

Name _____

Period _____

Energy Flow in an Ecosystem

An organism's energy role in an ecosystem may be that of a producer, consumer, or decomposer.

Producer - an organism that can make their own food (autotroph)

Most producers make energy from sunlight through the process of photosynthesis. A few producers (some bacteria that live deep beneath the ground and under rocks) produce food using hydrogen sulfide (a gas found in their environment).

Photosynthesis:



Carbon dioxide and water in the presence of sunlight produces oxygen and sugar.

Consumer - an organism that obtains energy by feeding on other organisms

Consumers can either be herbivores, carnivore, or omnivores.

Herbivore - a consumer that only eats plants

Carnivore - a consumer that only eats animals

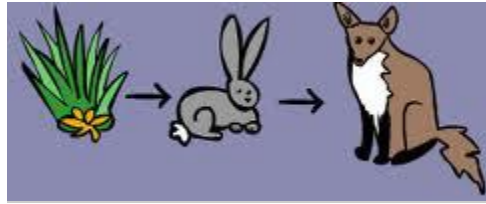
Omnivore - a consumer that eats both plants and animals

Scavenger - a carnivore that feeds on the bodies of dead organisms

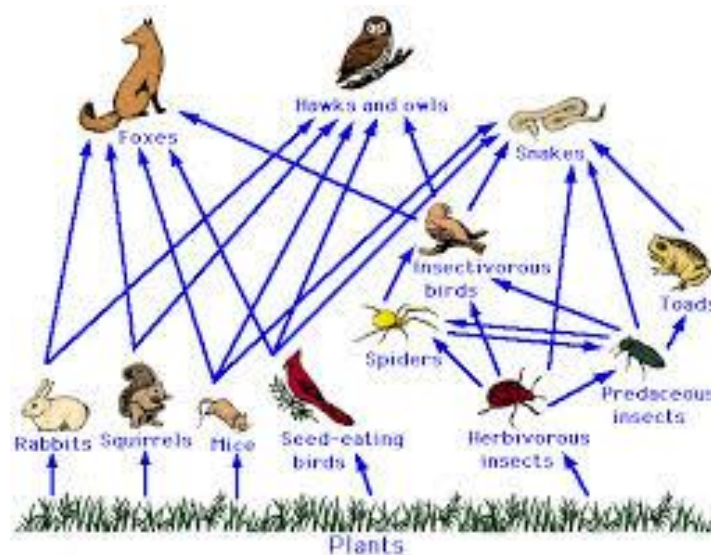
Decomposer - an organism that breaks down the wastes and dead organisms and return the raw materials to the environment

Most decomposers are fungi or bacteria.

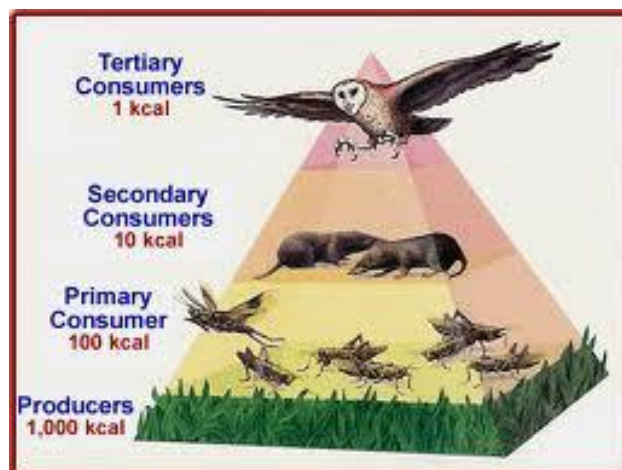
Food Chain - a series of events in which one organism eats another and obtains energy



Food Web - many overlapping food chains in an ecosystem



Energy pyramid - shows the amount of energy that moves from one feeding level to another in a food web. The organisms at each level use some of the energy to carry out their life processes.



The most energy is available at the producer level. At each level in the pyramid, there is less available energy than at the level below.