

### Introductory activities (engage)

(5-10 minutes)

1. Prepare students to bring in photos of their local river or waterway or research images to display.
2. Discuss your local river (or other waterway) with your students.
  - What is around the river?
  - What animals live in and around the river?
  - Who uses the river? How?
  - Where does the water come from?

### Lesson 1 (explore)

(30 minutes)

3. Explore how everything (animals, people, plants and resources) within the catchment area is connected:
  - Water is an essential habitat for flora (plants) and fauna (animals) but we also use it for drinking, producing electricity, farming (growing crops or watering animals) and recreation (boating, swimming, and fishing).
  - As water runs off the mountains, through farms, along roads, into creeks and down stormwater drains it carries any pollutants (i.e. oils, fertiliser, animal droppings, and rubbish) with it. These items accumulate in our waterways.
  - Homes, schools, businesses and industries are all part of our catchment.
  - We use the natural resources within our catchment to create electricity. Electricity is used in homes, schools, business and industries.
- Learning outcomes from *Unit 1 – The water cycle* can be reviewed.

| Materials  | Quantity |
|--|----------|
| Internet access                                  | 1        |
| Smart board (or other display option)            | 1        |
| Water Catchment Poster                           | 1        |
| Sand pit<br>(or baking tray and model materials) | Optional |
| Tarp   | Optional |
| Water  | Optional |
| Watering can                                     | Optional |

### Options/other adjustments

1. Make a model catchment (use your sandpit **or** a baking tray, plasticine and other modelling materials).
  - create highpoints of various sizes to replicate mountains.
  - lower points such as valleys and channels to form rivers.
  - a low point to form the lake.
  - cover the sandpit with a tarp, moulding it to the shape of your model (use gladwrap if using a baking tray).
  - slowly pour water (use a watering can or similar) over the catchment and watch how it collects in the lake, (it can also take pollutants into the river – see Lesson Plan 2 - Story of a river).
2. The Hydro Tasmania website <https://www.hydro.com.au/home> has a number of catchment maps on the 'power stations by location' interactive map. These maps show how the rivers and lakes are joined together in a larger catchment.
3. Ask students to:
  - Find the catchment that is closest to their school.

- Use the map to explore and demonstrate interconnection between the lakes and rivers.
- Count how many power stations are in their catchment.

## Options for assessment and extension

|  | Options   |
|--|---|
| <b>HASS –</b><br><b>Inquiry and skills</b><br><b>Individual Activity</b>       | <b>Poster (drawing, collage, painting)</b><br><b>How are you connected to the catchment?</b><br>Students create an image to demonstrate how they are connected to the catchment area: <ul style="list-style-type: none"> <li>– home</li> <li>– school</li> <li>– recreation</li> <li>– resources (food, electricity, roads)</li> <li>• Extension               <ul style="list-style-type: none"> <li>– Research local catchments businesses, industries and recreation sites</li> <li>– Map these on a poster</li> </ul> </li> </ul> |
| <b>SCIENCE –</b><br><b>Science understanding</b><br><b>Individual Activity</b> | <b>Water is Earth’s most precious resource.</b><br>Students describe (using words, labels, pictures) how water flows within the catchment and its many uses <ul style="list-style-type: none"> <li>• Extension               <ul style="list-style-type: none"> <li>– What would happen to the catchment if there was less water available?</li> </ul> </li> </ul>  |

## Elaborate and review

### Consider how we are all part of a catchment area:

1. How important is it to look after our catchment?
2. What could we do to look after our catchment?
3. What can we change or do within our schools and home to look after the catchment?