. You might choose to only focus on the introduction page and the pages which relate to the season you are currently in.

Post reading guiding questions:

- What did we learn from the book?
- Why is leaf litter important?
- How is it different to human litter?
- What kinds of living things rely on leaf litter and how?

Taking your learning further:

- Read *Leaf Litter: A whole world under our feet* - Group or guided reading online
 - How are the living things that make their home in the leaf litter different?
 - What scientific words can you find? What do they mean?
- Conduct the following activity, *Leaf Litter Investigation*

Leaf Litter Investigation



Tremendous Trees

Curriculum Links

Science - Prep

Observe external features of plants and animals and describe ways they can be grouped based on these features (AC9SFU01)

Science - Year 1

Identify the basic needs of plants and animals, including air, water, food or shelter, and describe how the places they live meet those needs (AC9S1U01)

Science Inquiry Skills

Pose questions to explore observed simple patterns and relationships and make predictions based on experiences (AC9S1I01/AC9S2I01)

Make and record observations, including informal measurements, using digital tools as appropriate (AC9S1I03 AC9S2I03)

Learning Intentions:

Students identify the ways trees can meet the needs of living things.

Materials: *Leaf Litter* by Rachel Tonkin, Trays to store/collect leaves, *Leaf Litter: A whole world under our feet* <http://www.forest-education.com/leaf-litter-reading/>

Tuning in: Ask students: What is leaf litter? What could be find out if we studied it? What questions could we ask about leaf litter? Record these.

We are going to go and collect a range of different leaves from the ground in our school yard to learn more. Have students collect as many different leaves as they can in a small group.

Finding out:

Students display the leaves they have collected for the group and examine them closely.

Guiding questions:

- How might we sort our leaves?
- How are they the same? How are they different?
- How does your leaf feel/smell?
- What colour/s are your leaves? Why might they be different?
- Is there anything unusual about a leaf you found? Does it have serrated (teeth) edges, hairs?
- Trace the leaves veins with your fingers. What do our veins do? Why might a tree have veins?

Taking your learning further:

- Create leaf art- ink drawings, rubbings or prints.
- Represent your leaf classifying and sorting with a graph made of leaves.

Habitat Tree



Tremendous Trees

Curriculum Links

Science - Prep

Observe external features of plants and animals and describe ways they can be grouped based on these features (AC9SFU01)

Science - Year 1

Identify the basic needs of plants and animals, including air, water, food or shelter, and describe how the places they live meet those needs (AC9S1U01)

Learning Intentions:

Students explore the role and importance of trees.

Students identify the ways trees can meet the needs of living things.

Materials: *Parts of a Tree* cards, *Habitat Tree* cards, *Life in a Hollow* by David Gullan and Suzanne Houghton

Tuning in: Read *Life in a Hollow* by David Gullan and Suzanne Houghton and discover the many Australian animals who call a hollow a home. This text also follows a timeline of the formation of a hollow, which can be further explored using the FPA text (also in the box) which illustrates types of tree hollows that can form on the trunks and branches of trees.

As a class, build a model of a eucalypt tree using the *Parts of a Tree* cards. You could use natural materials from outside, have students use their bodies, or craft a model as a class.

Finding out:

1. Students are given a *Habitat Tree* card in pairs and must decide which part of the tree their species would live or forage for food in. They should consider the size of the animal, its diet, as well as structural features and behavioural characteristics. There is information on the back of each card to help students, if required.

Guiding questions:

- Which animals eat parts of the tree? Which use the tree as their home?
- Why is it important that all parts of the tree are healthy?
- If you had to live in a tree, which part would you choose to live? Why?
- Even if a tree dies, it is still an important habitat for many animals. Which animals could still live in parts of a dead tree?
- How is your animal connected to another living thing on the tree?

Taking your learning further:

- Add to your tree model and include the living things interacting with your tree.

Nature Musical



Tremendous Trees

Curriculum Links

Science - Year 2

Explore different actions to make sounds and how to make a variety of sounds, and recognise that sound energy causes objects to vibrate (AC9S2U02)

Learning Intentions:

Students identify the different ways people use forest products in their daily life.

Materials: A variety of timber instruments, for example, maracas, rhythm sticks, guiro, castanet, xylophone, rain stick, guitar (Did you know different tree species makes unique guitar sound?) etc.

