

## Lesson 3



# How Much Water is Enough?

Reasons and ways to save water

## Background

The world is made up of 70% water! There should be lots of water for everyone to use, right? Unfortunately, less than 1% is suitable for drinking. 97% is salt water, and the other 2% is frozen. There are many simple ways to reduce our water usage and avoid running into a water shortage.

## Key Questions

- **What is water used for?**  
*Drinking, eating, bathing, swimming, washing clothes and dishes, feeding animals, brushing teeth, etc.*
- **Why is it important to conserve water?**  
*Only 1% of the Earth's water is available for use. The rest is either salt or frozen in ice caps. Also, it is difficult, expensive, and bad for the environment to clean water. Finally, there is no new water on Earth.*
- **What are some ways we can conserve water?**  
*Tap off when brushing teeth, 5 minute shower, tap off when lathering soap, keep pitcher of cold water in fridge, only run washer (dish or clothing) when load is full, etc.*

## Curriculum Objectives

- **Grade 2 Science**  
SCO 103-8: Students will be expected to identify the importance of clean water for humans and suggest ways to conserve it
- **Grade 1 English**  
SCO 2.1: Students will be expected to sustain one-to-one conversations and contribute to small and large group interactions
- **Grade 2 English**  
SCO 8.1: Students will be expected to use writing and other forms of representation to explore how and what they learned
- **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 2 Math**  
N05: Students will be expected to compare and order numbers up to 100

## Supplies

- One necklace made from dyed pasta or beads (13 red, 2 yellow, 1 green)
- *Worksheet: Water, Water, Everywhere*
- crayons
- Finger puppet print-outs (to be coloured, cut out, and assembled prior to this activity)
- Teacher copy of the '*Common Water*' story
- 3 sponges (small, medium, and large)
- 2 small basins or containers (one containing a moderate amount of water, the other empty)

## Overview

**Time Line:** These activities will take approximately 65 minutes to complete.

First, students will Think-Pair-Share to find out why they should save water. Students will then learn about how much fresh water there is on Earth by comparing the amount to coloured beads. They will then represent this amount in a colouring worksheet activity. Students will also participate in the teacher's reading of the *Common Water* story with finger-puppets. It is recommended that students colour and assemble the finger puppets prior to the activity. Finally, the students will reflect and write a journal entry about being 'water wise.'

By visually representing the amount of water in the world, students will better understand that although the world is covered by a lot of water, only a very small percentage is suitable for drinking. Acting out the *Common Water* story will also give students a visual understanding of what happens when more and more people rely on the same source of water over time. Through writing a journal entry about the importance of water conservation, students will reflect upon what they've learned and pass this information along to their friends and family.

