



Environment-

All the surrounds living things and affects their growth and development is called their environment. Environment is made up of two components-biotic and abiotic.

Biotic components-

Living things like plants and animals are called biotic components. Biotic components are those that have life. Plants, animals, scavengers and decomposers are biotic components.

Plants:- Leaves are green because they contain a green pigment called chlorophyll. The process by which green plants make their own food using carbon dioxide and water in the presence of light and chlorophyll is called photosynthesis.

Animals:-Animals cannot make their own food so they are called heterotrophs. Both plants and animals need substances called nutrients.

Plants absorb nutrients from the soil and these nutrients enter the bodies of animals when they eat plants and flesh of other animals.

Scavengers and decomposers-

Animals that feed on the dead bodies of other animals are called scavengers for e.g. hyena and vulture. Tiny organisms that feed on the remains of dead plants and animals to break them down into simpler substances are called decomposers e.g. bacteria and fungi.

Scavengers and decomposers play two important roles in environment.

1) They keep the environment clean by removing the bodies of dead plants and animals.

2) They help in the recycling of nutrients.

Interaction among biotic components-

Plants and animals depend on each other for various needs.

In nature, plants, animals, scavengers and decomposers are interconnected.

- Plants (producers) utilize sun's energy and manufacture their own food through photosynthesis.
- Herbivores (primary consumers) like rabbit and deer feed on plants.
- Carnivores (secondary consumers) like tiger and lion feed on herbivores.
- Omnivores like human beings and bear feed on both plants and flesh of other animals.
- Scavengers and decomposers feed on dead plants and animals and release the nutrients trapped inside their bodies into the soil.

Abiotic components-

Non-living things like air, water, light, soil and temperature are called abiotic components.

1) **Light-** plants use light to prepare their food.

2) **Temperature-** temperature is a measure that tells us how hot or cold something is.

Animals whose body temperature changes with the outside temperature are called cold-blooded animals e.g. reptiles, insects and amphibians.

Animals whose body temperature does not change with the outside temperature are called warm-blooded animals e.g. most mammals and birds. Warm-blooded animals can survive in extreme temperatures like desert and arctic region.

3) **Air-**oxygen and carbon dioxide present in air are very important for survival of organisms. Both plants and animals need oxygen for respiration. Animals and



6th – Things Around Us II



human beings release carbon dioxide during respiration, which is used by green plants. Green plants play important role in maintaining the balance of oxygen and carbon dioxide .moving air or wind also helps in reproduction through pollination and dispersal of seeds.

4) **Water**- water is very important for living organisms. Plants absorb water through roots which is transported to different plants parts.

It also plays an important role in human body. Blood, which transports substances within the human body, is largely composed of water. 70% of the body consist of water. It is dissolves in gases like oxygen and carbon dioxide

5) **Soil**- soil is the uppermost layer of the earth's crust. it has four sub layers- topsoil, subsoil, parent and bedrock. Soil is rich in minerals like potassium and phosphorus. Plants grow well in loosely packed soil. Earthworm and snail also make the soil loose by turning it.

6) **Habitat**- biotic and abiotic components are closely interrelated.

A group of interdependent organisms that live in the same region and interact with one another form a biotic community. It includes plants, animals and microorganisms.

