

# Teacher Notes

## Themes

- Ancient Australian trees
- Critically endangered species
- Conservation and protection

## Key learning outcomes

- Learn about one of Australia's ancient trees
- Understand how human intervention is helping to save the Wollemi pine
- Explore the rainforest ecosystem

## Key curriculum areas

- **Science:** Science Understanding (Biological sciences)
- **English:** Literacy; Language
- **Visual Arts:** Creating and Making
- **Cross-curriculum Priority:** Sustainability
- **Cross-curriculum Priority:** Aboriginal and Torres Strait Islander Histories and Cultures

## Publication details

*Wollemi: Saving a Dinosaur Tree*

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# Wollemi

## Saving a Dinosaur Tree

Samantha Tidy and Rachel Gyan

### About the book

Deep in the forest, an ancient wonder is about to be found. Descended from a family of trees going back 200 million years, the Wollemi pine has survived ice, fire and the passing of many generations.

Will a bushfire be the final threat to this living fossil? And how will we protect it, now that everyone wants a dinosaur tree? How can we make sure the Wollemi's secret location is not discovered and damaged?

*Wollemi: Saving a Dinosaur Tree* explains the unique and critically endangered status of the Wollemi pine and explores what actions can be taken today to contribute to the conservation of this rare and beautiful tree.

### Recommended for

Readers aged 6 to 9 (Years 1 to 4)



PUBLISHING

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## About the author and illustrator

**Samantha Tidy** is an award-winning children's author who seeks out stories that connect her readers with the natural world and each other. A passionate permaculturalist, gardener and chicken fancier, she lives in Canberra.

**Rachel Gyan** is an illustrator passionate about artful storytelling. Rachel enjoys studying Australian flora and wildlife, drawing inspiration from her surroundings to capture the beautiful and sometimes quirky nature of Australia in her work.

## Pre-reading questions or activities

1. Show an image of the Wollemi pine to the class.  
Ask students what kind of tree it looks like (e.g. pine).
2. Why do they think the Wollemi pine is described as a 'living fossil'? Brainstorm the responses and record for future use. After reading the story, are they able to add to this list?

## Discussion questions

### Science

1. What kind of plants might you find in a rainforest? Find images of rainforests to help students identify different plants. Brainstorm and record.
2. Rainforests have four layers. Can you name them?

*Forest floor layer, Understorey layer, Canopy layer, Emergent layer*

Extension activity: Research and draw one or two plants or animals that might live in each layer.

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3.

- a) What is taxonomy and what is it used for? Why is it important? (Years 3/4)

*All living things, including plants, are organised into groups which are ranked from the largest (domains) to the smallest (species). Taxonomy is used to classify and name all living things. It is important because all scientists use the same name for a species no matter what language they speak.*

- b) There are eight groups in taxonomy beginning with domain and ending with species. Can you find out the other groups and put them in order?

*Domain, Kingdom, Phylum, Class, Order, Family, Genus, Species*

4.

- a) What is the scientific name for the Wollemi pine and who was it named after? (Years 3/4)

*Wollemia nobilis. Botanists named the tree after park ranger David Noble and the national park he found it in.*

- b) Find some plants and trees in your local area. Research and record their scientific name.

5. The Wollemi pine is closely related to the kauri, Norfolk Island pine, bunya pine and the monkey-puzzle tree. Find images of each tree to compare with the Wollemi pine. What is the same? What is different? Record your answer as an infographic (graphic visual representation) or Venn diagram.

## English

1. *Wollemi: Saving a Dinosaur Tree* is a narrative non-fiction picture book. Can you name some of the language features which show that it is different to a fiction picture book?  
*Facts, timeline, glossary, further information*
2. How have the stunning illustrations in the book added to the interest and understanding of the story? Do the words and the illustrations work well together?
3. Imagine you are a park ranger in the Wollemi National Park. Write a diary entry of one day in your job. What might you do, see, hear, touch and find? What tools or vehicles might you need?

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## Sustainability

1. In the story how did the botanists protect the Wollemi pine in the rainforest? Do you have other ideas of how the Wollemi pine could be protected?

*Closing off the area, sending seeds to places to propagate the species, planting new trees in a hidden spot within the national park, bringing in firefighters to help save the trees, encouraging others to plant Wollemi seeds.*

2.

- a) The firefighters sprayed red fire-retardant around the grove of Wollemi pines but not on the trees. Why? Can you find out more information about fire-retardant?

*A fire-retardant is a substance that is used to slow down or stop the spread of fire or reduce its intensity. This is commonly accomplished by chemical reactions that reduce the flammability of fuels or delay their combustion. It is made up of chemicals that may be toxic to plants.*

- b) The firefighters also laid a series of irrigation pipes on the ground. How do irrigation pipes work?

*Water surges through the pipes, wetting the ground and the air from carefully placed holes.*

## Aboriginal and Torres Strait Islander Histories and Cultures

1. Wollemi is an Aboriginal word meaning ‘look around you, keep your eyes open and watch out’ and is from the language of First Nations peoples of the area where the tree was first discovered. Can you discover and make a list of Aboriginal and/or Torres Strait Islander words for some of the plants and animals in your local area?

