My NASA Data - Lesson Plans

Earth: A System of Systems

Sphere(s)

- Earth as a System

Related Resources

- Background: The Earth as a System
- Background: Earth: A System of Systems

Purpose

The Earth is a system of interacting, interrelated, or interdependent parts that work together to form a complex planet; it is made up of five major parts or subsystems: Atmosphere, Hydrosphere, Biosphere, Cryosphere, and Geosphere which are connected to each other in a complex web of processes.

- Atmosphere - the thin layer made up of a mixture of gases and particles suspended in the air that surround the Earth (predominantly N2, O2, Ar, CO2, and H2O); also serves as the outer boundary of the Earth System
- Hydrosphere - includes the liquid ocean, inland water bodies, and groundwater
- Cryosphere - a subset of the Hydrosphere and consists of frozen water
- Geosphere - includes the solid Earth; the core, mantle, crust, and soil layers
- Biosphere - includes all of Earth’s organisms and matter that has not yet decomposed, including humans

My NASA Data provides you with a variety of resources, helping you to uncover this concept with your students.

Lesson Plans:

- NEW! An Earth System View of Earthrise, Grades 3-12
- What Is Earth System Science?, Grades 3-5
- Our Earth: A Web of Systems, Grades 3-5
- Systems and Systems Models: Elementary GLOBE Learning Activities, Grades 3-5
- GLOBE Earth System Poster Activity Guide, Grades 6-12
- Instructional Videos for GLOBE Earth System Poster, Grades ??????? ? ????????6-12 ???????
- GLOBE Local Connections: Earth Systems in the Local Study Site, Grades ????????
• GLOBE Regional Connections: Earth Systems at a Regional Level, Defining Regional Boundaries, Grades 6-8
• SPHERES OF EARTH An Introduction to Making Observations of Earth Using an Earth System Science Approach, Grades 3-12