

Lesson 2



Water Wise Girls & Guys

Recognizing and reducing your water usage

Background

In Canada, we use more water per person than most other countries in the world! We have access to many sources of fresh water but we have to remember: there is no new water on Earth. We have to share our water with the rest of the world.

Each day, the average Canadian uses 329 litres of water. Wow - that's almost 165 2-litre bottles!

Key Questions

- How much water do you use?
- How can you conserve water?

Curriculum Objectives

- **Grade 1 English**
SCO 8.1: Students will be expected to use writing and other forms of representing for a variety of functions (to ask questions and to express feelings, opinions, and imaginative ideas)
- **Grade 1 Math**
N02: Students will be expected to recognize, at a glance, and name the quantity represented by familiar arrangements of 1 to 10 objects or dots
- **Grade 1 Math**
M01: Students will be expected to demonstrate an understanding of measurement as a process of comparing by making statements of comparison
- **Grade 1 Social Studies**
SCO 1.4.1: Students will be expected to recognize that all people have needs and wants
- **Grade 2 Science**
SCO 103-8: Students will be expected to identify the importance of clean water for humans, and suggest ways they could conserve water
- **Grade 2 Visual Arts**
SCO 5.11: Students will be expected to recognize art as a way of expressing ideas and points of view
- **Grade 2 Math**
M03: Students will be expected to compare and order objects by length, height, distance around, and mass using non-standard units and make statements of comparison

Supplies

- Water-themed music
- 1L bottle or carton
- Scissors (one pair per student)
- Glue (one per student)
- Student notebooks
- Handout: Cut and Order (one per student)
- *Worksheet: Tappy Water Usage (one per student)*
- *Worksheet: Predict Your Water Usage (one per student)*
- *Worksheet: Understanding How We Use Water (one per student)*

Overview

Time Line: These activities will take approximately 60 minutes to complete.

First, students will visually represent ways that they can conserve water at home, school, or in the community using the *Tappy Water Usage Worksheet*. Students will then cut out the *Cut and Order* water usage activity blocks and order them from least to greatest in their notebooks. Students will also estimate how much water they need to complete daily activities using the *Predict Your Water Usage Worksheet*. Finally, they will reflect upon what they've learned with the *Understanding How We Use Water Worksheet*.

By visually representing activities that require water, learning which activities use the most water, and learning just how much water they use throughout the day, students will learn the importance of water conservation and encourage friends and family to monitor their water usage.

References

Nova Scotia Department of Environment and Labour
(<http://www.gov.ns.ca/nse/water/docs/WaterConservation.pdf>)

Lesson Plan (60 minutes)

