

Food chain :- A food chain refers to the order of events in an ecosystem, where one living organism eats another organism, and later that organism is consumed by another larger organism. The flow of nutrients and energy from one organism to another at different trophic levels forms a food chain.

The food chain also explains the feeding pattern or relationship between living organisms. Every level in a food chain is known as a trophic level.

The food chain consists of four major parts namely :-

- The Sun: The Sun is the initial source of energy, which provides energy for everything on the planet.
- Producers: The producers in a food chain include all green plants. This is the first stage in a food chain.

Consumers: Consumers are all organisms that are dependent on plants or other organisms for food. This is the largest part of a food web, as it contains almost all living organisms. It includes herbivores which are animals that eat plants, carnivores which are animals that eat other animals, parasites are those organisms that live on other organisms by harming them and lastly the scavengers, which are animals that eat dead animals.

Here, herbivores are known as primary consumers and secondary consumers. Therefore, primary consumers or herbivores are organisms in the second trophic level.

Decomposers :- Decomposers are organisms that get energy from dead or waste organic material. This is the last stage in a food chain. Decomposers are an integral part of a food chain, as they convert organic waste materials into inorganic materials like nutrient-rich soil or land.

Decomposers complete a life cycle, as they provide nutrients to soil or oceans, that can be utilized by autotrophs or producers. Thus starting a whole new food chain.

Food web :- Several interconnected food chains form a food web.

A food web is similar to a food chain but the food web is comparatively larger than a food chain. Occasionally, a single organism is consumed by many predators as it consumes several other organisms. Due to this many trophic levels get interconnected and the food chain fails to showcase the flow of energy in

in the right way. But, the food web is able to show the proper representation of energy flow as it displays the interactions betⁿ different organisms.

Types of Food chain :- There are two types of food chains viz. detritus food chain and grazing food chain.

Detritus food chain :- The detritus food chain includes different species of organisms and ~~pl~~ plants like algae, bacteria, fungi, protozoa, mites, insects etc. The detritus food chain begins with dead organic material. The food energy passes into decomposers and detritivores which are further eaten by smaller organisms like carnivores.

Grazing food chain :- The grazing food chain is a type of food chain that starts with green plants, passes through herbivores and then to carnivores. In a grazing food chain, energy in the lowest trophic level is acquired from photosynthesis. In this type of food chain, the first-energy transfer is from plants to herbivores.