

## What Are Biomes?

**Main Idea** Biomes are large regions of Earth. Each biome has a characteristic climate that determines its communities of living things.

Fill in the blanks with words from the box below.

grasslands

climate

temperate forest

tundra

biome

tropical rain forest

desert

taiga

1. A \_\_\_\_\_ is a large group of ecosystems that have similar characteristics. (page B12)
2. The type of weather that occurs in an area over a long period of time is called \_\_\_\_\_. (page B12)
3. The type of forest biome that is very rainy and hot is a \_\_\_\_\_. (page B13)
4. The type of forest biome that experiences four distinct seasons is a \_\_\_\_\_. (page B13)
5. In Earth's largest land biome, the \_\_\_\_\_, grasses cover the land, and trees are few and far between. (page B14)
6. The driest biome is the \_\_\_\_\_. (page B14)
7. The biome that has long, severe winters and short, cool summers is the \_\_\_\_\_. (page B15)
8. Earth's coldest biome is the \_\_\_\_\_. (page B15)

# Earth Systems

The Earth system is quite complex. Scientists have divided it into four major geological subsystems that make up the natural environment of Earth. These subsystems are sometimes referred to as ecospheres.

The four main ecospheres are the atmosphere, the biosphere, the hydrosphere and the geosphere.

**Atmosphere** -- the mixture of gases that surround the planet. The atmosphere is divided by altitude into different layers. You can see the layers of the atmosphere to the right.

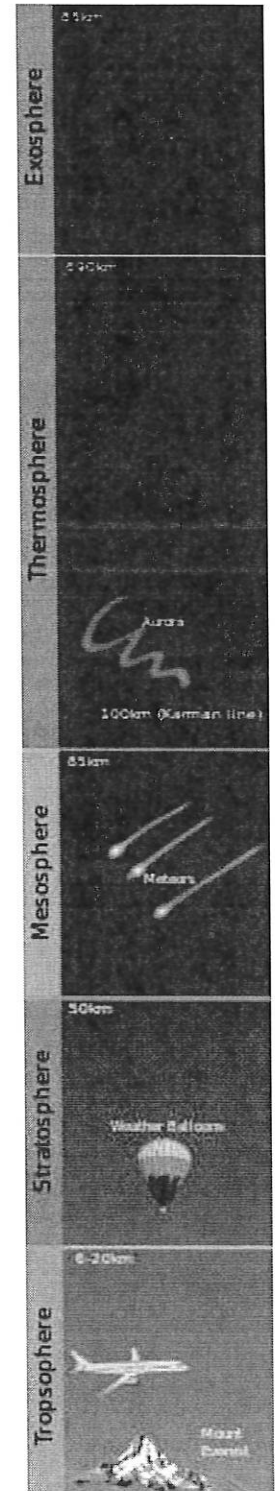
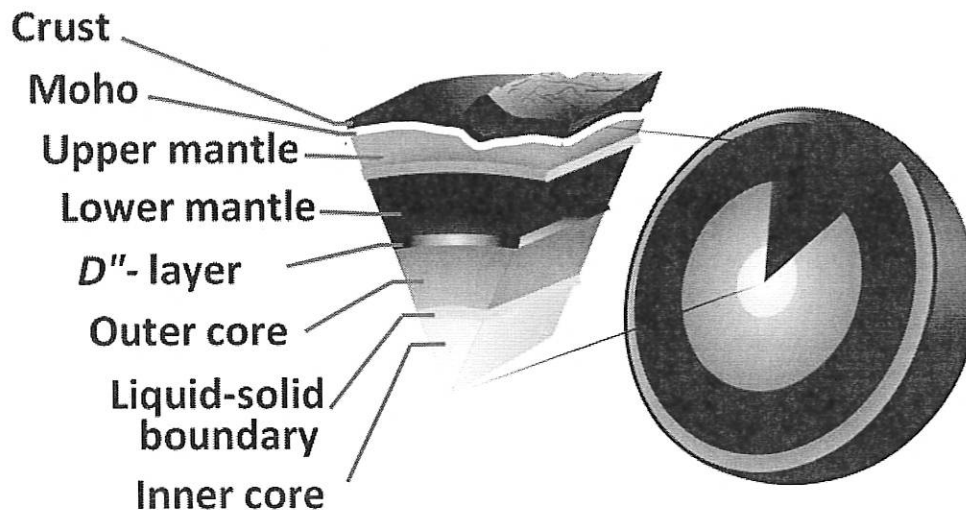
**Geosphere** -- the solid portions of Earth and the layers within the Earth. See the illustration below.

**Biosphere** -- all life on Earth. in other words all living organisms on Earth, including those on the land, in the water, and in the air. Within the biosphere, living things form ecological communities based on the physical surroundings of an area. These communities are referred to as **biomes**.

**Hydrosphere** -- all water found on, under, and over the surface of Earth

**Cryosphere** -- those portions of Earth's surface where water is in solid form, including sea ice, lake ice, river ice, snow cover, glaciers, ice caps, ice sheets, and frozen ground

All four major geological subsystems of Earth can function independently from each other, but there is often interaction between them.



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