

Clean Enough to Drink?

- You need**
- ★ access to the Internet
 - ★ plastic cups
 - ★ 5 litre bucket(s)
 - ★ a scientific calculator or one on a computer
 - ★ classmates

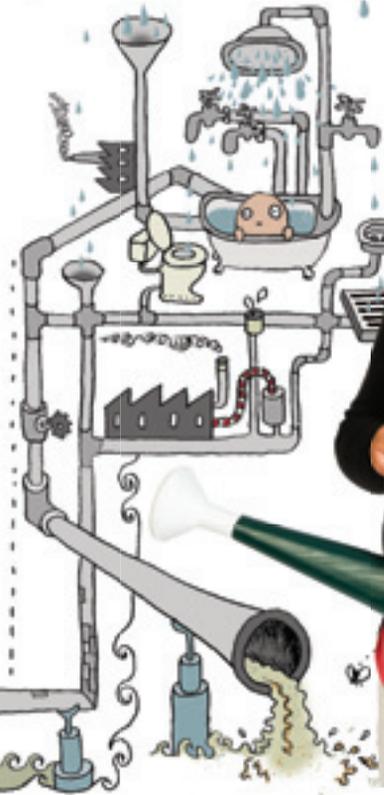
Activity One

Water is all around us, for example, sea water, river water, rainwater, and artesian water.

Earth's surface is mostly water, but only a small fraction is drinkable. The rest is either salty or polluted.

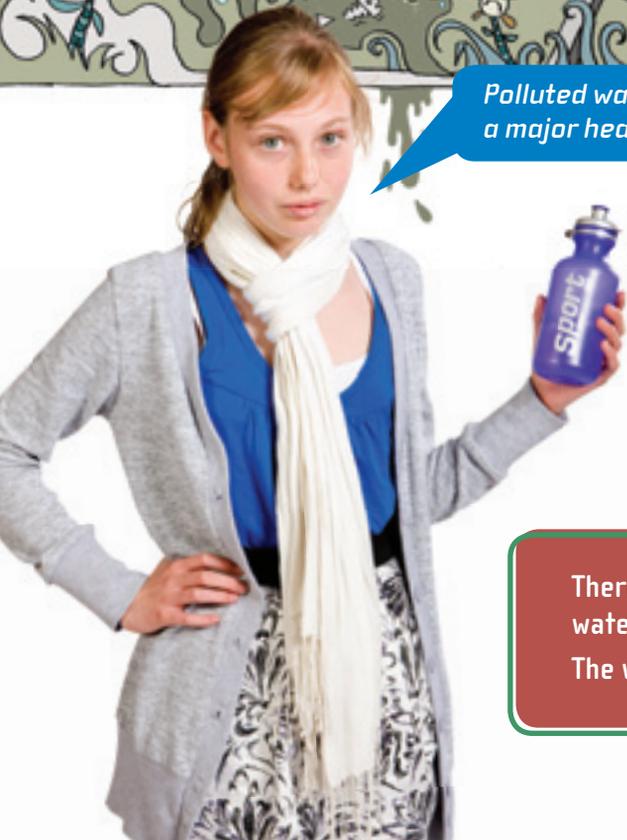
1. List sources of water that are available in or near your school or home town. Highlight those that are safe to drink.

Water from washing is called grey water. You can't drink it, but it's OK on gardens.



2.
 - a. About 70 percent of the world's fresh water is in Antarctica. Discuss with a classmate what might prevent that water being used for drinking.
 - b. If 97.5 percent of Earth's water is salty and 90 percent of fresh water is in Antarctica, approximately what percentage of Earth's water is potentially available for drinking?
 - c. Using your answer from b and the facts below, approximately how much drinking water is potentially available for each person on Earth?

Polluted water can be a major health risk!



There is an estimated 1 433 854 549 million cubic kilometres of water on Earth (1 cubic kilometre = 1 000 000 000 000 litres). The world's population in 2009 was 6 778 070 000.

Activity Two

1. a. Try this activity as a class.
 - i. Each person fills a cup from a 5 litre bucket of water. Record how much water is used.
 - ii. Each person carries their water from one end of a large open space (for example, a playing field) to the other end, spilling as little as possible.
 - iii. Measure how much water in total reaches the other end.
- b. What percentage is lost?
- c. If everyone in your class wanted to refill their cup from the transported water, how many people would miss out?

2.

There is not enough water to meet the demand!

In some countries, people walk 6 kilometres a day to get clean water!



One of the problems is distribution.

Fresh water is a renewable resource, but in some parts of the world, there is a water crisis.

As a class, discuss why some people don't have enough water that is safe to drink.

3.

According to the United Nations, only about 18 percent of people in developing nations have access to clean drinking water.

If 80 percent of the world's population live in developing nations, how many people don't have access to clean drinking water?

Focus Using percentages to make comparisons