





The Snowy Scheme developments

The developments

Stage 3 - Overview

In this lesson learn more about the engineering design of the Snowy Scheme and examine how the two developments come together to make up an interconnecting tunnel system supplying water for irrigation, environmental flows and town water while generating clean renewable energy. Use knowledge to pose questions, gather data, solve problems and investigate ideas through closer examination of the Snowy-Tumut and Snowy-Murray Developments.

Learning area	Content descriptions
 Science <u>ACSHE100</u>	Science as a human endeavour Use and influence of science Scientific knowledge is used to solve problems and inform personal and community decisions
 Science <u>AC SIS232</u>	Science Inquiry Skills Questioning and predicting With guidance, pose clarifying questions and make predictions about scientific investigations
 Maths <u>ACMMG138</u>	Measurement and Geometry Using units of measurement Connect volume and capacity and their units of measurement
 HASS	Inquiry and skills Analysing, evaluating & reflecting and communicating

The subject of sustainability is a foundation for all learning areas and key concepts - sustainability - cross-curriculum priority (ACARA)

Resources

<u>Fact sheet</u> - Snowy Hydro
<u>Fact sheet</u> - Snowy-Tumut Development
<u>Fact sheet</u> - Snowy-Murray Development
<u>Activity sheet</u> - Snowy- Tumut 'crack the code' and answer sheet
<u>Activity sheet</u> - Snowy- Tumut 'crack the code' and answer sheet
<u>Fact sheet</u> - cross section Snowy-Tumut
<u>Fact sheet</u> - cross section Snowy-Murray
<u>Website</u> - interactive map

Lesson ideas and activities

Introduction

The Snowy Scheme comprises of two main developments, the Snowy-Tumut Development and the Snowy-Murray Development. Both developments are connected by tunnels to the Snowy Scheme's main regulating storage, Lake Eucumbene, on the Eucumbene River.

Lesson

- Go to the website - locate the Scheme map under, 'The Snowy Scheme'
- Study the map and locate the two developments. Take the students through the landmarks and tunnel system
- Provide your students with the two fact sheets, Snowy-Tumut and Snowy-Murray (either online or printed) and take your students through the information, relating it back to the overall map, following the direction of the water flow from Lake Eucumbene either north or south
- For extra support material, refer to the fact sheets - cross-sections of the two developments and the Snowy Hydro fact sheet
- **Activity sheet - Crack the code Snowy-Tumut**
- **Activity sheet - Crack the code Snowy-Murray**
- Give your students an explanation of how the activity works. For students that need extra support, work through the first word with them to provide an example. These worksheets correlate directly with the fact sheets. It is recommended they be used together when solving the mystery codes
- This activity can be approached collaboratively or individually depending on the style of learner
- Discuss the students findings and ask them to make a statement regarding the enormity of the Snowy Scheme as an engineering feat
- Extra information to support the above request - described as one of the civil engineering wonders of the modern world, the Snowy Scheme consists of nine power stations, 16 major dams, 80 kilometres of aqueducts and 145 kilometres of interconnected tunnels
- Examine the use of the water for irrigation purposes and generation of clean renewable energy here is a useful link - www.murrayriver.com.au
- Reflect on the idea of what Australia might look like without the Snowy Scheme

Extension ideas

- **Activity sheet - Tunnel maze**

English - creative writing

- **Activity sheet 3 - Journey of a water drop writing activity** (*please download before printing*)
- Write about the water drop beginning its journey from Lake Eucumbene travelling through the Snowy-Tumut or Snowy-Murray river system. The water drop may end up as irrigation, environmental flow, a town's water supply after generating hydro power for electricity along the way.

Further associated lesson plans and activities

- **Introduction the Snowy Hydro - Knowledge quest**
- **Snowy Hydro water cycle**
- **Snowy Hydro water**