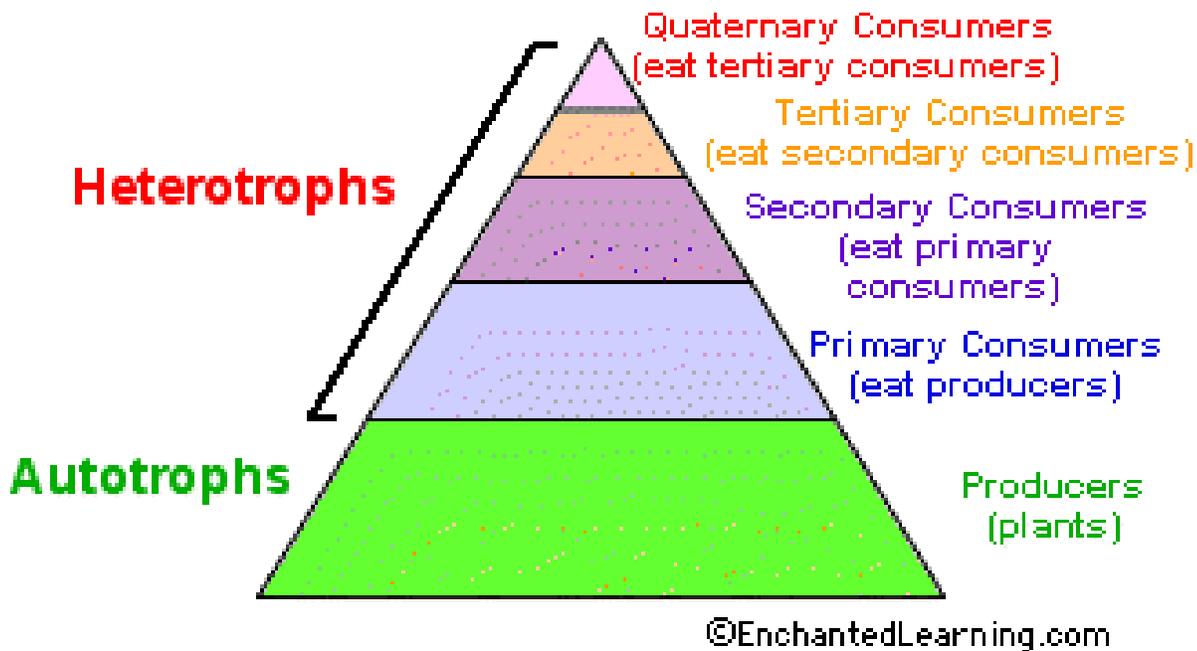


# The Food Web



The arrows in a food chain show the flow of **energy**, from the sun or hydrothermal vent to a top predator. As the energy flows from organism to organism, energy is lost at each step. A network of many **food chains** is called a **food web**.

