LEARNING ABOUT THE FOOD WEB

A **food web** is an interconnected set of many food chains. A **food chain** shows a series of events in an ecosystem in which organisms transfer energy by eating and being eaten. This transfer of energy is represented by an arrow pointing in the direction that the energy is transferred.

EXAMPLE 1: The sun gives energy to grass, which in turn gives energy to a rabbit when the rabbit eats the grass.

In this food chain, the grass is the **producer** (it makes its own food), and the rabbit is considered the **primary** (or first) **consumer**.

But the flow of energy does not stop there. In the second food chain example, we will introduce more consumers.
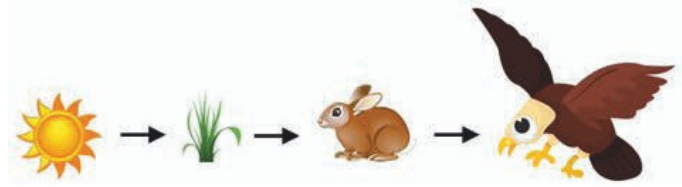
EXAMPLE 2: The sun gives energy to grass, which in turn gives energy to a rabbit when the rabbit eats the grass. The rabbit then gets eaten by an eagle.

In this food chain, the grass is the **producer**, the rabbit is the **primary consumer**, and the eagle is the **secondary consumer**.

A **secondary consumer** can be eaten by a **tertiary consumer**. And a **tertiary consumer** can be eaten by a **quaternary consumer**, which is the top of the food chain.
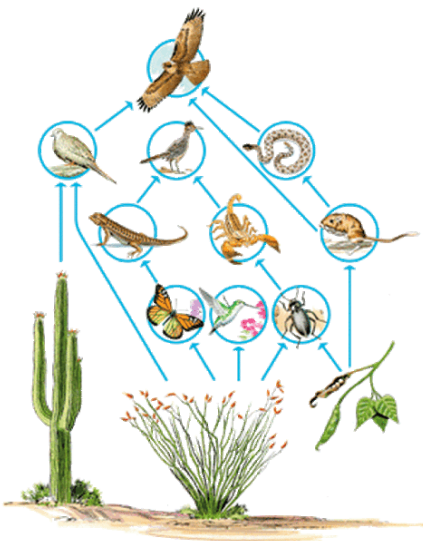
However, an ecosystem is not made up of just one plant and two animals. There can be many different producers and consumers all living and eating together.

Here is a food web for a desert ecosystem. Observe how separate food chains interact. How many food chains can you count?

LEARNING ABOUT THE FOOD WEB

National parks offer a wide variety of habitats. For this activity, you will plot a food web for **Joshua Tree National Park** (CA), which is a desert environment. Place the eight plants and animals listed in bold into a food web (hint: it can be helpful to first write out your food chains, and then see how they interact). Don't forget to add the sun, too!

Joshua Tree National Park

Cactus, Joshua tree, Yucca Moth, Lizard, Tortoise, Roadrunner, Coyote, Golden Eagle

Now, think about the plants and animals in your neighborhood. They are part of an ecosystem unique to your environment. Plot out a food web for your neighborhood like you did for Joshua Tree. We've listed some examples of animals commonly found in suburbs, but your food web may look very different depending on where you live!

Your Neighborhood

Examples: Grass, Plants, Birds, Insects, Large Animals, Fox, Squirrels

Extension Questions:

- How many animals are herbivores, carnivores, or omnivores for each park?
- What would happen if each animal or plant was removed from the web?
- Are some plants and animals more important to their webs than others?

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