

Primary Section

Years 3 - 6



Government of South Australia
Primary Industries and Resources SA

Primary Section

An Introduction for Teachers

Welcome to the Primary Section of this resource.

In this section you will find everything you need to implement a successful unit of work on the topic of Forests and Forestry. All Lesson Ideas and Activities are specifically designed for students from Year 3 to Year 6 and each has been designed to allow maximum flexibility in catering for different needs in the classroom. Lesson Plans, Student Activity Sheets, Extension Ideas and a comprehensive list of resources will make planning your unit of work both successful and enjoyable.

Lesson Plans and Accompanying Activity Sheets

Each lesson plan is designed to be taught as a sequential component of the topic, but can also be taught as a stand-alone lesson. They have been specifically designed for Year 3 to Year 6 students.

Each lesson plan has a correlating activity sheet on the page opposite. Teachers may photocopy these sheets for classroom use. The sheets are appealing to students and allow them to easily record their learning and experiences. They are also essential for you to monitor, record and assess your students' learning and development.

Book List

This section includes a list of resources that complement these units of work.

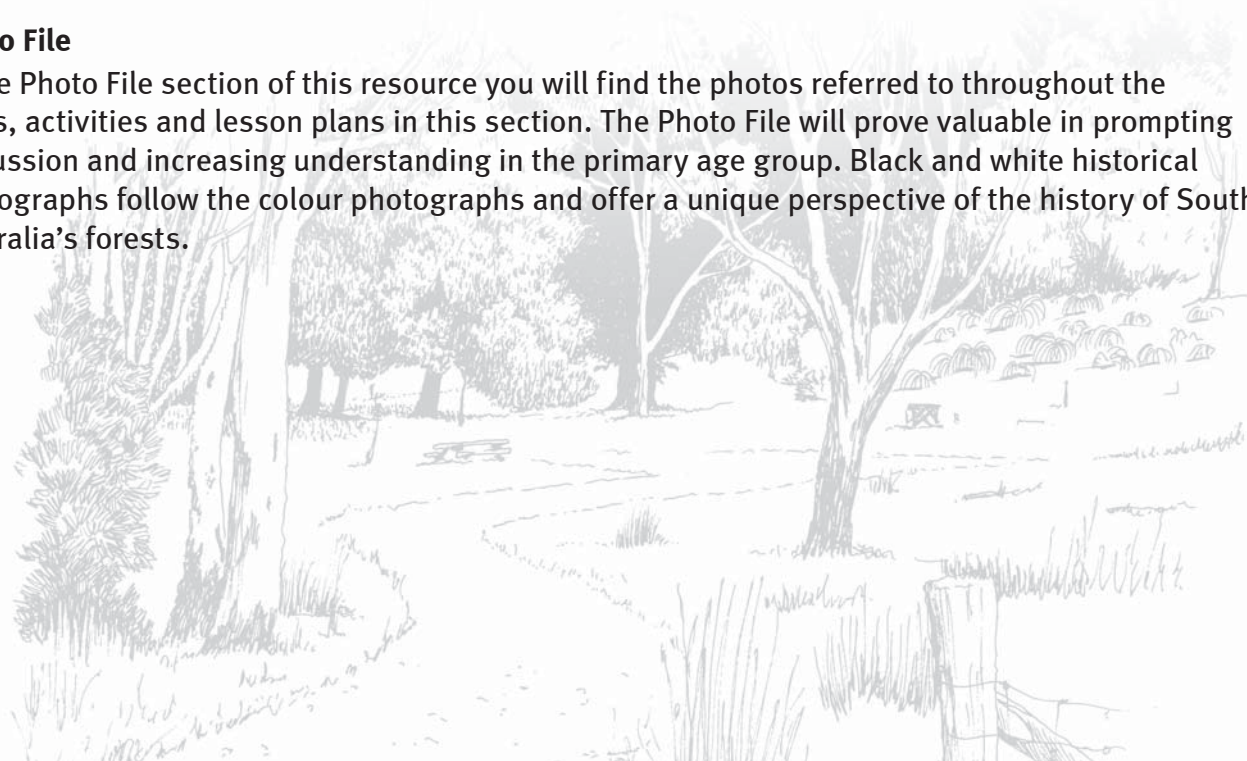
Extension Ideas

At the end of this section you will find a page entitled *Extension Activity Ideas*. These ideas can be used to extend fast workers and students with higher intellectual potential. The activities require little or no resources and preparation. The ideas and activities are designed so that students can work on them individually and independently. They may also be adapted and used as whole class activities should you wish to extend and build upon the lesson plans.

The extension ideas may also be helpful in composite classes.

Photo File

In the Photo File section of this resource you will find the photos referred to throughout the ideas, activities and lesson plans in this section. The Photo File will prove valuable in prompting discussion and increasing understanding in the primary age group. Black and white historical photographs follow the colour photographs and offer a unique perspective of the history of South Australia's forests.



Lesson Ideas in Key Learning Areas

Studies of Society and the Environment

- 🌳 List some of the industries and jobs that rely on forest products.
- 🌳 Visit the **Forestry in the Early Days** section of the **ForestrySA** website and read about the history of forests. Record ten interesting facts to share with the class.

