

EARTH'S SUBSYSTEMS

Match Column A (Description) with Column B (Earth's Sphere) then match Column B with Column C (Process that happens in a specific sphere) by drawing a line between them.

It is a thin gaseous layer composed of 78% N, 21% O, 0.9% Ar and other trace gases

● BIOSPHERE

● atmospheric circulation

It is the set of all life forms on Earth which covers all ecosystems.

● ATMOSPHERE

● photosynthesis

It is the solid portions of Earth including the crust, mantle and core.

● HYDROSPHERE

● erosion and weathering

It is the combined mass of water found on, under, and above the surface.

● GEOSPHERE

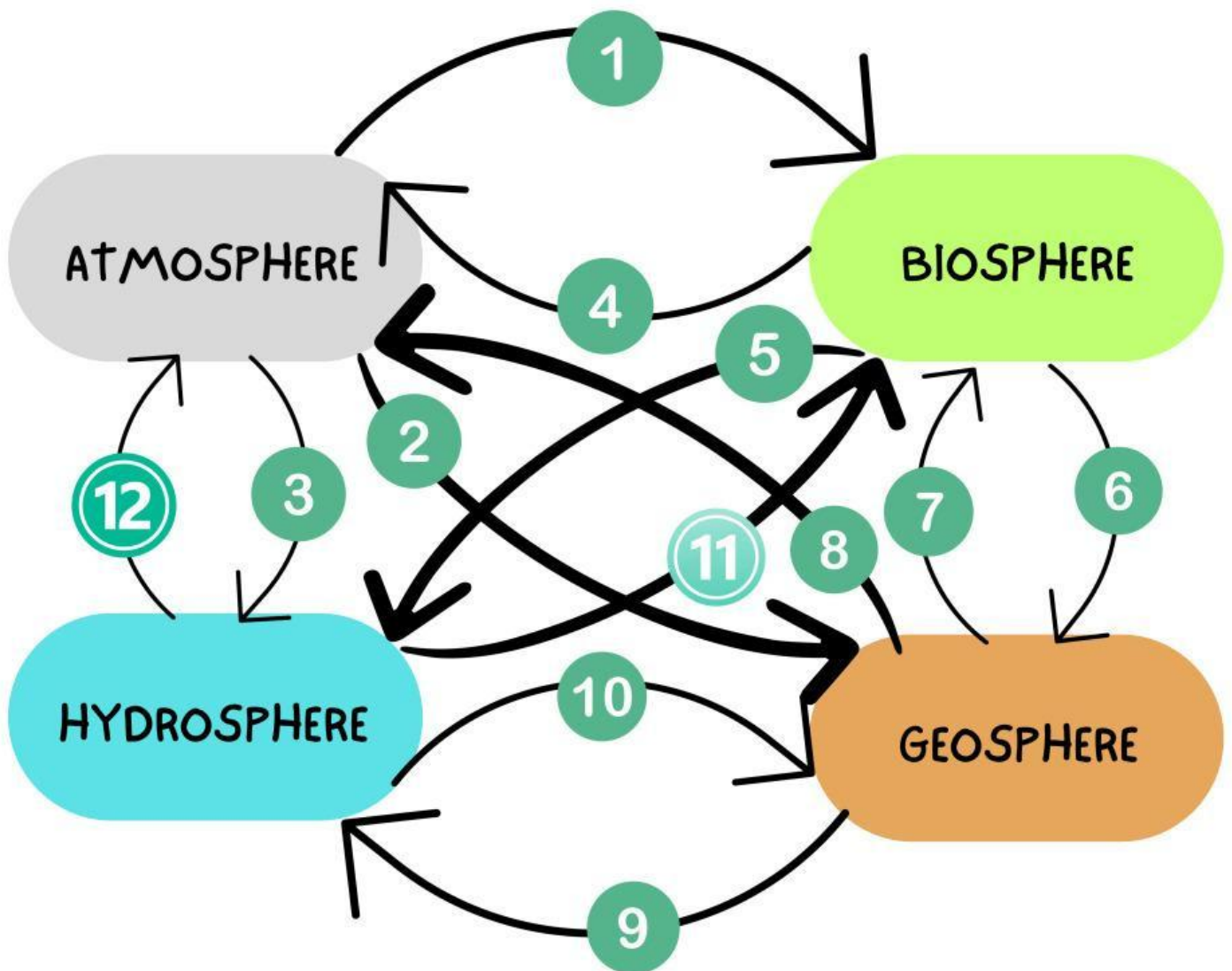
● evaporation and transpiration

CONNECTIONS WITHIN THE EARTH SYSTEMS

Try to analyze the diagram below which shows the interconnected interactions within the different Earth systems or spheres. Write the corresponding number that matches the interconnection of two respective Earth spheres.

For example, connection no. 1 shows how the atmosphere is related to the biosphere. One explanation is that the atmospheric chemistry and temperature (atmosphere) affect organisms (biosphere).

Letter A is done for you.



- _____ A. Atmospheric chemistry and temperature affect organisms
- _____ B. Weathering and erosion control nutrient supply to life in the oceans
- _____ C. Atmospheric temperature affects evaporation
- _____ D. Locations of continents control the circulation pattern of oceans
- _____ E. Plants absorb carbon dioxide from the water during photosynthesis, helping to regulate carbon levels in aquatic ecosystems.
- _____ F. Atmospheric chemistry and temperature affect weathering of rocks
- _____ G. Vegetation helps stabilize the soil and reduce erosion
- _____ H. Volcanic eruptions add carbon dioxide and aerosols to the atmosphere
- _____ I. Photosynthesis affects atmospheric carbon dioxide concentration
- _____ J. Soil water limits plant growth
- _____ K. Ocean circulation controls how much carbon dioxide is removed from the atmosphere
- _____ L. Rainfall and runoff erode the land surface