Interactions Between Earth's Spheres

NAME: _____ DATE: _____

Explore your outdoor classroom and look for examples of the biosphere, hydrosphere, atmosphere, and geosphere.

List or draw the example(s) of each sphere that you observed in the boxes below.

Answers will vary:
Plants
Animals including insects, birds, mammals, amphibians, and reptile
Fungi/mushrooms

Biosphere

All of the living organisms on earth and their environments.

Answers will vary:
Pond
Puddle
Nearby stream
Rain
Clouds (water vapor)

Hydrosphere

All of the water surrounding the earth including on land and in the air.

Answers will vary:
Air
Clouds (water vapor in atmosphere)

Atmosphere

The envelope of gases (or air) surrounding Earth and other objects in space.

Answers will vary:
Rocks
Soil
Sand

Geosphere

(Also called Lithosphere) The solid part of the earth consisting of rock, dust, soil, and related material.

Answer the questions below about how Earth's spheres interact with or benefit from one another.

1. How does the biosphere interact with the hydrosphere?

   Living things need water to survive. Plants use water during the process of photosynthesis. Animals drink water or use water to regulate their body temperature. Some living things like fish live in the water.

2. How does the biosphere interact with the atmosphere?

   Plants require oxygen found in the atmosphere for the process of photosynthesis. Land animals breathe air.

3. How does the biosphere interact with the geosphere?

   Most animals live on the surface of the earth (geosphere). Some animals dig or burrow into the soil, and plants are anchored into the soil. When living things decompose, they are recycled into simpler components that become incorporated into the soil.

4. How does the geosphere interact with the hydrosphere?

   Bodies of water sit on top of the geosphere. Raindrops are absorbed into the soil or flows along the surface of the soil. As rivers move along the ground, they can erode the surrounding areas to form channels.

5. How does the atmosphere interact with the hydrosphere?

   As water evaporates, the water vapor becomes suspended in the atmosphere.

6. How does the geosphere interact with the atmosphere?

   When the wind blows, it can move around small particles of the geosphere (like sand or soil), leading to erosion.