## References

**Common Water**, Project WET Curriculum and Activity Guide (2005)

## Lesson Plan (65 minutes)

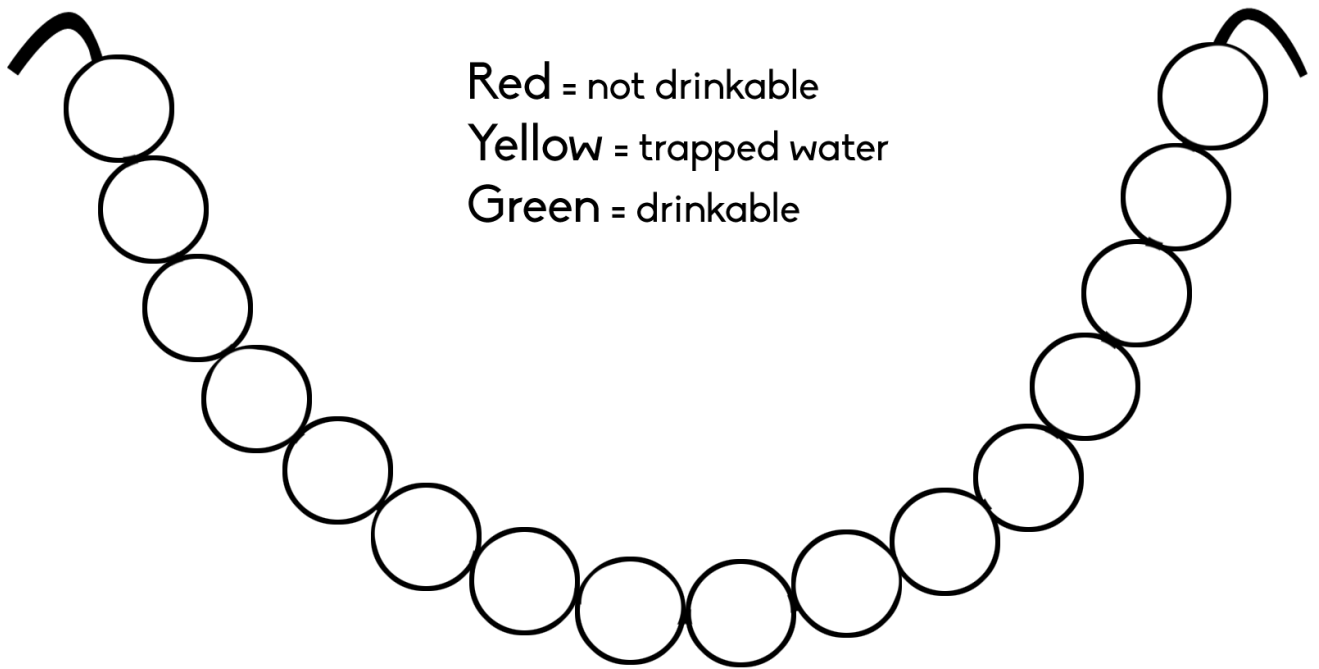
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| 15 min | <p><b>Think-Pair-Share:</b><br/>Why should we save water?</p> <p>Tell students they'll get 2 minutes to come up with an answer (<b>think</b>)<br/>Turn to the person beside you for 2 minutes and say what you've come up with (<b>pair</b>)<br/><b>Share</b> with the rest of the class (10 minutes)</p>  |
| 20 min | <p>Show students a necklace made from dyed pasta or beads (13 red, 2 yellow, 1 green).</p> <p>Explain that if this necklace represented all the water in the world, only the green bead would be suitable for drinking.</p> <p>Ask, <b>"Why can't we use the rest of the water?"</b><br/>The Earth is covered in a lot of water, but most of it is not okay for us to drink. The ocean, for example, contains salt water, which would make us sick. This undrinkable water is represented by the red beads.<br/>Some water is locked away in ice or in the ground (groundwater). Getting to this water would be pretty difficult, so for that reason, we can't drink it. This 'trapped' water is represented by the yellow beads.<br/>Only a tiny bit of water (less than 1%) on Earth is drinkable. We must work very hard to keep this water clean. This drinking water is represented by the green bead.</p> <p><b>Worksheet: Water, Water, Everywhere</b></p> <p>Each student receives a worksheet and replicates the necklace by colouring the picture in the same fashion. They will take this sheet home and 'teach' their family about the importance of saving water.</p> |
| 15 min | <p>Ask students to participate in the <b>Common Water story</b> by using finger puppets.</p> <p>Prepare one basin so that it is approximately <math>\frac{1}{2}</math>- <math>\frac{3}{4}</math> filled with water. Keep the empty basin out of sight. Place the 3 sponges next to the water basin.</p> <p>Read the Common Water story and follow the directions. Encourage student discussion.</p> <p>Ask: Why is it important to conserve water?</p>   |
| 15 min | <p><b>Journal Entry: Water Wise</b><br/>Students will use their journal to write an entry telling the teacher about the importance of water and why we should save it.</p>   |

# Water, Water, Everywhere Worksheet

(larger worksheet included in Teacher Resources)

Name: \_\_\_\_\_

Water, water everywhere...  
but only a drop to drink!



