

## Chapter 21 Section 1

P. 704 - 708

### Living things and the Environment

Organism - a living thing that obtains food, water, shelter, and other things it needs to live, grow, and reproduce from its environment.

habitat - an environment that provides the things the organism needs to live, grow, and reproduce.

biotic factor - the living parts of a habitat. These include grass and plants that provide seeds and berries. Predators and prey are also biotic factors. Decomposers such as fungi, worms and bacteria are also biotic factors.

abiotic factors - are the non living parts of an organism's habitat. (water, sunlight, oxygen, temperature and soil)

water - all living things require water to carry out their life processes.

photosynthesis - plants make their own food utilizing water, sunlight and carbon dioxide through the process of photosynthesis.

sunlight - an important abiotic factor for most living things because sunlight is needed for photosynthesis.

oxygen - most living things require oxygen to carry out their life processes.

temperature - temperatures that are typical of an area determine the types of organisms that can live there.

Soil - a mixture of rock fragments, nutrients, air, water and the decaying remains of living things. The type of soil influences the type of plants that can grow there.

704-708 cont.

Levels of Organization - Organisms live together in populations and communities, and with abiotic factors in their ecosystems.

Populations - all the members of one species in a particular area.

Species - a group of organisms that are physically similar and can mate with each other and produce offspring that can also mate and reproduce.

communities - all the different populations that live together in an area make up a community.

ecosystems - the organisms that live in a particular area, along with their non living surroundings, make up an ecosystem.

ecology - the study of how living things interact with each other and with their environment.

## Questions p. 708

- 1.a. A habitat provides food, water, shelter, and other things an organism needs to grow and reproduce.
- 1.b. The organism might die.
- 2.a. Biotic factors are the living parts of a habitat that an organism interacts with; abiotic factors are the non-living parts.
- 2.b. Biotic factors include grass, birds, snake, badger, bison, prairie dogs; -  
abiotic factors include - soil, air, temperature and sunlight.
- 3.c. All organisms need water to carry on life processes. Plants and algae need sunlight to make food in photosynthesis. Other organisms depend directly or indirectly on the plants and algae for food.
- 3.a. Organism, population, community, ecosystem
- 3.b. A community because a community consists of different populations living together.
- 3.c. If a population that is a food source for another population decreases, then the second population may decrease due to starvation.