

Energy Transfer

Every organism needs to obtain energy in order to live.

The sun is an important source of energy. Plants are able to obtain energy from the sun to make its own food through the process of photosynthesis.

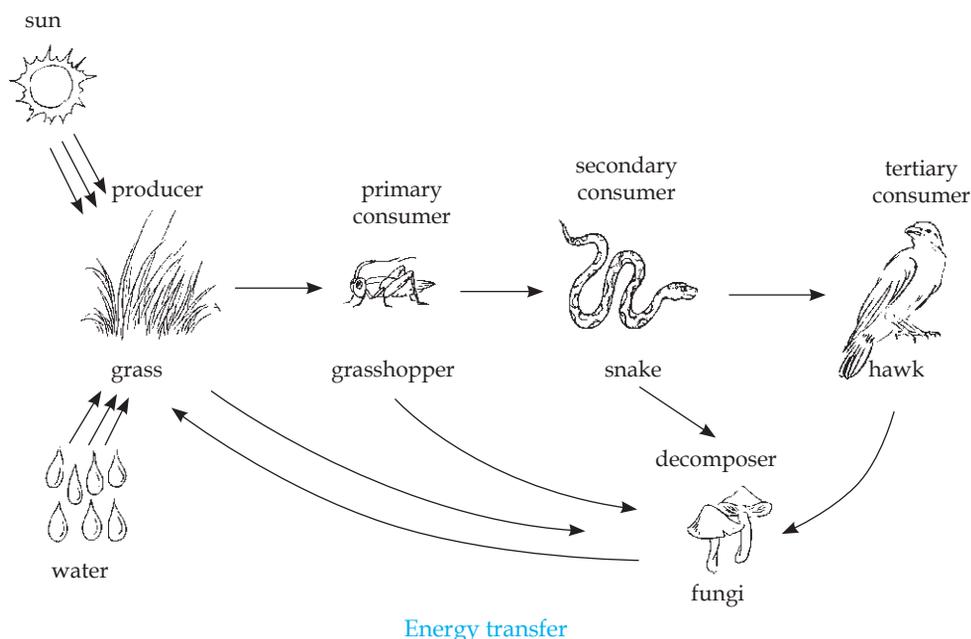
The diet of some animals is plants. These animals are called **plant eaters** or **herbivores**. Some examples of plant eaters are elephants, zebras and giraffes.

The plant eaters get their energy from eating the plants. The stored energy in the plants is then transferred to the animals.

Animals that eat other animals to survive are called **animal eaters** or **carnivores**. They obtain their energy by consuming the meat of other animals.

There is another group of animals that get their energy from eating both plants and animals. They are called **plant-and-animal eaters** or **omnivores**.

The chain of energy transferring from one organism to another may continue several more times. It ends with the death of the organisms. They are then broken down and used as food or nutrition by bacteria and fungi.

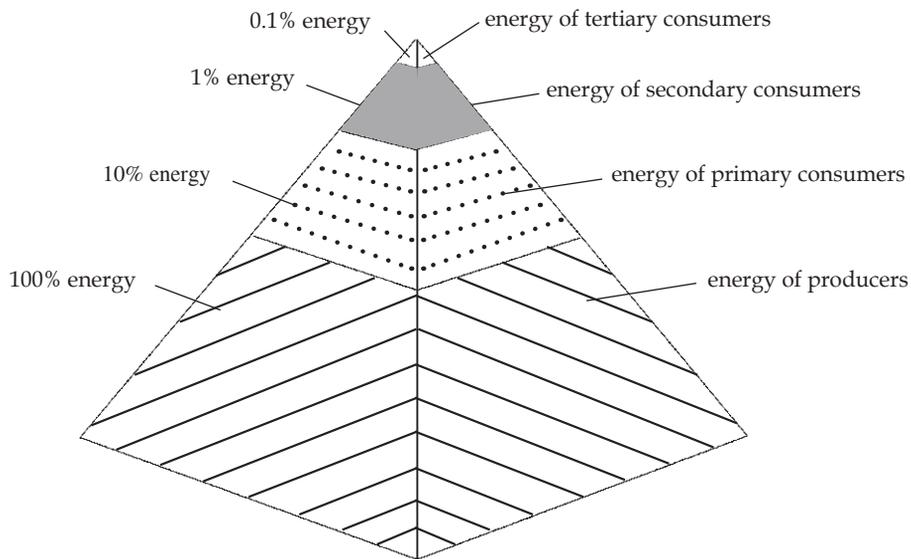




Each time the stored energy present in one organism is passed on to another organism in a food chain, the energy transfer is always less than 100%.

One of the reasons is that in a typical food chain, not all animals or plants are eaten by another organism. Another point to take note is that there are parts such as the beaks and bones of organisms that are not eaten.

The ecological pyramid shows how much stored energy is transferred from one organism to the next organism in a food chain.



An ecological pyramid

At the bottom of the pyramid, the stored energy found in the primary producers is 100%. When they are consumed by herbivores, the energy transfer is only 10%. The carnivores receive only 1% of the energy after consuming their food.