Science and Technology

- 🌳 Using a blank piece of paper (*which is a forestry product*), create a design for a house or a piece of furniture which does not use any forest products.
- 🌳 Design your ultimate tree house.
- 🌳 Look at three of the photos on forestry. What technology is evident in them?

English and Language

- 🌳 Write a story about an animal that lives in a forest.
- 🌳 Research and prepare a report on the famous foresters Richard St. Barbe Baker, Walter Gill or John Ednie Brown.
- 🌳 Write an acrostic poem or limerick about a forest tree.
- 🌳 Write a story about a happy tree. Why is the tree happy? Write a story about a sad tree. Why is the tree sad? Discuss what we can do to help trees.
- 🌳 Integrate this unit of work with the LOTE teacher and encourage students to learn keywords for the topic in the school's second language.

Health and Physical Education

- 🌳 Participate in an obstacle course through a forest.
- 🌳 Visit the **ForestrySA** website and click on the 'recreation' link. What activities can you enjoy in forests?
- 🌳 Organise a class bicycle ride or hike through a local forest.

Mathematics

- 🌳 How many trees can you see from your classroom window?
- 🌳 Calculate how long it would take for a piece of timber to be produced. What factors do you need to consider?
- 🌳 Find out how the age of trees is measured.
- 🌳 Measure the height of some trees and plants in your school and record the results.

The Arts

- 🌳 Draw or paint a copy of, and write a caption for, two of the photos in the Photo File.
- 🌳 Design and make a sign that you might see or need in a forest.
- 🌳 Use various craft materials to make a house for a forest animal.
- 🌳 Draw a picture of your favourite tree.
- 🌳 Use different-coloured soils and clays to create a piece of artwork in an indigenous style.
- 🌳 Create a collage using grasses, leaves, bark, pine needles and other natural materials.

Lesson Plan

What is a Forest?

Task

- 🌲 To introduce the topic of Forests and Forestry.
- 🌲 Find out what the students already know about the topic.
- 🌲 Establish which areas within the topic they would like to investigate further.
- 🌲 Create and provide a foundation for interesting discussion and learning.

Key Learning Areas

- 🌲 Studies of Society and the Environment.
- 🌲 English and Language.

Resources Needed

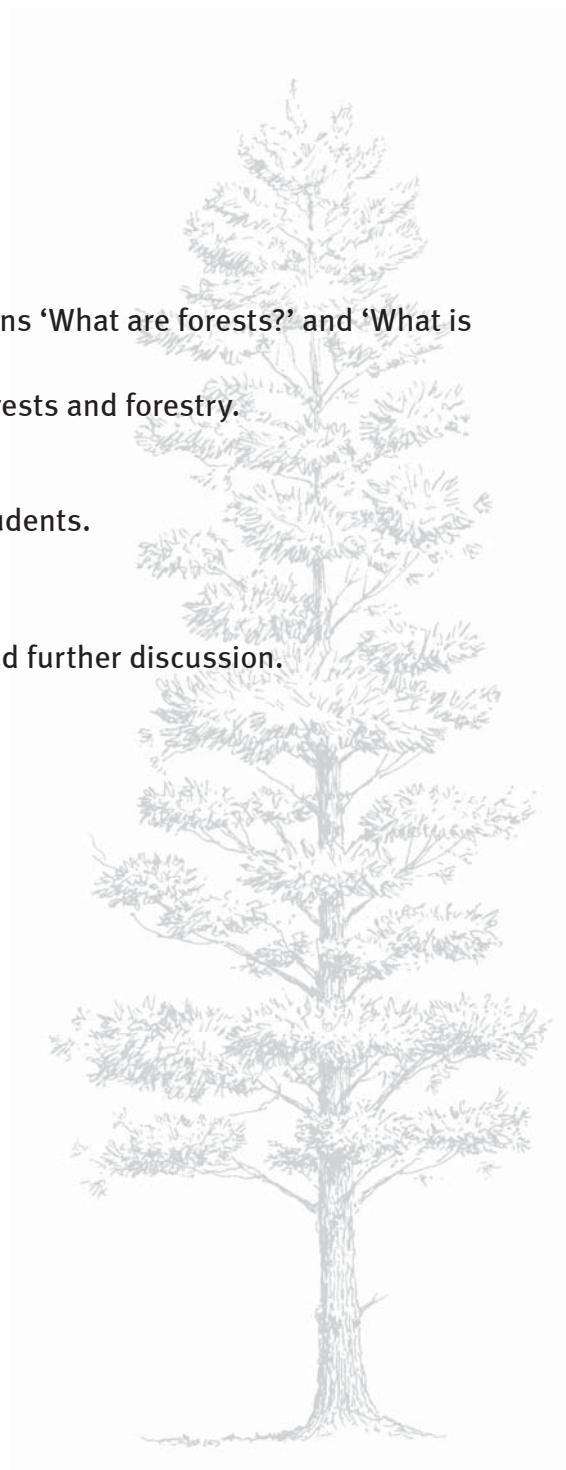
- 🌲 Photo File (*found in this resource*).
- 🌲 Activity Sheet.
- 🌲 Information about local and state forest reserves.

