

Behind the Bottle – What's in the Bottle?

Objective: Introduce different reproductive strategies using Northern plant examples

Introduction: Many people consume bottled water due to concerns about their own water sources. Some of these perceptions may be true but others are false. This lesson helps students investigate the quality of their own communities' water and assess whether the waste of bottled water is necessary.

Curriculum Connections:

Unit C – 2: processes for monitoring water quality

Supplies / Materials:

- Computer access
- Notebook
- Student Worksheets, maps and information sheet from resource
- Flip chart and pens

Hook: Show controversial ad for Bottled Water:

<http://www.coloribus.com/adsarchive/prints/archipelago-bottled-water-3166605/>

Intro Activity: Discuss why people buy bottled water. What are perceptions of tap water vs. bottled water? What are the sources? Do students know about water treatment in their area?



SCIENCE FOCUS

Lesson Subject

Science 9

Topic

Environmental Chemistry

Location

Classroom and Field

Length

50 mins



Main Activity: Discuss with your class if it is worth buying bottled water. Bring in a sample of different bottled water that is available in your community and get the students to guess the price of each bottle. Have stickers with the correct prices written out and play a matching game with your students. Also have a cup with tap water included in your display. Have a sticker with the cost of tap water included as well so students can get a better idea of the money they would save by drinking tap water. Bottled water usually comes to about \$2.75 per litre, and tap water is about \$0.01 per litre.

Independent Student Work: Have students create a poster to promote tap water in their school, home and community. This can also be done in partners or small groups depending on class size and needs. They can include some benefits from switching to NWT water included below.

Take Action:

Home:

- Get a reusable water bottle that you can fill with tap water and carry with you
- Fill a glass pitcher with tap water and place it in your home fridge, most chlorine used to treat the water will dissipate within a few hours

At School:

- Use the drinking water fountain if one is available, if not request that one be installed (get students to write and sign a petition for the principle)
- Carry a reusable water bottle around, maybe provide your class with a reusable water bottle or include it in the school supplies list at the beginning of the year, or as a note home to parents. Make sure to label water bottles to avoid mix up between students.

In your community:

- Contact your local government or band office, as how your community is implementing the NWT Association of Communities resolution to phase out the sale and use of bottled water
- Visit the water body where your community gets its drinking water and learn more about the local water treatment system.

Conclusion / Review:

- Have a discussion with your class on the following: Is it worth buying bottled water?
- Collect recycled water bottles from the school and turn it into an art project.

Homework: Have students design an educational campaign to educate schoolmates about bottled water or to take to businesses to discourage the sale of them. This can include finishing the posters they started in class.

Resources:

Ecology North: Water and #loveNWTwater campaign

<http://ecologynorth.ca/our-work/water/>

Extension:

1. Connect to impacts on biodiversity – what happens to plastics in the environment and what are the implications for animal species?
2. Use testing kits to compare bottled water samples to tap water samples.