

How do people in developing countries access drinking water?

» Lesson overview

In the previous lesson, students identified their prior learning and suggested questions about managing water resources sustainably. They also conducted a survey about the supply and distribution of water in the local area.

In this lesson, students observe what life is like in developing countries, and have an opportunity to explore water issues, comparing their own lives with the experiences of children in these other countries. They will create a mind map to represent their understanding.

Compare the average personal daily water use across major areas of the world:

Continent/country	Volume of water used daily (litres)
Africa	47
Asia	85
United Kingdom	334
United States of America	578
Australia	224

The volume of water consumed in the United States of America is about 12 times the volume of water consumed in Africa.

» Lesson objectives

In this lesson, students:

- explore how people around the world use water
- identify the effects of dirty drinking water on communities.

» Opportunities for assessment

Assessment should be made of the students' note-taking skills and mind-mapping skills with reference to the following:

- selection of relevant information
- effective recording of information (use of key words and phrases)
- retention of meaning in a rewrite.

»Equipment

For the class

- map of the world
- access to the internet to view WaterAid case studies
- monitor to show 'Splish splash' video
- TWLH chart from Lesson 2

For each team

- butcher's paper

For each student

- student journal

»Preparation

Preview the video.

»Lesson steps

1. Ask students to share with the class the results of their home survey. What conclusions can be drawn from the survey? Do the people in your city or town have a clear idea about where their water comes from, and where it goes? Does the class think that they have the answers to these questions? Add any additional questions to the TWLH chart.
2. Ask the class to suggest reasons why it might be important to know the answers to these questions. It might be necessary to schedule a class session to research the answers. The most effective strategy would be a class excursion to the water treatment facilities in your area. Alternatively, you could ask a local council water management officer to visit the class to answer the questions, and/or respond to students' questions by phone or email.

3. Review the previous lesson's discussion about managing our water resources sustainably. Highlight the fact that Australia currently has a very safe supply of drinking water that is delivered into our homes. Is that the case in other countries? As a whole class, view the United Nations online video 'Splish splash' available at <www.un.org/waterforlifedecade/> (on the right-hand side of the web page is a link to the video).

This 16-minute video presents a holistic view of the ways in which people around the world use water, and provides an excellent integrated introduction to the issues addressed in each pathway.

4. Discuss the contents of the video with students. Ask them to write their reflections in their journal.

Ask students to explore the WaterAid website, which outlines the stories of the lives of children aged 11 to 14 in various developing countries: Shobu Tara, Napoga Gurigo, Elmas Kassa and Devi Kumari.

Go to <www.wateraid.org/uk/learn_zone/educational_resources/775.asp>.

Share these real-life stories with students. Ask them to take notes on each case in their journal under the heading 'Case studies'.

A key issue in developing countries is the availability of infrastructure for catching, storing, treating and delivering water, rather than availability of surface water and/or groundwater.

Some discussion points

Consider the lifestyles of these children. How do they compare with your own?

Identify the differences between these children's lives and your own.

On a world map, locate the children's countries of origin, identifying hemisphere, latitude and longitude.

5. As a whole class, brainstorm terms or significant ideas related to the effects of dirty drinking water on health, communities and the local environment. List these terms and ideas on the board.
 6. Working in teams of three or four, ask students to create a mind map about the issue of dirty drinking water using the brainstormed information. Model how to draw a mind map for the class using a few of the words and key terms. A simple strategy for mind mapping is explained at <http://learningfundamentals.com.au/blog/>.
- Students prepare a draft mind map in their journals. They then pool their ideas with their team members to create a large mind map on a piece of butcher's paper. A speaker is elected from each team to present the findings to the rest of the class.
7. Make any new entries onto the class TWLH chart and discuss.

» Optional activities

1. Students can view the video/DVD 'Ryan's well' (Journeyman Pictures), available from the ABC at www.abc.net.au/programsales.

Synopsis: This is a story about 7-year-old Ryan Hreljac from Ontario, who was determined to build a well for his penpal Jimmy and the people in Angola, Uganda, so they would have fresh, clean water.

His modest \$70.00, earned mainly from his extra household duties and chores, grew in time to over \$750 000, largely through the contributions of many individuals and organisations committed to Ryan's cause. This inspired the creation of Ryan's Foundation, committed to helping provide clean water and related health services to people in Africa and other developing countries.

2. Students can play the 'Pani the Handpump' game. In this game, students can helping the villagers in Nepal, Ghana and Ethiopia gain access to a clean water supply by reading the text carefully and answering the questions.

Go to www.wateraid.org/uk/learn_zone/games/pani/default.asp.

» Curriculum links

English

Complete additional activities to practise note taking and mind mapping.

SOSE

Complete a mapping activity.