

relationships between individual species. Some very simple ecosystems may consist of a food chain with only a few trophic levels.

A food chain is a sequence of who eats whom in a biological community (an ecosystem) to obtain nutrition. It is a sequence of organisms that feed on one another.

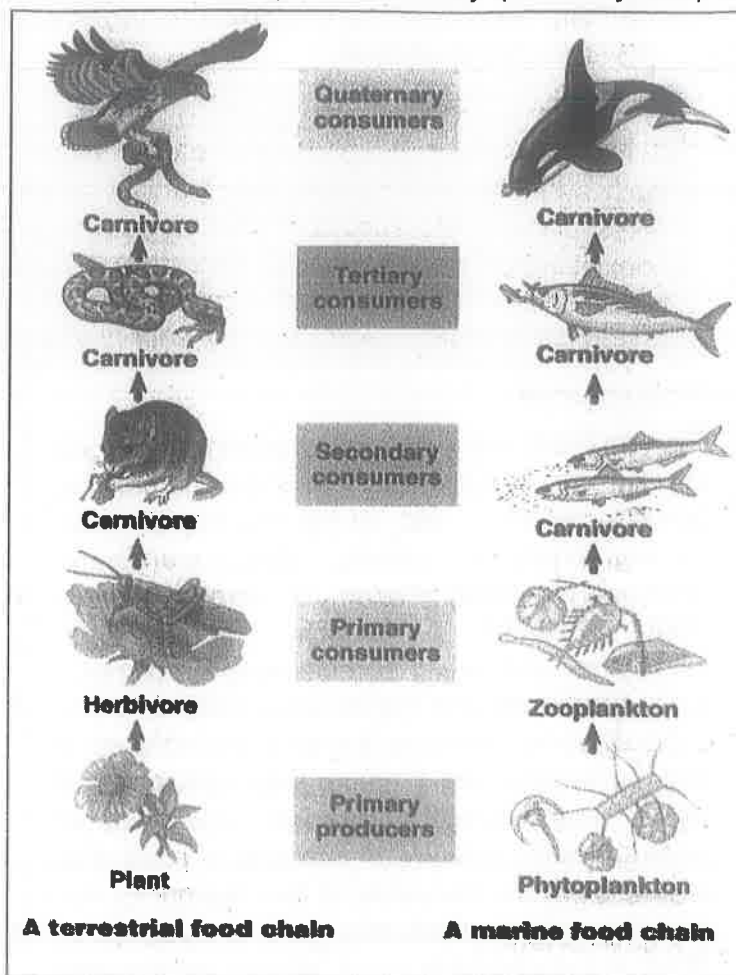
A food chain starts with the primary energy source, usually the sun. The next link in the chain is an organism that makes its own food from the primary energy source.

For example, photosynthetic plants that make their own food from sunlight by photosynthesis and chemosynthetic bacteria that make their food energy from chemicals in hydrothermal vents. These are called autotrophs or primary producers.

Next come organisms that eat the autotrophs; these organisms are called herbivores or primary consumers. For example, a grasshopper eats grass.

The next link in the chain is animals that eat herbivores, called secondary consumers. For example, a frog or rat that eat grasshoppers.

In turn, these animals are eaten by larger predators, called tertiary consumers. For example, a snake that eats rats. Tertiary consumers are eaten by quaternary consumers. For example, a hawk eats snakes. 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.



Difference between Grazing food chain and Detritus food chain

Grazing Food Chain	Detritus Food Chain
<ul style="list-style-type: none"> ➤ The Chain begins with green plants (producers) at first trophic level ➤ Energy comes from the sun ➤ It consists of all macroscopic organisms ➤ The food chain is longer in size ➤ Plant> Grass hopper> Rat> Snake> Hawk 	<ul style="list-style-type: none"> ➤ The Chain begins with detritivores (decomposers) at first trophic level ➤ Energy comes from the remains of dead organic matters ➤ It consists of sub-soil organisms ➤ The food chain is smaller in size ➤ Dead Bodies> Bacteria> Molluscs> Fish

(ii) Food Web

Trophic levels in an ecosystem are not linear; rather, they make a food web. All of the interconnected and overlapping food chains in an ecosystem make up a food web. Each living thing in an ecosystem is part of multiple food chains. Usually, food webs consist of several food chains meshed together. The Foodweb is an essential ecological concept. It implies the transfer of food energy from its source in plants through herbivores to carnivores.