

## **CBSE Notes**

### **Chapter IX**

## **The Living Organisms Characteristics and habits**

Any living beings, from microscopic bacteria to large animals and everything's in between different types of plants and animals are found in different regions or areas are called organisms.

- In the sea, plants and animals are found salinity (salty) water.
- In the desert , there is very hot climate in the day time and very cold climate in the night time , the animals and plants live on the desert soil and breath air from there surrounding.

### **Habitat and adaptation ;**

#### **Habitat :**

Surrounding where living organisms survive , it provides food water air , shelter to the all living organisms are called habitat.

#### **Adaptation :**

The presence of specific features or certain habits , which enables a plants or animals to live in its surrounding .

#### **Acclimatization :**

Small changes takes place in the body of single animal over a short period are called acclimatization.

### **Habitat and adaptation in desert :**

#### **Camel :**

- The body structure of a camel helps it survive in desert condition .camel have long legs to keep away their body from the heat of sand .
- They excreted small amount of urine , their dung is dry . Do not sweat.
- They the capacity to store water.
- Habitat and adaptation in desert :

### **Habitat and adaptation in saline ( salty) wateror sea :**

#### **Fish :**

- Fish have streamlined shape, this shape helps them move inside the water .
- They have slippery scale to protect them and also helps to move easily in water.
- Fish have flat fin and tail to help them to change direction and balance their body .
- Gills present to help them to use oxygen dissolved in water.

### **Terrestrial habitat :**

The plants and animals that live on land said to terrestrial habitat.

Example : forest , desert , mountain region , grassland , coastal etc.

### **Aquatic habitat :**

The habitats of plants and animals that live on the water are called aquatic habitat.

Example : ponds, river , ocean etc.

### **Component of habitat :**

#### **Biotic component :**

The living things such as plants and animals in the habitat , are called it biotic component.

#### **Abiotic component :**

The non living things such as rock, soil , air , water , sunlight in the habitat are called it's a biotic component.

#### **Biotic component :**

##### **Autotrophs :**

Those living organisms , which makes their own food and use this food are called autotrophs .

Example : plants make their own food with help of photosynthesis.

#### **Producer :**

Green plants produce food , they are known as producer .

### **Heterotrophs or consumer :**

Heterotrophs or consumer are those living organisms which do not make their own food they consume food from other organisms or depends on other for food are called Heterotrophs or consumer.

### **Scavengers :**

Scavengers are those animals which eat dead animals or decay organisms.

Example : vulture , jackals etc.

### **Decomposer :**

Microorganisms are called decomposer because they break down the complex substance present in the dead plants and animals .

### **Different habitat :**

#### **Some terrestrial habitat :**

##### **A) Desert :**

- Desert plants loss very little water through transpiration .
- The leaves of desert plants either very small or not present .
- Animals stay in deep borrows of sand in day time due to intense heat , come out only night time .
- The root go very deep inside the soil.

##### **B) Mountain region :**

- Mountain region tree have cone shaped , needle like leaves are present .
- They have sloping branches .
- This help to rainwater snow to slide easily .
- Animals have strong fur .
- Presence of strong hooves help the mountain goat to run on the rocky slops.

##### **C) Grassland :**

- The light brown colour of lion help to hide in dry grassland .
- Deer has strong teeth to eat plants stem .
- Deer have long ears help to listen predator movement .

#### **Some aquatic habitat:**

##### **A) Ocean :**

- There are some animals like dolphin , and whale that do not have gills .
- They breath in the air Through nostrils , and blow that are located at upper part of their head.

## **B) Ponds and lakes :**

- Some aquatic plant are totally submerged in the water.
- All part of such plant are grow under water.
- Frogs usually have ponds as their habitat frog can stay under water as well as move on land

## **Characteristics of living beings:**

### **a) Living beings grow :**

- Growth is a characteristic differentiating from non living .
- We grow because the cell inside our body multiply and grow inside our body .

### **b) Living beings reproduce :**

- All organisms reproduce or produce their own kind .
- Most of the plants reproduce by producing seeds.
- Some animals ,like ( cat , cow , horse , man etc ) give birth to young once .
- And some ( fish , frogs , insect , Lizard , birds , ) reproduce by laying eggs

### **c) Living beings need food :**

- All living beings need food to get energy to carryout various functions to grow and maintain the body and fight against diseases.

### **d) Living beings respire :**

- Process of taking in air letting oxygen combine food and throwing out carbon dioxide and water vapour is called respiration.
- The process of breathing in or out air is part of respiration.
- All living beings used food to produce energy in their bodies.

### **e) Living beings excrete :**

- The process of braking down food ( digestion ) and combining food with oxygen ( respire ) and produce waste which the organism need to through out . This process are called excretion .

### **f) Living beings respond to stimuli :**

- Reaction which are respond to something outside our body are called respond to external stimuli .
- Touch to some to respond and stimuli like some plants leave are closed when we touch on them .

### **g) Living organisms show movement:**

- Most of the animals run walk . Example dogs , cat , lion , man etc.
- Some can fly like birds , insect.
- Some can crawl , like snack earthworm , some worm etc.

- Plants are generally fixed to one place, but many of their parts show movement in response to stimuli.