

Ecology Notes

Ecosystems are made of two main factors:

1. Biotic --all living organisms inhabiting the Earth and their interactions
 - a. Relationships among organisms effect each one's growth and survival.
2. Abiotic --nonliving parts of the environment
 - a. Examples—temperature, soil, light, water, nutrients, living space and air.
 - b. Organisms need these resources to Survive.

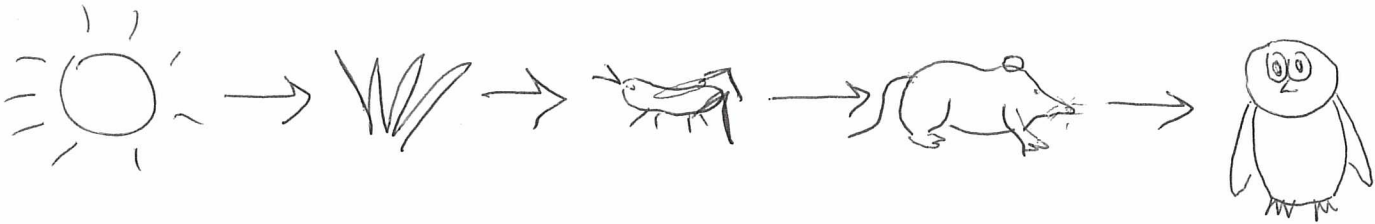
Relationships Among Living Things

- Every population has a different place and role within an ecosystem that lets its member grow and survive.
- Niche --the role of an organism in an ecosystem
 - How an organism gets food and shelter
 - How an organism interacts with other organisms and the environment
- Habitat -- the place where an organism lives in an ecosystem

Energy in an Ecosystem

- Energy moves through an ecosystem in the form of food (Chemical energy).
- Producers --use the sun's energy to make their own food (autotrophs)
 - Use Photosynthesis
 - Supplies the energy for other living things in an ecosystem
- Consumers --eat other organisms
 - Herbivores --eat only plants
 - Carnivores --eat other animals
 - Omnivores --eat both plants and animals
 - Scavengers --feed on dead organisms
- Decomposer --organism that gets energy and nutrients by breaking down the remains of other organisms
 - Nature's recyclers
 - FBI (fungus, bacteria & invertebrates)

- Organisms change energy from their food into other types of energy.
 - Some is used for life processes.
 - Some is stored within the organism for later use.
- The flow of energy can be modeled through a food chain or food web.
- Food chain -- path of energy transfer from producers to consumers
 - Example—



- Food web -- shows the feeding relationships among many different organisms in an ecosystem
 - Made up of many food chains
 - Many organisms eat more than one kind of food
 - Pick an ecosystem and create a food web illustrating the complex relationship among organisms