

Energy Paths



Learning Objectives

- Trace the flow of energy through living systems
- Compare and contrast food web and food chain



Carnivore



Carnivore



Herbivore



Plant

← Tertiary consumer

← Secondary consumer

← Primary consumer

← Producer

Energy Paths

Three ways to illustrate energy flow:

Food Chain

Food Web

Food (Energy) Pyramid

Food Chain

Food chain



maize
producer



locust
primary
consumer



lizard
secondary
consumer

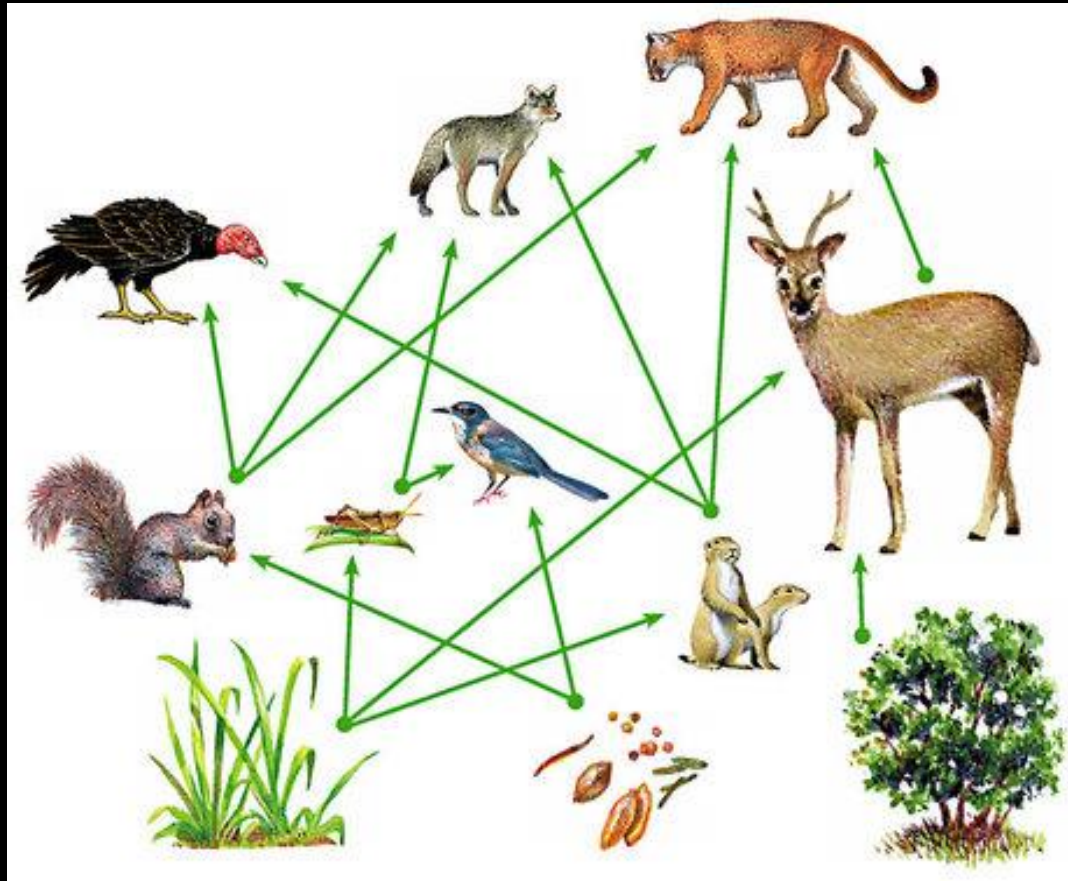


snake
tertiary
consumer

A food chain shows the path of energy from one organism to the next.

