Standard:
S6E3a. Explain that a large portion of the Earth’s surface is water, consisting of oceans, rivers, lakes, underground water, and ice.
How Wet is our Planet?
Demonstration
or
Water on Earth Demonstration
"Water, Water, Everywhere...."
You've heard the phrase, and for water, it really is true.

Earth's water is (almost) everywhere: above the Earth in the air and clouds, on the Earth as rivers, oceans, ice, inside the Earth in the top few miles of the ground. Water is even in living things.
Use your notes to record important information from the lesson.

Location of Water on Earth Notes

Name __________________ Date _____ Period ___

1. Identify some of the types of water found on Earth: ____________________________

2. What percent of the Earth’s surface is covered with water? __________________

3. Detail the total volume of water found on Earth:
   - Approximately 97% __________________
   - Approximately 2% __________________
   - Approximately 1% __________________

4. Put the following types of water in order from largest amount found on Earth to smallest:
   - glaciers/icecaps, groundwater, rivers/lakes, saltwater

5. Identify other sources of water found on Earth: ____________________________

6. We use less than 1% of the water on Earth for ____________________________

7. What will happen if we do not use our freshwater supply wisely? ______________

8. Label the diagram below for Saltwater, Freshwater Frozen/Unavailable, Freshwater Available

   ![Water drop diagram]

9. Label the following images as representations of which of the following: Glaciers/Icecaps, Groundwater, Lakes/Rivers, Saltwater on Earth

   ![Images of a bucket, a measuring cup, a mug, and a spoon]
Types of Water on Earth: Saltwater
Types of Water on Earth: Glaciers & Ice Caps
Types of Water on Earth: Freshwater

River

Lake

Stream
Types of Water on Earth: Groundwater

Groundwater occurs as a liquid resource that is dispersed through numerous holes, pores, fractures and cavities in bodies of rock or sediment.
The blue spheres represent the relative amounts of Earth's water in comparison to the size of the Earth.

Are you surprised that these water spheres look so small? They are only small in relation to the size of the Earth.

Overall, it shows that in comparison to the volume of the globe the amount of water on the planet is very small.
The largest sphere represents all of Earth's water.

The sphere includes all the water in the oceans, ice caps, lakes, and rivers, as well as groundwater, atmospheric water, and even the water in you, your dog, and your tomato plant.
How much of the total water is fresh water, which people and many other life forms need to survive?

The blue sphere over Kentucky represents the world's liquid fresh water (groundwater, lakes, swamp water, and rivers).
Do you see the "tiny" bubble over Atlanta, Georgia?

That one represents fresh water in all the lakes and rivers on the planet.

Most of the water people and life on earth need every day comes from these surface-water sources.
Water on the Earth

- About 71% of the earth’s surface is covered with water.
- Of the total volume of water on Earth:
  - 97% is saltwater
  - 2% is freshwater frozen in ice caps and glaciers
  - 1% is fresh water in lakes and streams, groundwater, and water vapor in the atmosphere
- In general, most of the earth’s water is located in the oceans as saltwater. Most of the freshwater on Earth is located in glaciers and ice caps. Lesser amounts are found in atmospheric moisture, rivers, lakes, streams, and groundwater.
- Most of the freshwater on Earth is located in glaciers and ice caps.
Usable water in the world

- Oceans: 97%
- Glaciers: 2%
- Rivers, lakes, and groundwater: 1%
Earth’s Freshwater Resources

Glaciers, Permafrost, and Perennial Snow: 69.56%
Fresh Subsurface Water: 30.10%

- Freshwater Lakes: 0.25%
- Atmosphere: 0.04%
- Soil Moisture: 0.05%
- Swamps, Marshes, and Wetlands: 0.03%
- Rivers: 0.006%
1% Freshwater Available

2% Freshwater Frozen/Unavailable

97% Saltwater
Water on the Earth

- Water is not evenly distributed, and most of it is unsuitable for drinking.

- We use less than 1% of the water on Earth for drinking and personal hygiene. We also use this fresh water for agriculture, fisheries, transportation, heating and cooling, manufacturing, and many other purposes.

- Unless we use our freshwater supply wisely, rivers, lakes and groundwater can be depleted or polluted, becoming unusable or unsuitable for life.
Label the following images as representations of which of the following: Glaciers/Icecaps, Groundwater, Lakes/Rivers, Saltwater on Earth
Summarizing Strategy

Draw your own diagram illustrating the different amounts of water on the Earth’s surface. Use the following: Saltwater, Glaciers/Icecaps, Groundwater, Lakes/Rivers, Other.

Your drawings do not have to be to scale. Make general comparisons similar but not the same as the one below.