Tuning in:

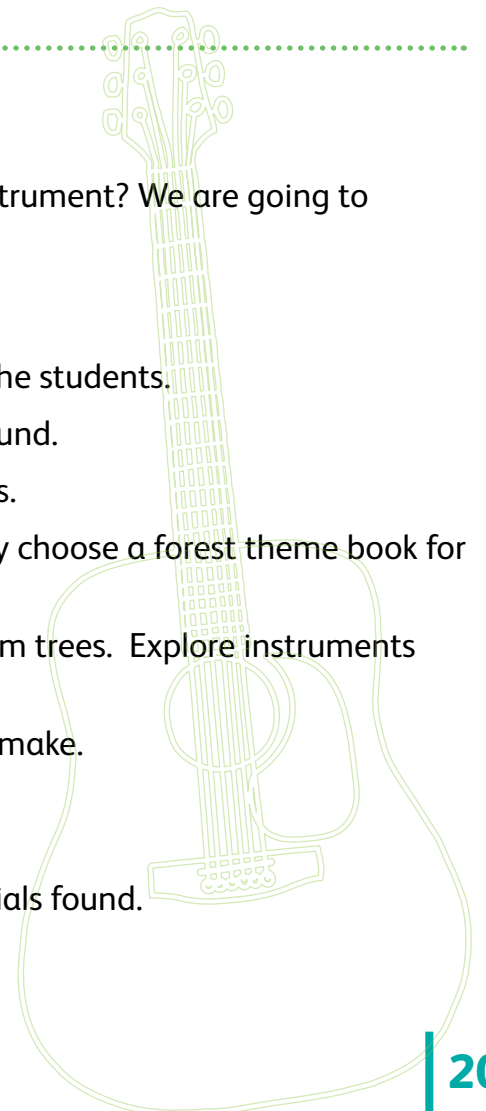
Ask students: What is a musical instrument? Can a tree be an instrument? We are going to explore the sounds that things from nature can make.

Let's find out:

1. Collect a range of natural materials- leaves, sticks, bark with the students.
2. Explore the sounds they can make, with the materials they found.
3. Have students record their findings through labelled diagrams.
4. Can you make a nature sounds musical/soundscape? You may choose a forest theme book for the students to develop a soundscape to.
5. Demonstrate to student that many instruments are made from trees. Explore instruments that are made from wood/tree products.
6. Explore the different types of sound the wood/tree materials make.

Taking your learning further:

- Make your own musical instruments out of the natural materials found.



Wonderful Wood



Tremendous Trees

Curriculum Links

Science - Year 2

Recognise that materials can be changed physically without changing their material composition and explore the effect of different actions on materials including bending, twisting, stretching and breaking into smaller pieces (AC9S2U03)

Learning Intentions:

Students identify the uses of wood as a material.

Materials: Wood sample and tree stem/branch, *Our Daily Wood* online interactive <http://www.forest-education.com/our-daily-wood/>, *Wonderful Wood* activity sheet

Tuning in: Hold up a tree stem and wood sample.

Ask students: What are these? What do they have in common? Where do they come from?

What do you think of when I say the word *Wood*: List the ideas on the white board.

Explain to students that wood is part of a tree that has been transformed from one form into another...into wood.

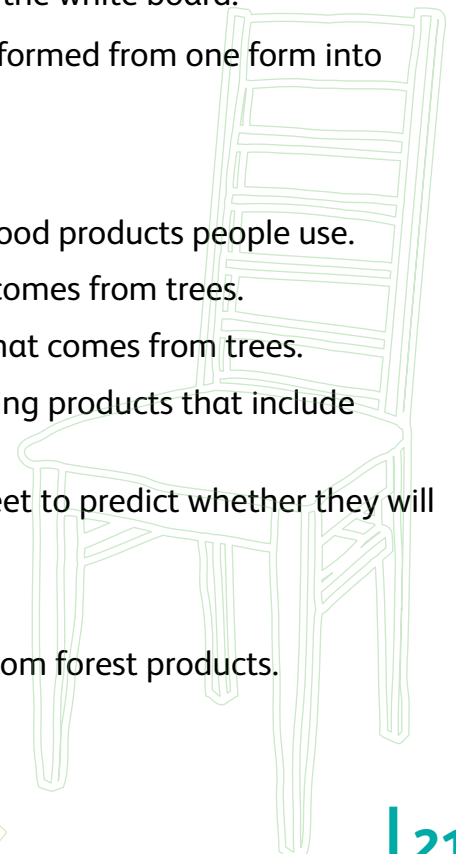
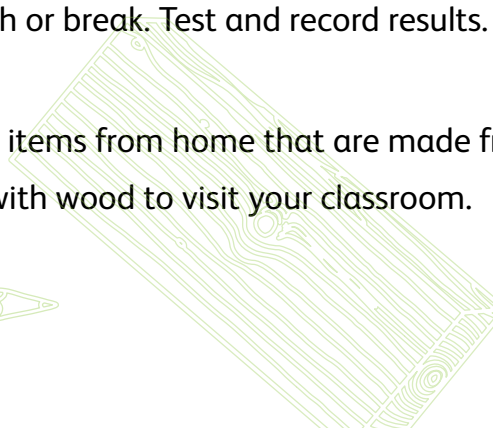
Finding out:

