

Between the Systems of Earth Science
By Annie Fick

The systems of earth science all correlate. The water cycle affects each system; the water evaporates from the hydrosphere to the atmosphere. After being condensed into clouds, it precipitates down on the biosphere and shapes the geosphere through erosion.

Storms originating in the atmosphere affect the hydrosphere by increasing water levels and causing larger waves, which affects the biosphere. The geosphere is altered when soil is transplanted and eroded soil enters the hydrosphere through runoff.

Evaporated water creates clouds and affects the humidity level in the atmosphere. Groundwater erodes the soil and changes the make-up of the soil; it erodes the crust in the geosphere into canyons and other landmarks, and shifts nutrients, which affects the biosphere.

In the geosphere, radiation from the sun reflects off of the ground, and heats up the atmosphere especially where there is not much vegetation. Ash and dust from volcanic eruptions fill the atmosphere and disturb the biosphere. Underwater volcanoes form islands and affect the other systems. The biosphere repeatedly has to adapt to a continually changing earth.

When organisms die, they are sometimes compressed into fossils in the geosphere, and later become fossil fuels. Tree roots, rocks, and animals change the make-up of the land. The biosphere affects the atmosphere with its large role in the carbon and nitrogen cycles, carbon dioxide and oxygen intake and outtake, and photosynthesis from plants. Wastes from animals become runoff and pollute the hydrosphere.

Evidently, water impacts all of the systems. People have the greatest impact on these systems. As stewards of the earth, people need to control all types and how much pollution is generated as it affects these cycles. If we don't take care of earth, then our descendants will not have a place to live in the future.