FOREST LEARNING

Teacher

Australia's Amazing Mountain Ash

Teacher Overview

Students will learn about Australia's Mountain Ash trees and the products they provide us when they have been harvested.

Learning Objectives

Students will:

- Understand the value of Australia's Mountain Ash trees in providing timber and other wood products like paper.
- Describe how techniques for timber harvesting have changed.
- Locate where Mountain Ash trees are found.

Background

Australia's Mountain Ash trees are the world's tallest flowering plants. Mountain Ash are hardwood trees (hardwoods are flower bearing trees, whereas softwoods are cone bearing). They grow in high rainfall areas, generally over 1000m above sea level.

Mountain Ash produces a beautiful hardwood timber with little or no defects. It's for this reason that its timber is highly sought after for furniture pieces such as dining tables. It is also highly desirable for flooring due to its colour and lack of imperfections.

Due to its strength, sections of the tree that has imperfections can still be used for structural purposes, such as roofing, doors and window frames. Unsuitable wood is turned into pulp. No part of the tree is wasted.

The Activities

There are four activities to select from in this lesson. You may choose to undertake all of them or alternatively, choose those relevant to the objectives you wish to achieve.

Activity 1 – Australia's Amazing Mountain Ash Trees

Watch the clip: **http://youtu.be/nw-MbsT92Bs**

- *Briefly discuss what students know of Mountain Ash forest in Victoria*
- *Watch the video Going Bush Series 5 Episode 1A and answer the related questions on Activity 1 of the Student Worksheet. (Inserted below for your reference)*
- *Students present and discuss their answers*

1. At the start of the video, the narrators are standing next to a Mountain Ash tree that is how many years old?
2. What is the name of the area in Victoria where nearly all Mountain Ash tree harvesting takes place? How did the area get this name?
3. What type of machine is used to cut down the Mountain Ash tree?
4. After the tree is felled it is picked up by a skidder and taken to the landing for which stage of processing?
5. What is one of the main benefits of harvesting young Mountain Ash trees?
6. What part of the tree is used to produce flooring and furniture?
7. What part of the tree is used to produce structural timbers?
8. Does the tip of the tree contain the LEAST or MOST amount of faults ('defects')?
9. What product is made out of the tip of the tree?
10. Starting with the letter 'C', each tree is graded based on its WHAT?

11. Once the tree has been graded, how do they transport the sections to the mill?
12. What happens to the base of the tree when it arrives at the mill?
13. What does the mill do with the small, short and narrow bits of low-grade timber?
14. What is the sawdust used for at the mill?
15. Starting with the letter 'F', what type of factory does the top quality timber end up in?
16. What do Christian Cole's customers most like about Mountain Ash timber?
17. Is the Mountain Ash a NATIVE Australian tree?

Activity 2 – The World's Tallest Flowering Plant

This activity allows students to gain an historical perspective of harvesting techniques and measurements.

- *Students read the paragraph and answer the questions for Activity 2 on the Student Worksheet. (Inserted below for your reference).*
- *Students discuss their answers.*

The Mountain Ash is the world's tallest flowering plant and the world's 2nd tallest tree, reaching heights of over 100 metres! The only trees that are taller are found in North America.

Mountain Ash trees grow very quickly – at a rate of more than a metre a year – and can reach around 65 metres in 50 years. The base of a Mountain Ash can be more than 15 metres in circumference!

The following paragraph is from the a book called 'Forests of Australia', written by Alexander Rule in 1967. It records the felling of a Mountain Ash in the Derwent Valley, Tasmania in 1942. Read the paragraph and then answer the questions below:

> *"It is recorded that two expert axemen, working on a platform **15 feet (_ metres)** above the ground, took two and a half days to cut a scarf **6 feet (_ metres)** deep into the mighty butt as a preliminary to sending the giant toppling to earth. The crash of its fall resounded for miles (kilometres) around and even hardened bushworkers are said to have downed tools in silent homage to the fallen monarch. Its age was put at 400 years and it was calculated that when Abel Tasman discovered the island in 1642 this tree was already a noble specimen of between **150 (__metres) and 200 (__metres) feet** in height."*

1. When Alexander Rule wrote his book, Australia was still using the Imperial system of measurement (yards and feet). We now use the metric system (metres and centimetres) to measure things. Fill in the missing metric measurements above, using this approximate conversion rate: **1 foot = 0.3 metres.**
2. What tool did they use to fell Mountain Ash trees back in 1942? How is this different to the method used in the Going bush video?
3. How long did it take the loggers to cut down the tree?
4. How many years old was the tree estimated to be?
5. What word does the writer use to describe a 'wedge' or 'cut' in the tree?
6. Using a dictionary, find the meanings for the following words:
   - butt _____
   - toppling _____

- resounded _____
- homage _____
- noble _____

Activity 3 – Back in the time of Abel Tasman

This activity allows students to research and to reflect on the age of the fallen tree from Activity 2 and the events that occurred during the time it was in earth.

1. *Students read the passage on the Student Worksheet and compose a poem about what historical events the tree may have 'seen' in its lifetime.*

The writer, Alexander Rule, talks about the fact that the tree was probably already at least 150 feet (46 metres) tall as far back as 1642, when Abel Tasman discovered 'Van Diemen's land – the place we now call Tasmania.

Think about the things the old Mountain Ash tree would have seen through the centuries – from 1642 right up until 1942. Search the Internet to find some interesting events in Australia's history and write a poem about your life as this tree below.

Activity 4 – Where can we find Australia's Mountain Ash Trees?

This activity gives students insight into the location of Australia's Mountain Ash forests.

1. *On the map of Australia on the student worksheets students highlight the distribution of Mountain Ash forests in Australia.*
2. *Students show others in the class where they are found.*

Sources:

Mountain Ash tree facts:

http://parkweb.vic.gov.au/__data/assets/pdf_file/0011/322202/mountain-ash4.pdf

http://www.australiangeographic.com.au/topics/science-environment/2013/02/australia's-tallest-trees/

http://vnpa.org.au/admin/library/attachments/PDFs/Fact%20sheets/Climate%20change%20fact%20sheet-Fire%20and%20the%20future.pdf

Forests of Australia by Alexander Wang (1967)

http://trove.nla.gov.au/work/10739198?selectedversion=NBD688258

Mountain Ash tree distribution:

http://anpsa.org.au/eregn.html

Forest Learning

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