







Water cycle



Stage 4 - Overview

In this lesson your students will learn about the water cycle and apply this knowledge to the journey of water through the Snowy Scheme to generate clean, renewable energy. Through a series of activities, students will be given a platform for critical and innovative thinking, to formulate their own opinions. There is opportunity for students to work collaboratively, or as an independent learner.

Learning area	Content descriptions
 Science ACSSU116	Science understanding Earth and space sciences Some of Earth's resources are renewable, including water that cycles through the environment, but others are non-renewable
 HASS ACHGK037	Knowledge and understanding Unit 1: Water in the world - Yr 7 Classification of environmental resources and the forms that water takes as a resource
 ACHG038	The way that flows of water connects places as it moves through the environment and the way this affects places
 ACHG039	The quantity and variability of Australia's water resources compared with other continents
 ACHGK040	The nature of water scarcity and ways of overcoming it, including studies drawn from Australia and West Asia and/or North Africa
 ACHGK042	Causes, impacts and responses to an atmospheric or hydrological hazard

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

Resources

Fact sheet - Water cycle

Activity sheet - Colour & answer cloze work

Evaporation, condensation and **precipitation** experiments

Observation record & conclusion sheet - Observation sheet

Website - Snowy Live & Snowy Hydro search 'water'

Lesson ideas and activities

Introduction

Introduce the concept of the water cycle, a continuous path that all water follows as it moves around Earth in different states. Ask the class if they have ever stopped to think about where water comes from and the greater picture? Class discussion - record ideas from the students to come back to later.

Lesson

- Provide your students with the 'Water Cycle' fact sheet (either online or printed) and take your students through the information
- Use the water cycle picture as a stimulus for class discussion
- Focus questions: What drives the water cycle? Is water continually moving? Does anyone know where their house water comes from?
- Read the water cycle definition out loud and direct their attention to the 'did you know?' box - discuss
- Go through the 'water cycle' information text box, referring to the picture to locate and introduce words - evaporation, condensation and precipitation
- Ask students to locate the Snowy Scheme on a map of NSW. Visit the website to learn more **snowyhydro.com.au** or watch 'Snowy Live Data'
- Snowy Hydro water cycle text box - examine how Snowy Hydro works simultaneously with the water cycle to generate clean, renewable hydro power and for irrigation purposes
- Hand out the water cycle activity sheet - one per student
- **Activity sheet - water cycle** - colouring and cloze work
- Introduce the experiments to your class - experiments can be completed over a period of classes or in one lesson
 1. Approach for one lesson - work in pairs or groups, however, all students record their own findings
 2. Experiment (evaporation) - set this experiment up first as it takes time to see a change
 3. Experiment (condensation and precipitation) - distribute experiment sheets amongst the groups, as evenly as you can. Experiments can be done simultaneously
 4. Students to present their experiment findings to the class to share observations
- **Experiment - Water cycle evaporation** - (requires observation & recording every day)
- **Experiment - Water cycle condensation** - (half the class)
- **Experiment - Water cycle precipitation** - (half the class)

- **Observation and conclusion sheet** - *one per student*
- Reflect on the power of water within the Snowy Scheme and the generation of renewable hydro power within the water cycle

Extension ideas

HASS

- **Activity sheet - Water audit**
 - Collate water usage at school on the sheet provided. Work through the questions either in groups or individually
 - Research water saving ideas. How can I apply these ideas to school? Arrange class data into graphs. Discuss innovative ideas and place them on the board for group research to broaden out the ideas
 - Students investigate an audit of water usage in their homes. Bring findings back to class and compare with school findings. Is there a correlation? Graph findings to compare. Independent research into water saving ideas
- **Activity sheet - Snowflake**
 - This sheet aligns with 'precipitation' and is useful to build on knowledge

English - creative writing

- **Activity sheet - Journey of a water drop**

Further associated lesson plans and activities

- Water lesson plan and activities
- Snowy Hydro lesson plan and activities