

5th Grade: Earth's Spheres

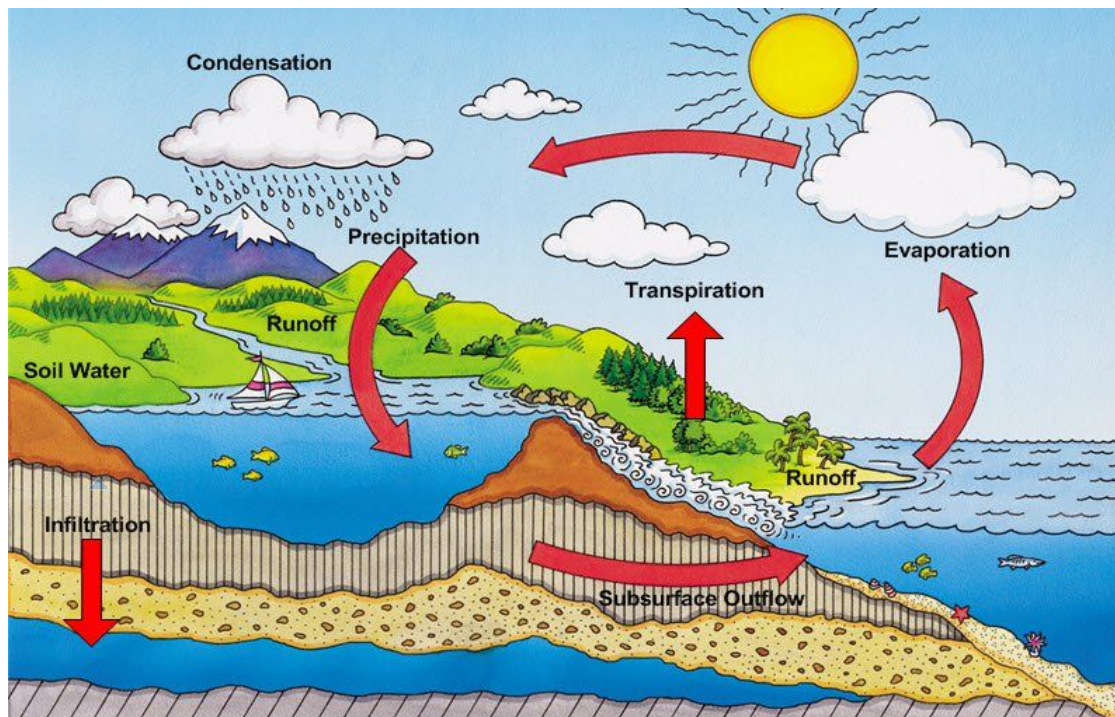
Earth's natural environment can be seen as four interacting spheres. The solid part of the earth's crust, consisting of rocks and soil, is known as the **geosphere**. The layer of gases surrounding the earth is known as the **atmosphere**. The **hydrosphere** includes all the earth's water found in the oceans, glaciers, streams, lakes, the soil, groundwater, and in the air. The hydrosphere interacts with all the other earth spheres. The water of the hydrosphere is distributed among the other spheres.

Table 1

Distribution of Water in the Hydrosphere		
Saltwater	Oceans	97.5%
Fresh Water	Ice Caps and Glaciers	1.97%
	Atmosphere	0.001%
	Lakes, Rivers, Soil	0.03%
	Groundwater	0.5%

The **water cycle** traces the movement of water and energy between these various spheres. As energy and materials flow between these first three spheres, conditions for life to exist are produced which supports the fourth sphere. This realm of living things, including plants and animals, is known as the **biosphere**.

Figure 1

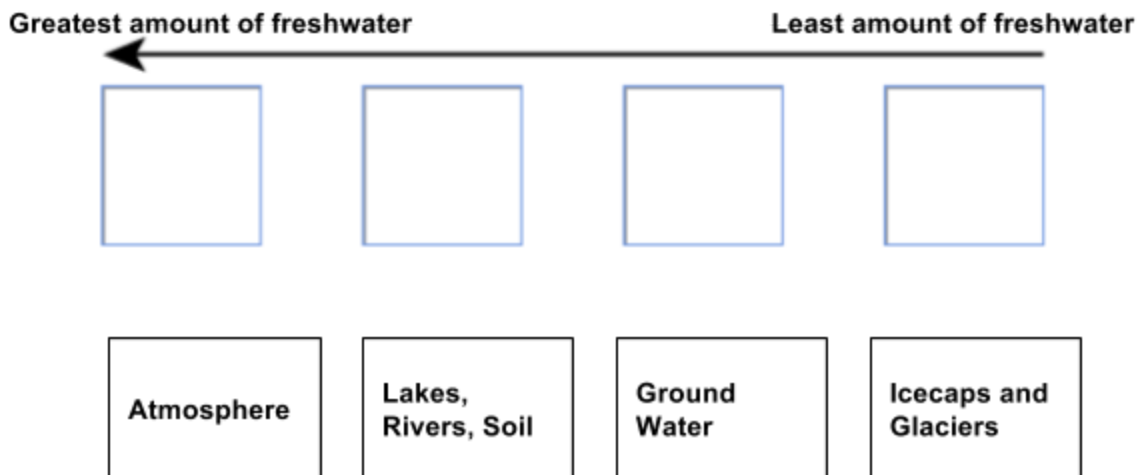


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1. Sort the following into each of the four spheres:

Geosphere	Hydrosphere	Biosphere	Atmosphere
air	rock	river	tree
mountains	fish	lake	grass
clouds	snow		

2. Use Table 1 to put the amounts of water freshwater distributed around the world in order from greatest to least.



3. Use Table 1 to calculate the total amount of freshwater available on Earth.
Explain how you found your answer.

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4. Use the information from the passage and Figure 1 to explain how water moves from the ocean and back into a river?



5. Explain how the hydrosphere interacts with another one of Earth's spheres. Use the information from the passage and Figure 1 as evidence to support your explanation.

