

Lesson 1: How are ecosystems balanced?

Needs of Living Things

The Eastern American chipmunk lives in the Great Smoky Mountains. It needs living and nonliving things in the forest. The chipmunk gets food from plants. Plants also give the chipmunk oxygen. It needs oxygen to breathe. The chipmunk drinks water from puddles and streams. It digs its hole near the bottom of a tree. The hole protects the chipmunk from cold weather and other animals.

All plants and animals need food, water, space, shelter, light, and air to grow and be healthy. Organisms also need the right soil and weather. Living things get what they need from their environment.

A Balancing Act

An ecosystem is made of organisms that live in the same environment. The organisms need each other to live. What happens to one population affects the community.

An ecosystem is healthy when it is balanced. An ecosystem is balanced when all the animals living in it have food. When the population increases, food may run out. There will not be enough food if there are too many animals. This means the ecosystem is not balanced.

An ecosystem of plants can be balanced too. The ecosystem is balanced when each plant gets what it needs. Plants need minerals from the soil, water, and sunlight. Plants also need space. If you plant tree seeds close together, many of the seeds will not grow. They will not have enough space to grow into trees. The ecosystem is out of balance when plants don't get what they need.

All organisms help keep an ecosystem balanced. For example, rabbits eat grass. This keeps the grass from taking space other plants need. Red foxes eat rabbits. The foxes keep the number of rabbits from getting too large. It also keeps too much grass from being eaten. The grass creates oxygen. Animals need the oxygen to breathe.

Name _____

Use with pp. 111–113

Lesson 1 Checkpoint

1. What do all plants and animals need to live and grow?

2. What happens when the number of organisms in a population increases?

3. What are two things that might prevent a plant population from growing in size?
