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## CHAPTER – 9

### THE LIVING ORGANISMS AND THEIR SURROUNDINGS

- The surroundings where plants and animals live, is called their habitat.
  - Several kinds of plants and animals may share the same habitat.
  - The presence of specific features and habits, which enable a plant or an animal to live in a particular habitat, is called adaptation.
  - There are many types of habitats, however, these may be broadly grouped as terrestrial (on the land) and aquatic (in water).
  - There is a wide variety of organisms present in different habitats.
  - Plants, animals and microorganisms together constitute biotic components.
  - Rocks, soil, air, water, light and temperature are some of the abiotic components of our surroundings.
  - Characteristics of living things:
    - (i) They need food to grow and for the processes.
    - (ii) The young ones grow into adults.
    - (iii) They respire. Animals breathe in oxygen and breathe out carbon dioxide. Plants take in carbon dioxide and give out oxygen.
    - (iv) They respond to changes in the surrounding (stimuli).
    - (v) They all get rid of wastes produced in the body (excretion).
    - (vi) They reproduce their own kind.
    - (vii) They show movement.
  - **Habitat:** The surroundings where organisms live. It has two components biotic (living things like plants and animals) and abiotic (non-living things like rocks, soil, air and water).
- Type of Habitat:**
- (a) **Terrestrial Habitat:** Plants and animals live on land. Example: forest, grasslands, deserts, coastal and mountain ranges.
  - (b) **Aquatic Habitat:** Plants and animals live in water. Example: ponds, swamps, lakes, rivers and oceans.
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**Adaptations:** Presence of specific features or certain habits which enable an organism to live in its surrounding.

**Terrestrial:**

- (a) **Deserts:** Small animals stay in borrows deep in sand during day, and come out at night. In plants, leaves are either absent or very small as spines; stem has a thick waxy coating; roots go deep into the soil.
- (b) **Mountains:** Animals have thick skin or fur; mountain goat has strong hooves. Trees are cone shaped having sloping branches; leaves are needle like.
- (c) **Grasslands:** Animals are light brown in colour; **Lion:** Long claws in front legs that can be withdrawn inside the toes; eyes in front of face. **Deer:** Strong teeth, long ears, eyes on the sides of head.

**Aquatic:**

(a) **Ponds:**

- **Plants with roots fixed in soil:** Stems are long, hollow and light; leaves float on water.
- **Plants with roots submerge:** Leaves are narrow and thin ribbon-like.

(b) **Oceans:**

- Animals have streamlined body; gills to respire (dolphins and whales have blowholes).
  - Animals like squids and octopus do not have streamlined body and stay deep in water.
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