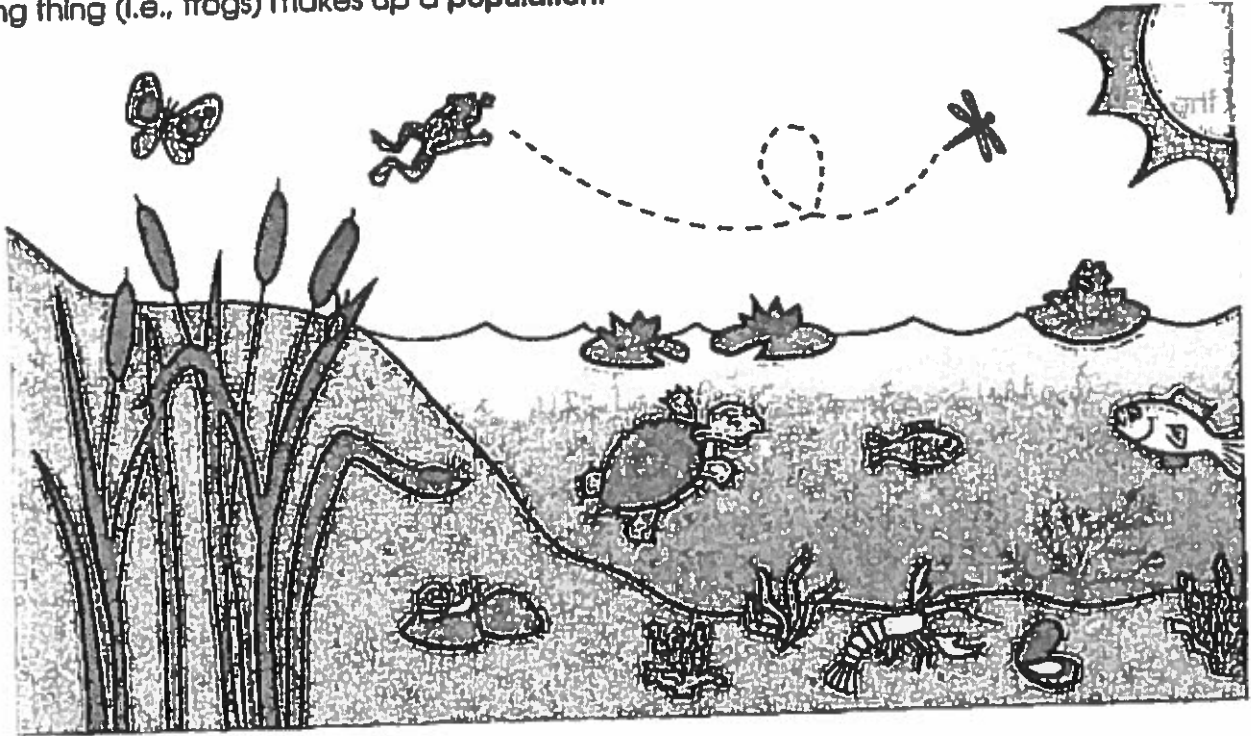


An environment includes all living and nonliving things with which an organism interacts. These living and nonliving things are interdependent; that is, they depend on one another. The living things in an environment (plants, animals) are called biotic factors, and the nonliving things (soil, light, temperature) are called abiotic factors. Ecology is the study of the relationships and interactions of living things with one another and their environment.

Living things inhabit many different environments. A group of organisms living and interacting with each other in their nonliving environment is called an ecosystem. The different organisms that live together in an ecosystem are called a community. Within a community, each kind of living thing (i.e., frogs) makes up a population.



Directions: Study the picture. Follow the directions.

1. Label two biotic factors and two abiotic factors in the picture.
2. Explain the relationships among the living things in the pictured environment. _____

3. Name the type of ecosystem pictured. _____
4. Circle all the members of the community.
5. Explain how the organisms in this environment are dependent upon one another. _____

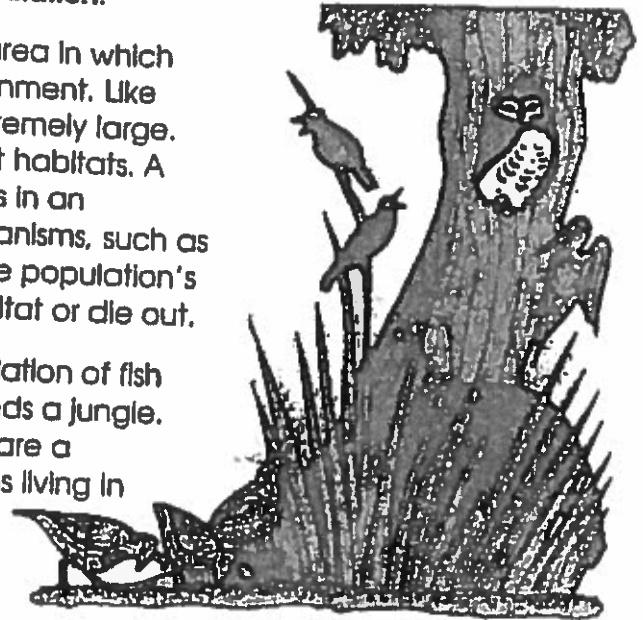
6. List the different kinds of populations that live in the environment. _____

Most of the living things in your neighborhood can be classified into one of two main groups—plants and animals. Plants and animals are classified, or compared to something else, based on their physical structure and behavior. Each different kind of plant and animal is known as a **species**. A group of the same species is called a **population**.

