

# Food Webs

## Definitions:

---

**A food web** is made up of multiple food chains that interact with each other. They show more interactions between a variety of producers.

**Biodiversity** means: The Variety of all types of organisms living in a given area.

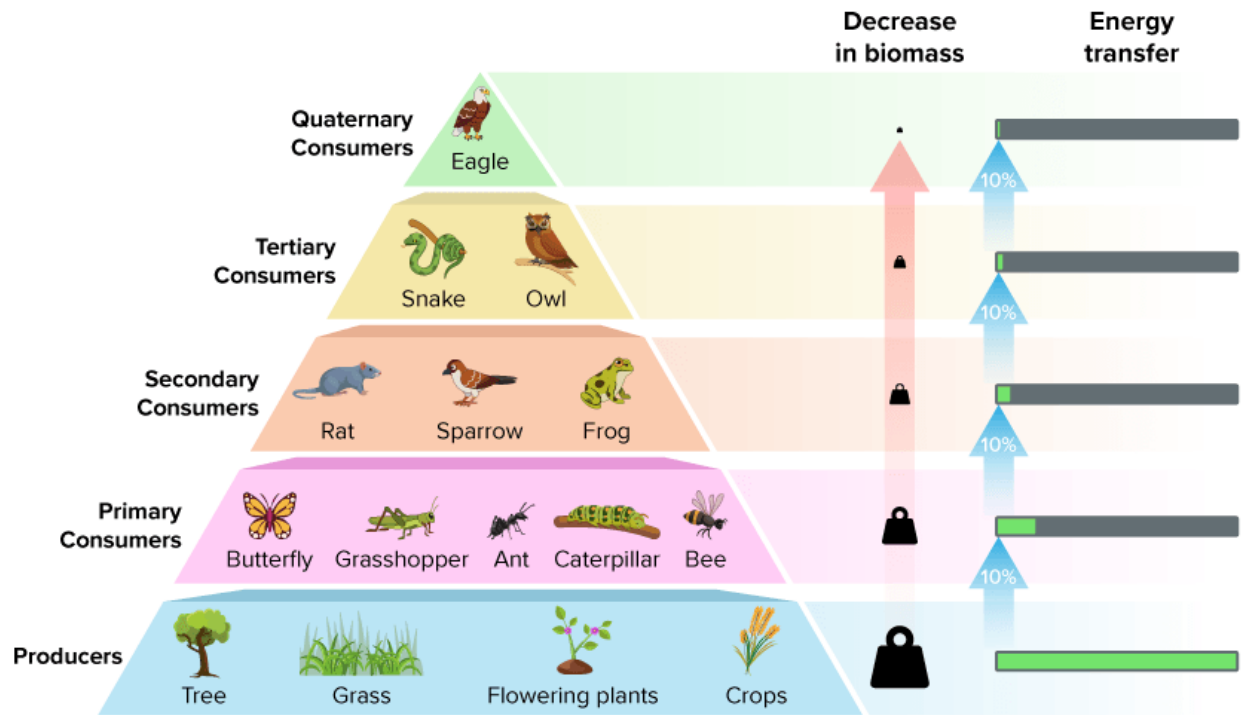
**Trophic levels:** 1. each of several hierarchical levels in an ecosystem, consisting of organisms sharing the same function in the food chain and the same nutritional relationship to the primary sources of energy.

**Apex Predator:** A predator at the top of a food chain, without natural predators of its own

---

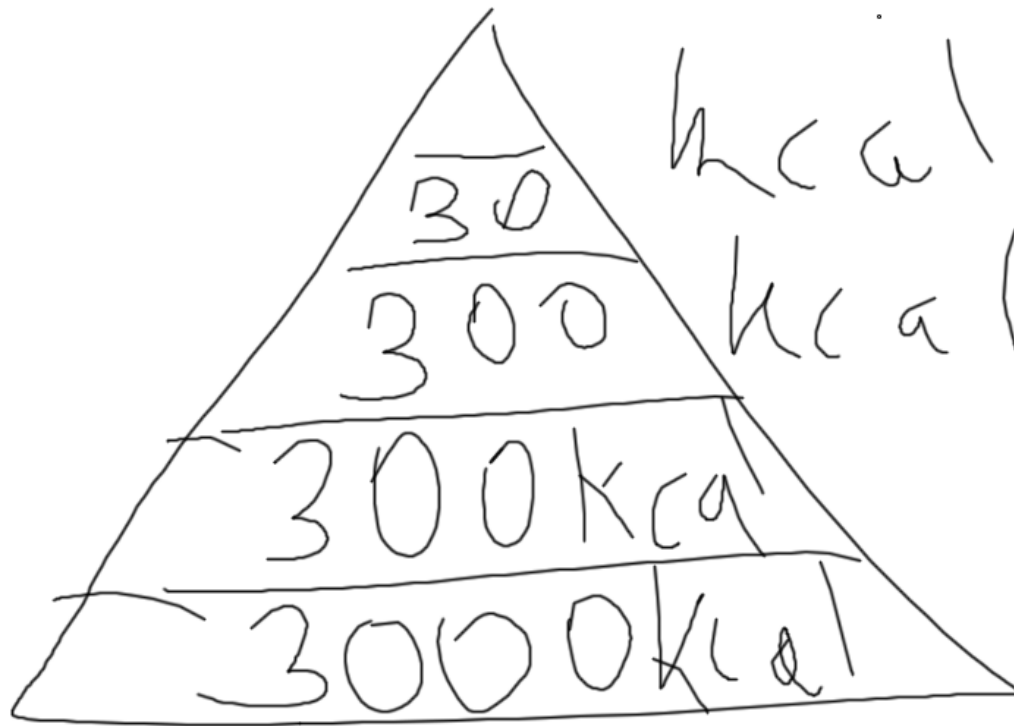
The trophic levels go:

1. Producer
2. Level 1 Consumer
3. Level 2 Consumer
4. Tertiary Consumer
5. Apex Predator / Quaternary Consumer



Producers are autotrophs

Level 1 consumers are heterotrophs



As the pyramid continues, the increment of energy is 10% of the layer before. The energy gone is from bodies.

Energy is either lost as heat or left to decompose

Goes 100% → 10% → 1% → 0.1% → 0.01%

# Energy Change

- Energy is measured in **joules**. If the producer in a particular food chain has 13,500 joules of energy, Calculate:
  1. How much energy will be passed on to the *secondary* consumer?
  2. How much energy overall has been lost since the beginning
  3. What is the most likely reason for this loss

1. It will be 1% of 13,500J = 135J.
2. It is 13,500-135 = 13365J.
3. The most likely reason for this loss is due to decomposition and energy lost from heat.