Many plants and animals share their habitats and are part of the same community of living things. Within their habitat, plants and animals are connected in many ways. Holes in trees, rotting logs, and stems of plants all provide shelter for different animals. Plant seeds often stick to the fur of an animal or fall to the ground as an animal eats. In this way animals spread plant seeds in new locations, allowing new plants to grow.

One of the most important connections between plants and animals in a community is the food relationship. Animals consume plants and other living things. Carnivores and omnivores that hunt other animals to eat are known as predators. Herbivores and some omnivores are hunted by the predators and are known as prey.

When a plant or an animal is eaten, the energy from that animal or plant becomes energy for the consumer. For example, a meadow habitat has plants that capture and store the sun’s energy. This stored energy allows the plants to grow and produce seeds. Mice are part of the community of living things in this meadow. They are herbivores and eat the plant seeds to get the stored plant energy they need to survive. An owl flying at night over the meadow catches and eats a mouse. The stored energy from the plants has now passed from the mouse to the owl. The owl has gained the food energy it needs to survive.

The connection between the plant seeds, the mouse, and the owl is called a food chain and is shown like this:

The arrows show the flow of energy beginning with the plants and ending with the owl. Food chains link producers and consumers together.
For the food chains below, complete the following steps:

1. Label the consumers and producers in the food chains.
2. Label the predators and the prey.
3. Explain what is happening in both.

In #1, the worm eats the plant and takes its energy. The mole then eats the worm and takes the energy. Finally the owl eats the mole to get the energy.

In #2, the snail is eating the plant to get the energy. The thrush then gets the energy by eating the snail. The energy ends up with the fox when it eats the thrush.

Think about your favourite meal. Then complete the following steps:

1. List the foods that are in the meal
2. Choose two of the foods and make a food chain for them.
3. Complete all three steps from the previous question (producers, consumers, predator, prey, explanation).

For the hamburger patty:  The cow eats the grass, and gets the energy from the grass. The human then eats the cow and takes the grass’ energy.

For the bun:  Buns are made from flour, which comes from wheat, which is a producer. The human eats the wheat and gets the energy.