

## Life Science Activity Bag

# Food Chain and Food Web: Student Activity Guide

All living things get the energy they need to live and grow from some form of food. In a community of living things, called an ecosystem, the organisms in that community get their food and their energy from the environment and from each other. The flow of energy that starts with the sun and goes from organism to organism follows a “food chain.” Every ecosystem has one or more food chains. When those food chains are interrelated, it is called a food web. In this activity, you will explore how energy flows within an ecosystem.

These directions will get you started. Your teacher will be in contact to guide you and provide information.

### Materials From The Bag

- Food Chain Cards

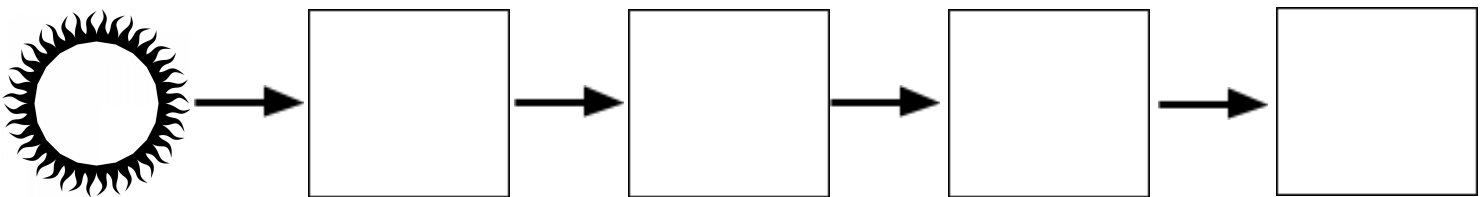
### Part 1: Exploration

1. Using scissors cut out all of the Food Chain Cards
2. Place the pictures into two groups:
  - Producer: an organism that produces its food.
  - Consumer: an organism that consumes its food.

*What characteristics of your organism(s) placed them into those particular groups? Was there any card that didn't fit into a group? Explain why you think they do not fit into a group.*

### Part 2: Food Chain

Using your cards, create a food chain. Each animal has been identified as an herbivore, carnivore, or omnivore. An **herbivore** is an animal that only consumes plants, a **carnivore** is an animal that only consumes animals, and an **omnivore** consumes both plants and animals. In the boxes below or in your notebook, write the name of or draw the animals from the food chain you created. Pay attention to the direction of the arrows!



*What do you think the arrows in a food chain represent? What is the purpose of including the sun in this food chain?*

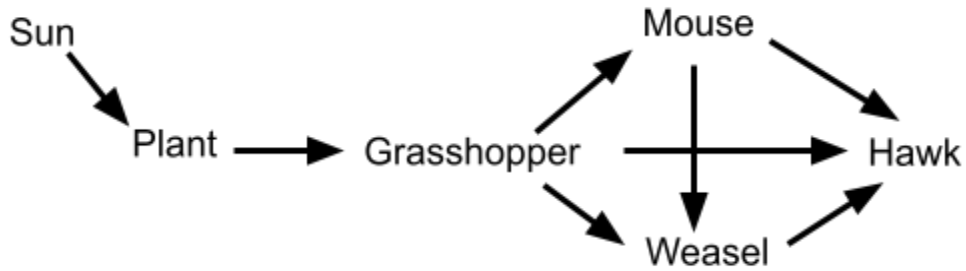
#### *What's happening...*

Organisms in food chains have names that identify where they are located in the food chain. Organisms that receive energy directly from the sun are **producers**. They produce their own energy. The first organisms that consume the producers are **primary consumers**. The second organism to consume is a **secondary consumer**, and the third organism to consume is a **tertiary consumer**.

*Label each organism in your food chain as a producer, primary consumer, secondary consumer, or tertiary consumer.*

### Part 3: Food Web

A food web is made up of different food chains within an environment. A food web describes the many species and interactions within an ecosystem. Below is a simple food web.



1. Using all of your cards, create a food web, and draw it. There are many different ways that you can create your food web. Pay attention to the direction of the arrows!
2. One of your organisms has been wiped out by a disease. Remove their photo from the food web.

*What happens to the food web? What happens to the organisms **that consume** the one you removed? What happens to the organisms **consumed by** the organism you removed?*

#### *What's happening...*

Every living thing plays a role in the food web. When a certain species, whether producer or consumer, is removed it can have a major impact on the food web. The impacts on individual organisms can change depending on the ecosystem.