Teacher Resource

Global Water Crisis

Focus Questions

Discuss the BTN story as a class and record the main points of the discussion. Students will then respond to the following:

1. What is water scarcity?
2. What proportion of the world's population experience water scarcity?
3. What factors have impacted people accessing clean water over the past few decades?
4. What water issues does Australia face?
5. What action is being planned by the UN to address the water scarcity problem?

Activity: Personal Response

After watching the Global Water Crisis story students will respond to the following:

- What did you SEE in this story?
- What did this story make you WONDER?
- How did this story make you FEEL?
- Think of three questions you have about the BTN story.

Activity: Class Discussion

Discuss the BTN Global Water Crisis story as a class. Ask students to record what they learnt about the water crisis. What questions do they have? Use the following questions to help guide discussion:

- Where do you get your water from?
- How do you know your water is safe and clean to drink?
- Why do we need clean water?
- When we talk about 'water scarcity', what does this mean?

Do your students have any other questions about the story? Discuss as a class.

EPISODE 9
4th April 2023

KEY LEARNING
Students will learn more about water scarcity and how it impacts people.

CURRICULUM
Geography – Year 7
Classification of environmental resources and the forms that water takes as a resource.

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

HASS – Year 4
Reflect on learning to propose actions in response to an issue or challenge and consider possible effects of proposed actions.

HASS – Year 5
Use criteria to make decisions and judgements and consider advantages and disadvantages of preferring one decision over others.

HASS – Year 5 & 6
Develop appropriate questions to guide an inquiry about people, events, developments, places, systems and challenges.

HASS – Year 7
Construct significant questions and propositions to guide investigations about people, events, developments, places, systems and challenges.

Activity: KWLH Organiser

Discuss the information raised in the BTN Global Water Crisis story. What questions were raised in the discussion and what are the gaps in students' knowledge? The following KWLH organiser provides students with a framework to explore their knowledge on this topic.

What do I **know**?	What do I **want** to know?	What have I **learnt**?	**How** will I find out?

Students will develop their own question/s to research or choose one or more of the questions below. Encourage students to collect and record information from a wide variety of sources and present the information they find in an interesting way.

- Where in the world is water scarcity an issue? Highlight on a world map.
- Why is there a global water crisis? List the factors that contribute to water scarcity.
- Choose one continent where water scarcity is an issue. What are the causes and effects of water scarcity in this area?
- How much water do we use in Australia? Find out how much water is used yearly in each of the following: household, manufacturing, agriculture, and mining. Create a pie chart to highlight your findings.
- How does a water crisis affect people?
- Who do you think should be responsible for addressing the problem of water scarcity? List some of the responsibilities of individuals, communities, and the government.
- *Water is a limited resource*. What does this mean? Explain what this means using your own words.

Activity: Understanding water

Watch these BTN videos to help students understand more about water related issues.

BTN Murray-Darling Wetlands

BTN Darling River Fish Deaths

BTN Drought Kids

BTN Bottled Vs Tap Water

BTN Where does toilet water go?

BTN Handwashing

Activity: Science Investigation

Class Discussion

Facilitate a class discussion to find out what your students already know about where water comes from, how it is accessed and where it goes after we use it. Use one or more of these questions to get the discussion started:

- How do you use water? Think about how water is used at school, at home and in the community.
- Where does water come from (list the different sources)?
- What are some natural and man-made systems associated with water?
- Where is our water cleaned and stored?
- How do you know your water is safe and clean to drink?
- What are some ways to use water responsibly?

School Investigation

Provide your students with the opportunity to investigate water use around their school. Working individually or in small groups, students will use the following to guide them during their investigation.

- Investigate how water is used in and around your school. Walk around your school and identify where water is accessed and used (for example, taps, garden hoses or sprinklers, toilets, sinks, water fountains, pools, drinking fountain, dishwasher, water tanks).
- Write down as much information as you can about what you discover. Consider taking photographs or drawing a simple map of your school which highlights where water can be found and is accessed. Ask your principal if they can provide a copy of a detailed plan of your school which shows plumbing, water tanks and water access points.
- What did you discover during your exploration? Is water at your school being used responsibly or irresponsibly? How can water be used more sustainably at your school? Make suggestions.
- Write a report on the discoveries you made during the investigation. Include the following in your report: photos, labelled diagram, and a map.

Excursion

If possible, students will plan an excursion to a sewage treatment plant or desalination plant. Alternatively, go on a virtual tour (Western Treatment Plant, Victoria). Use the following framework to guide your students, before, during and after the excursion.

Before

- What do you think the plant will look like? How big do you think it will be? Find it on a satellite map.
- Where is it? How far is it from your school?
- What do I want to learn? Make a list of 5 questions to ask during the excursion.
- What do I need to take with me? For example, a notepad, pencil, sketch pad, ruler, and camera.

During

Record as much as you can during the excursion. What do you see, think, and wonder? Ask questions during the excursion.

After

- What did you learn?
- Name and explain one step in the water treatment process.
- What happens to the water after it leaves the plant?

Activity – Choose a Project

Individually or in small groups, students will choose one of the following projects to work on and then present their findings to the class.

Celebrate
Think of a way that your class or school can get involved and celebrate World Water Day or World Water Week. Find a water expert to talk at your school.

Dreaming stories
What Aboriginal Dreaming stories teach us about the importance of water? Choose one to research in more detail and present your findings in an interesting way.

Cycle of water!
Create a diagram demonstrating the cycle of water (incl. condensation, runoff, precipitation, and evaporation). Investigate and explain each step of the cycle.

Dirty water project
Experiment with different materials to turn dirty water into clean water. Materials: dirt, water, rocks, cotton balls, cup, kitty litter, coffee filter and a plastic bottle cut in half. What worked well and what didn't work?

Useful Websites

- World Water Crisis – BTN Newsbreak
- Just over one-in-four global citizens lack clean drinking water, almost half lack basic sanitation, UN says – ABC News
- Cape Town Water Crisis – BTN
- Global Issues: Water – United Nations
- Are we running out of clean water? – TEDEd
- 5 TEDEd lessons about water – TEDEd
- Fresh water scarcity: An introduction to the problem – TEDEd
- Where does toilet water go? – BTN
- Water Facts – United Nations