Explain to students that they will be exploring different types of wood products people use.

1. Look around the classroom and list anything you can see that comes from trees.
2. Go on a hunt around your school and photograph everything that comes from trees.
3. Visit *Our Daily Wood* online to explore the strange and interesting products that include forest products.
4. Collect wood samples and use the *Wonderful Wood* activity sheet to predict whether they will be able to bend, twist, stretch or break. Test and record results.

Taking you learning further:

- Encourage students to bring items from home that are made from forest products.
- Invite someone who works with wood to visit your classroom.



How can we care for forests?



Tremendous Trees

Curriculum Links

Science - Prep	HASS - Year 1	HASS Inquiry Skills - Year 1/2
Observe external features of plants and animals and describe ways they can be grouped based on these features (AC9SFU01)	The natural, managed and constructed features of local places, and their location (AC9HS1K03) How places change and how they can be cared for by different groups including First Nations Australians (AC9HS1K04)	Develop questions about objects, people, places and events in the past and present (AC9HS1S01/AC9HS2S01) Discuss perspectives related to objects, people, places and events. (AC9HS1S04/AC9HS2S04)

Learning Intentions:

Students explore their personal connections to place.

Students identify perspectives related to forests and how they can be cared for by different groups.

Understanding their personal connections to forests encourages students to appreciate their and consider the ways that forest landscapes meet a wide range of peoples needs.

Tuning in: Explore the school grounds, local park or nearby reserve. Create a large map of the natural, managed or constructed features of the chosen place. Develop and record a shared definition of natural, managed and constructed features.

Ask students:

- Which features do you like most? Which do you feel connected to and why?
- What features are natural, managed or constructed in a forest?
- Why are forests important?
- Who are forests important to?
- How can we care for forests?

Finding out: Invite members of the local community (i.e., groundskeeper, council worker, gardener) to speak with the classroom about their role in caring for the chosen place. Have students develop questions to ask this person. Create a shared 'How To Care for _____' poster to put up at the chosen place.

Taking your learning further:

Encourage student action –

- Organise a trip to the forest.
- Arrange a tree planting day.
- Invite in experts to share how they care about forests.
- Explore green habits that students can exhibit – turn lights off, Reduce, Reuse and Recycle, pick up litter.



Tremendous Trees

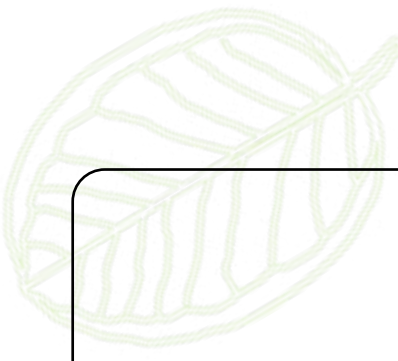
Support Materials

Content

- **My Tree Observations**
- **Scientific Observation**
- **See/Think/Wonder**
- **Habitat Tree**
- **Wonderful Wood**



