

Liquid Assets

Teacher newsletter of the Slow the Flow Water Education Program

Bottled Water

Bottled water has been gaining popularity since the early to mid 1990's, with sales in Canada now reaching \$652.7 million annually. The industry has spent billions on marketing bottled water as a healthy choice, and a purer, safer alternative to tap water. Yet bottled water production is having some serious impacts on the environment...and our wallets. Read on to find out more.

Four Reasons to Avoid Buying Bottled Water

1. *Making plastic bottles is wasteful*

Crude oil and clean water are used in the manufacture of plastic water bottles. Extracting crude oil takes a great toll on the environment, polluting the land, air and water. Leading scientists agree that the burning of fossil fuels on Earth is also leading to global climate change. The effects of climate change are already being felt in many places around the world.

2. *Empty plastic bottles end up in landfills*

Disposable water bottles can be recycled, but often are not. In Toronto, only about half the plastic bottles produced are recycled, the other half, around 65 million bottles per year, end up in that city's landfills. In some communities up to 80% of bottles end up in landfills. This is a big problem because plastic will take thousands of years to break down.

3. *Bottled water is no safer than our tap water*

Bottled water is advertised as healthier, purer and safer than tap water, yet there is little evidence to support these claims. Both bottled water and tap water are filtered and treated to remove bacteria and contaminants. Municipal tap water is tested continuously for contamination, both during and after treatment. Bottled water companies inspect their own facilities, but government inspections occur only about once every three years.

4. *Bottled water is very expensive!*

Safe, clean drinking water is available to us from taps and water fountains for very cheap! So why pay anywhere from 200 to 3,000 times more for a bottle of water? Our money can be used more wisely to ensure all people around the world have access to clean drinking water.

Did you know?

A four-litre jug of tap water costs less than a penny.

- *City of Winnipeg Water and Waste*

The manufacture and transport of a 1L bottle of Fiji water consumes nearly 27L of water, 1L of fossil fuel, and emits about half a kilogram of greenhouse gases.

- *Bow River Keeper*

In Canada, about 25% of the bottled water sold is simply reprocessed tap water.

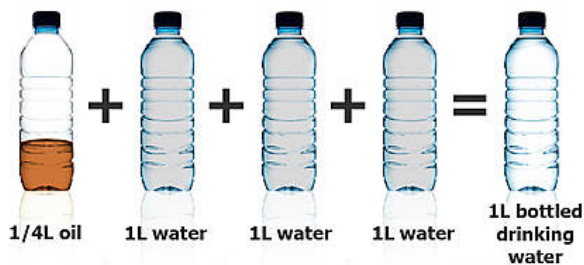
- *Polaris Institute*



Bottled Water Activity Ideas

Activate: Taste Challenge

1. Discuss as a class: Do you think bottled water tastes better than tap water? Why or why not?
2. Have students take a blind taste test between tap and bottled water.
 - ~ Try a few different brands of bottled water, straight tap water, and tap water that has been filtered (eg. Brita).
3. Make sure that:
 - ~ All waters are served in the same type of container - reusable or compostable/recyclable if possible.
 - ~ All waters are served at the same temperature - store in fridge overnight.
 - ~ You have a hidden area to fill sample cups.
4. After all students have rated the waters by their preference, reveal the sources of each of the waters. Discuss which water was most preferred by taste-testers, which water was least preferred, and whether tasters thought bottled water tasted better or worse than tap water.
5. If bottled water was voted worst tasting, discuss ways that bottled water companies convince people to buy their product such as advertising and perceived convenience. If tap water was not preferred, discuss some easy ways to improve the taste of tap water (eg. refrigeration, filters).



The production of 1L of bottled water.

- Pacific Institute, image from waterstillar.com

By Subject Area

Science

- Have students create a poster, report or play that documents the journey of a plastic water bottle from production to disposal. What steps involve use of fossil fuels? What steps produce pollution or waste? What effect does the production of plastic bottles have on natural ecosystems?

Social Studies

- In July 2010, the United Nations declared that access to clean drinking water and sanitation is a universal human right. Discuss whether one has a right to as much as they want, or as much as they need. Bottled water companies treat water as a commodity, to be bought and sold. Does this conflict with the UN's view on water?

English Language Arts

- Use old magazines to find and clip out bottled water ads. Ask students to investigate bottled water ads when they watch TV. What messages do bottled water companies try to deliver to us about their products? How do these ads affect the way we perceive both bottled water and tap water?

Mathematics

- Have students investigate the cost of bottled water. Check vending machines and store flyers (paper or online). Then, find the cost of tap water in your community. Convert all costs to price per litre. Students evaluate whether buying bottled water is a cost efficient way to obtain drinking water.

If your school is ready to stop selling bottled water, check the resources at the Polaris website or contact the Slow the Flow Coordinator.

Websites of Interest

- Polaris Institute's Inside the Bottle Campaign: www.insidethebottle.org
- Refresh!/Re-Jaillir! Resources: www.insidethebottle.org/re-fresh-re-jaillir
- Council of Canadians Water Campaign - Unbottle It!: www.canadians.org/water/issues/Unbottle_It/index.html
- Winnipeg's Water Treatment Program: www.winnipeg.ca/waterandwaste/water/treatment/plant.stm
- Brita's FilterForGood Campaign: www.filterforgood.ca