Learning Outcomes

- 🌲 Students will begin to be able to answer the questions ‘What are forests?’ and ‘What is forestry?’
- 🌲 Students will be able to identify key words about forests and forestry.

Lesson Layout

- 🌲 Introduce the topic of Forests and Forestry to the students.
- 🌲 Create a forum for a class discussion.
- 🌲 Work on the activity sheets individually or in pairs.
- 🌲 Come together as a class to share learning, ideas and further discussion.



What is a Forest?

What do you think of when you think of forests?



What sorts of things can you find in a forest?

What do you already know about forests?

What are some questions you have about forests?

Do you know of any forests in your State?

Where do you think you could look for further information?

Draw a picture of a forest below.

Lesson Plan

Photo Gallery

Task

- 🌳 Wall collage construction.

Key Learning Areas

- 🌳 Studies of Society and the Environment.
- 🌳 The Arts.

Resources Needed

- 🌳 Photo File (*found in this resource*).
- 🌳 Additional photographs, pictures and posters of forests.
- 🌳 Field guides to native trees and plants.

Learning Outcomes

- 🌳 Students will have the opportunity to understand that nearly all communities have a variety of open spaces for use by people.
- 🌳 Students will be able to identify different open spaces in the environment that are for different types of use.
- 🌳 Students will begin to realise that people value forests in different ways.

Lesson Layout

- 🌳 Students will each have an opportunity to share their family pictures of forests, and other collected photographs and pictures with the class.
- 🌳 Students will sort the pictures into various categorised groups.
- 🌳 Students will actively engage in discussion about the pictures.
- 🌳 Students will begin to be aware of the features of forests.

Lesson Note

Instead of a wall collage you might like to create a class book.



Photo Gallery

Look closely at your forest wall collage or class book, and answer the following questions:

How and why are forests as open spaces important to different groups of people?

Which parts of a forest are constructed by people?

Why and how do people cooperate to care for forests?

What can you expect to find in a forest?

Who works in forests?

Who and what uses forests?

How would you feel if there were no forests or wide-open spaces?

What can you do to help look after and preserve naturally-grown forests?



Lesson Plan

What is a Tree?

Task

- 🌳 Identifying and labelling different parts of a tree.

Key Learning Areas

- 🌳 Studies of Society and the Environment.
- 🌳 Science and Technology.
- 🌳 English and Language.

Resources Needed

- 🌳 Photocopied sheets.

Learning Outcomes

- 🌳 Students will be able to answer the question – ‘What is a tree?’
- 🌳 Students will know how to identify different parts of a tree.
- 🌳 Students will appreciate the importance of trees and what they provide for people and the environment.
- 🌳 Students will understand that there are different types of trees.

