

Bodies of Water

Science Grade-Level Expectations

The exercises in this instructional task address content related to the following science grade-level expectations:

- (ESS-E-A2) Compare bodies of water found on Earth (e.g., oceans, seas, lakes, rivers, glaciers) (GLE 37)
- (ESS-E-A2) Explain why most of the water on Earth cannot be used as drinking (potable) water (GLE 38)

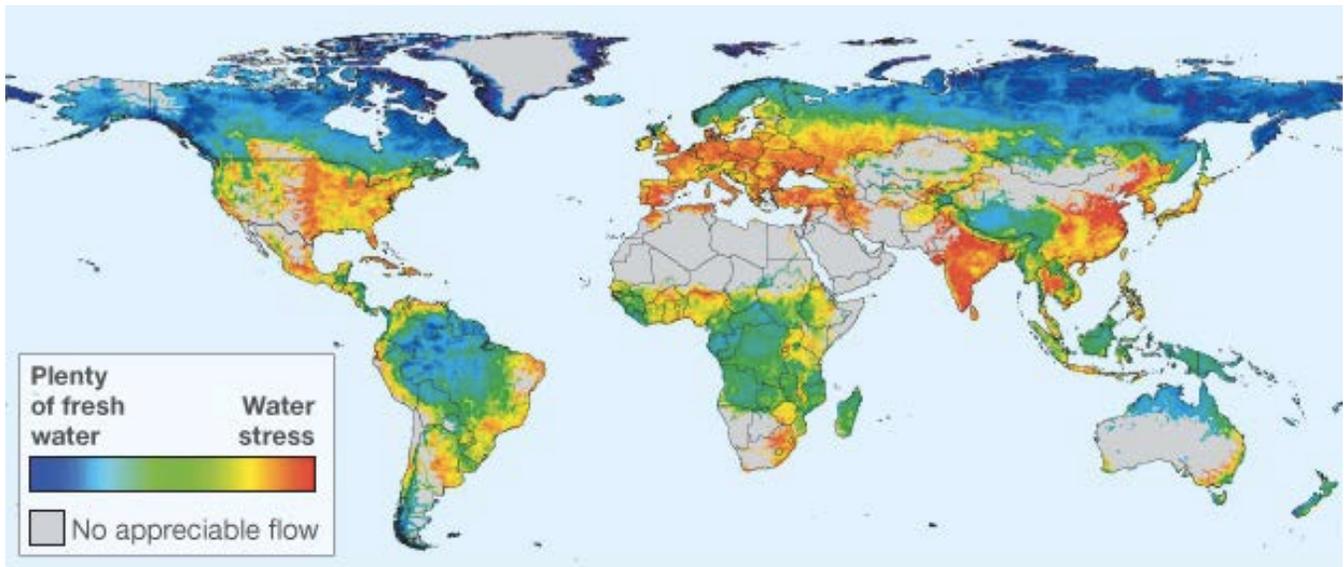
Contents

	Objectives
Task	<ul style="list-style-type: none"> - Explain why most water on earth is not potable - Compare two specific bodies of water
Sample Student Exemplar Response	

Implementation Tips:

- This task is intended to be integrated into a larger unit that contains hands-on science opportunities, student-led investigations, non-fiction reading, and a variety of other instructional strategies.
- Teachers may choose to use or modify the task as part of an instructional lesson or as a formative or summative assessment.
- Strategic instructional decisions will need to be determined prior to implementation such as:
 - Should the provided text be read aloud to students or read independently by students?
 - Will students work collaboratively or individually to complete the task?
 - What content knowledge and skills will students need to have prior to attempting the task?
 - Does the task need to be modified based on the needs of the students at the time of implementation?

- Read the *The National Geographic* article, "[The Sad Tale of the Thirsty, Dehydrated Sea Snake.](#)"
- Study the map that shows areas in the world that have plenty of freshwater and areas that do not have a lot of freshwater.*



Task Part 1: Explain why most of the water on Earth is not drinkable (potable).

- Two large bodies of water are The Great Lakes and the Gulf of Mexico. Look at the map showing these bodies of water. *



- Read the article [Great Lakes](#) by the National Wildlife Federation.
- Analyze the photos below, taken in the Gulf of Mexico.*



Task Part 2: Compare The Great Lakes to The Gulf of Mexico. Include information about the location, make-up, and animal life in your comparison.

Sample Student Exemplar Response

Part 1

Earth is covered with more water than land but most animals and humans cannot drink much of the water. This is because most of the water on Earth is saltwater. Land animals, freshwater fish, and humans can't drink saltwater all of the time because their bodies have to get rid of the extra salt. This takes even more water than the saltwater has in it. Even some animals that live in saltwater such as the Sea Snake need freshwater to drink. The map shows that many places on Earth do not have enough freshwater. Freshwater is found in lakes, rivers, streams, and below the ground. Some places on Earth have very little freshwater making it difficult to support life there.

Part 2

The Great Lakes and the Gulf of Mexico are different in many ways.

- The Great Lakes are 5 different bodies of water: Lake Superior, Lake Michigan, Lake Huron, Lake Erie, and Lake Ontario. The Gulf of Mexico is one large body of water.
- The Great Lakes are freshwater. The Gulf of Mexico is salt water.
- The Great Lakes are found in the northern part of the United States. The Gulf of Mexico is found in the southern part of the United States.
- The temperature of the Great Lakes is colder than the Gulf of Mexico since it is farther from the Equator.

The Great Lakes and the Gulf of Mexico also have some things in common.

- Both border the United States and other countries.
- Both have a lot of fish and wildlife that live in and around the bodies of water.
- Both are fed by rivers and streams.
- Both have businesses and industries that depend on the body of water.
- Both have problems with pollution.

*<http://12.000.scripts.mit.edu/mission2017/solutions/engineering-solutions/rainwater-harvesting-techniques/>

*<http://mapsite.blogspot.com/2009/02/united-states-map-printable.html>

*http://oceanexplorer.noaa.gov/explorations/03mex/background/connectivity/media/mcgrail_pseudoceratina.html

*<http://oceanexplorer.noaa.gov/explorations/03mex/logs/sept26/media/rock.html>

*https://commons.wikimedia.org/wiki/Gulf_of_Mexico#/media/File:Gulf_of_Mexico_with_ship.jpg

*https://commons.wikimedia.org/wiki/Category:Gulf_State_Park#/media/File:Morning_at_Gulf_State_Park.jpg