

Years 1 to 8 science

Dripping tap investigation

Australian Curriculum links: Sustainability cross-curriculum priority

Science Inquiry Skills

Questioning and predicting, Planning and conducting, Processing and analysing data and information, Evaluating, Communicating

In this activity, students measure how much water is wasted from a leaking tap.

Equipment

For the class

- Stopwatch, watch or clock
- Measuring container
- Clipboard and pencil

For each student

- An A4-sized sheet with a waterdrop shape drawn (Figure 1)

Preparation

Identify a tap and sink close to the classroom. Experiment with your measuring container to work out how long the tap has to drip to get a measurable amount of water for that container.

This activity is a simple science investigation. Adapt the activity for the year level/s so that students design their own 'fair test' before measuring the dripping tap.

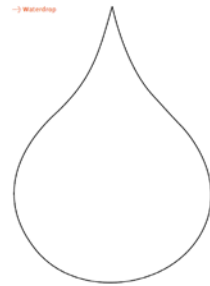


Figure 1. Waterdrop


Activity steps

1. Ask students what they think might happen if a tap is not turned off properly and what are the consequences of dripping taps. Explain that they will investigate what happens when a tap is left dripping for a specified period of time (see Preparation). The drips will be collected in a measuring container so that the volume can be measured and then recycled (e.g. poured on a convenient garden).
2. Ask students to predict how much water might be collected in the container in the specified time period and record their prediction. What might this mean if there were a lot of dripping taps?
3. Measure water lost and compare with predictions. If there were ten taps around the school with similar leaks, how much water would this mean?

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4. If students participated in the **School water use audit** and water walk activity, ask if they observed any dripping taps during Water walk and mark the locations of the dripping taps on the map of the school. Talk about who would be the best person in the school administration to contact about fixing the leaks. Invite students to volunteer for the task of contacting the school administration contact to ensure that the leaks are fixed. If students find a leaking tap, they can try to shut off the tap properly. If that doesn't stop the leak they should report it.
 5. Discuss how and where the water in the measuring container can be used in the school grounds. Record students' ideas about recycling water and reuse the collected water wisely.
 6. Students write a take-home message about dripping taps and water wastage on an A4 piece of paper shaped like a water drop to share with their families. Alternatively, students could design a Waterwise poster. See the '**Designing a Waterwise poster**' activity.