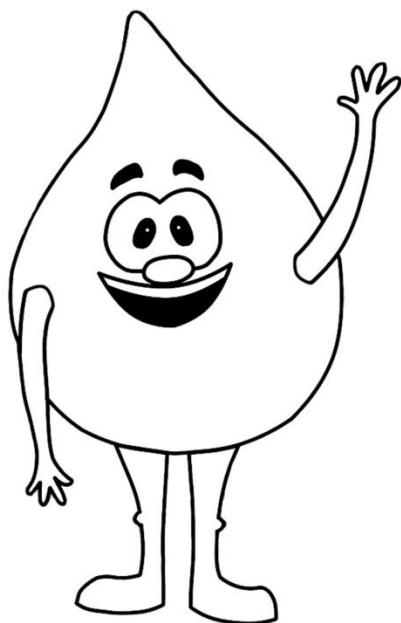
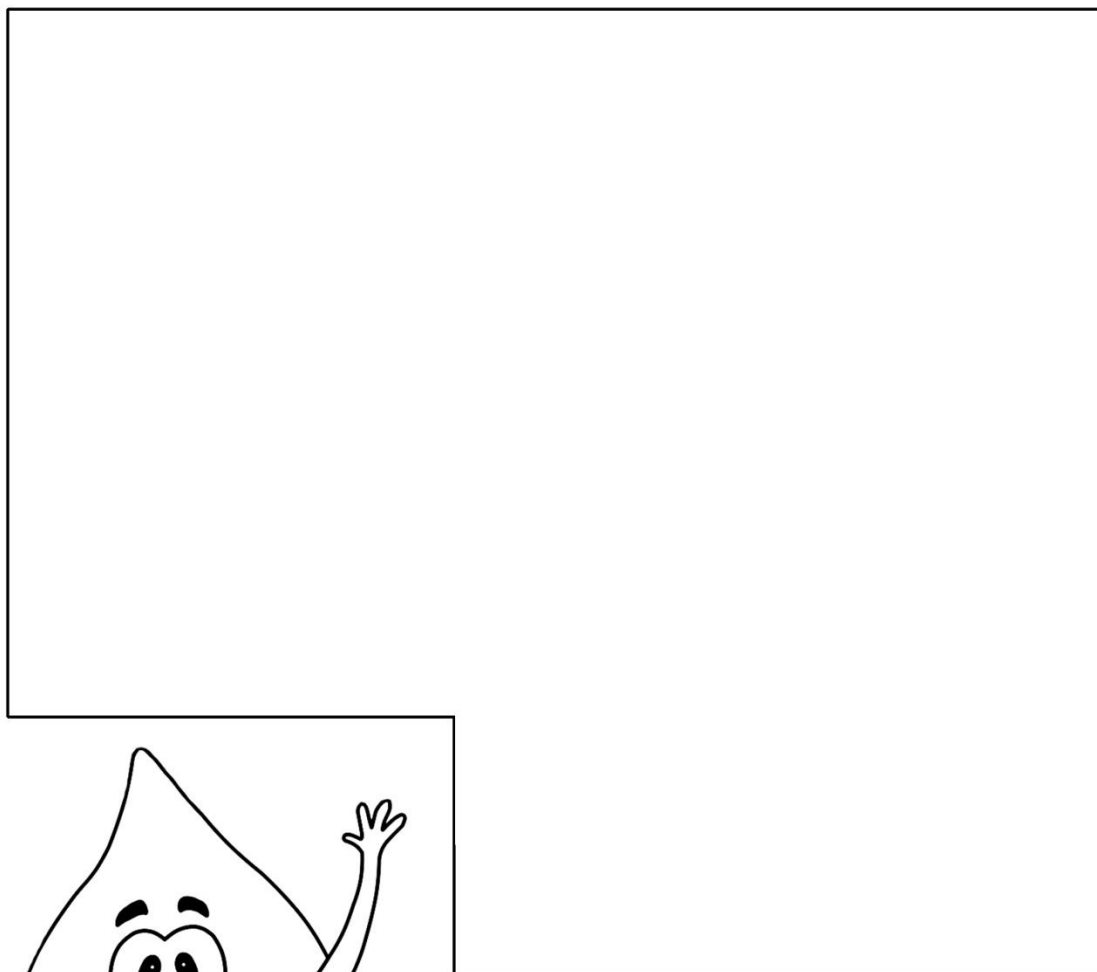
15 min	<p>Play water-themed music</p> <p>Worksheet: Tappy: Water Use</p> <p>Students will draw (or write) some ways that they use water.</p>
10 min	<p>Brainstorm: What do we use water for?</p> <p>On the board (or a piece of chart paper), brainstorm various ways that we use water. Students will realize that we use a lot of water for a lot of different activities.</p> <p>Ask, “do all activities use the same amount of water?”</p> <p>Students should understand that if we have a choice between two activities (for example, a bath or a shower), we should do the activity that uses less water.</p>
5 min	<p>Explain that in Canada, we measure liquids (including water) in litres. Ask students what sorts of things their parents or guardians buy in “litres”.</p> <p>Show a 1 Litre carton or bottle as a reference.</p>
10 min	<p>Worksheet: Cut and Order (from least to greatest)</p> <p>Each student will receive a copy of the sheet and cut out the blocks. Students will then look at the information on the blocks and order the activities from the least amount of water they require to the greatest amount of water. The blocks can be glued onto a separate sheet of paper or in student notebooks.</p> <p>Modifications:</p> <p>Grade 1 - The amount of water in litres is omitted from the Cut and Order sheet</p> <p>Grade 2 - The amount of water in litres is included in the Cut and Order sheet</p> <p>Clarify: Students may not understand why it takes water to make a meal. Explain, “When we cook potatoes, carrots, and other vegetables, we usually boil them in a pot of water. We also use water to make things like pasta, rice, and soup.”</p>
10 min	<p>Worksheet: Predict Your Water Usage</p> <p>Each student will receive their own worksheet. For each activity listed, students will circle the amount that they think best represents how much water the activity uses. Some activities will require a lot of water, so students may want to circle amounts more than once.</p> <p>For example, a bath requires approximately 180L of water. This would be equivalent to 9 water jugs. Students may only circle the water jug once, which means that they understand</p>

	that baths require a lot of water, but some might be inclined to circle it a few more times to demonstrate just how much water they think it takes.
10 min	Worksheet: Understanding How We Use Water This worksheet will allow students to reflect upon what they've learned throughout this lesson. Teacher should read all sections out loud first to make sure students understand what is being asked.

Tappy Water Usage Worksheet

Name: _____

Date: _____



Hi there! I'm Tappy the waterdrop.
Can you draw some ways that
you use water?

Grade 1: Cut and Order (from least to greatest)

Drink



Shower



Wash face or hands



Brush teeth (tap off)



Brush teeth (tap on)



Meals (not snacks)



Flush toilet



Bath



Grade 2: Cut and Order (from least to greatest)

Drink
1L



Shower
113L



Wash face or hands
5L



Brush teeth (tap off)
1L



Brush teeth (tap on)
9L



Meals (not snacks)
13L



Flush toilet
6L































Bath
180L









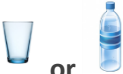
Predict Your Water Usage

(Student Worksheet provided with Teacher Resources)

How much water would you need to do these activities?
Circle the amount you think you would need. If you think you need a LOT of water, you can circle things more than once.

Activity	Amount of Water			
Bath				
Brush teeth (tap on)				
Shower				
Flush toilet				
Wash hands or face				
Brush teeth (tap off)				
Drink				

Water Amount Conversion Sheet (Teacher)

Activity	Corresponding amount of water (approximate)	Corresponding amount in litres (approximate)
Bath		180 L
Brush teeth (tap on)		9 L
Shower		113 L
Flush toilet		7 L
Wash hands or face		5 L
Brush teeth (tap off)		1 L
Drink	 or	1 L

Approximate capacities:

Jug	19 L
Bucket	10 L
Bottle	1 L
Glass	0.5 L

Rounded to the nearest whole number; data from:

<http://www.gov.ns.ca/nse/water/docs/WaterConservation.pdf>

Understanding How We Use Water

Name: _____

Understanding How We Use Water

I use water when I...



Is it better to use less water or more water? Colour your answer.

Less Water

More Water

I am going to use less water by...

