Water at School

Duration: 1 to 2 h

Audience : 7 to 12 years

Go around the school looking for places where water is used.

Identify where water is used and what it is used for.

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OBV de la rivière du Nord

Objectives

Be aware that water is an important resource and must be protected.

- *Learn more about water usage in schools.*
- *Find solutions to reduce the school's water consumption.*

Required material :

- *Teacher's workbook*
- *Student's workbook (1 per student or team)*
- *Water at School Charter per student*

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Course of the activity

Introduction (10 min)

Introduce the following basic concepts :

Fresh water on the planet

On earth, 97.5 % of water is salt water (oceans) and 2.5 % is fresh water. Among this percentage, nearly 65 % is found in glaciers and snow. This means that only 35 % of fresh water, or 0.83 % of all water on Earth, is in the form of surface water (lakes, rivers and wetlands) or groundwater (water table). It is from this small portion that humans around the world draw their drinking water.

Drinking water in Quebec

Although water is very abundant in Quebec, drinking water is a resource to be used in moderation. Indeed, the drinking water distributed in most cities must be treated to become drinkable before making its way to the tap. It is very expensive to treat water to make it drinkable and to treat wastewater (toilets, showers, sinks) before releasing it into nature. Therefore, the less drinking water we use, the less we will need to treat it and use chemicals to do so.

In 2019, the average residential consumption per person was :

- Need (estimate to live comfortably): *100 L per day* *
- Quebec: *262 L per day (131 large 2 L soda bottles)*
- Canada: *215 L per day*
- Manitoba (lowest consumption in the country): *158 L par jour*

*According to the World Health Organization

1.
2.
3.

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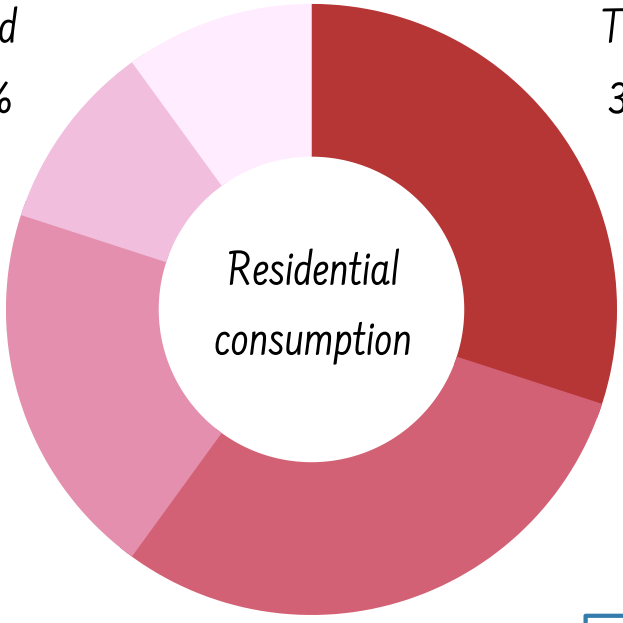
Course of the activity

Introduction (10 min)

What do we use water for ?

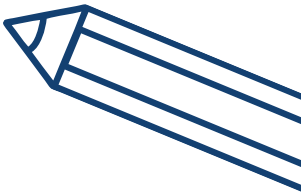
Other
10%

Food
10%



Toilet
30%

Laundry and cleaning
20%



Bath and shower
30%

1.
2.
3.

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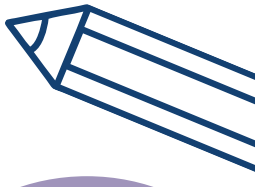
Course of the activity

Discovering more about school water usage (1 h)

1. Using the Teacher's Workbook, walk around the school and locate places where water is used. Distribute a Student Workbook to each student or pair. If you are distributing the workbook in pairs, please distribute the student chart to both students.

2. For each location where water is used, students answer the questions and write their answers in their Student Workbooks.

3. At the end of the activity, have students read and sign the Student Chart and designate a "water guardian". The water guardian can be designated on a weekly basis. They will be responsible for checking that faucets and water fountain are turned off after the class water and toilet breaks, and before each recess period and at the end of the day.



1.
2.
3.

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Teacher's Workbook

At each location where water is used, ask the following questions:

- What are the uses of water at this location?
- Is there an alternative to using drinking water for this activity?
- If not, what are some ways to reduce water use for this activity?
- Is there a system already in place to reduce water consumption (i.e. automatic faucet)?
- Is there a leak where the water is used?

*The following answers are examples, there could be other activities and locations where water is used, as well as other solutions to reduce consumption.

General solutions to be applied in most situations:

- Turn off the water when it is no longer needed.
- Make sure that the taps are properly closed after use.
- Repair leaks.
- Reduce operating time to a minimum.
- Recover tap water, rainwater, bottled water, etc. for other uses.