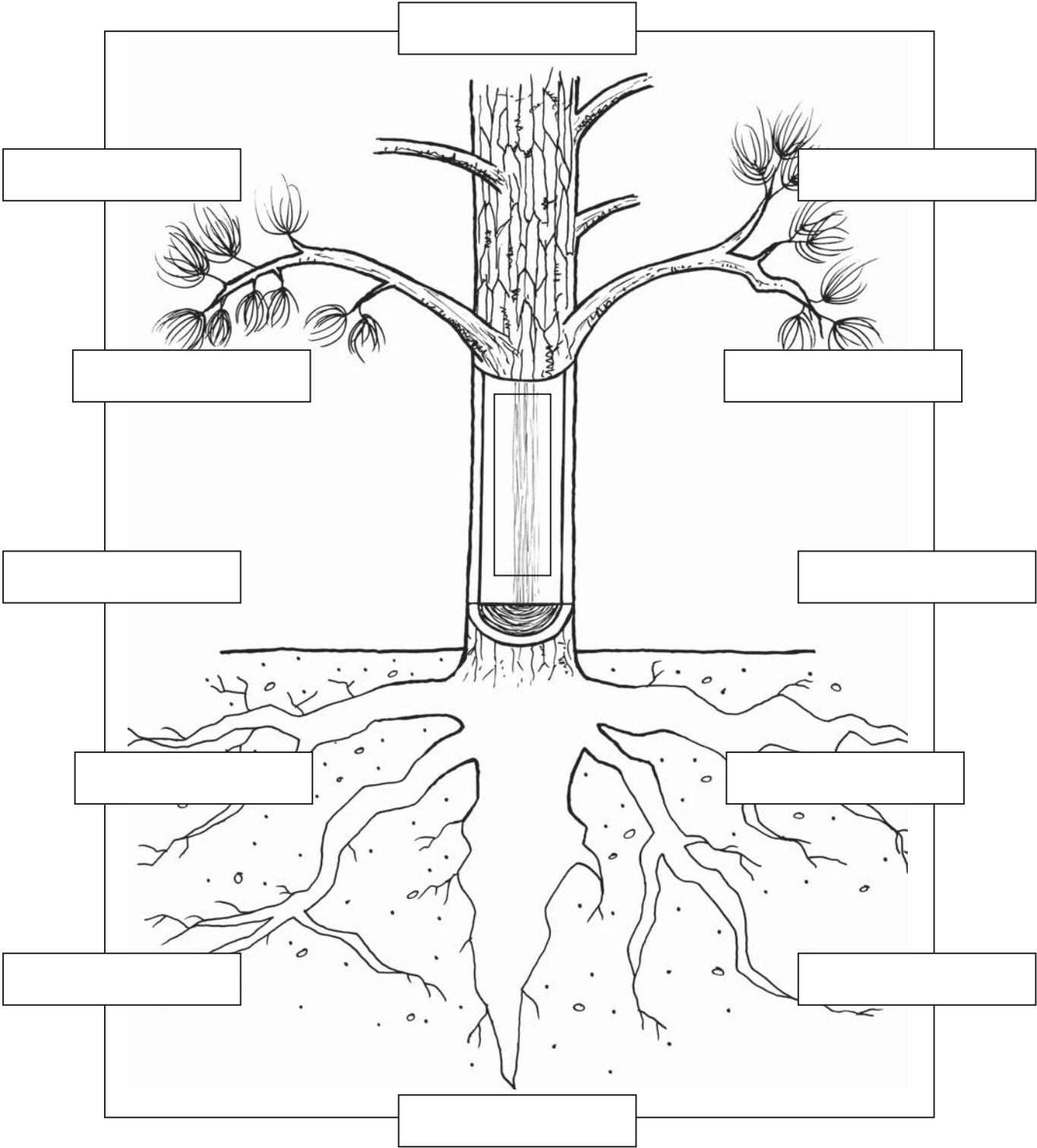
Lesson Layout

- 🌳 In a whole group class discussion ask the students which parts of a tree they can already name.
- 🌳 Display the correlating activity sheet and discuss any additional parts of a tree.
- 🌳 Children colour and label the diagram of a tree.



What is a Tree?

Use the words below to correctly label the diagram of a tree.



Pith
Bark
Branches

Trunk
Outer bark
Leaves/needles

Inner bark
Lateral roots
Heartwood

Tap root
Twigs
Roots

Solution on page 76.

Lesson Plan

Are Forests a Valuable Resource?

Task

- 🌳 Identify and explore the resources produced by and from forests.

Key Learning Areas

- 🌳 Studies of Society and the Environment.
- 🌳 Science and Technology.
- 🌳 English and Language.

Resources Needed

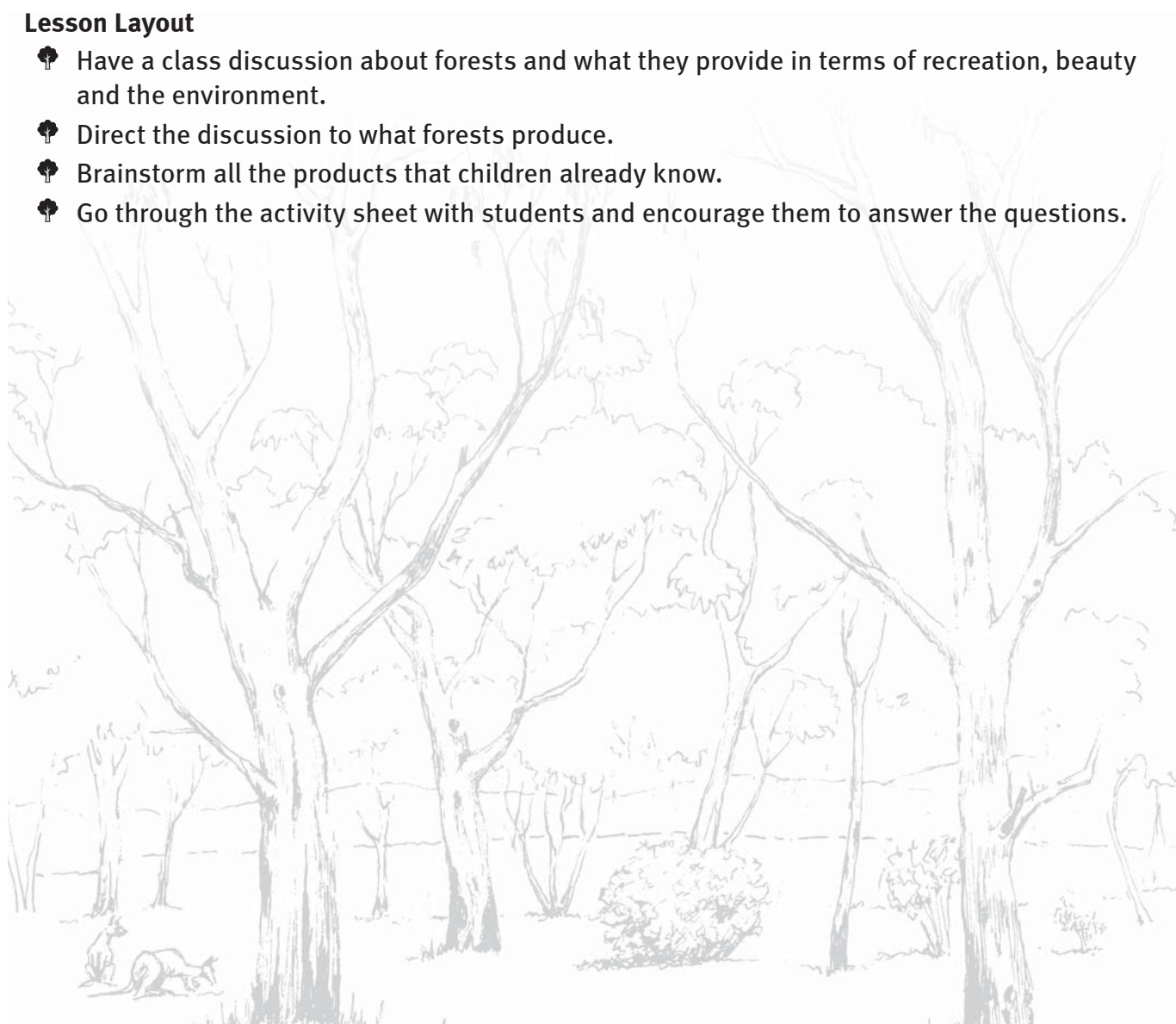
- 🌳 Forestry Background Information (*See Forestry Fact Sheets - What is a Forest? Forests in South Australia and The History of Forestry in South Australia*).