My Tree Observations



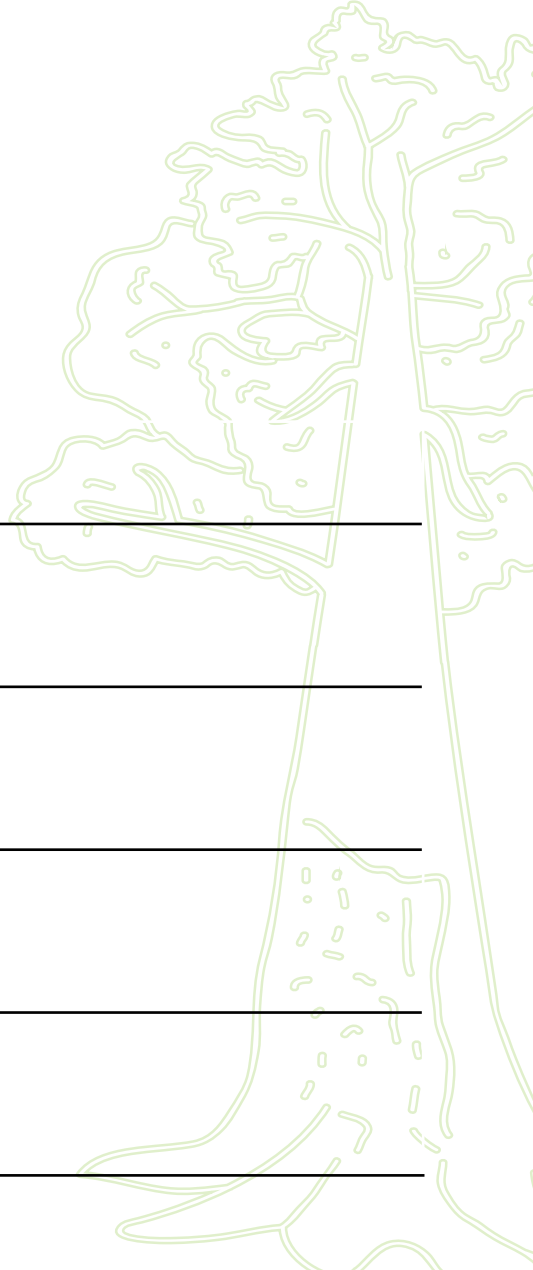
Draw your tree

What do the leaves look like?

Name the parts of your tree

-
-
-
-
-
-

Describe your Tree



Scientific Observation

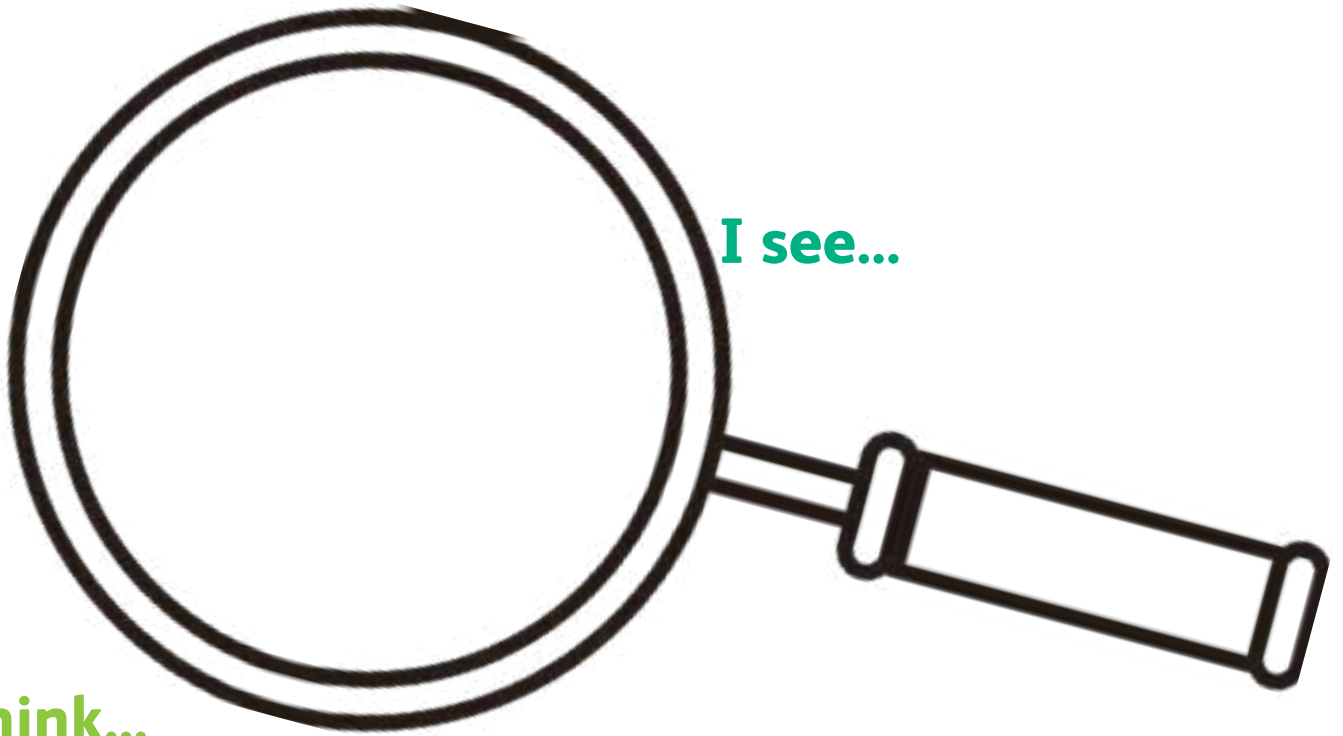
- What can you see?
- What do you wonder?
- What have you learnt?

