

Write one important fact from each paragraph in this space.

## Science Shorts -6

### What is Ecology?

Our planet is huge. It has an area of more than 500 million square kilometers (200 million square miles). Yet life exists only on its surface and slightly above and below. We call this narrow zone of life the biosphere. You may know that the term "bio" -means life and from your math lessons you know what a sphere looks like.

The biosphere is full of all kinds of life. These organisms live in all kinds of environments. Everything that surrounds an organism makes up its environment such as air, light and water. Living things are affected by their environment. They can also have an effect on their environments.

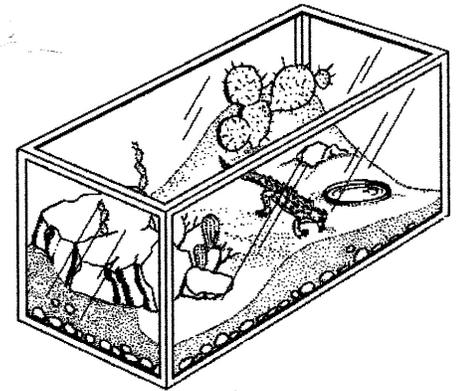
The study of the relationship between living things and their environment is called ecology. Scientists who study ecology are called ecologists. The living and nonliving parts of a specific environment make up an ecosystem. Some of the nonliving parts of an ecosystem are air, water, sunlight and soil. Living things need these things to survive.

An ecosystem can be large, like an ocean or a jungle. Or it can be small, like a pond or a patch of grass in an empty lot. Even a home aquarium or a classroom terrarium is an ecosystem.

Each ecosystem is made up of one or more communities. A community is all the organisms living in a certain area. For example, a pond community may include frogs, fishes and water lilies. A desert community may include snakes, roadrunners and cactus plants. A mountain community may include deer, foxes and pine trees.

Members of a community depend upon each other. They also depend upon nonliving things like air, light and water. The living and nonliving parts of the environment are always interacting. And a change in one part can cause a change in all the parts. For example, if a forest fire burned many trees in a mountain community the deer would have to move to another area to find shelter and food. Now the first community doesn't have many trees and has also lost the deer.

Each community is made up of populations. A population is all of the living things of the same species living in the same area. How many students make up the population of your science class?



## COMPLETING SENTENCES

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Complete the following sentences.

1. An ecosystem is made up of \_\_\_\_\_ things.
2. All the living members of an ecosystem make up \_\_\_\_\_ .
3. The region of Earth where life exists is called the \_\_\_\_\_ .
4. All of the living and nonliving parts of an organism's surrounding are called its \_\_\_\_\_ .
5. Do living things affect nonliving things? \_\_\_\_\_  
yes, no
6. Do nonliving things affect living things? \_\_\_\_\_  
yes, no
7. A change in one part of an environment \_\_\_\_\_ cause a change in another part of the environment.  
can, cannot
8. The study of the relationship between organisms and their environment is called \_\_\_\_\_ .

## REACHING OUT

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An aquarium is an ecosystem you may have in your home. A balanced aquarium is a healthy ecosystem. It is one in which all the organisms receive all the things they need to live.

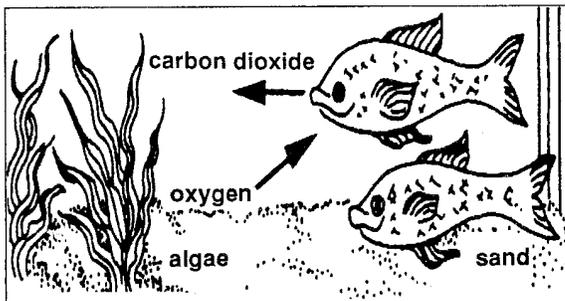


Figure B

What are the living and nonliving parts of an aquarium ecosystem?

living \_\_\_\_\_

nonliving \_\_\_\_\_

\_\_\_\_\_