Populations of living things live in an **ecosystem**, an area in which living things interact with each other and their environment. Like neighborhoods, ecosystems can be very small or extremely large. Within each ecosystem, there may be many different habitats. A **habitat** is the place where a population normally lives in an ecosystem. The habitat must supply the needs of organisms, such as food, water, temperature, oxygen, and minerals. If the population's needs are not met, it will either move to a better habitat or die out.

Different populations need different habitats. A population of fish needs a body of water. A population of monkeys needs a jungle. Habitats can be shared. When several populations share a habitat, it is called a **community**. All of the populations living in the community work together to meet their needs.

If something in the community changes, such as the population of fish in a lake increasing, then another population, such as the insects, may become endangered. If conditions do not change or the habitat vanishes, then all of the members of the population may die and the species may become extinct.



Directions: Use the information to answer the following questions.

1. What are the two main groups of living things? _____
2. How are they classified? _____
3. How are an ecosystem, a habitat, and a community alike? _____

How are they different? _____

4. What needs of a living thing does a habitat supply? _____

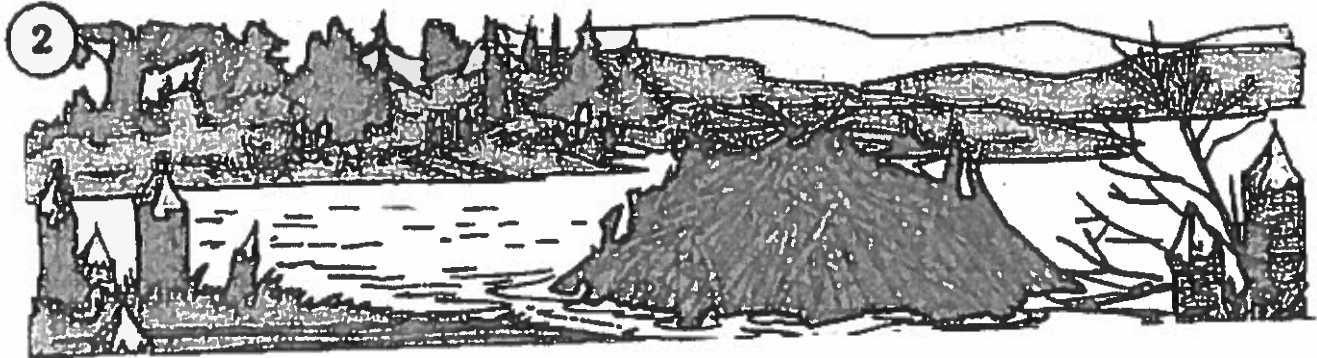
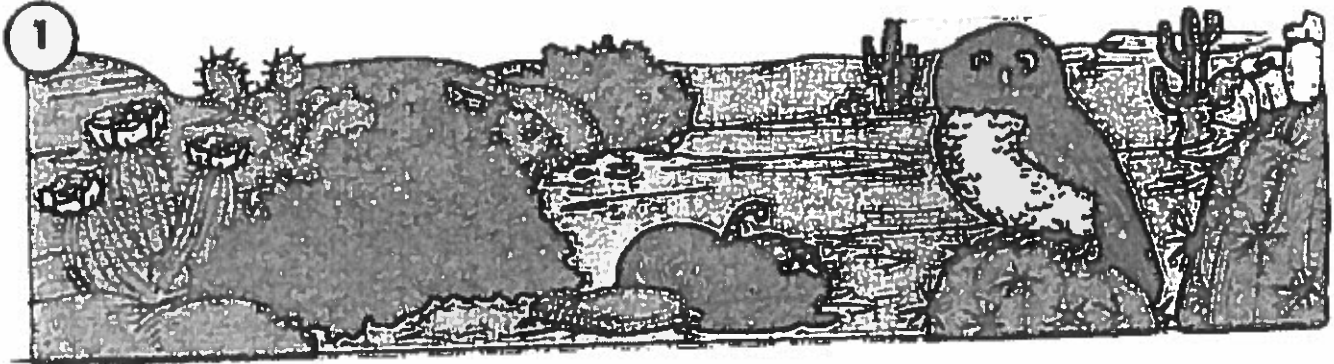
5. What happens if a habitat cannot supply the needs named in question 4? _____

Incredible Ecosystems

On your way to school, did you walk or drive through a neighborhood? Did you see houses or businesses? Did you see people, animals, trees, and grass? These are all part of that one neighborhood. An ecosystem is similar to a neighborhood. It is the whole community of living and nonliving things. All of these things exist together and interact with one another.

Ecosystems can be on land or water. They are all different from one another for many reasons. Those reasons include the amount of water in an area, the type of soil, and the kinds of plants and animals that live there.