Draw a picture



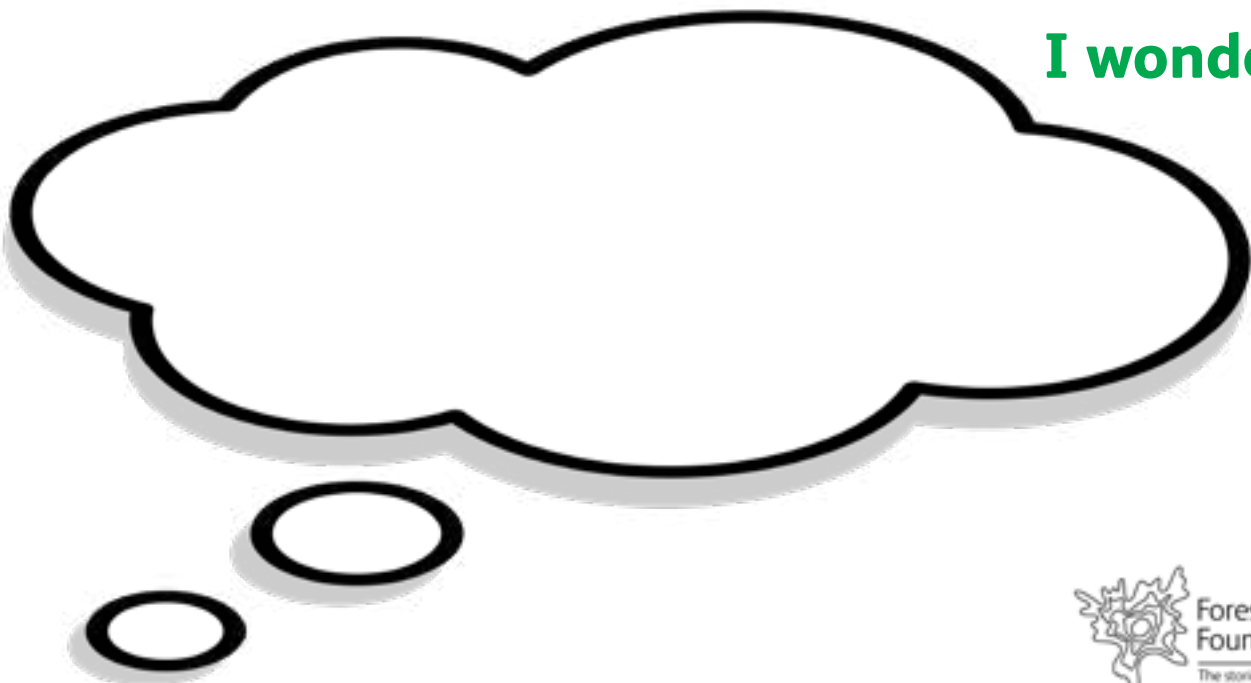
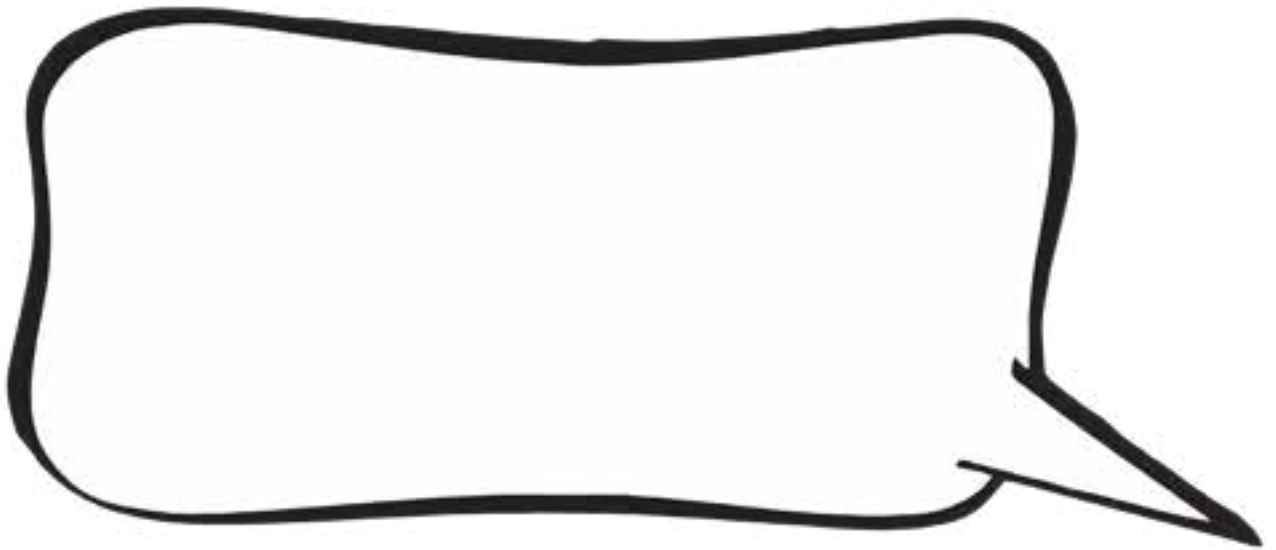
Write a sentence about your specimen

