







## **SUMMARY**

**GRADES K-2** 

Students will make a model of different places water is found on Earth. Duration: 45 minutes.



2-ESS2-3. Obtain information to identify where water is found on Earth and that it can be solid or liquid.

Science & Engineering Practices	Connections to Classroom Activity
Developing and Using Models	Students will develop a model of the different kinds of water found on Earth and the relative amounts of each.
Disciplinary Core Ideas	Connections to Classroom Activity
ESS2.C: The Roles of Water in Earth's Surface Processes  Water is found in the ocean, rivers, lakes and ponds.  Water exists as solid ice and in liquid form. (2-ESS2-3)	<ul> <li>Students will learn about the different water sources on Earth after they create a model of what they think the different representations are.</li> </ul>
Crosscutting Concepts	Connections to Classroom Activity
Stability and Change	<ul> <li>Students will learn that there is a finite amount of water on the Earth.</li> </ul>



Hold up a globe or share a picture of a world map. Ask, "What do you notice?" Students might notice the different colors on the map/globe. If not, you can prompt with, "What do you notice about the colors?", "What do you think the blue color represents?" This should lead them into the idea that we have a lot of water on the Earth. Segue into the lesson by telling students that today they will work in groups to develop a model of all the different sources of water on the Earth.

#### **MATERIALS**

- Pack of clear cups
- 1 cup of water per group (one drop of blue food coloring is optional)
- A globe or map of the world

#### **DIY Activity (per group)**

- Large piece of wax paper
- Marker
- Baking pan or similar container
- Blue food coloring
- Spray bottle with water



## **EXPLORE**

Direct students to discuss with their groups all the different sources of water found on Earth. Since this is an inquiry lesson, expect that different groups will come up with different ideas. Some might think about oceans, lakes, rivers, etc., while others might mention pool water or water coming out of their tap. Once students come up with a list of water sources, they need to collect the same number of containers. Next, give each group 1 cup of water (in a beaker or pitcher) and tell them that this is the Earth's supply of water. They now need to separate this cup of water into the various containers to show their model of the different sources of water and how they think it is distributed. You can give the students droppers if you have them.



#### **EXPLAIN**

Allow student groups to share how they distributed the water. Which type of place has the most water? Which type has the least? Once students have shared their ideas...



# WATCH THE GENERATION GENIUS OCEANS, LAKES, AND RIVERS VIDEO AS A GROUP

Then facilitate using the Discussion Questions.



### **ELABORATE**

After the video re-emphasize that ocean water makes up most of the water on Earth, and that freshwater is a very small percentage of the water on Earth. Give students a chance to revisit their models of the Earth's water and make any changes that they wish. They can change the sources and amounts poured into each cup.

The actual distribution of water on earth would be 97% in the ocean and 3% freshwater. Visually, this would be represented with all the water in one cup except 1 teaspoon representing glaciers, half a teaspoon representing ground water and a single drop representing all surface water like lakes, river, streams, etc.





Students can play the online Kahoot! quiz game located below the video which provides downloadable scores at the end of the quiz game. Alternatively, you can use the paper quiz or the exit ticket questions. All these resources are located below the video in the Assessment section.



Since freshwater available for use is so limited, conserving water is important. Discuss with students the different ways they can help conserve water. (Turning the water off when brushing teeth, taking shorter showers, reusing bath water to water plants, etc.)

For older students, you can also talk about the water amounts in terms of percentages.

