

# Great Water



## Freshwater Neighbourhoods

### FOR THE TEACHER

This Great Water lesson is intended to give primary students a concrete understanding of how little freshwater there is available on our planet and that it must be cared for, used responsibly and shared by all living things. The chart below is for your information and is not intended for primary students. Our easily accessible freshwater stocks, that is not frozen or underground, is about 0.01% of the total water on Earth.

#### Estimate of Where the Earth's Water Can be Found

Oceans, saline lakes and other saltwater	97.4800 %
Icecaps/glaciers, frozen and underground freshwater	2.5100 %
Freshwater lakes	0.0070 %
Soil moisture	0.0009 %
Atmospheric water vapour	0.0009 %
Marshes and wetlands	0.0009 %
Rivers	0.0002 %
Incorporated in biota	0.0001 %
<b>Total</b>	<b>100.0000 %</b>

<http://atlas.nrcan.gc.ca/site/english/maps/freshwater/1>

After students have seen the [Primary Great Waters](#) PowerPoint presentation, present the demonstration on the next page. Then provide them each with a copy of the [Sally's Freshwater Neighbourhood Activity](#) and the [Freshwater Neighbourhoods Activity](#). When students have finished this work they can play the online game, [Great Lakes Puzzle](#).

# Great Ambassador Activity

## FOR THE TEACHER



### THE GREAT WATER DEMONSTRATION

#### What You Need

- 20 L /5.3 gallon aquarium or bucket filled with water
- Clear measuring cup and clear container
- Clear test tube
- Teaspoon

#### What You Do

This lesson is meant to be impressionistic. The volumes of water are not exactly accurate to scale but are close enough to deliver the message. This is most effective when delivered with drama and reverence.

- Explain that the aquarium or bucket of water represents all the water on Earth.
- Invite students to tell where water can be found: oceans, rivers, lakes, taps, wells etc.
- Discuss the difference between saltwater and freshwater. Ask: Which type of water is required by humans, animals and plants? Freshwater.
- Using the clear measuring cup or cylinder remove 3 cups, 700 ml or 24 oz. of water from the aquarium. Place it in the container beside the aquarium/bucket for visual impact.
- The water left in the aquarium is saltwater. Explain that the water in the container represents all the freshwater on Earth, including water that is frozen in glaciers and icecaps, ground water, moisture in the soil and atmosphere and rivers, lakes, streams, ponds and swamps.
- Discuss the problem of accessing water that is frozen, held underground, or in the atmosphere. Help the students come to the conclusion that these sources of freshwater are not readily available for plants, animals and humans.
- Using the teaspoon remove 1 teaspoon of water from the container and put it into the test tube. Explain that this represents all the available fresh surface water on Earth and must be shared by all living things. It comes from rivers, lakes, ponds, swamps etc.
- Put the test tube next to the container, again for visual impact. Allow the students to take this in for a moment.