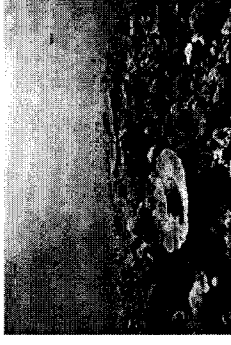


Energy Flow in Ecosystems

- Ecology – the study of the _____ between organisms and their _____
- Ecosystem -- a community of _____ and their nonliving environment
- Environment – everything that _____ an organism (living & nonliving)



- Community – all of the _____ of different _____ that live in _____ the same area



- Population – a _____ of individuals of the _____

live together in the same area
_____ species that



- Species – characterized by a _____ of organisms that can _____ with one another to produce fertile offspring

Components of an Ecosystem

All the living and nonliving things that interact in a particular area.

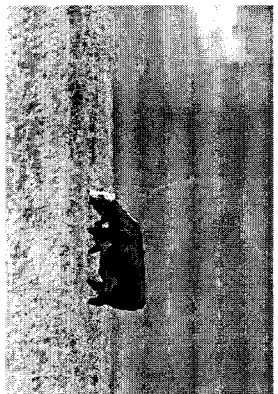
Organisms in an ecosystem are called _____ factors.

They also interact with the nonliving things, or _____ factors

Biotic

Abiotic

- All living organisms
- such as:
 - Plants
 - Animals
 - Bacteria
 - Fungi
- Temperature
- Water
- Oxygen
- Soil
- Sunlight



Producers

An organism that uses _____ directly to make its own food. Producers are the source of the food in an ecosystem.

Algae (main producers in the ocean)

Some _____

- Energy enters most ecosystems as _____, and some organisms, such as plants, _____, and some bacteria, capture the _____ of sunlight and store it as food energy. These organisms use the sun's energy

to turn water and carbon dioxide into food molecules in a process called _____.

Deep Water Thermal Vents

- In a few ecosystems, _____ obtain energy from a source _____ than sunlight. One such ecosystem is found in rocks deep beneath the _____ called thermal vents.

- Certain _____ make their own food by using energy in a gas, hydrogen sulfide, that is found in their deep water environment.

Consumers

- Some members of an _____ cannot make their own food.
- An organism that obtains energy by feeding on other organisms is a _____.

– a consumer that eats plants

- Grasshoppers, gophers, prairie dogs, bison
- Carnivore – a consumer that eats animals
 - spiders, snakes, coyotes, hawks, owls
 - eat both plants and animals
 - insects, scorpions, lizards, humans

Scavengers

- An animal that _____ on the dead bodies of other animals

– Turkey vulture, catfish, snails, worms, crabs

Decomposers

- ~~If~~ an _____ had only producers and consumers, the raw materials of life would stay locked up in _____ and the bodies of dead organisms.

- Fortunately, _____ break down wastes and dead organisms and return the raw materials to the _____.