Directions: Look at the two ecosystems. Compare the two. Name three differences.



Directions: Circle the correct answers.

1. A habitat is a(n)
 - a. action we do everyday.
 - b. location where specific animals and plants live and interact.
 - c. specific weather pattern.

2. Living organisms are one of three things that help maintain the balance in an ecosystem. They can be
 - a. producers, consumers, or decomposers.
 - b. plants, trees, or grass.
 - c. animals, plants, or rocks.

3. Succession is the process of change in the plants and animals of a community over a period of time.
true or false

4. Ecology is the study of
 - a. living things and what they eat.
 - b. animals that live and grow.
 - c. living things and their environment.

5. A group of _____ and _____ things interacting with each other is considered an ecosystem.
 - a. living, nonliving
 - b. moving, growing
 - c. habitat, plant

Directions: Use complete sentences to answer the following question.

Think about the impact of humans on natural habitats. Write a position statement about your opinion on this issue. Your position could be against the destruction of habitats or for development that can lead to destruction of habitats.

Directions: Circle the correct answers.

1. A habitat is a(n)
 - a. action we do everyday.
 - b. location where specific animals and plants live and interact.
 - c. specific weather pattern.

2. Living organisms are one of three things that help maintain the balance in an ecosystem. They can be
 - a. producers, consumers, or decomposers.
 - b. plants, trees, or grass.
 - c. animals, plants or rocks.

3. Succession is the process of change in the plants and animals of a community over a period of time.
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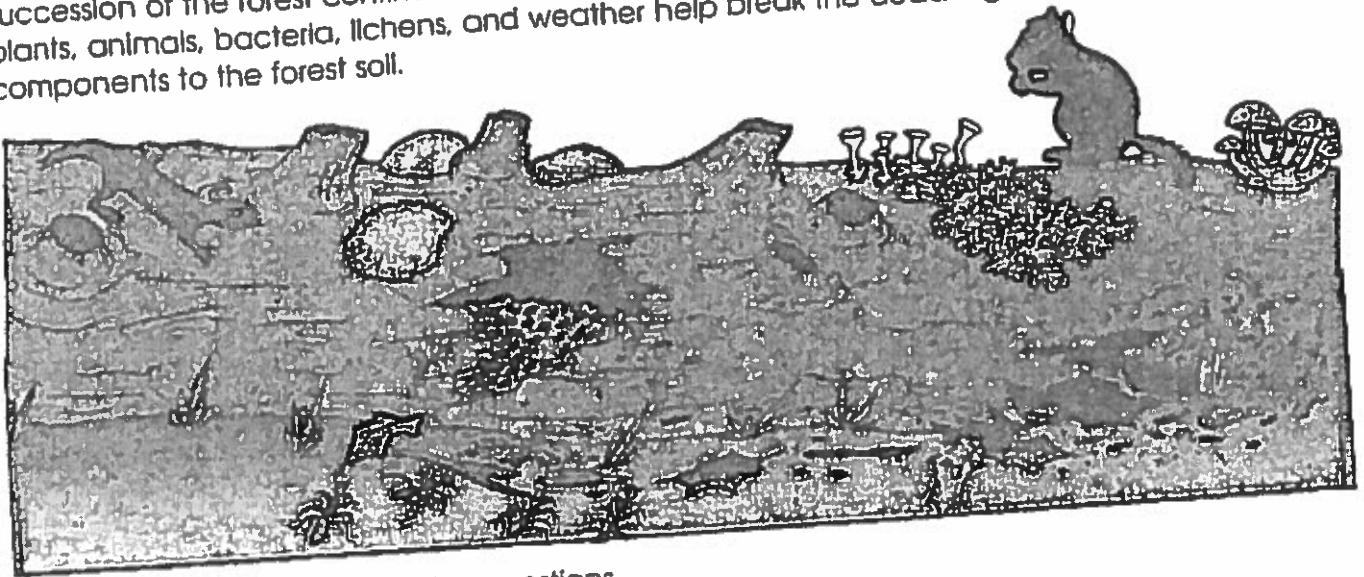
5. A group of _____ and _____ things interacting with each other is considered an ecosystem.
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 - c. habitat, plant

Directions: Use complete sentences to answer the following question.

Think about the impact of humans on natural habitats. Write a position statement about your opinion on this issue. Your position could be against the destruction of habitats or for development that can lead to destruction of habitats.

Life on a Rotting Log

The forest community is not limited to animals and plants that live in or near living trees. As the succession of the forest continues, many trees will die and fall to the ground. The actions of plants, animals, bacteria, lichens, and weather help break the dead log down and return its components to the forest soil.



Directions: Answer the following questions.

1. List the different kinds of plant life that are found on the rotting log.

2. How do the small plants help the log decay?

3. How do the plants benefit from the log?

4. What kinds of small animals are found in or on the rotting log?

5. How do these animals help the log decay?

The lichen found on the rotting log is an interesting type of plant. It is actually made up of two organisms living together in symbiosis. What two organisms form a lichen? What does each of these organisms need to live? How do the organisms help each other?