

GEOGRAPHY

Stage 3 Factors That Shape Places

Water is essential for life, our bodies need it and we use it daily

Water sustains life and is an important part of our world



This resource supports the Georges Riverkeeper Stage 3 Education Module 1: Water for life

Outcome: Explains interactions and connections between people, places, and environments **GE3-2**

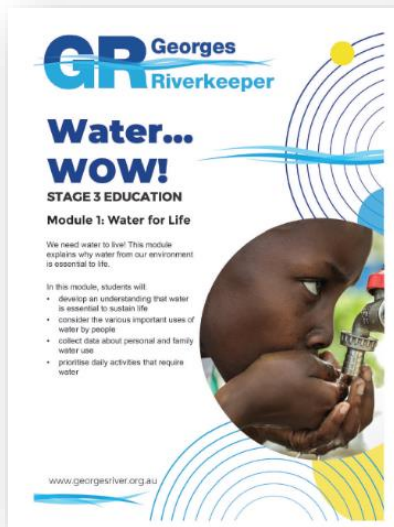
Key Inquiry Question: How important is water in our daily lives?

Learning Intentions: I understand that water is essential to sustain life. I can prioritise daily activities that require water.

Success Criteria: I can identify ways that I need water to survive. I can show how much water I use daily. I can recognise healthy and unhealthy water in my local environment. Information [source](#).

Overview:

Here on Earth, we have life owing to the availability of water. Water is essential for our survival. The amount of water in the human body ranges from 50% to 75% of body weight (the average for children is approximately 65%). People feel thirsty when they have lost around 2% to 3% of the water in their body. However, mental performance and physical coordination start becoming impaired even before we become thirsty, after loss of about 1% of water in the body. Water is lost through breathing, perspiration and going to the toilet. To replace the water and avoid dehydration, we should drink at least two litres of water each day (the exact amount for each person depends upon things like age, gender, amount of exercise and weather). Other than making us feel thirsty, common signs of dehydration include a dry mouth, flushed skin, headaches, dizziness, constipation, fatigue or muscle cramps. Information [source](#).



Important functions of water in our bodies and lives

Bathing is another essential day-to-day use of water by people. If we neglected to wash our bodies for an extended period, bacteria, skin and sweat would build up to produce a potent stench. Skin would become oily or dry and become infected with fungi, yeasts and bacteria. If there were a cut or abrasion to the skin, the build-up bacteria would have a high likelihood of causing infection. Dandruff (dead skin) accumulating on the scalp would cause a very itchy head, fungus would start growing between toes, dirt would become lodged under nails and both pimples and rashes would pop up across the body.

Photo [source](#)

We use water to wash dishes, cutlery, pots and pans to avoid the stink, decay and associated illness that comes if food scraps are not cleaned away. We use water to wash dirt, sweat and other smelly substances from our clothes. Water carries away our wastes when we flush the toilet. Water keeps us from becoming dirty and sick! Water is also an essential component of popular recreational activities such as swimming, fishing, boating, surfing, etc.

Information [source](#)



Animals rely on water to survive

People can survive for about three weeks without food, but only a few days without water. Camels famously can forgo drinking water for extended periods: up to 15 days, then can make up for it by consuming over 40 litres at one drinking session. But, the kangaroo rat from the Californian desert can go even longer without drinking water. It gets its moisture from the seeds that it eats and can survive for up to 5 years throughout its lifetime without ever drinking any water.



The [United Nations Sustainable Development Goals](#) No. 6 Clean Water and Sanitation and No.14 Life Below Water, are the blueprint to achieve a better and more sustainable future for all.

ACTIVITY 2: How valuable is water?

Imagine that you only had 10L of water a day. Brainstorm how you would prioritise the most vital uses of the water throughout the day. Consider the list of ways you use water from Activity 1 (think about how much water each activity typically needs e.g. a regular showerhead uses 10L of water per minute).



Create your list of prioritised uses and justify your allocation of water to each.

Is 10L of water sufficient to get through your day?

ACTIVITY 1: How much water do you use each day?

According to [Sydney Water](#) the average person uses 200L per day. Create a table for your daily water use. Record each time you use water and estimate (in litres) the amount of water needed each time. Use the [water usage calculator](#) to assess how you use water in your home. Make sure you click 'Find ways to reduce your usage' at the end. Is your daily water usage better than the average Sydney person? How many different ways did you use water? [Photo source](#)



ACTIVITY 3: Where is your nearest body of water? How healthy is it?

Using a mapping tool such as [Google Maps](#), [Six Maps](#) or [National Gov Map](#), find the nearest river, creek or lake. Write down its name. The health of water can be determined in a number of ways. Water scientists like Dr. David Reid use scientific equipment to test the water health.



[Click here](#) to watch as he checks the health of a freshwater creek along the Georges River. Conduct a site observation. Plan a trip to your nearest body of water with an adult and conduct your own site survey. Notice and write about how clear the water is, if you see any animals in or on the water, if there is any rubbish and how much, are there any signs of people using the site you visited. Write your site observation into a paragraph.



These are free water education resources for teachers and students about water in the Georges River catchment in south Sydney, and more generally, in Australia. These education modules have been prepared for Stage 3 in primary schools.

They cover facts for kids about drinking water, water uses, the water cycle, water pollution, water conservation, rainfall, drought, floods, aquatic food webs, and how to measure water conditions using waterbugs, plus much more.

www.georgesriver.org.au/learn-about-the-river/schools

There are many different stakeholders and landowners in the Georges River Catchment who all have a responsibility to manage their land in a way that ensures there is a minimal impact on the river and its ecosystems.

Georges Riverkeeper's Members:



Georges Riverkeeper's Partners:

