

Activity Theme: Water Conservation

Activity Type: Experiential 

Grade 2-5

# Lather Up

**Activity Overview:** In this activity, the elementary students will participate in a better-bathing challenge where they will put on rain gear, step into a shower stall and try to figure out the most water-efficient way to take a shower.

## Objectives:

- To recognize wasteful uses of water in the home
- To identify methods to reduce water consumption
- To determine simple ways to conserve water on a daily basis within their homes

## Materials:

- 8 Rain ponchos
- 8 Rubber Boots
- 2 Stop Watches
- Clear Tubs
- Mats (to prevent slipping)
- Step Stools
- White Board & Number Cards
- Plastic Hangers
- Pylons

**Setup:** At the end of the day, line up the boots upside down on the picnic table to dry and hang the ponchos using the plastic hangers from the tent. Place the mats in front of the showers to prevent slipping.



**Takedown:** Make sure ponchos and rubber boots are dry before putting back in the box. Leave out to dry if still wet.

**Safety:**

- This is a wet activity! Please caution participants to watch their step as the ground may become wet and soggy.
- Make sure that the students use the stairs located in front of each shower stall to get in and out of the shower.
- Make sure that the step is fixed to the stall.
- Ensure students wear the appropriate-sized boots to avoid trips and falls.

**What will I be doing? (Procedure)**

*Before you start your presentation, check with the teacher or chaperone that the entire group is present and ready to start.*

*Remember that kids have more fun when they are **doing** an experiment and **discovering** the answer, rather than watching and listening.*

**Part 1: Discussion Activity**

**Say:** “Welcome to Lather Up! This activity will teach you about how to conserve water in your home. You can use water wisely by taking water-efficient showers.”

**Ask:** “What are some ways that water is wasted in the home?”

(Examples: letting the tap run, drips in the house, long showers, flushing the toilet too many times, etc.)

**Say:** “It is important to conserve (use less) water. Everyone pays for water and water treatment. The less water we use, the more money we save and we help the environment at the same time. Although water is renewable (it circulates and we can use it over again), our supply is not endless.”

**Ask:** “What are some ways you can conserve water?”

Examples: taking shorter showers; turning the tap off when brushing your teeth; only running the dishwasher when it is full; only doing the laundry with a full load.

**Say:** “There are ways in which you can conserve water every day. For example, by reducing your time in the shower.”

**Ask:** “What is the difference between taking a shorter shower versus a longer shower?”

Answer: A longer shower uses up more water.

**Ask:** “Would you want to shower with cold water?” (Answer: No)

**Say:** “Energy is needed to heat the water we shower with. By saving water in our shower we also save energy and money!”

### **Part 2: Shower Activity**

**Say:** "The next part of this activity will be a "contest" to see who is able to "shower" more efficiently while still thoroughly cleaning."

**Split the group into two teams. Ask:** "Can I have **ONE** volunteer from each team to get suited up with rain gear (jacket and boots)?" \*\*You will need another 2-3 volunteers to supervise the showers.\*\*

Have the selected students step carefully into the shower stalls using the stairs provided.

Explain to the audience what is about to happen: "One student will be taking a long shower - taking their time and singing, etc. The student in the other shower will be taking a shorter shower - pretending to soap up and rinse off quickly."

Ask the students: "Which type of shower is most likely to waste more water?"

Choose **two** students to be the timers.

**Turn on the water and start your stop watches to time the length of the showers.** Explain to the audience what each student is doing in the shower.

After 30 seconds, turn off the water in the efficient shower and after 1 minute turn off the water in the inefficient shower.

Show the audience the level of water collected in the clear tubs and compare the amount of water used for the long and short shower.

Have the **older students** estimate the time it takes for them to shower. Assuming their showers have normal water pressure, ask the students to multiply their shower time by 10 litres per minute (five 2L pop bottles). If they are using a high efficiency showerhead, they will use about 6 litres per minute. This value represents the amount of water they use for one shower!

If the group is large, please ask the teacher/chaperone to select **ONE** of their students to go into one shower and another teacher/chaperone to pick **ONE** student to go into the other shower. The other students can be timers (using the stopwatches). Once a group has had a chance to participate, remind them to move along. Explain that when it is busy, not every student will get a chance to go into the shower.

If there is a crowd starting to form around this activity, use the number cards and the "NOW SERVING #" white board. Give the groups waiting a number and ask them to return when their number is called or they see their number written on the board. Encourage groups who have taken a number to move along to another activity close by and they will be called shortly for their turn.

### **Part 3: Review with the students what you have taught them in this activity**

**Ask:** "Which room in the house do we use the most water?"

Answer: The bathroom

**Ask:** "What are some ways that we can save water in the bathroom?"

## Purple Colour Group – Intermediate

Answer: We can take shorter showers; not over-fill our bathtubs; turn the tap off when we brush our teeth

Reducing our water use also saves energy!

### **Specific Reminders for Students:**

- We should all try to do our part to save water – it's easy and it saves us money too!
- The more water we save, the more we help to keep our environment clean and healthy.
- **Use water wisely by taking water-efficient showers.**

### **Background Information:**

The average Canadian uses 326 litres of water per day. The average water consumption for someone living in Peel is 290 litres per day (that would fill 145 2L pop bottles!). The water that we use goes into our sewer systems, is treated and then it returns to Lake Ontario. Our water supply is not endless. Only 3% of the water on earth is fresh; out of that 3%, only 1% is readily available for human uses. The rest of the water is held in the polar glaciers, in the oceans, or deep underground.

Everyone has to pay for water and wastewater treatment. The less water we use, the more money we save and the more we help the environment. The largest amount of water usage in the home occurs in the bathroom -- usually the smallest room in the house! The bathroom accounts for about 65% of the water used inside the home.

If you want to save water, here are a few things you can do:

- Turn off the tap while brushing your teeth and use short bursts of water for rinsing.
- Turn off the taps tightly but gently so they do not drip.
- Have a quick shower, which uses less hot water than a bath in a full tub. If you prefer a bath, do not overfill the tub; 1/2 full should be enough.
- Flush the toilet only when necessary. Never use it as a wastebasket for tissue or anything other than toilet paper. Never flush paints or other chemicals down the toilet.

### **Vocabulary:**

**Hydrologic Cycle** (Natural Water Cycle) – The continuous circulation of water in the Earth-atmosphere system. Water moves from the oceans through the atmosphere to the continents and back again by way of evaporation, transpiration, precipitation, interception, percolation, surface runoff, groundwater flow and other complex processes.