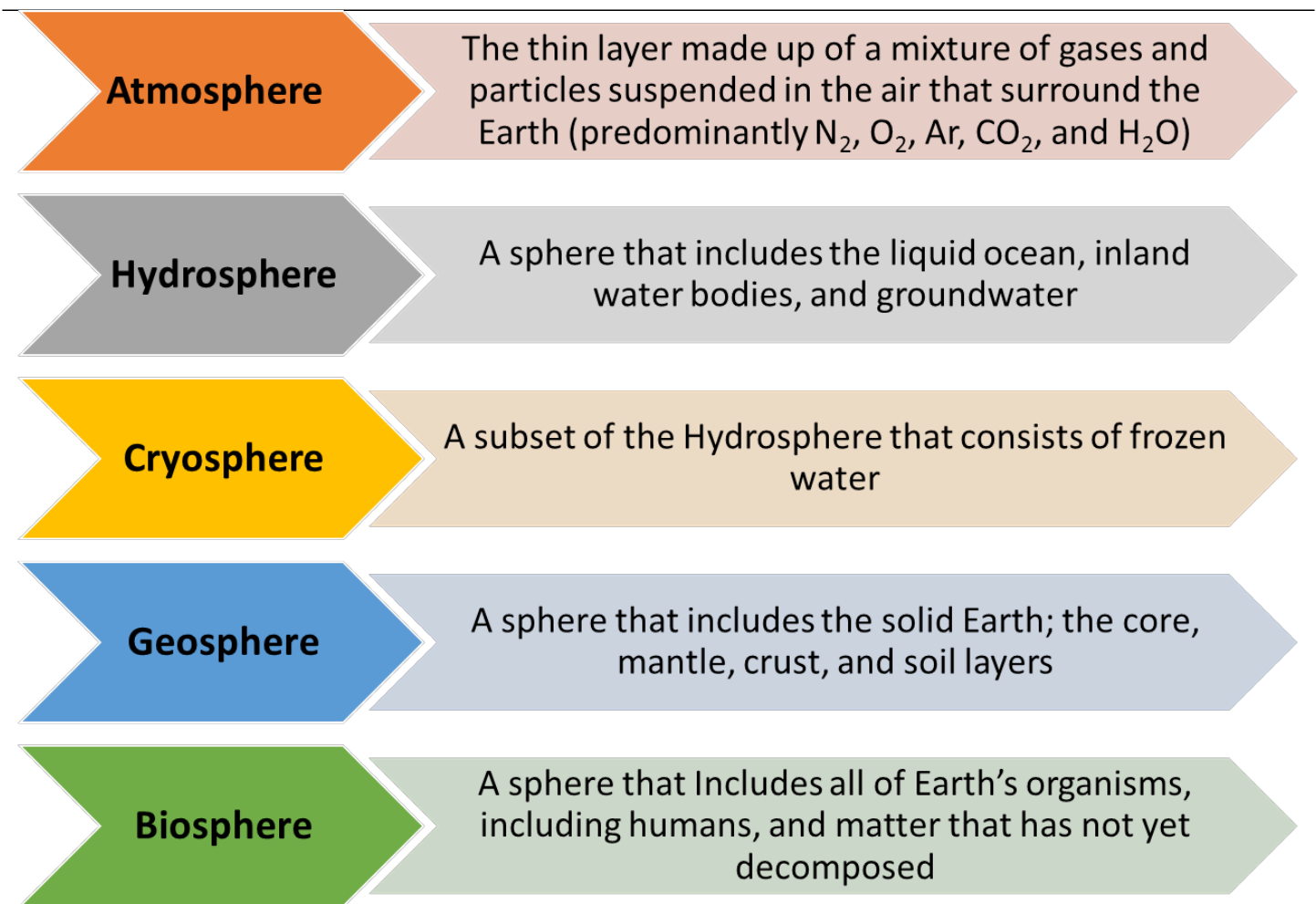


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## About The Earth as a System



The first “blue marble” photo, taken in 1972 by Apollo astronauts at a distance of about 45,000 kilometers (28,000 miles) and one of the most reproduced images in human history, showcased for the first time our home planet. While Earth is also nested within much larger systems, like our Solar System and Milky Way Galaxy, Earth is also made up of five major parts or subsystems: the Atmosphere, Hydrosphere, Biosphere, Cryosphere, and Geosphere. Each major part is connected to the other parts in a complex web of processes.



A system is defined as a group of interacting, interrelated, or interdependent parts that work together to form a complex whole. Scientists around the world study each of these smaller systems and how they fit together to form the current picture of our planet as a whole through what is called *Earth System Science*. It is similar to the human body system. All human body systems work together to maintain a body that functions well and in good health. In terms of Earth System Science, each of these systems allows Earth to keep itself in balance. A change in one system will affect other systems.

For more information, visit UCAR's [Earth as a System](#).

The visualization from [NASA's Goddard Space Flight Center](#) reveals that the Earth system, like the human body, comprises diverse components that interact in complex ways. While scientists learn a great deal from studying each of these components individually, improved observational and computational capabilities increasingly allow them to study the interactions between these interrelated geophysical and biological parameters, leading to unprecedented insight into how the Earth system works—and how it might change in the future.

## Sphere(s)

- 
- [Atmosphere](#)
  - [Biosphere](#)
  - [Cryosphere](#)
  - [Geosphere](#)
  - [Hydrosphere](#)
  - [Earth as a System](#)

## **Related Links**

- [Earth: A System of Systems](#)
- [Atmosphere](#)
- [Biosphere](#)
- [Cryosphere](#)
- [Geosphere](#)
- [Hydrosphere](#)