

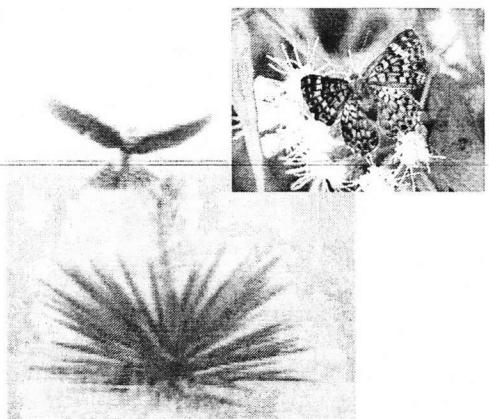
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The Living Earth

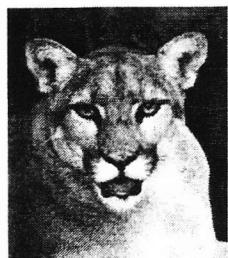
How is Earth different from the other planets in the solar system? One difference is that Earth supports living organisms! The part of Earth with life is called the biosphere. The biosphere includes the top part of the crust, the oceans, and the atmosphere.

The biosphere is made of many different environments. The environments on Earth are home to many different kinds of organisms. For example, the Rio Grande Valley receives very little rain. Cacti, lizard, coyotes, javelinas and many other organisms live in this type of environment. On the other hand, rain forests receive plenty of rain. Parrots, monkeys, large trees, and thousands of others live in the rain forest. There are many other environments all over the world.

If you visit Laguna Atascosa National Wildlife Refuge, you might see something like the pictures. A hawk lands on a plant. The hawk lives off of snakes in the grass. A butterfly pollinates the plant. These pictures are part of an ecosystem. An ecosystem includes all of the living and non-living things in an area. In the pictures, the plant, hawk, butterfly, water, sunlight, soil and air are all part of the desert ecosystem. Ecology is the study of how organisms and non-living things interact in an environment. Ecologists are scientists who study ecosystems.



Imagine you are an ecologist. You might study how cougars move from place to place and how they care for their young. You would be studying the members of a population. A population is made of all the



organisms in an ecosystem that are from the same species (the same type of organism). For example, all the hawks in Laguna Atascosa make up one population. All the monarch butterflies make up another population. All the border lilies make up yet another population.

Another ecologist might be studying how butterflies pollinate border lilies. Another ecologist might be studying how the snake population reacts to an increase in the hawk population. These ecologists are studying how different populations interact. They are studying a community. A community is made of all the populations in an ecosystem. This means that it includes all living organisms in the ecosystem. A rainforest community would include all the parrots, monkeys, trees, and other living organisms in the rainforest. An arctic community might include populations of fish, seals that eat the fish, and polar bears that eat the seals.

Every organism in an ecosystem needs a place to live. The place where an organism lives is its habitat. The salamander in the picture is in its habitat. Salamanders avoid sunlight and seek damp, dark places. They eat worms, insects, and slugs. An organism's habitat provides food, shelter, and the appropriate amount of heat and moisture.