## Activities

### Science

#### *Wollemi pine life cycle*

In groups, research each stage of the life cycle of the Wollemi pine. (Refer to the following website: <https://www.rbgsyd.nsw.gov.au/learn/living-learning/primary-school-resources/wonders-of-wollemi/life-cycle-of-the-wollemi-pine>). Organise your information into a graphic representation to show your classmates.

### Sustainability

#### *Q&A with a national park ranger or country fire service officer*

Invite a park ranger or country fire service officer from your local area to visit your school to talk about their job. Before they arrive, brainstorm a list of questions you would like to ask them, for example:

- What does a typical day at work look like?
- What training do they need to do their job?
- How do they prepare for unexpected or dangerous situations?
- What do they love about their job?
- What are some of the challenges?
- What role do they play in conserving the environment they are working in?
- How do park rangers and country fire service officers work together to protect the natural environment?

### Visual Arts

#### *Rainforest collage or diorama*

Choose one of the following:

1. Using mixed media such as natural materials, crayons, paint, pencils and coloured paper scraps, construct a collage of a rainforest surrounding a Wollemi pine on A3 paper or cardboard.
2. Create a rainforest diorama showing the four layers of the rainforest surrounding a Wollemi pine.

# Teacher Notes

## Australian Curriculum Links (Version 9.0)

Year Level	Learning area: Science	Other learning areas
Years 1/2	<b>Science Understanding: Biological sciences</b> <ul style="list-style-type: none"> <li>identify the basic needs of plants and animals, including air, water, food or shelter, and describe how the places they live meet those needs (<a href="#">AC9S1U01</a>)</li> </ul>	<b>English: Language: Text structure and organisation</b> <ul style="list-style-type: none"> <li>explore how texts are organised according to their purpose, such as to recount, narrate, express opinion, inform, report and explain (<a href="#">AC9E1LA03</a>)</li> <li>identify how texts across the curriculum are organised differently and use language features depending on purposes (<a href="#">AC9E2LA03</a>)</li> </ul> <b>English: Literacy: Texts in context</b> <ul style="list-style-type: none"> <li>discuss different texts and identify some features that indicate their purposes (<a href="#">AC9E1LY01</a>)</li> <li>identify how similar topics and information are presented in different types of texts (<a href="#">AC9E2LY01</a>)</li> </ul> <b>Visual Arts: Creating and making</b> <ul style="list-style-type: none"> <li>use visual conventions, visual arts processes and materials to create artworks (<a href="#">AC9AVA2C01</a>)</li> </ul>
Year 3	<b>Science Understanding: Biological sciences</b> <ul style="list-style-type: none"> <li>compare characteristics of living and non-living things and examine the differences between the life cycles of plants and animals (<a href="#">AC9S3U01</a>)</li> </ul>	<b>English: Language: Text structure and organisation</b> <ul style="list-style-type: none"> <li>describe how texts across the curriculum use different language features and structures relevant to their purpose (<a href="#">AC9E3LA03</a>)</li> </ul> <b>English: Literacy: Texts in context</b> <ul style="list-style-type: none"> <li>recognise how texts can be created for similar purposes but different audiences (<a href="#">AC9E3LY01</a>)</li> </ul> <b>Visual Arts: Creating and making</b> <ul style="list-style-type: none"> <li>use visual conventions, visual arts processes and materials to create artworks that communicate ideas, perspectives and/or meaning (<a href="#">AC9AVA4C01</a>)</li> </ul>
Year 4	<b>Science Understanding: Biological sciences</b> <ul style="list-style-type: none"> <li>explain the roles and interactions of consumers, producers and decomposers within a habitat and how food chains represent feeding relationships (<a href="#">AC9S4U01</a>)</li> </ul>	<b>English: Language: Text structure and organisation</b> <ul style="list-style-type: none"> <li>identify how texts across the curriculum have different language features and are typically organised into characteristic stages depending on purposes (<a href="#">AC9E4LA03</a>)</li> </ul> <b>English: Literacy: Analysing, interpreting and evaluating</b> <ul style="list-style-type: none"> <li>identify the characteristic features used in imaginative, informative and persuasive texts to meet the purpose of the text (<a href="#">AC9E4LY03</a>)</li> </ul> <b>Visual Arts: Creating and making</b> <ul style="list-style-type: none"> <li>use visual conventions, visual arts processes and materials to create artworks that communicate ideas, perspectives and/or meaning (<a href="#">AC9AVA4C01</a>)</li> </ul>
All	<b>Cross-curriculum Priority: Aboriginal and Torres Strait Islander Histories and Cultures</b> <ul style="list-style-type: none"> <li>First Nations communities of Australia maintain a deep connection to, and responsibility for, Country/Place and have holistic values and belief systems that are connected to the land, sea, sky and waterways (<a href="#">A_TSICP1</a>)</li> </ul>	<b>Cross-curriculum Priority: Sustainability</b> <ul style="list-style-type: none"> <li>Sustainable patterns of living require the responsible use of resources, maintenance of clean air, water and soils, and preservation or restoration of healthy environments (<a href="#">SS2</a>)</li> </ul>

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## Related books from CSIRO Publishing

- *Alight: A Story of Fire and Nature* (<https://www.publish.csiro.au/book/8045>)

For older readers:

- *Plantastic! A to Z of Australian Plants* (<https://www.publish.csiro.au/book/7956/>)

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## Other CSIRO resources

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