HOW MUCH WATER IS ON EARTH?

Introduction

In this lesson, students will learn that water covers approximately three-quarters of the earth’s surface, or about 70%. It might appear that there is plenty of water, however we have a limited amount of usable fresh water. Over 97 percent of the earth’s water is found in the ocean as salt water. Two percent of the earth’s water is locked up in glaciers and only one percent of the earth’s water is available to us for our daily water supply needs.

New York State Science Learning Standards

2-ESS2-2. Develop a model to represent the shapes and kinds of land and bodies of water in an area.
2-ESS2-3. Obtain information to identify where water is found on Earth and that it can be solid or liquid.
3-ESS2-3. Plan and conduct an investigation to determine the connections between weather and water processes in Earth systems.

Objectives

- Identify, compare, and describe the different forms of water on Earth
- Observe and predict the amount of water available on Earth
- Recognize that there is a lot of water in the world but only a small percentage can be used for our drinking water and other water supply needs
- Learn new water vocabulary and their appropriate usage

Teaching Strategy

2. Create a class bar graph, or have students work independently.
3. Discuss results of activity.

Vocabulary

1. Freshwater: water that is not salty.
2. Saltwater: seawater or other water that contains salt.
3. Glacier: a large body of ice made up of fallen snow that has accumulated over many years.
Globe Toss - How Much Water Is On Earth?

Overview:
The purpose of this introductory activity is to allow your students to comprehend how much of Earth's surface is water. Before beginning the Globe Toss, review with your class what they already know about Earth. How much of Earth is water? Where is water found on Earth? What forms is water found in? When the globe is being tossed, can students predict if they are more likely to land on land or water?

Materials:
- Inflatable Globe
- Writing utensil and paper/board for tallying
- Graphing Paper

Instructions:
1. Position students into a circle with enough room to toss the inflated globe to each other.

2. Prepare a simple chart on a blackboard, whiteboard, or piece of paper. The educator will act as the record keeper in this activity, tallying if a student's thumb has landed on water or on land.

3. Look at the globe with students. Have them locate where they live on the globe. Point out lakes, rivers and oceans.

4. Have students toss the globe to their classmates, completing 100 tosses.

5. When they catch the globe, have them look at where their right thumb landed. Did it land in water, or on land? Record this data with a tally mark for each toss.

6. Once 100 tosses have been made, review the number of tally marks for water vs. land.

7. Ask students to create a bar graph using the tally marks of water vs. land.

8. Discuss with students what these results indicate about the distribution, and amount of water on the Earth's surface.