# Common Water Story

Once there was a lake. (Show basin of water.) Some animals lived near the lake and drank from it every day. (Use the small sponge and collect a few spongefuls of water, transferring the water to a different basin that is out of sight.

Discuss how animal use of the lake minimally affects the level of water.)

Some years later, people began to move into the area. (Ask students how they use water; use the medium-sized sponge and remove a spongeful of water as you name each water use in the next sentence – include student suggestions.)

Like you, these people drank water, washed, watered their plants, etc. Everyone used as much water as he or she wanted, without thinking about other people's needs. The people thought there would be plenty of water because even though they took water away from the lake, the rain would eventually bring the level of the water back up. (Pour some water back into the basin.) People kept moving into the area; large farms and factories were built. (Use the largest sponge and take out water until the basin is almost empty.) After several years, people noticed that, despite the rain, the level of the lake was going down.

(Show students the water level.)

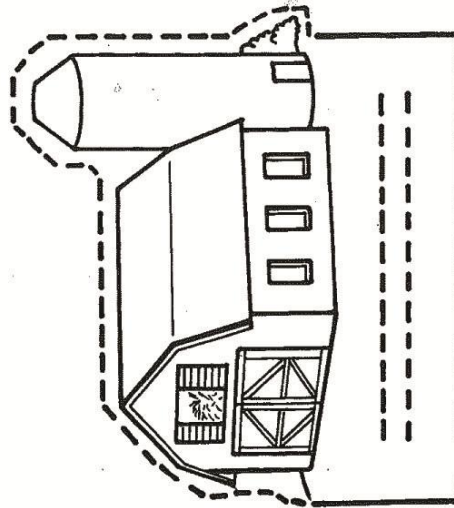
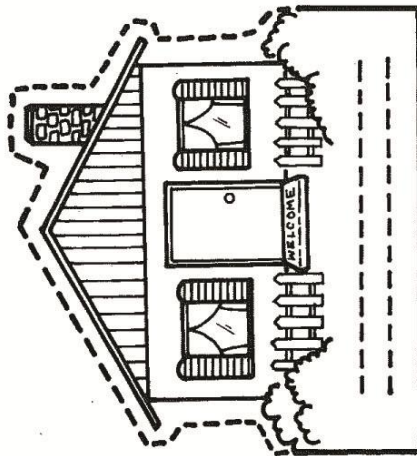
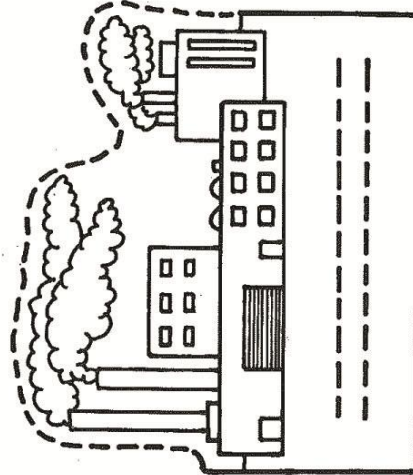
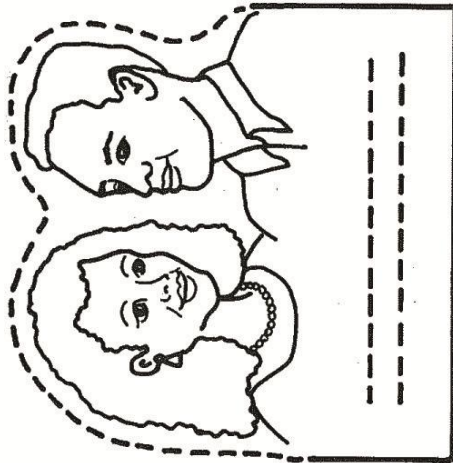
(from **Project Wet: K-12 Curriculum and Activity Guide**, 10<sup>th</sup> Ed. (2005), p. 235-237)

# Common Water Story Finger Puppet Cut-Outs

(full-size PDF print-offs included in Teacher's Resources)



 **K-2 Option**





## Water User Finger Puppets