## Trophic Levels:

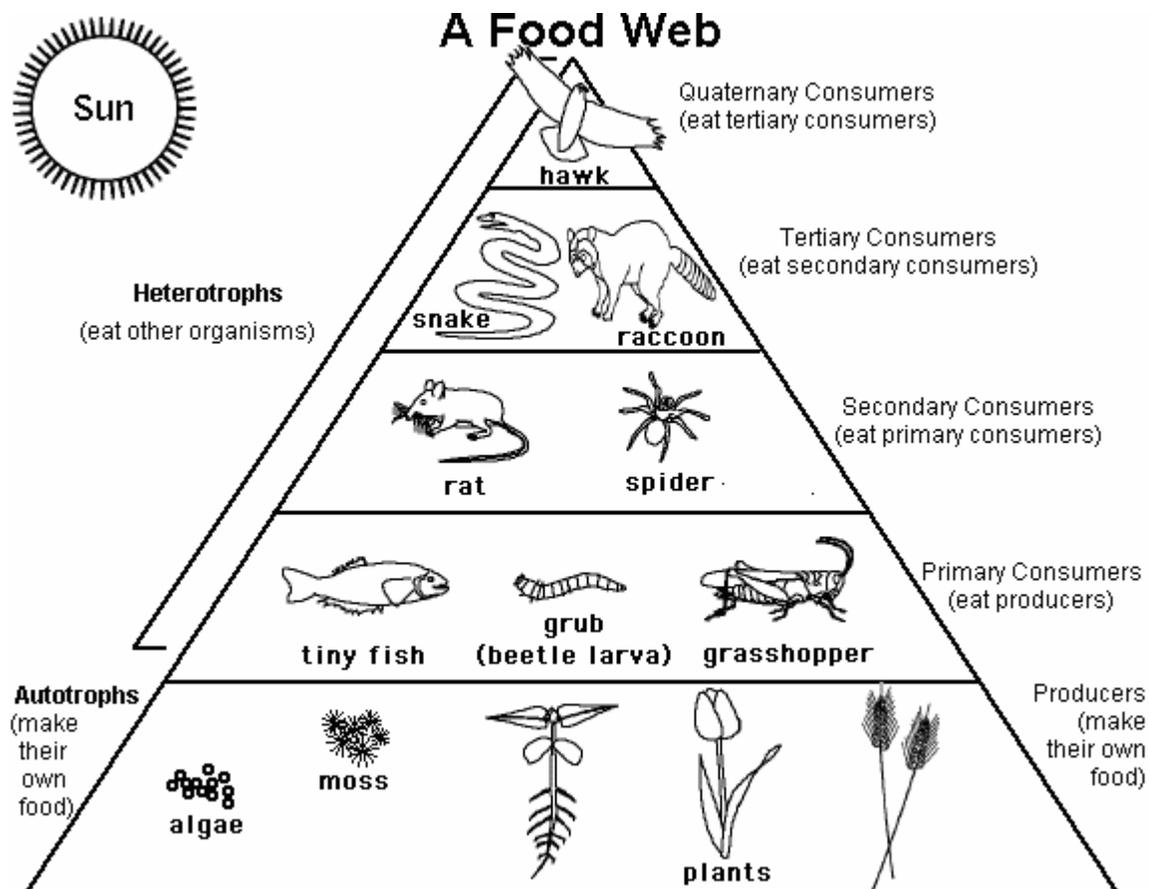
The trophic level of an organism is the position it holds in a food chain.

1. **Primary producers** (organisms that make their own food from sunlight and/or chemical energy from deep sea vents) are the base of every food chain - these organisms are called **autotrophs**.
2. **Primary consumers** are animals that eat primary producers; they are also called **herbivores** (plant-eaters).
3. **Secondary consumers** eat primary consumers. They are **carnivores** (meat-eaters) and **omnivores** (animals that eat both animals and plants).
4. **Tertiary consumers** eat secondary consumers.
5. **Quaternary consumers** eat tertiary consumers.
6. Food chains "end" with top predators, animals that have little or no natural enemies.

When any organism dies, it is eventually eaten by **detrivores** (like vultures, worms and crabs) and broken down by **decomposers** (mostly bacteria and fungi), and the exchange of energy continues.

Some organisms' position in the food chain **can vary as their diet differs**. For example, when a bear eats berries, the bear is functioning as a **primary consumer**. When a bear eats a plant-eating rodent, the bear is functioning as a **secondary consumer**. When the bear eats salmon, the bear is functioning as a **tertiary consumer** (this is because salmon is a secondary consumer, since salmon eat herring that eat zooplankton that eat phytoplankton, that make their own energy from sunlight). Think about how **people's place in the food chain varies - often within a single meal!**

### Example food web



Name: \_\_\_\_\_

Date: \_\_\_\_\_ period \_\_\_\_\_

## Food Web Questions

1. What is used to indicate the flow of energy in a food chain or web?
2. What happens to energy as we move from step to step in a chain or web?
3. Define food web.
4. What is meant by trophic levels?
5. Define autotroph.
6. The 1<sup>st</sup> trophic level consists of \_\_\_\_\_ consumers called \_\_\_\_\_.
7. Name the 2<sup>nd</sup> trophic level (both names).
8. Secondary consumers may be \_\_\_\_\_ eating meat or \_\_\_\_\_ that eat both plants and animals.
9. What is the 3<sup>rd</sup> trophic level called?
10. What is the 4<sup>th</sup> trophic level called?
11. At the 5<sup>th</sup> trophic level would be \_\_\_\_\_ consumers that eat \_\_\_\_\_ consumers.
12. Give an example of 3 detritivores. On what do they feed?
13. What organism feeds on dead plants and animals and helps recycle them?
14. Both \_\_\_\_\_ and \_\_\_\_\_ act as decomposers
15. Can an organism fill more than one trophic level --- yes or no? Give an example.