Learning Outcomes

- 🌳 Students will begin to understand that there are many products that come from forests.
- 🌳 Students will learn about the different resources produced by and from forests.

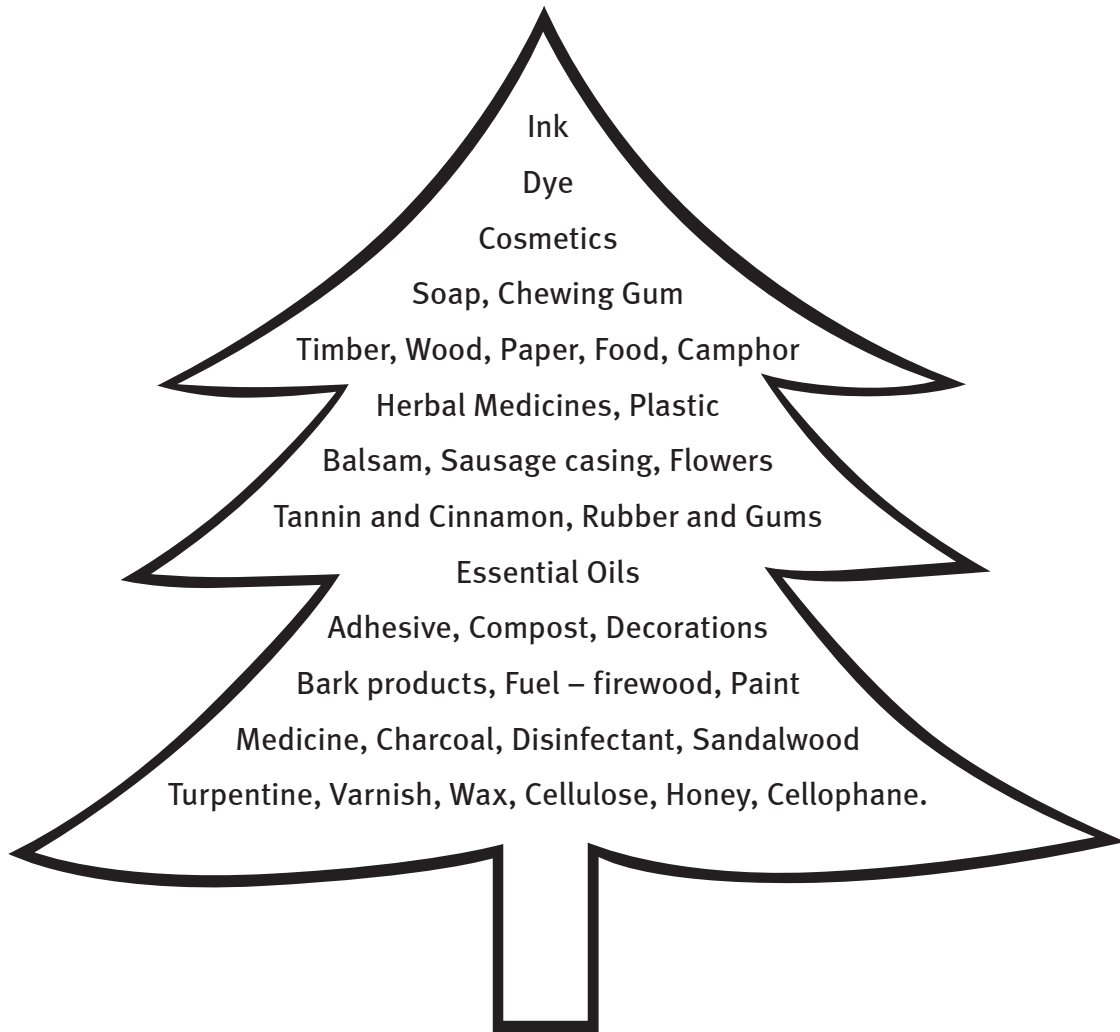
Lesson Layout

- 🌳 Have a class discussion about forests and what they provide in terms of recreation, beauty and the environment.
- 🌳 Direct the discussion to what forests produce.
- 🌳 Brainstorm all the products that children already know.
- 🌳 Go through the activity sheet with students and encourage them to answer the questions.



