

Earth Systems Interacting

Critical Thinking Activity

Scientists break down Earth's major systems into four; the geosphere, hydrosphere, atmosphere, and biosphere. These systems interact in multiple ways to affect Earth's surface materials and processes. In this activity, choose the systems that are working together to create the following phenomenon.

A mountain range blocks rainfall from reaching an area (rain shadow), making it a dry, desert biome.



G = geosphere

The ocean supports many ecosystems from coral reefs to tide pools.



H = hydrosphere

A sudden rainstorm in the desert can cause flooding and severe erosion, changing the landscape.

Volcanic vents in the ocean create habitats for creatures that live in or near the intense heat.

The troposphere is where evaporating water from the ocean forms clouds and precipitation.

Wave action from strong winds causes the coastline to erode.

Warming of the oceans with climate change may be causing the increased violence in storms.



A = atmosphere

Daily rain and equator warmth creates the perfect weather for the Amazon Rainforest.

Winds sweep across the deserts raising giant sandstorms that change the landscape.



B = biosphere