See, Think, Wonder



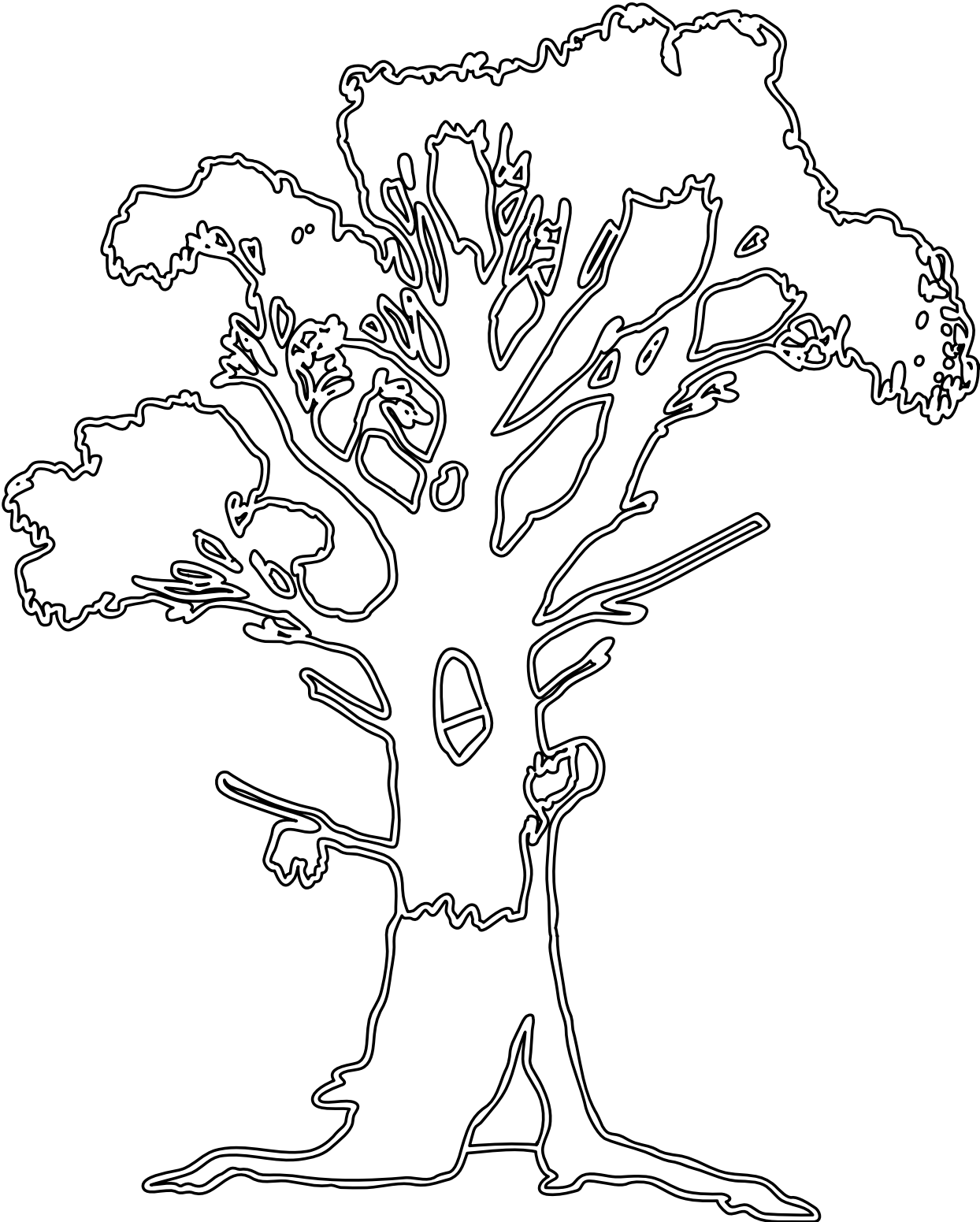
I see...

