My NASA Data

About The Biosphere



This image represents the biosphere throughout the My NASA data

website.

What is the Biosphere?

The Biosphere includes all life on Earth including life living on the Earth's Geosphere and in Hydrosphere, including humans and all organic matter that has not yet decomposed. This important sphere distinguishes Earth from all other planets in our solar system as life evolved (and continues to evolve) since Earth's early history between 4.5 and 3.8 billion years ago.

Video: Our Living Planet From Space

Our Living Planet From Space | https://www.youtube.com/watch?v=3olcJBiynvw | Source: NASA Goddard

The Earth System interacts with the Biosphere in the following ways:

Atmosphere:

The temperature of the Atmosphere close to the surface and precipitation determine the areas that different species contained within the Biosphere can survive and successfully thrive.

Hydrosphere:

The Hydrosphere is an important medium for life, and a habitat for many species within the Biosphere. Dissolved nutrients and oxygen in the hydrosphere support the well-being of species within the Biosphere.

Geosphere:

Plate tectonics continually change the global distribution of habitats for life in the Biosphere on long time scales. Volcanic islands and seamounts provide important habitats for coral and sea birds.

Cryosphere:

The Cryosphere provides a habitat for many different living organisms. Also, many plants and animals depend upon the melting snow and ice during the spring and summer months for fresh water.

NGSS Three Dimensional Learning

Crosscutting Concepts

- Systems and System Models
- Structure and Function