

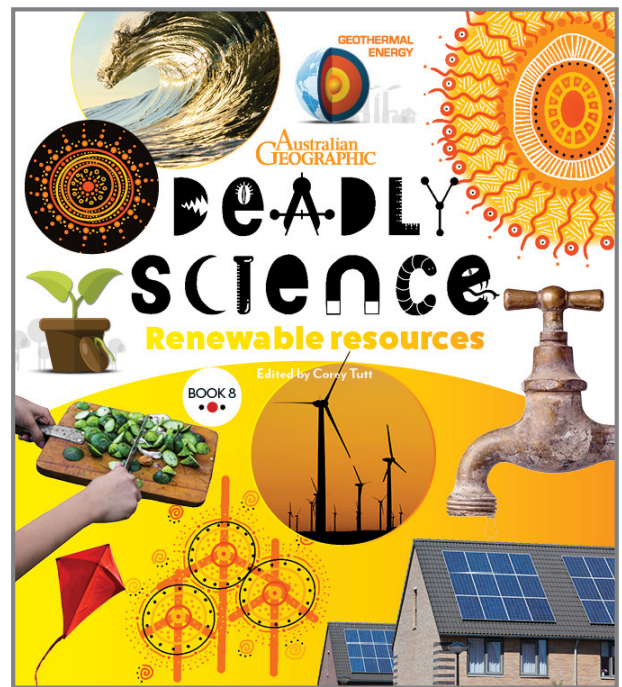
Deadly Science: Renewable Resources

EDITOR
COREY TUTT

SCIS: 5407702

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RECOMMENDED FOR: Lower to Mid Primary



SYNOPSIS

Deadly Science: Renewable Resources is an informative text that explores renewable versus non-renewable resources and their impact on our world. *Deadly Science: Renewable Resources* helps students to understand different types of resources, their pros and cons and why a shift to renewable energy is so critical for our future.

ABOUT THE EDITOR

Corey Tutt is a Kamilaroi man from Nowra on the New South Wales south coast.

As a kid, he dreamed of becoming a zookeeper and in high school he developed a love of STEM subjects. But unlike the arts and sport, he found there was little encouragement for Aboriginal people to pursue careers in STEM.

In 2018, while working as a research assistant for the University of Sydney, Corey founded DeadlyScience, a not-for-profit organisation that aims to provide science books and telescopes to remote schools in Australia, and connects young Indigenous people with mentors to encourage their participation in STEM subjects.

In 2020, Corey was named the NSW Young Australian of the Year, and a Human Rights Hero by the Australian Human Rights Commission. He continues to work tirelessly to send STEM resources to Indigenous communities, and show First Nations kids that STEM is for them. The organisation has even attracted international attention, with Corey presenting at Harvard and Oxford universities.

In 2022 Corey received an OAM for service to Indigenous STEM education.

THEMES

- non-renewable and renewable resources
- fossil fuels
- electricity
- climate change
- sustainability

STUDY NOTES

BEFORE READING

- Read out the title of the text to the class and show students the front cover of the book. Ask students what they can

see and what it might tell us about the text. Follow up with the following questions:

- What are 'resources' and why do you think they are important?
- What does 'renewable' mean?
- Can you think of any examples of something that is 'renewable'?
- What can you see on the cover? Why do you think those pictures have been chosen?

WHILE READING

- After reading the book go through each page and highlight some specific words used in the text. Words of interest may include:
 - renewable
 - resources
 - energy
 - geothermal
 - hydroelectric
 - climate change
 - turbine.
 - Choose some (or all) of the above words to find the definition of using *Deadly Science: Renewable Resources* or a dictionary.
- Working with the illustrations and imagery, discuss with students what we can learn about the renewable resources from the imagery in the book.
- What do we know about renewable resources? Mind map using that question either as a class or individually that plots out interesting or important facts.

COMPREHENSION

- What is the difference between a non-renewable and a renewable resource?
- Name three different renewable resources and where they are found in Australia.
- What non-renewable resources do we primarily use in Australia?
- How is the Greenhouse effect related to climate change?
- How does the solar energy cycle work?
- What is geothermal energy?
- How does wind create energy?
- Why is marine energy especially useful for a country like Australia?
- How does coal impact the environment?
- What ideas do sciences have for renewable resources in the future?

AFTER READING

- After reading the text together, discuss with the class what they have learnt about non-renewable and renewable resources. Then plan, research and present an informational report about a chosen resource. Students should answer questions including:
 - How does this resource produce power?
 - Why is it so effective?
 - In what part of Australia is it mostly found or used?
 - What is its impact on the environment?
- Using the 'powering Australia' pie chart on p 3, examine the data and transfer it into either a bar or column graph to represent the different energy sources used in Australia. Add illustrations to your graphs and any other interesting facts if necessary.
- Develop your research skills by exploring the distribution of resources across Australia. Find a blank map of Australia that you can label using information from p 6. You should also include any other interesting findings or facts.

- Complete the 'solar in action' activity on p 16 which explores just how powerful the sun really is. Complete the experiment, record your findings and present them in a format of your choosing.
- Use various resources to plan and create a model to show how ONE renewable resource works using different materials and/or techniques. Present and explain your model including how you created it and why you chose the method and material that you did.