I think...



I wonder...

Habitat Tree



Wonderful Wood



1. Collect a wood sample and predict whether it will or will not be able to bend, twist, stretch or break.
2. Test your wood and record your findings.

	I predict...	I found that...
Will your wood bend ?		
Will your wood twist ?		
Will your wood stretch ?		
Will your wood break ?		

3. What is wood useful for? Draw 4 items that people make out of wood.



Tremendous Trees

Song Time

Content

- **The Trees in the Forest**
- **Head, Shoulders, Knees and Trees!**
- **Trees**
- **Let's Take a Walk in the Forest**

Song Time



Tremendous Trees

The Trees in the Forest

*Tune: Wheels on the bus

The roots of the tree go *slurp, slurp, slurp* ^{x3}

The roots of the tree go slurp, slurp, slurp

All around the forest.

The trunk of the tree stands *tall and straight* ^{x3}

The trunk of the tree stands tall and straight

All around the forest.

The bark of the tree *protects the tree* ^{x3}

The bark of the tree protects the tree

All around the forest.

The branches of the tree *reach the sun* ^{x3}

The branches of the tree reach the sun

All around the forest.

The leaves of the tree *make the food* ^{x3}

The leaves of the tree make the food

All around the forest.

The seeds of the tree *grow new trees* ^{x3}

The seeds of the tree grow new trees

All around the forest.



Head, Shoulders, Knees and Trees!

