



Food Chains

Food chains explain the way that energy is passed between living things. All energy that animals get begins at the sun. This reaches Earth and is used by plants in a process called photosynthesis. The energy from the sunlight is changed and locked away inside the plant.

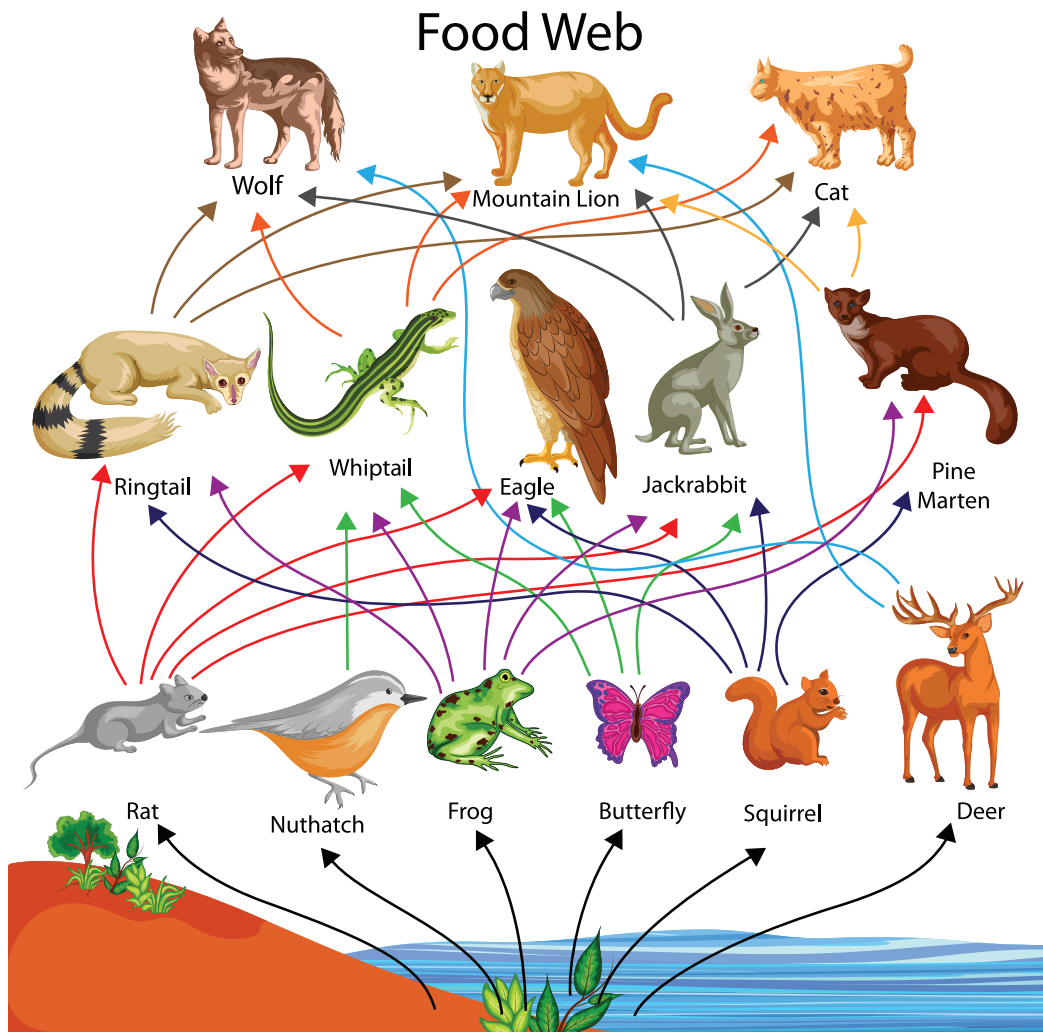
These plants are at the bottom of every food chain. They are called primary producers. Primary means the first of something. They are called producers because they produce the energy for the whole chain.

At the top of every food chain is an apex predator. These animals don't have any natural predators. An example of an apex predator would be a lion or a great white shark. It's important to remember that being hunted by humans is not the same as a natural predator. Not all apex predators are big and scary. The frogfish is an ugly-looking fish that lives at the bottom of the ocean. The only thing that eats frogfish is other frogfish. Therefore it is an apex predator even though it is only a 2 feet long.

There are many other animals in the food chain. They sit between the primary producers and the apex predators. They are all predators, but they are also all prey. Think about a blackbird in your garden. It is a predator because it eats small insects. However, birds of prey such as hawks eat blackbirds.

Food chains are never as simple as they seem. Most animals eat more than one prey. Also, most are consumed by more than one predator. When the links between animals become this complicated, it is much better to describe them using a food web. Food webs are essential to the balance of every single ecosystem on Earth.

Animals at the top of the food chain rely on animals below them for their energy. Don't forget, all of that energy comes from 93 million miles away. That's one heck of a takeaway!



RETRIEVAL FOCUS

1. Where does all energy in a food chain come from?
2. What process do plants use to convert sunlight?
3. Write a definition for “primary”
4. All apex predators are bigger than humans. True or false?
5. A whiptail is a predator of the mountain lion. True or false?

VIPERS QUESTIONS

V

Find another word for “eaten” in the text.

S

Why are systems sometimes represented by a food web?

E

Why are there arrows at the bottom of the diagram? What are they showing?

S

Explain how energy gets from a plant to a cat, using examples from the diagram.

I

Why are deer only eaten by two apex predators?

Answers:

1. The sun
2. Photosynthesis
3. The first of something
4. False
5. False

V: Consumed

S: They are more complicated/food chains can be too simple

E: They show the plants being consumed by the primary consumers

S: Accept answers that follow the food web diagram accurately.

I: They are too big for anything else to hunt