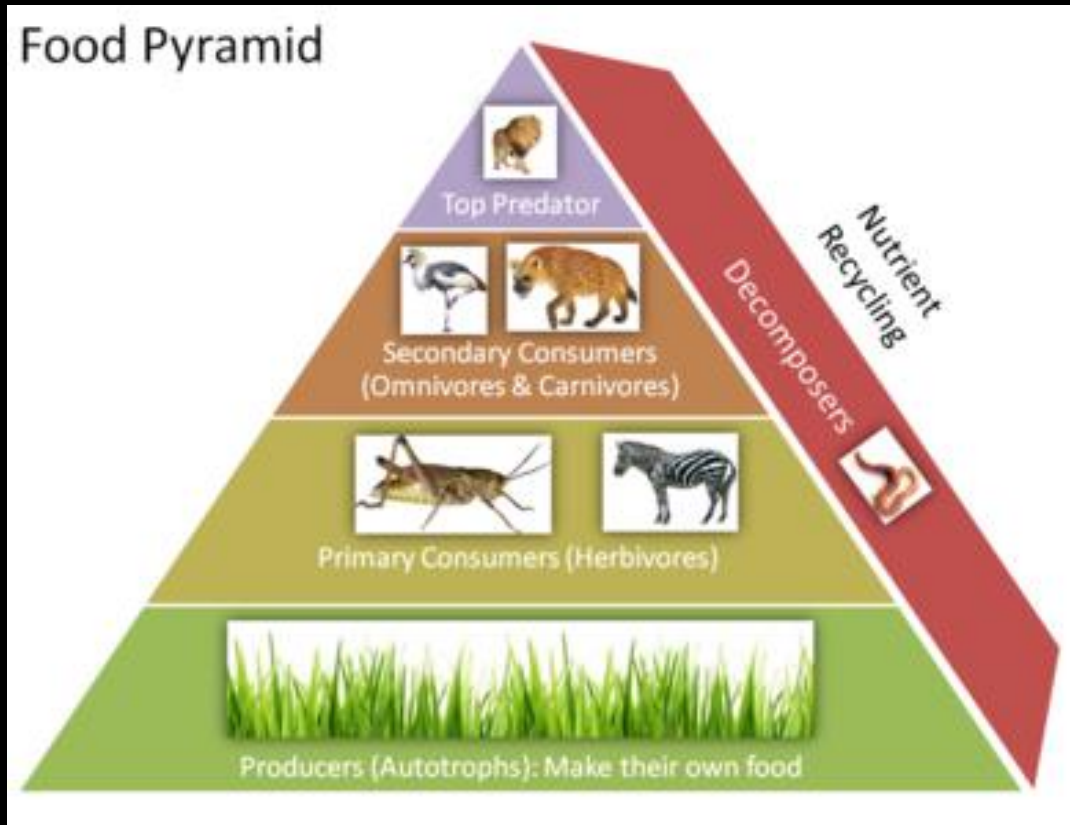
Arrow points in the direction that the energy is flowing

Food Web



A food web shows all feeding relationships in an ecosystem (network of many food chains)

