

2020 Ecology Vocabulary Terms

- Ecology- study of how living things interact with each other and their environments**
- Ecosystem - community of organisms that live in a particular area, along with their non-living surroundings**
- Abiotic factors - a non-living part of an organism's habitat (ex: sun, rock, water, soil, climate)**
- Biotic factors - A living part of an organism's habitat (ex: squirrel, deer, plants)**
- Biomes - a group of ecosystems with similar climates and organisms**
- Organism - a living thing (1)**

- **Habitat** - environment that provides the things an organism needs to live, grow and reproduce
- **Niche** - the role of an organism in its habitat or how it makes its living
- **Populations** - all the members of a species in a particular area = population, more than one species = populations (more than 1 populations is a community)
- **Limiting factors** - - environmental factor that causes a population to decrease (for example: food, water, space, and weather conditions)
- **Carrying capacity** - the largest population an area can support

- **Energy flow - movement of energy; energy is constantly cycling, for example, plants get their energy from the sun, 1st level consumers get their energy from producers, 2nd level consumers get their energy from 1st level consumers; 3rd level consumers get their energy from 2nd level consumers; decomposers get their energy from dead organisms and return nutrients to the soil that can be used by plants**
- **Energy pyramid- An energy pyramid is a diagram that shows how much energy moves from one feeding level to another in a food web. The producers are at the bottom of the pyramid, followed by the primary consumers then the secondary consumers then the tertiary consumers at the top. The producers, at the bottom of the energy pyramid, contain the most energy. The next**

level up usually can only get about 10% of the energy of the level below.

- Trophic level - the position an organism occupies in a food chain (autotroph, 1st order heterotroph, 2nd order heterotroph, etc.)**
- Producers - organism that can make its own food**
- Consumers - organisms that cannot make its own food; they get their energy by eating producers or other consumers**
- Decomposers - organism that breaks down wastes and dead organisms and returns the raw materials to the ecosystem. Some decomposers include fungi, worms, and bacteria. A decomposer's role in a food chain or food web is to return nutrients to the soil for use by plants.**

- **Food chain** - A food chain is a diagram showing a series of events where one organism eats another and gets energy. The first organism in a food chain is always a producer. You follow the arrows to the first level consumer which is the organism that eats and gets energy from the producer. You follow the next arrow to the second level consumer which is the organism that eats and gets energy from the first level consumer. Continue this all the way to the final level in the food chain. The arrow always points toward the organism doing the eating, not toward what's being eaten.
- **Food web** - A food web is a group of overlapping or interconnected food chains in an ecosystem. You follow each food chain from the producer to the primary consumer to the secondary consumer to the tertiary

consumer until you get to the final level in each food chain.

- Predator - Predator is the species doing the killing (for example a snake (predator) eating a mouse (prey))**
- Prey - Prey is the species being killed**
- Carnivore - an organism that only eats meats**
- Herbivore - organism that only eats plants**
- Omnivore - organism that eats both plants and animals**
- Symbiosis - close relationship between species that benefits at least one of the species; there are 3 types: mutualism, commensalism and parasitism.**

- **Mutualism** - relationship between 2 species where both species benefit (examples: 1- saguaro cactus and long-eared bats. 2- acacia tree and stinging ants)
- **Commensalism** - relationship between 2 species where 1 benefits and the other is neither helped nor harmed (example: saguaro cactus and red-tailed hawks)
- **Parasitism** - relationship between 2 species where 1 (parasite) lives on or in the other (the host) and harms it (examples: fleas, ticks, leeches, tapeworms with dogs and wolves.)
- **Scavenger** - a carnivore that feeds on the bodies of dead organisms (examples: catfish, vultures)