Are Forests a Valuable Resource?

Forests produce all the following products:



What are some of the uses of these products?

List those products you did not think were produced by forests?

Lesson Plan

Trees Count! - The Big Tree Count!

Task

- 🌳 To conduct a count of the trees within the school or local area.
- 🌳 To identify native trees.

Key Learning Areas

- 🌳 Studies of Society and the Environment.
- 🌳 Mathematics.

Resources Needed

- 🌳 Paper, pencils, clipboards.

Learning Outcomes

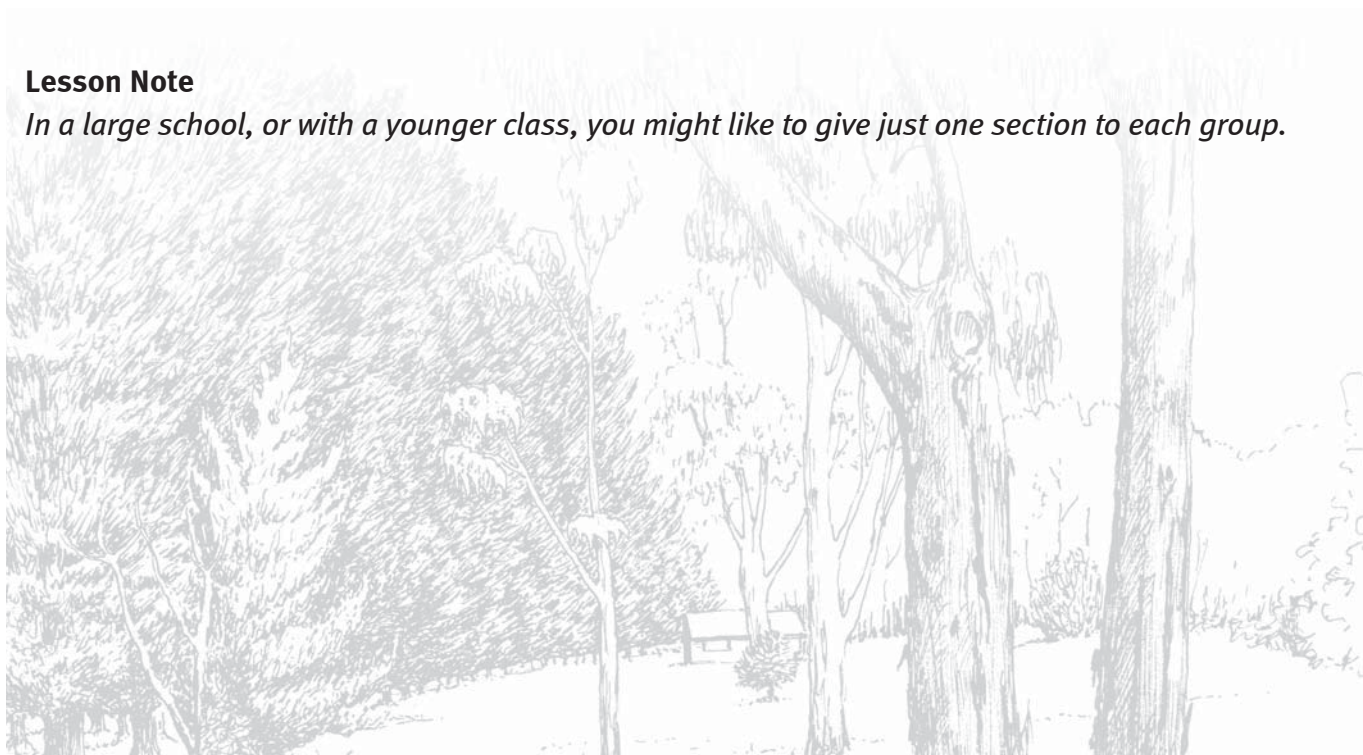
- 🌳 Students will be able to identify native trees.
- 🌳 Students will work together in small groups to reach a directed outcome.
- 🌳 Students will become more aware of the importance of native trees and bush in their local area.

Lesson Layout

- 🌳 Divide the outdoor areas of the school into sections.
- 🌳 Categorise the trees in the school grounds into native and introduced species.
- 🌳 Students are to form small groups and head off around the school grounds.
- 🌳 One task is to count and number the trees in each section.
- 🌳 The second task is to list the type of trees in each section.
- 🌳 Work out the percentage of native trees.
- 🌳 How can we encourage more native birds and other animals to live in our local area?

Lesson Note

In a large school, or with a younger class, you might like to give just one section to each group.



Trees Count! - The Big Tree Count!

My group name is:

The people in my group are:

Number of trees counted: _____

Section 1 <i>(e.g. junior playground area)</i>	Tree Tally	Native Trees
Section 2	Tree Tally	Native Trees
Section 3	Tree Tally	Native Trees
Section 4	Tree Tally	Native Trees

Comments about this task and what my group found out.

Lesson Plan

The 'All About Trees' Crossword

Task

- 🌳 Students are to complete the crossword using information they have learnt about this topic in previous lessons, and by researching on the Internet.