*Tune: Head, Shoulders, Knees and Toes

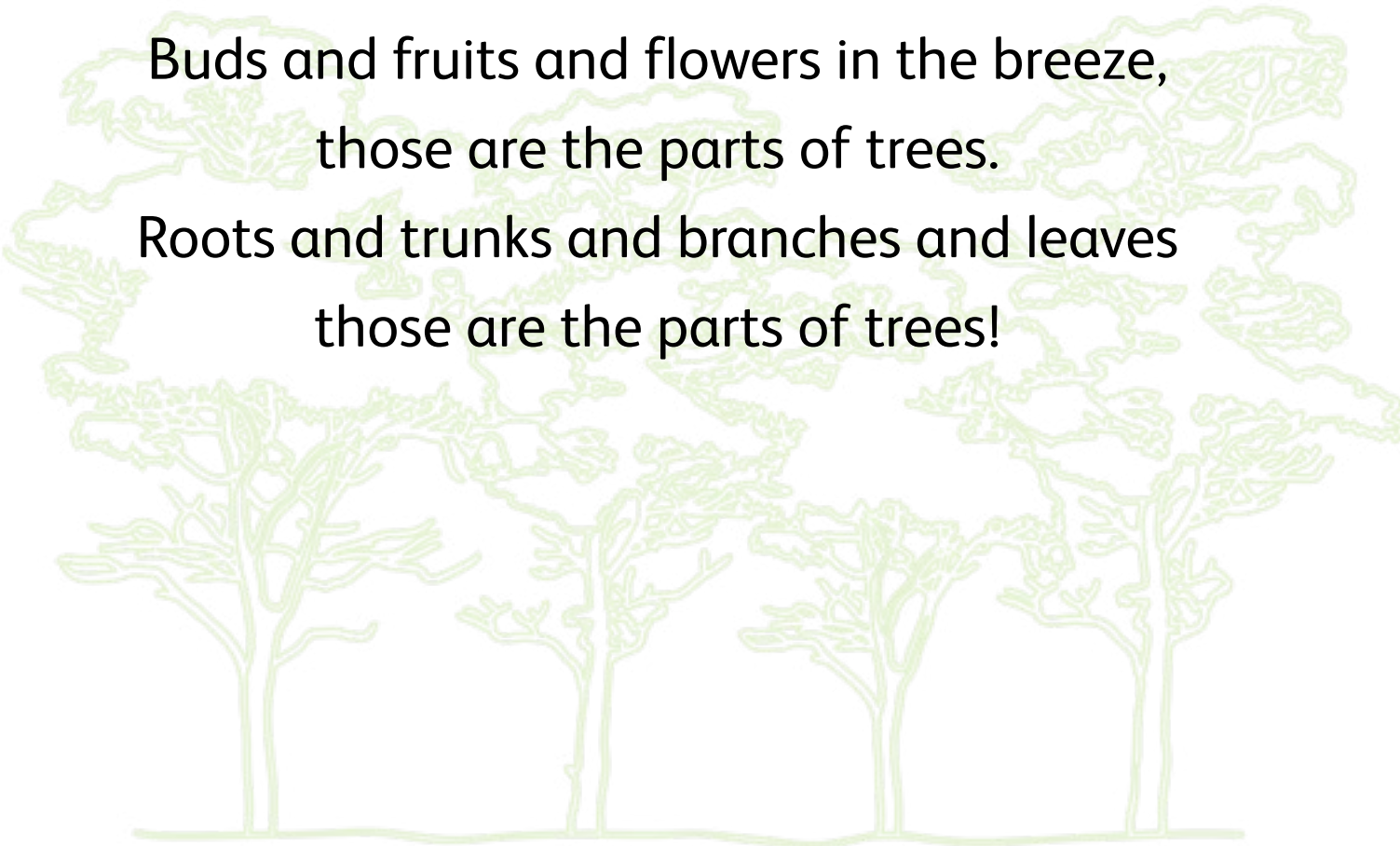
.....

Roots, trunks, branches, leaves,
branches, leaves.

Roots, trunks, branches, leaves,
branches, leaves.

Buds and fruits and flowers in the breeze,
those are the parts of trees.

Roots and trunks and branches and leaves
those are the parts of trees!



Song Time



Tremendous Trees

.....

The trees are growing roots,
The trees are growing roots.
With soil and rain and sunny days,
The trees are growing roots.

The trees are growing bark,
The trees are growing bark.
With soil and rain and sunny days,
The trees are growing bark.

The trees are growing high,
The trees are growing high.
With soil and rain and sunny days,
The trees are growing high.

The trees are growing seeds,
The trees are growing seeds.
With soil and rain and sunny days,
The trees are growing seeds.

New trees are growing now,
New trees are growing now.
With soil and rain and sunny days,
New trees are growing now.

What other
verse could you
add?

e.g., The trees
are forming

Song Time

Let's Take a Walk in the Forest

*Tune: Adapted from Walking in the Jungle -

<https://www.youtube.com/watch?v=GoSq-yZcJ-4&vl=en>

.....



Tremendous Trees

Walking in the forest.

Walking in the forest.

We're not scared.

Walking in the forest.

Walking in the forest.

One step. Two steps. Three steps forward.

One step. Two steps. Three steps back.

Stop. Listen. What's that?

It's a ...

Stomping in the forest.

Stomping in the forest.

One step. Two steps. Three steps forward.

One step. Two steps. Three steps back.

Stop. Listen. What's that?

It's a....

Skipping in the forest.

Skipping in the forest.

One step. Two steps. Three steps forward.

One step. Two steps. Three steps back.

Stop. Listen. What's that?

It's a....

Students choose different native animals or teacher hold up image cards of animals to prompt



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Contact the FEF

The Forest Education Foundation Inc. (FEF) is a not-for-profit educational institution staffed by qualified and experienced teachers.

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