

RELATIONSHIPS AMONG LIVING THINGS

Living things interact in many ways. These interactions can help, harm, or do nothing to a living thing.

Living things can help each other in groups. An example of this is members of a wolf pack protecting each other. Each wolf is helped and helps others in the group. Another example of this is bees and flowers: the bees get nector for themselves from the flower, and then spread pollen that attaches to them for the flower. Both bee and flower benefit from this interaction.

Some relationships between living things are harmful. For example, ticks can live on the skin of deer and dogs and the animal will never know it, but the tick harms the animal and spreads disease to it.

An example of one living thing helping another living thing without being helped or harmed itself is barnacles on a whale. The whale provides a home for the barnacle, and it doesn't affect the whale at all.



Plants are Producers

Plants do not have to depend on other living things for food because plants can make their own food. Plants need the Sun, air, and soil to make their own food. Plants are **producers**, which means that can make their own food.



Consumers

Living things that are NOT able to make their own food are called **consumers**. Consumers are made up of herbivores, carnivores, and omnivores. An **herbivore** is a living thing that eats only plants. A **carnivore** is a living thing that only eats other animals. A living thing that eats both plants and other animals is called an **omnivore**.

Lesson Checkpoint: What is an herbivore?

Getting the Energy to Survive

Living things need energy in order to survive. **Energy** is passed between living things through a food chain.

Food chains include producers and consumers interacting together. An example of a food chain is a plant eaten by a mouse which is then eaten by an owl. Consumers eat producers. When a consumer eats a producer energy



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Lesson Checkpoint: What is a food chain?



A **food web** is the energy flow within a community and is made up of more than one food chain.



Competing for Resources

Living things compete with each other for food, space, water, and sunlight. **Competition** occurs when two or more living things are in need of the same resource, such as space to live or water. Animals may compete for food. Some competitors may survive and some may die. Most often the stronger of the two living things survives over the weaker one. If there are plenty of resources in an environment, there may not be as much competition as in environments where resources are limited or lacking.



Changing Environments

Plants and animals often change their own **environment**. An example of an animal changing its environment is a beaver building a dam. **Natural events**, like a forest fire, flood, or drought, occur sometimes and can change an environment too.

Living things that break down waste or living things that have died in an environment are called **decomposers**. Worms are decomposers. **Decay** occurs when decomposers break down dead animals and waste. Decay adds nutrients to the soil which then helps new plants and trees to grow, which then provides food and shelter for other living things.





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