



Tour Theme: Water (grades K-2)

Sub Theme: What is the Water Cycle?

Pre-Visit Activity #1: (20 -30 minutes)

How much water do I use?

Overview:

In this activity students will gain a better understanding of water usage in their homes. They will keep track of water used and find ways to reduce water usage.

Objectives:

- Students will learn about different bodies of water
- Students will understand the difference between fresh water and salt water
- Students will practice reading and writing skills
- Students will learn how to interpret charts
- Students will practice math skills and learn how to apply volume measurement for a recorded activity

Materials:

Pencils

Pictures of different bodies of water

Pictures of rain falling

Water Usage Chart (attachment)

Introduction Discussion:

Begin a discussion with the students based on the following questions:

1. Where does water come from? (Show picture of rain falling.)
2. Where can we see large amounts of water on the earth? Show students pictures or a map of different bodies of water. Point out and go over the names of the different bodies of water.
3. In what ways do we use water inside of the home?
4. In what ways do we use water outside of the home?
5. What happens to the water after it is used inside of the home?
6. What happens to the water after it is used outside of the home?
7. Do you think we have plenty of water in the world to meet our needs?
8. Are we the only animals on Earth who use water? What other animals need water to survive? What else needs water to survive?

Activity: How much is too much?

1. Show the students a gallon jug or container of water (equal to a gallon) to give them a visual aid. Keep it out during the activity so they can use it as a reference.

2. Explain to the students that they are going to be doing an experiment to see how much water they use in a day.
3. Also explain that they will be using the gallon as the measurement.
4. Then, hand each student a copy of the "Water Usage Chart" (see attachments).
5. Have the students estimate how much water they think they typically use (in gallons) to perform their usual daily tasks.
6. Show students an estimation chart.
7. Explain to the students that they will be filling out a chart like to record how much water they think they use.
8. Show them how to fill out one block of the chart.
9. When they are finished filling out the charts, tell the students how much water they should be using for those tasks.
10. Have students compare their charts to the actual amounts.

Average Amount of Water Used:

Brushing Teeth: 2 – 4 gallons
Taking a Bath: 35 – 40 gallons
Taking a Shower: 15 – 25 gallons
Washing Hands: 2 – 3 gallons
Using the Washing Machine: 50 gallons
Washing Dishes in the Sink: 9 – 20 gallons
Washing Dishes in the Dishwasher: 20 gallons
Flushing the Toilet: 2 – 7 gallons
Washing the Car: 20 – 30 gallons

Discussion:

Do they use more or less water than they estimated? In which activities did the class use the most water? In which areas did the class use more water than what they thought? Which of the activities do they perform several times a day? Why is it important to save water? How can the students help to save water?

Water-Saving Suggestions:

1. Turn off the faucet when you are not using it while brushing your teeth!
2. When trying to reach the right temperature in the bath, do not let the water run until the water temperature is right. Rather, begin filling your bathtub up from the moment the faucet is on and make sure not to fill the bath up too much.
3. While in the shower, do two things at once: put shampoo on your hair and wash your body.
4. When washing your hands sing the song, "Twinkle, Twinkle Little Star" which is equal to the amount of time you should be using the water to wash your hands.
5. When washing your dishes in the sink, do not keep the faucet running! Rather, only use the water to rinse.
6. When washing the car, have your parents bring the car to a "Water Smart" car wash.

Suggested Reading:

1. ***Brother Eagle, Sister Sky: A Message from Chief Seattle.*** (4-8 years)
Illustrated by Susan Jeffers. A story about Native American beliefs and how each generation deserves to breathe fresh air, drink pure water and to enjoy all the beauty that the earth offers.
2. ***Common Ground: The Water, Earth, and Air We Share.*** By Molly Garrett Bang. Explains how everyone in the world depends on each of us individually to protect resources and maintain respect for the environment.
3. ***I Am Water*** By Jean Marzollo. A first book about water in its different forms and uses.
4. ***Magic School Bus: At the Waterworks.*** By Joanna Cole. Mrs. Frizzle, the science teacher, drives the magical school bus into a cloud where the children shrink to the size of water droplets and follow the course of the water through the city's waterworks system.
5. ***Magic School Bus: Se Salpica Toda.*** By Joanna Cole. In Spanish, experience the earth's water cycle first hand as Mrs. Frizzle's class rises into the air, forms a rain cloud, and drizzles down to earth just like rain.
6. ***Magic School Bus: Wet All Over.*** (4-8 years) By Joanna Cole. Experience the earth's water cycle first hand as Mrs. Frizzle's class rises into the air, forms a rain cloud, a drizzles down to earth just like rain.
7. ***Splish, Splash, Splosh.*** By Mick Manning and Brita Granström. Join the adventures of a young boy and his dog and ride the waves, float on rain-filled clouds, shoot down fast-flowing rivers and splash through sewers until you get where all water ends...and begins.
8. ***Water.*** By Frank Asch. Aimed at very young children, this book artfully describes water in it many forms, its uses, and its role in our lives.
9. ***Water (My First Nature Book).*** By Andrienne Soutter-Perrot, Etienne Delessert (Illustrator). Explains water in its different forms and why every living thing needs water.
10. ***Water, Water Everywhere (Discovery Readers).*** By Melvin Berger, Gilda Berger, Bobbi Tull (Illustrator). A book about the water cycle, the distribution of water, and wastewater treatment.

Name _____

What I Do To Use Water:	How Much Water I Think I Use (Estimate):	How Much Water I Really Use:
Brushing My Teeth		
Taking a Bath		
Taking a Shower		
Washing My Hands		
Using the Washing Machine		
Washing Dishes in the Sink		
Washing Dishes in the Dishwasher		
Flushing the Toilet		
Washing the Car		