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Teacher's Workbook

Class

Uses	Alternative to drinkable water	Reduction solution	Reduction measure in place	Leaks
Wash the board and desks	• Reuse water from hand washing. • _____	• Fill the bucket to the minimum level required. • _____	☐ _____ ☐ _____ ☐ _____	☐ No ☐ Yes _____
Wash hands	• No	• Lather up before turning on the water. • Turn off the faucet when lathering your hands. • Wash your hands quickly. • Wash your hands with a friend. • Reduce the flow of the faucet when washing your hands. • _____	☐ Automatic faucet ☐ _____ ☐ _____	☐ No ☐ Yes _____
Drink water	• No	• Do not let the water run before or after. • Have smaller glasses of water more often. • _____	☐ _____ ☐ _____ ☐ _____	☐ No ☐ Yes _____

Teacher's Workbook

Class

Uses	Alternative to drinkable water	Reduction solution	Reduction measure in place	Leaks
Aquarium (if present)	• No	• Check the filter regularly for proper operation/ensure regular maintenance of the filter. • _____	☐ _____ ☐ _____ ☐ _____	☐ No ☐ Yes _____
Water the plants (if present)	• Reuse aquarium water. • Collect the leftover water from water bottles. • _____	• Water in the morning or evening to reduce water evaporation. • _____	☐ _____ ☐ _____ ☐ _____	☐ No ☐ Yes _____

Teacher's Workbook

Toilets

Uses	Alternative to drinkable water	Reduction solution	Reduction measure in place	Leaks
Flush the toilet	• _____	• Put a bottle filled with water or sand in the tank. • _____	☐ _____ ☐ _____ ☐ _____	☐ No ☐ Yes _____
Wash hands	• No	• Lather up before turning on the water. • Turn off the faucet when lathering your hands. • Wash your hands quickly. • Wash your hands with a friend. • Reduce the flow of the faucet when washing your hands. • _____	☐ Automatic faucet ☐ _____ ☐ _____	☐ No ☐ Yes _____

Teacher's Workbook

Kitchen

Uses	Alternative to drinkable water	Reduction solution	Reduction measure in place	Leaks
Wash hands	• No	• Lather up before turning on the water. • Turn off the faucet when lathering your hands. • Wash your hands quickly. • Wash your hands with a friend. • Reduce the flow of the faucet when washing your hands. • _____	☐ Automatic faucet ☐ _____ ☐ _____	☐ No ☐ Yes _____
Wash food	• No	• Fill a bowl or the sink rather than letting it run. • Reduce the flow of the faucet when washing the food. • _____	☐ _____ ☐ _____ ☐ _____	☐ No ☐ Yes _____

Teacher's Workbook

Kitchen

Uses	Alternative to drinkable water	Reduction solution	Reduction measure in place	Leaks
Cook	• No	• Use the minimum amount of water necessary to cook food. • Steam your vegetables. • _____	☐ _____ ☐ _____ ☐ _____	☐ No ☐ Yes _____
Wash the kitchen	• Reuse the water from food washing to wash floors. • _____	• Fill the bucket or sink to the minimum level necessary. • _____	☐ _____ ☐ _____ ☐ _____	☐ No ☐ Yes _____
Wash the dishes	• No	• Fill the sink to the minimum level required. • Fill the dishwasher to capacity. • _____	☐ _____ ☐ _____ ☐ _____	☐ No ☐ Yes _____

Teacher's Workbook

Halls

Uses	Alternative to drinkable water	Reduction solution	Reduction measure in place	Leaks
Water fountain	• No	• Do not let fountain water run for nothing. • Fill a glass or bottle. • _____	☐ Fontaine à bouteille ☐ _____ ☐ _____	☐ No ☐ Yes _____
Wash the floors	• Reuse the water from food or hand washing to wash floors. • _____	• Fill the bucket to the minimum level required. • _____	☐ _____ ☐ _____ ☐ _____	☐ No ☐ Yes _____

Teacher's Workbook

Schoolyard

Uses	Alternative to drinkable water	Reduction solution	Reduction measure in place	Leaks
Water the lawn and plants	• Reuse aquarium water. • Collect the leftover water from water bottles. • Collect rain water • _____	• Use a watering gun that allows water to be shut off directly at the mouthpiece. • Replace the grass with other plants more adapted to the climate. • Water in the morning or evening to reduce water evaporation. • _____	☐ Pistolet d'arrosage ☐ Récupérateur d'eau de pluie ☐ _____	☐ No ☐ Yes _____
Wash the buildings or schoolyard	• Collect rain water • Use a broom. • _____	• Use a watering gun that allows water to be shut off directly at the mouthpiece. • Fill the bucket to the minimum level required. • _____	☐ Water gun ☐ Rain barrel ☐ Use a broom ☐ _____	☐ No ☐ Yes _____

Water at School

Student's Workbook

Go around the school looking for places where water is used.

Fill out a form for each use, specifying the location(s) where it can be done.