Key Learning Areas

- 🌳 Studies of Society and the Environment.
- 🌳 Science and Technology.
- 🌳 English and Language.

Resources Needed

- 🌳 Crossword sheets.
- 🌳 Internet access.
- 🌳 Library reference books.

Learning Outcomes

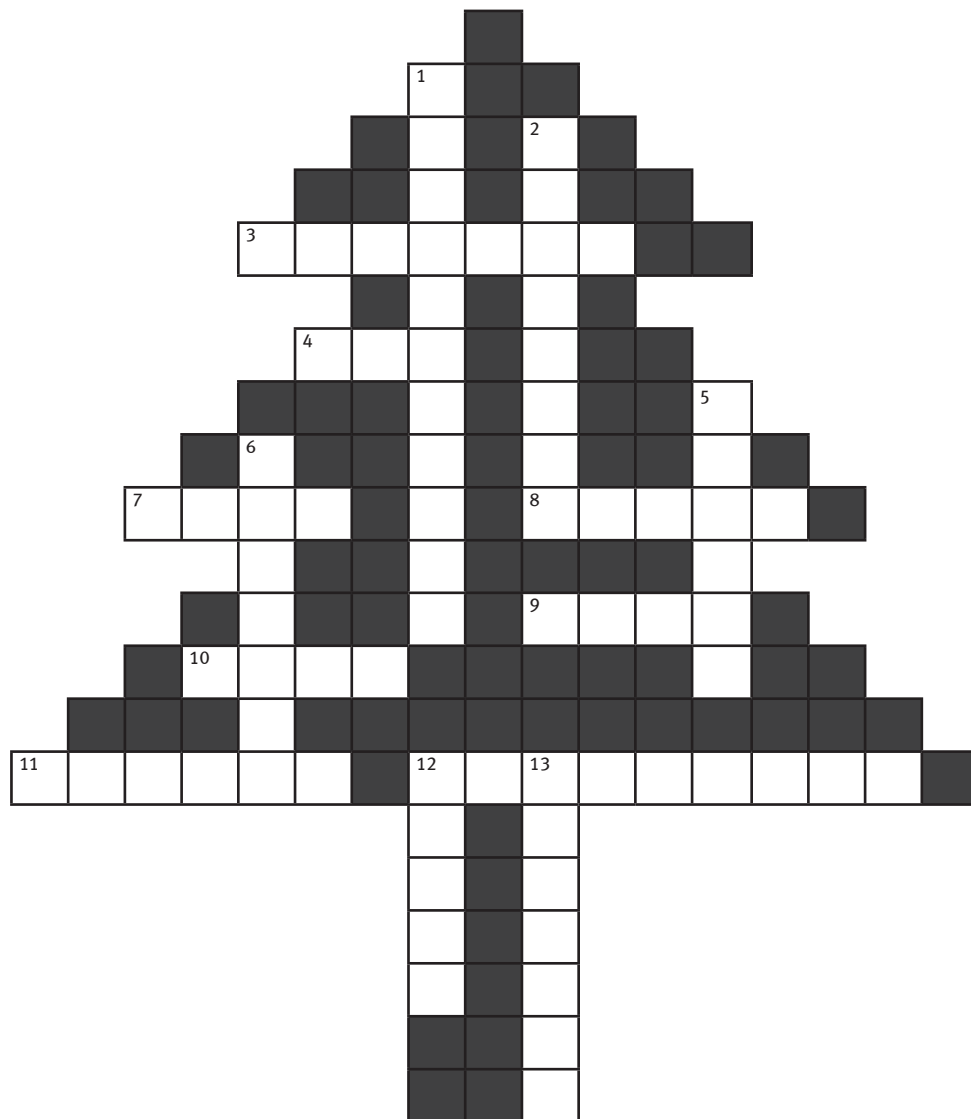
- 🌳 Students will demonstrate the ability to find information and apply prior knowledge and problem-solving strategies to complete the crossword.
- 🌳 Students will have an opportunity to develop their independent learning skills.

Lesson Layout

- 🌳 Provide students with opportunities to research information. Students work independently to complete the crossword.



The 'All About Trees' Crossword



Across

3. The environment in which a plant or animal lives.
4. A kangaroo is sometimes called this for short.
7. There are lots of these found in a forest, and some are good to climb.
8. The crop of trees in a forest is called a _____.
9. In some forests you can set up a tent and _____.
10. The skin-like outer covering of a tree trunk.
11. Most of these are green; they come in all shapes and sizes, and are found on the branches of trees.
12. The indigenous meaning of the name of this forest is 'Amongst the Trees'.

Down

1. Learning about forests is part of Studies of Society and the _____?
2. The limbs of a tree are called?
5. The top part, or crowns of trees, including branches and foliage.
6. The unit of measurement used to describe the area of forests.
12. Forests provide homes to animals, including _____.
13. In forests there can be two categories of features. One is built and the other is _____.

Solution on page 76.

Reflection and Review

Task

- 🌳 Reflection and Assessment.

Key Learning Areas

- 🌳 Studies of Society and the Environment.
- 🌳 Science and Technology.
- 🌳 English and Language.

Resources Needed

- 🌳 Copies of the Reflection Report sheet.