Food (Energy) Pyramid

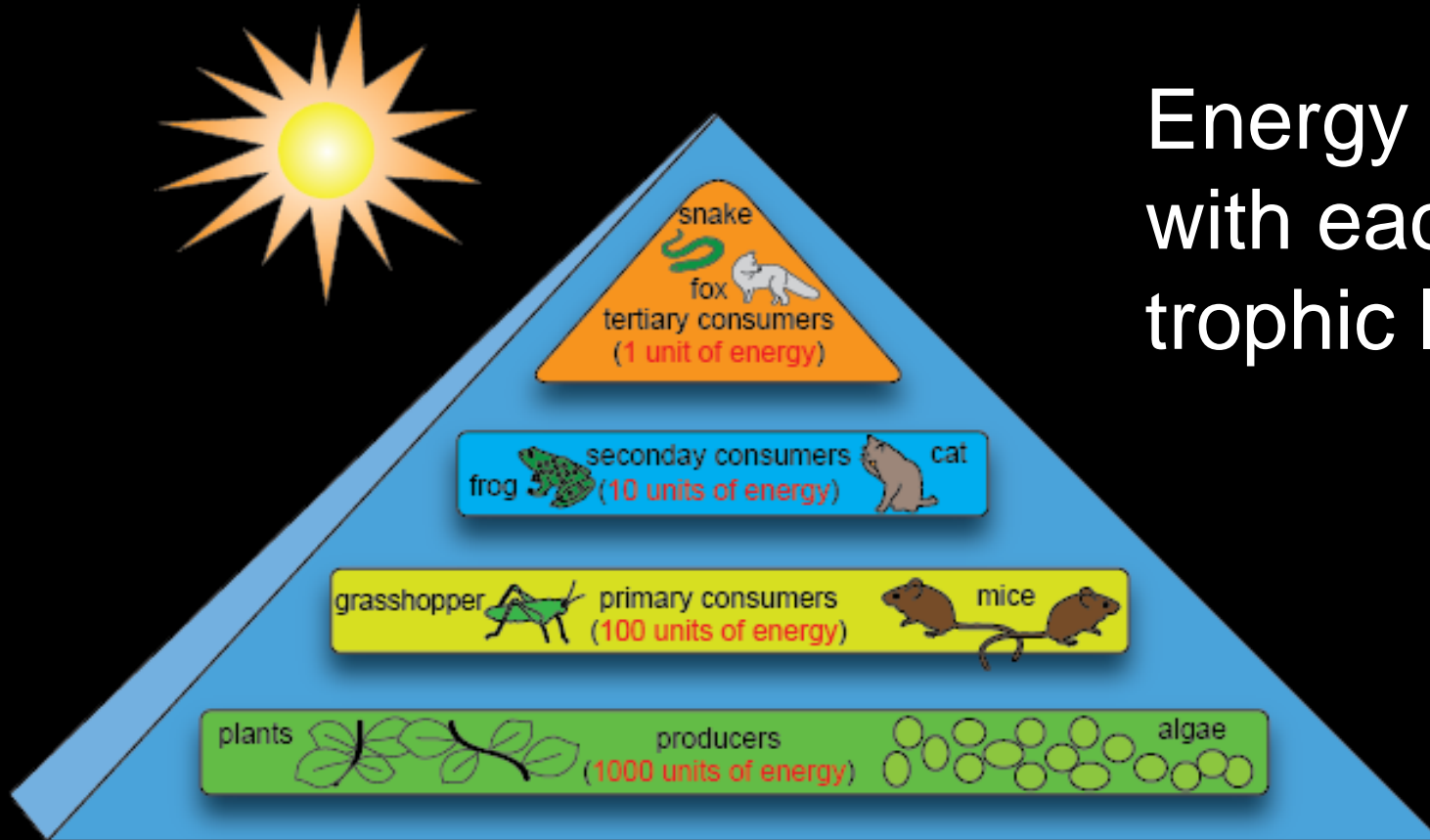


A level of the food pyramid is called a trophic level

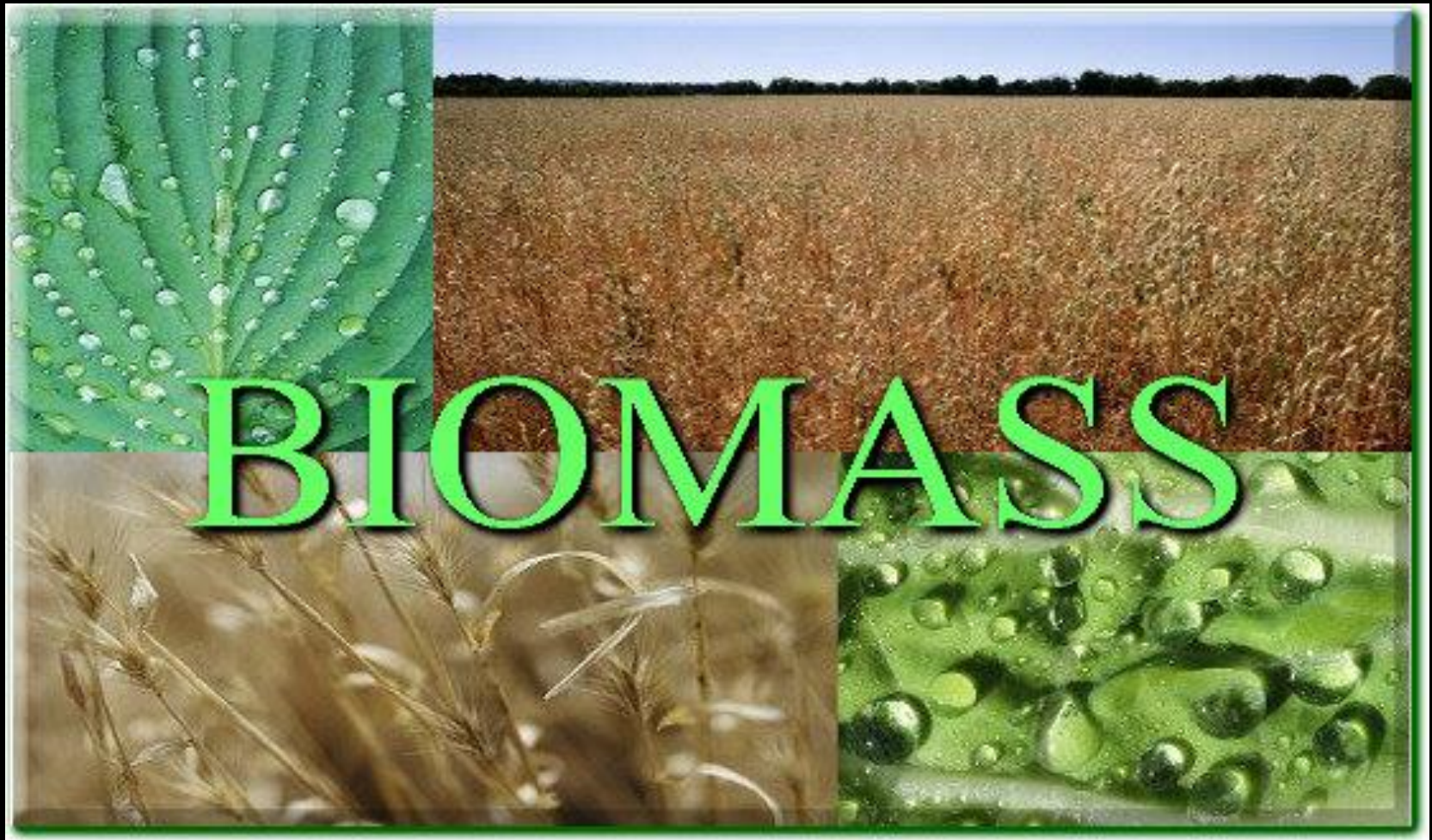
Food chains/webs can be shown as a food pyramid. Producers at bottom, consumers at upper levels

Trophic Levels

Energy is lost with each trophic level



- ~ 90% is released to the environment as heat
- ~ 10% of the energy is used by organisms



Biomass - all of the biological material in an ecosystem

YouTube Food Webs & Energy Pyramids

Stop Here

