

Grade: 1 & 2

Why do we need to make tap water safe?

Students will be able to:

- understand where our drinking water comes from
- consider how human activity impacts water quality
- identify how TasWater makes tap water safe to drink

Lesson Details:

1. Where does our drinking water come from?

When it rains, most of the water soaks into the ground while some flows into creeks, rivers and constructed dams.

Drinking water is taken from rivers and dams and piped to a water treatment plant before being pumped to people's homes. People who live in rural areas, that cannot access piped water, generally have water tanks, where rain is collected off the roof of buildings into the tanks.

Ask your students where their water supply comes from. If they don't know get them to ask their parents and then share with the class.

2. Why do we need to make tap water safe?

Our water supply areas are generally a long way from towns. Usually in remote areas, where there is little human activity. However, as the creeks become rivers, and it travels into more populated areas, the water can become contaminated.

Such things like stock grazing in rivers, or fertilizer runoff, or erosion from river banks where plants have been removed all impact on the quality of the water and can make it unsafe to drink.

Water from our rivers can have all sorts of bacteria, chemicals and microorganisms that can make us sick. By treating water, we remove all the nasty things, we make sure it is clear to look at and has a pleasant taste.

Each year over 800,000 people die from not having access to clean drinking water.

Curriculum Links

Grade 1

Science

- ACSSU018
- ACSSU019
- ACSHE021
- ACSHE022
- ACSIS024
- ACSIS029

Literacy

- ACELY1656
- ACELY1788

Geography

- ACHGK005

Grade 2

Science

- ACSIS037
- ACSIS042

Literacy

- ACELY1666

Geography

- ACHGK010

Lesson Details continued:

3. How clean is your local river or creek?

A really powerful way to show students that water is not as clean as we think it is, is to grab some water samples from a local creek or river that students are familiar with.

Place the water in clear jars and ask the students to make the following observations:

1. How clear is the water?
2. If it's not clear, what can the students see?
3. What colour is the water, get students to describe it.
4. What does the water smell like?
5. Are there any creatures moving around in the water? (That's a good thing if there is - it means the water is healthy).

4. How is water treated?

Water treatment involves several steps:

- Screening to remove twigs and rubbish.
- A process called coagulation which helps to remove sediments (soil) from the water.
- Filtering to help further remove any remaining sediments.
- Disinfection - to ensure all the nasty bugs are killed that could make us unwell.

Lesson Reflection:

1. Where does the school's tap water come from?
2. Where is the water treatment plant that makes sure your tap water is safe?
3. Why do we need to make sure water is safe, clear to look at and tastes nice?
4. What chemical is added to water to disinfect it (or kill the bacteria)?



Did you know?

If your tap water smells of chlorine, that's not a bad thing! Chlorine is used to disinfect the water through killing bacteria that may be present.

More Information

Contact our Education Officers who can visit your classroom and share some engaging water activities with your students. Alternatively visit our website, complete an online form, submit and our Education Officers will contact you.

Email: education@taswater.com.au

Website: www.taswater.com.au

Additional Activities

Source some water from a local river in a clear glass jar and then get some local treated tap water and place it in a jar also. Get the students to observe the differences. What can they observe in the river water? Is it clear? Are there things floating in the water? What does it smell like? Compare this to the treated tap water.