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Student's Workbook

Use : _____

Location(s) : _____

Alternative(s) to drinkable water :

- _____
- _____
- _____
- _____
- _____

Reduction solution(s) to water consumption :

- _____
- _____
- _____
- _____
- _____

Reduction measure(s) in place

☐ Yes _____
☐ No

Leak(s)

☐ Yes _____
☐ No

Use : _____

Location(s) : _____

Alternative(s) to drinkable water :

- _____
- _____
- _____
- _____
- _____

Reduction solution(s) to water consumption :

- _____
- _____
- _____
- _____
- _____

Reduction measure(s) in place

☐ Yes _____
☐ No

Leak(s)

☐ Yes _____
☐ No

Student's Workbook

Use : _____

Location(s) : _____

Alternative(s) to drinkable water :

- _____
- _____
- _____
- _____
- _____

Reduction solution(s) to water consumption :

- _____
- _____
- _____
- _____
- _____

Reduction measure(s) in place

- ☐ Yes _____
- ☐ No

Leak(s)

- ☐ Yes _____
- ☐ No

Use : _____

Location(s) : _____

Alternative(s) to drinkable water :

- _____
- _____
- _____
- _____
- _____

Reduction solution(s) to water consumption :

- _____
- _____
- _____
- _____
- _____

Reduction measure(s) in place

- ☐ Yes _____
- ☐ No

Leak(s)

- ☐ Yes _____
- ☐ No

Student's Workbook

Use : _____

Location(s) : _____

Alternative(s) to drinkable water :

- _____
- _____
- _____
- _____
- _____

Reduction solution(s) to water consumption :

- _____
- _____
- _____
- _____
- _____

Reduction measure(s) in place

☐ Yes _____

☐ No

Leak(s)

☐ Yes _____

☐ No

Use : _____

Location(s) : _____

Alternative(s) to drinkable water :

- _____
- _____
- _____
- _____
- _____

Reduction solution(s) to water consumption :

- _____
- _____
- _____
- _____
- _____

Reduction measure(s) in place

☐ Yes _____

☐ No

Leak(s)

☐ Yes _____

☐ No

Student's Workbook

Use : _____

Location(s) : _____

Alternative(s) to drinkable water :

- _____
- _____
- _____
- _____
- _____

Reduction solution(s) to water consumption :

- _____
- _____
- _____
- _____
- _____

Reduction measure(s) in place

☐ Yes _____
☐ No

Leak(s)

☐ Yes _____
☐ No

Use : _____

Location(s) : _____

Alternative(s) to drinkable water :

- _____
- _____
- _____
- _____
- _____

Reduction solution(s) to water consumption :

- _____
- _____
- _____
- _____
- _____

Reduction measure(s) in place

☐ Yes _____
☐ No

Leak(s)

☐ Yes _____
☐ No

Student's Workbook

Use : _____

Location(s) : _____

Alternative(s) to drinkable water :

- _____
- _____
- _____
- _____
- _____

Reduction solution(s) to water consumption :

- _____
- _____
- _____
- _____
- _____

Reduction measure(s) in place

- ☐ Yes _____
- ☐ No

Leak(s)

- ☐ Yes _____
- ☐ No

Use : _____

Location(s) : _____

Alternative(s) to drinkable water :

- _____
- _____
- _____
- _____
- _____

Reduction solution(s) to water consumption :

- _____
- _____
- _____
- _____
- _____

Reduction measure(s) in place

- ☐ Yes _____
- ☐ No

Leak(s)

- ☐ Yes _____
- ☐ No

Student's Workbook

Use : _____

Location(s) : _____

Alternative(s) to drinkable water :

- _____
- _____
- _____
- _____
- _____

Reduction solution(s) to water consumption :

- _____
- _____
- _____
- _____
- _____

Reduction measure(s) in place

- ☐ Yes _____
- ☐ No

Leak(s)

- ☐ Yes _____
- ☐ No

Use : _____

Location(s) : _____

Alternative(s) to drinkable water :

- _____
- _____
- _____
- _____
- _____

Reduction solution(s) to water consumption :

- _____
- _____
- _____
- _____
- _____

Reduction measure(s) in place

- ☐ Yes _____
- ☐ No

Leak(s)

- ☐ Yes _____
- ☐ No

Student's Workbook

Use : _____

Location(s) : _____

Alternative(s) to drinkable water :

- _____
- _____
- _____
- _____
- _____

Reduction solution(s) to water consumption :

- _____
- _____
- _____
- _____
- _____

Reduction measure(s) in place

- ☐ Yes _____
- ☐ No

Leak(s)

- ☐ Yes _____
- ☐ No

Use : _____

Location(s) : _____

Alternative(s) to drinkable water :

- _____
- _____
- _____
- _____
- _____

Reduction solution(s) to water consumption :

- _____
- _____
- _____
- _____
- _____

Reduction measure(s) in place

- ☐ Yes _____
- ☐ No

Leak(s)

- ☐ Yes _____
- ☐ No

Water at School Charter

Since every drop counts,
I pledge to accomplish
the following actions.

- [ ] I only use the amount of water that I really need.
- [ ] I reuse water, when possible.
- [ ] I turn off the tap to wash my hands.
- [ ] I don't let the water run for nothing.
- [ ] I make sure the tap is closed when I'm done using it.
- [ ] I flush the toilet after i've used it only.
- [ ] I identify leaks and report them to my teacher.
- [ ] I apply the same principles at home.

Signature : _____