Learning Outcomes

- 🌳 Students will reflect on their learning by independently working on the sheet using knowledge learnt about the topic.
- 🌳 Students will demonstrate an understanding and appreciation of the topic of Forests and Forestry.

Lesson Layout

- 🌳 Students to work independently and complete as much of their sheet as possible as a form of assessment of acquired learning.



Reflection and Review

Name: _____ I have completed _____ of the activity sheets.

The most interesting fact I found out about Forests and Forestry is:

One thing that I have learnt about how I might treat forest environments from now on is:

There are many jobs and industries that rely on forests and forestry in South Australia.

Five of these jobs are:

1. _____
2. _____
3. _____
4. _____
5. _____

Forests are a valuable resource that produce many of the things that I see and use every day.

Five of these products are:

1. _____
2. _____
3. _____
4. _____
5. _____

Three features of a forest are:

1. _____
2. _____
3. _____

Three features of a tree are:

1. _____
2. _____
3. _____



Where the Forest Meets the Sea by *Jeannie Baker* - Collages by an award-winning artist illustrate how a rainforest might once have been.

Window by *Jeannie Baker* - A picture book with no text, this book explores the changing outside environment through a window in a boy's bedroom as he grows up.

Lord of the Forest by *Caroline Pitcher* - Follows the adventures of a young tiger on a search for the Lord of the Forest, meeting various forest inhabitants along the way.

Maze Craze – Magical Forest Mazes by *Don-Oliver Matthies* - Includes 20 pages of mazes through forest scenes and habitats. Good for early finishers.

Kangaroo Island: A Story of an Australian Mallee Forest by *Deirdre Langeland* - This book has a pictorial glossary that will prove most helpful in the classroom. It also has a fold-out poster of the mallee habitat and a read-along cassette with professional narration and forest sound effects.

The Tree in the Ancient Forest by *Carol Reed* - This book comes highly recommended by teachers. It follows the story of a tree and all of the animals, birds and plants that rely on the tree.

Mythic Woods: The World's Most Remarkable Forests by *Jonathan Roberts* - Amazing full-colour photographs of fifteen forests from around the world - from the famous Sherwood Forest to the tallest trees in Tasmania. Helps students of all ages to develop an appreciation of the diversity and value of forests around the world.

Australian Rainforest Animals and Australian Bird Life by *Pat Slater and Steve Parish* - Features outstanding full-colour photographs by well-known photographer Steve Parish and provides a great visual addition to your resource collection on these topics.

Pine Trees by *Allan Fowler* - Explains why pine trees are special.

Pine Trees by *Marcia S. Freeman* - One of a series of books that compares and contrasts trees from various regions and climates.

How Pine Trees Grow by *Joanne Mattern* - The simple diagrams and descriptions in this book help the reader to grasp the concept of seed to tree.

I Wonder Why Pine Trees have Needles and Other Questions about Forests by *Jackie Caff* - A recently-published book that makes science learning fun. The quirky question and answer format is highly appealing to children and the facts are relevant and accurate.

Forests and Woodlands by *Nick Baker* - Shows you how to grow your own plants, how to age and measure trees and how to collect seeds and grow your own trees.

Agroforestry by *Catriona Nicholls* for the Kondinin Group's Workboot Series

TIMBER by *Catriona Nicholls* for the Kondinin Group's Workboot Series

Extension Activity Ideas

These extension activities are designed so that little or no resources and preparation are required. In most cases students can carry out the extension activities independently once they have completed the core forestry activities.

- 🌲 Create your own forestry crossword and give it to a friend to try. If you wish to keep a copy for yourself, you may need to photocopy it first.
- 🌲 Create your own forestry Find-A-Word.
- 🌲 Write a story entitled *The Life of a Tree*. Some ideas include: the tree's journey from seed to tree, surviving a bushfire, and I am a home for insects, animals and birds.
- 🌲 From the 'Forests - a Valuable Resource' activity sheet, select three products from forests and research how they become the items we buy and use every day.
- 🌲 Complete some Forestry Fun Pages (*See pages 64 - 75*).

Resources

www.urbanforest.on.net - Students will especially enjoy the BioWhat? activities.

This site is useful for further studies on biodiversity.

www.dpi.nsw.gov.au - Follow the link to 'Forests'. This site has some useful teacher resources and classroom activity sheets.

www.nafi.com.au - The National Association of Forest Industries webpage, with pages for teachers and students.

www.environment.gov.au/biodiversity - Includes some useful 'Hands on for Habitat' resources for teachers.

www.atlas.sa.gov.au - Offers access to online maps of South Australia, classified by area, land management, natural environments, etc.

ForestrySA (Forest Reserves)

Mt Crawford (08) 8521 1700

Kuitpo (08) 8391 8800

Wirrabara/Bundaleer (08) 8668 4163

South East (08) 8724 2888

www.forestry.sa.gov.au

Department for Environment & Heritage (National and Conservation Parks)

Belair (08) 8278 5477

Cleland (08) 8339 2444

Mt Remarkable (08) 8634 7068

www.environment.sa.gov.au

Other Forest Owners

www.pir.sa.gov.au/forestry/useful_links

