

Year 2 – HASS and Science

Teacher Guide: Our water catchments

About 90 billion tonnes of rain, hail and snow (*precipitation*) fall on Tasmania each year.

Some of it falls on low-lying or coastal areas, some soaks into the ground (***groundwater***) and some is returned to the atmosphere through evaporation.

However, a large percentage falls in the high altitude areas of central and western Tasmania. The water (both rainfall and snow melt) then runs off into mountain streams, rivers and lakes (***surface water***) where it is stored. This run off area is called a **catchment**.

A catchment is an area of land where water is collected by the natural landscape. Everyone is connected to a catchment area, each time you turn on a tap, flush the toilet or go swimming.

Hydro Tasmania relies on catchments to store large volumes of water. Hydro Tasmania uses this water to generate electricity which is supplied to homes, schools, business and industry.

All human activities including agriculture, industry and recreation can impact the health of a catchment area, its water quality, flora and fauna.

Environmental protection and research is a core part of Hydro Tasmania's business. Hydro Tasmania actively monitors their operations in catchment areas to preserve the health of these shared areas and resources.

Hydro has seven catchment areas; ***yingina / Great Lake–South Esk, Derwent, Mersey–Forth, Gordon–Pedder, Pieman, King and Yolande***.

You can explore these on the Hydro Tasmania website.

<https://www.hydro.com.au/clean-energy/our-power-stations>

Learning sequence

Lesson Plan 1 - Exploring our water catchments.

Lesson Plan 2 - Looking after our water catchments.

Australian Curriculum

Learning Area	Content Descriptions
HASS	
ACHASSI034	Pose questions about past and present objects, people, places and events
ACHASSI042	Reflect on learning to propose how to care for places and sites that are important or significant
SCIENCE	
ACSSU032	Earth's resources are used in a variety of ways
ACSHE034	Science involves observing, asking questions about, and describing changes in, objects and events
ACSHE035	People use science in their daily lives, including when caring for their environment and living things
ACSI039	Use informal measurements to collect and record observations, using digital technologies as appropriate
ACSI040	Use a range of methods to sort information, including drawings and provided tables and through discussion, compare observations with predictions
Cross curriculum	Sustainability
General Capabilities	Literacy, Critical and Creative Thinking

Learning goals

Know:

- Water is one of Earth's most precious resources.
- Water is used in a variety of ways.
- People use science every day to look after our catchment areas.

Understand:

- It is important to look after our catchment areas.
- Everyone and everything within a catchment is connected.

Learning goals (continued)

Do:

- Students identify and describe how they are connected to their catchment area..
- Students describe how water is used

Achievement standard

Science

By the end of Year 2 students

... identify that certain materials and resources have different uses and describe examples of where science is used in people's daily lives.

HASS

... they reflect on their learning to suggest ways to care for places and sites of significance.

Adjustments / strategies to include all students

	Enabling	Extending
Content:	As required explore the water catchment poster in advance with students and identify key vocabulary	Explore the interactive and schematic maps on the Hydro Tasmania website
Process:	Guide students one-to-one where necessary i.e. by explaining the language used in the unit	Use open questions to engage students to think about our local waterways i.e. what if...
Product:	Example catchment image provided and explained	Students choose an item in their daily routine to monitor and record

Assessment

Refer to *Options for assessment and extension* in each Lesson Plan

Evidence of student learning

- Students write sentences and create illustrations or use another form of media to represent how they are connected to a catchment.
- Students identify how monitoring activities helps to track progress and learn.

Group reflection

Refer to *Elaborate and Review* in each Lesson Plan

Teaching and learning resources

Hydro Tasmania Incursion Program

Book an incursion with our Education Coordinator to further understand your local catchment area. The incursion goes for 40 minutes and your class will explore the various ways humans can influence the catchment.

Online Resources

Explore our seven catchment areas on the Hydro Tasmania website www.hydro.com.au/home

- <https://www.hydro.com.au/clean-energy/our-power-stations>
locate power stations in your catchment area
- <https://www.hydro.com.au/things-to-do>
locate sites on our find a site interactive map
- <https://www.hydro.com.au/watermap/>
locate monitoring sites on our water map

Materials

Item	Number
Smart board or projector	1
Internet connection	1
Poster – Water catchment	1 (display)
Poster – Water catchment	1 each
Blank character worksheet	1 (display)
Blank character worksheet	1 each
Model making option	
Sand pit / baking tray and modelling materials	
Tarp / gladwrap	
Water	
Watering can (or similar)	

Teacher reflection

- What went well?
- What could be improved?
- How might you deliver this lesson differently next time?

Feedback

If you would like more information or to provide feedback please contact our Education Coordinator at education@hydro.com.au