



## HUMANITIES AND SOCIAL SCIENCES - GEOGRAPHY

These lessons and activities explore:

- How farms producing beef rely on water as a resource.
- What water scarcity means and how it is managed.
- How water is used in different ways in different places.
- How water connects places and has meaning to people.
- How the liveability of a place can be measured.

### Australian Curriculum Links

Lesson 1,6	ACHGK037	The classification of environmental resources and the forms that water takes as a resource
Lesson 1, 4, 6	ACHGK039	The quantity and variability of Australia’s water resources compared with those in other continents
Lesson 2	ACHGK038	The ways that flows of water connect places as it moves through the environment and the way this affects places
Lesson 2, 3, 4	ACHGS053	Present findings, arguments and ideas in a range of communication forms selected to suit a particular audience and purpose; using geographical terminology and digital technologies as appropriate
Lesson 3	ACHGK040	The nature of water scarcity and ways of overcoming it, including studies drawn from Australia and West Asia and/or North Africa
Lesson 3	ACHGS054	Reflect on their learning to propose individual and collective action in response to a contemporary geographical challenge, taking account of environmental, economic and social considerations, and predict the expected outcomes of their proposal
Lesson 5	ACHGK041	The economic, cultural, spiritual and aesthetic value of water for people, including Aboriginal and Torres Strait Islander Peoples and peoples of the Asia region
Lesson 7	ACHGK046	The influence of social connectedness and community identity on the liveability of place
Lesson 8	ACHGK043	The factors that influence the decisions people make about where to live and their perceptions of the liveability of places
Lesson 8	ACHGK044	The influence of accessibility to services and facilities on the liveability of places
Lesson 8	ACHGK045	The influence of environment quality on the liveability of places
Lesson 8	ACHGS047	Develop geographically significant questions and plan an inquiry, using appropriate geographical methodologies and concepts
Lesson 8	ACHGS048	Collect, select and record relevant geographical data and information, using ethical protocols, from appropriate primary and secondary sources

### Supplementary activity cards relate to these learning outcomes:

Resourcing the Farm – ACHGK037 (classification of resources).

Water Everywhere – ACHGK038 (water connects places)

Bottle it Up – ACHGK041 (economic, cultural, spiritual and aesthetic value of water)

Optional Excursion: Food Miles – ACHGK044 (access to services)



## Lesson 2

# The Effects of Water

### Themes

Community	Conservation	Economics	Rivers
Water use	Sustainability		

### Getting started

ASK students to answer the question: how does water connect places?

Suggestions may range from two townships sharing the same lake or beach; areas upstream affecting those downstream or rubbish from one place washing up at another; shared and managed water allocations; tourism; the environmental value of water to a place and its living things (e.g. wetlands to breeding bird populations or migration).

### Effects of water

DISCUSS the environmental, economic and social effects of water. Some ideas are presented below, but there are many more effects under each of these categories.

Environmental effects of water:

- Water can benefit a place and it can destroy it (e.g. flooding).
- Conservation in one place should not be achieved at the expense of the environment in another place.

Economic effects of water:

- Water is an essential resource for all living things.
- Water should be affordable so that it is accessible to all.

Social effects of water:

- People connect to places of water (beaches, rivers, lakes) and these places can have significant cultural value.
- Any land use or activity should seek to benefit a range of people in society, and not exploit, endanger or disrespect any group.

HASS – Geography

Year 7

Stage 4

#### ACHGK038

The ways that flows of water connect places as it moves through the environment and the way this affects places

#### ACHGS053

Present findings, arguments and ideas in a range of communication forms selected to suit a particular audience and purpose; using geographical terminology and digital technologies as appropriate



## Lesson 2: The Effects of Water (continued)

As a whole class, add other suggested effects of water under these three categories: environmental, economic and social.

### The Blackwood River

Explain the following using a map of the Blackwood River. Trace the path of the river on a digital or print map, pointing out to the class where it begins and where it emerges into Flinders Bay.

The Blackwood River is a major river and catchment that runs by Warren's farm at Boyup Brook in the South West of Western Australia.

The upper or larger catchment area of the river is in agricultural areas, while the middle catchment area passes through forest areas, and the lower portion of the river passes into mixed forest, agricultural and residential lands.



#### Research Assignment

Write the following statement on the board:

**The Blackwood River is of considerable importance to farmers and teachers in the region.**

Students will respond to this statement either in a written or spoken presentation.

They should use the text reference below (as well as other sources, time permitting – including Warren's comments in the Beef Virtual excursion video). Students could even use the Paddock to Plate app to locate and contact farmers around Australia to comment on the question, if time permits.

Tell students that their response must talk about the environmental, economic and social aspects of the Blackwood River.



## Lesson 2: The Effects of Water (continued)

### Text reference:

'The results of this study indicate that the Blackwood River downstream of Nannup is a key outdoor education site for the State. The importance of this part of the river is highlighted by the large number of high school students that use it for outdoor and nature-based education activities such as paddling, nature walks and camping.

Excursions to the river occur through individual school-based programs and through commercial tour operators. It is estimated that in recent years around 1,700 school students per annum use the Blackwood River for outdoor education.

Explorus Adventure Learning is a large commercial tour operation that caters for a large percentage of the outdoor education camps that occur on the Blackwood River. Explorus currently spends approximately 1000 student days for canoeing and 1800 student days for camping and nature walks in the Blackwood River area, which equates to approximately 800 students per annum. These students represent in the order of 10 to 20 schools, the majority being metropolitan-based.'

*- Social water requirements for the Blackwood groundwater area, Department of Water, Government of Western Australia*

**Lesson 2: The Effects of Water (continued)****Activity card:****Bottle it Up!**

ANALYSE the potential environmental, social and economic impacts of the bottled water industry in Australia.

ASSESS the sustainability of the industry and present your findings in a short report.

ACHGK041

The economic, cultural, spiritual and aesthetic value of water for people, including Aboriginal and Torres Strait Islander Peoples and peoples of the Asia region

**Activity card:****Optional Excursion: Food miles**

VISIT your local supermarket to discuss food products on the shelves, how they get there and where they come from.

ESTIMATE how long it takes for a particular item to travel to the supermarket shelf from where it was produced.

DISCUSS: how easy is it for people who use this supermarket to make environmentally sustainable local food purchasing decisions?

ACHGK044

The influence of accessibility to services and facilities on the liveability of places