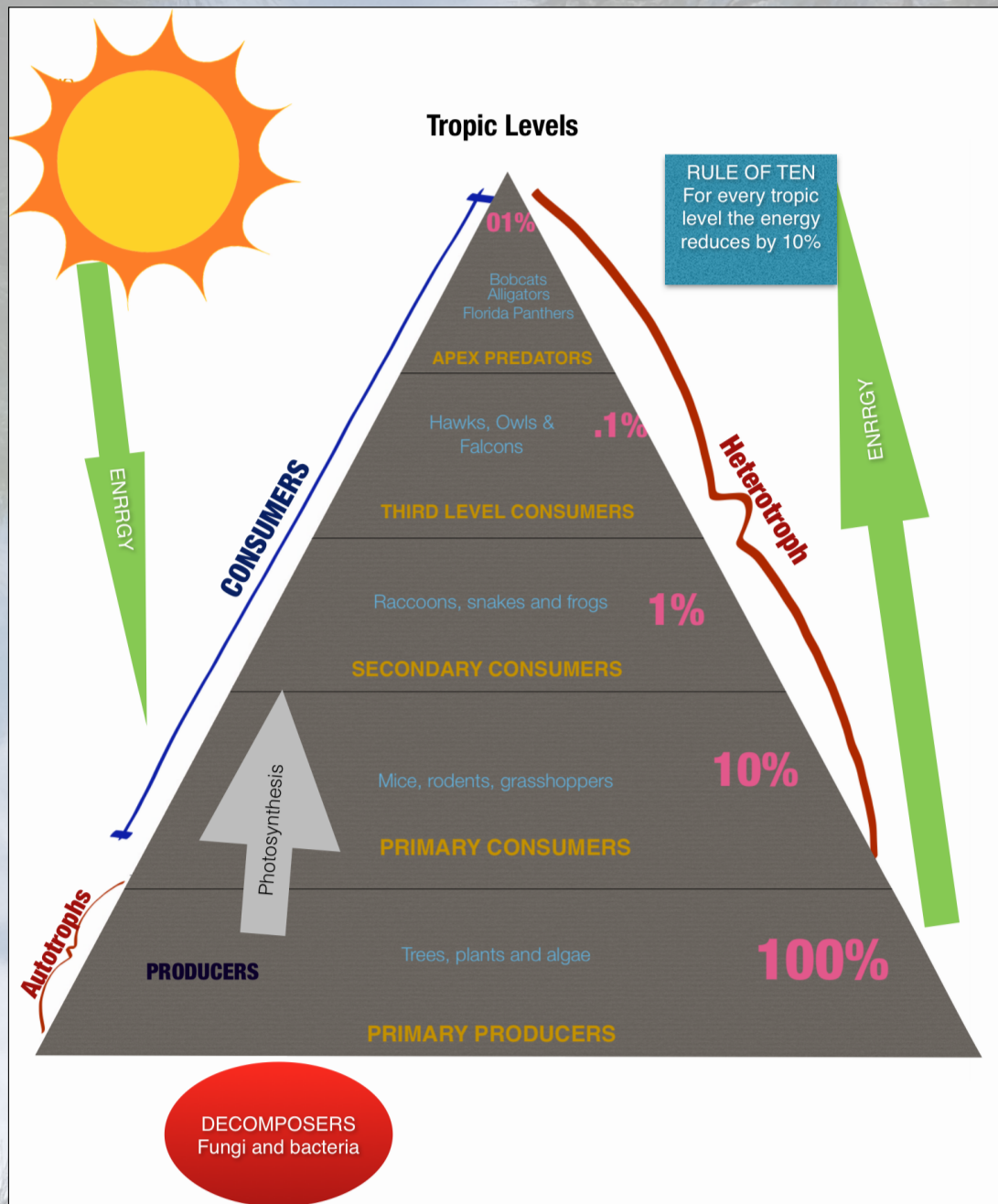


Energy of the Ecosystem

Energy Pyramid Specific to the Preserves

Monica Elskamp Biology II

Ecosystem Energy Flow. Nearly all of the energy that drives ecosystems ultimately comes from the sun. Solar energy, which is an abiotic factor, by the way, enters the ecosystem through the process of photosynthesis.



Definitions

producers: organisms that make their own food using a process known as photosynthesis.

consumers: consumers that get their energy from other consumer and or producers.

trophic levels: The trophic level of an organism is the position it occupies in a food chain.

decomposers: organisms that consume the wastes of dead organisms.

detritivores: microorganisms such as bacteria and protists as well as larger organisms such as fungi, insects, worms, and isopod crustaceans. In a food chain, detritivores are primary consumers.

tertiary consumer: a carnivore at the topmost level in a food chain that feeds on other carnivores; an animal that feeds only on secondary consumers.

herbivores: organisms that eat only plants

Rule of 10: Only a fraction of the energy available at one trophic level is transferred to the next tropic level

autotrophs: An organism that manufactures its own food from inorganic substances, such as carbon dioxide and ammonia. Most autotrophs, such as green plants, certain algae, and photosynthetic bacteria, use light for energy.

heterotrophs: An organism that cannot manufacture its own food and instead obtains its food and energy by taking in organic substances, usually plant or animal matter. All animals, protozoans, fungi, and most bacteria are heterotrophs. Compare autotroph.

photosynthesis: a process that producers use to make their own food. It involves carbon dioxide, glucose, (a type of sugar), water, oxygen, and sunlight. After the process, oxygen is released into the air and the glucose released is a source of energy for the producer. Light energy is converted into chemical energy in this process.

