



# LITTERA PUBLIC SCHOOL

**CLASS 6**

**CHAPTER 9**

**SCIENCE**

## **LIVING ORGANISM AND THEIR SURROUNDING**

### **Characteristics of Living Things**

- Living things can grow
- Living things need food
- Living things need air
- Living things need water
- Living things can move by themselves
- Living things can reproduce
- Living things excrete
- Living things can respond to stimuli
- Living things have definite lifespan.

### **Habitat**

- A place where an organism lives is called its habitat.
- Habitat is the dwelling place of an organism where it lives comfortably and which provides it food and shelter.
- It provides sufficient space for movement.
- It provides favourable climatic conditions to survive, breed and flourish.
- It provides sufficient protection to the inhabitants.

### **Types of Habitat**

#### **1. Terrestrial habitat**

The organisms that live on land are called terrestrial organisms and their habitats are called terrestrial habitats.

## **2. Aquatic habitat**

The organisms that live in water are called aquatic organisms and their habitats are called aquatic habitats.

## **3. Arboreal habitat**

The organisms that use trees for their activities are called arboreal animals and their habitats are called arboreal habitats.

## **Components of habitat**

### **1. Abiotic components**

Abiotic factors refer to all the non-living components present in a habitat. It typically comprises physical and chemical components. Example – temperature, water, sunlight, soil, wind etc.

### **2. Biotic components**

Biotic factors refer to all living components present in a habitat. Example – animals, human beings, microorganisms and plants.

## **Adaptation in Plants and Animals**

The tendency of an organism to develop certain specific features which improve the chances of their survival in the environment is called adaptation.

### **1. Adaptation to desert habitat**

#### **Desert animals**

- They do not get enough water so they store water in their body.
- They do not sweat so they have thick skin.
- They live in burrow and protect themselves from hot temperature.

### ***Adaptation in camel***

- Camel can drink up to 40 litres of water at one time.
- It can go without water for several days.
- The camel's feet have leathery soles for walking on soft shifting sand.
- They can close their nostrils during a dust storm to protect themselves from sand.
- The hump of a camel stores fat which served as a food store.
- The long thick eyelashes of camel protect their eyes from sand.

### **Desert Plants**

- Cactus is the most common plant found in deserts.
- Cactus store water in their stems.
- Stem is covered with thick waxy layer to prevent water loss.
- They have long roots to absorb water from a larger area.
- Leaves are reduced to spines to prevent water loss.

## **2. Adaptation to mountainous habitat**

These habitats are normally very cold and windy. They are cooler even in summer.

### **Adaptation in plants**

- Leaves are reduced to needle like structures.
- They have thick waxy coating on their surface to reduce the loss of water by transpiration.

- They are generally cone shaped and have sloping branches so that snow slide off easily.

### **Adaptation in animals**

- They have thick coat of fur, long hair, deposit of fat layer under the skin.
- Mountain goats has strong hooves which help it in running up the rocky slopes of mountains.
- Snow leopard has big feet to spread the weight on snow and prevent it from sinking.

### **3. Adaptation to grassland**

A large area of grass covered land used for grazing is called grassland.

### **Adaptation in animals**

- They are mostly plant eating animals.

#### ***Adaptation in carnivores***

- They have eye in front that help them to see their prey from a great distance.
- They have sharp teeth and long claws to catch and tear the flesh.
- They are light brown in colour to hide in dry grasslands.

#### ***Adaptation in herbivores***

- They have strong teeth for chewing and cutting hard grass.
- They have eyes on the sides of its head which enables it to see in all directions.
- They can run very fast.