

Activity Theme: Water Conservation

Grade 2-5

Activity Type: Experiential 

## Two Times A Day

**Activity Overview:** Students will compare two techniques for brushing their teeth in terms of the amount of water consumed. Emphasizing water efficiency and conservation, students are encouraged to turn off the tap while brushing and use short bursts of water for rinsing.

### Objectives:

Students should learn how to:

- Conserve water while brushing their teeth;
- Recognize what water uses are wasteful in the home; and
- Identify methods to reduce water consumption in their household.

### Materials:

- Double sink display
- Toothbrushes
- Stopwatch

**Setup:** Make sure that all the materials are present.

**\*When using the sinks, please have the elementary students only use the cold-water handle\***



**Takedown:** Put all items away in box provided.

### Safety:

- Please ensure students do not climb on the display or put objects of any kind into the sinks!
- Make sure students do **not** put the toothbrushes in their mouths.

### **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 **doing** an experiment and **discovering** the answer is more powerful than watching and listening to someone, so try to involve as many children as possible.*

### **Part 1: Activity – Brushing Your Teeth**

**Say:** “Welcome to Two Times a Day. This activity will teach you about the importance of brushing your teeth, and how we can conserve water while brushing. Use water wisely by turning off the tap when brushing your teeth or washing your hands with soap.”

**Ask:** “So who here brushes their teeth every day?” (Have students raise their hands)

**Ask:** “Wow! That’s a lot of clean teeth I see. So why do you think it is important for us to brush our teeth two times a day?”

**Answer:** To prevent cavities, bad breath, sore gums, etc.

**Say:** “It is important for us to all brush our teeth twice a day. We should brush all our teeth, including the back and the sides. When brushing, we need to brush away from our gums and brush for at least 3 minutes.”

Encourage the students to talk about their own habits (i.e., how, when, and how often do they brush their teeth?).

**Ask:** “Who knows what water conservation means?”

**Answer:** Water conservation is about using less water and using it wisely (or more efficiently).

**Say:** “The average person living in Peel uses 290 litres of water per day. That is equal to 145 2L pop bottles! Most of this water is used in the bathroom, which is usually the smallest room in the house! Since we use the most water here, it's also the area where we can save the most water, and it is easy!”

**Say:** “There are ways in which you can be saving water every day. One way is by turning the tap off when brushing your teeth.”

**Ask:** “Do we use more water if we leave the tap on while brushing our teeth or if we turn it off?”

**Answer:** we use more water if we leave it on

### **Part 2: Activity – Wasting or Saving Game**

**Say:** “So now that we have some information on saving water, can I get two volunteers to come up and help me out?”

Hand them a toothbrush and instruct the students not to put the toothbrush into their mouths. They will only be pretending to brush their teeth using two different techniques. The first student will be ‘brushing’ their teeth while leaving the tap on and the water running. Use the stopwatch to

ensure this only lasts for about **1 minute**. The second student will be 'brushing' their teeth by turning the tap off after wetting and rinsing the brush.

**Ask:** "Which person do you think will save more water by the end?"

Begin the experiment by having each student start brushing at the same time (count down). While the two students are doing the experiment, have the rest of the class participate in the wasting or saving water game:

- Have the students stand up with space between each other so they have room to move around
- Give a scenario of water usage around the house and have the students guess whether this will save water, or waste water.
- Have them guess by either making a 'W' (wastes water) with their arms held out above their heads, or an 'S' movement (saves water) with their bodies.
- Give multiple suggestions (ex. Fixing leaky pipes (saving), taking long showers (wasting), only doing laundry when you have a full load (saving), etc.)

Stop the demonstration when both students have finished "brushing." Remember this should only be for about **1 minute**.

Show the audience the amount of water collected in the clear jugs beneath each of the sinks and compare the amount of water used for each brushing method. Demonstrate that leaving the tap running uses more water.

Have the **older students** multiply the number of times they brush their teeth per day by the number of people in their family. If everyone worked together to conserve water (for example by turning off the tap), imagine how much water could be saved in a day? In a week? In a month? Or in a year?

Put water from the containers into the rain barrel.

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

- The bathroom is the room in our homes where we use the most amount of water.
- Use water wisely by turning off the tap when brushing your teeth or washing your hands with soap.

**Say:** "Thank you for participating in Two Times A Day! We hope you had fun and learned how you can save water at home."

### **Vocabulary:**

**Watershed** - a land area drained by a stream or river