

CHAPTER – 9

THE LIVING ORGANISMS  
AND THEIR  
SURROUNDINGS

CLASS – VI

MODULE – 2/3

Till now you have learnt .....

- What is a habitat?
- Different types of habitats  
and
- Various components of a habitat.

Now you are going to learn about

## **ADAPTATIONS**

In various plants and animals to survive in their habitats.

# ADAPTATIONS:

The presence of specific features or certain habits which enable a plant or an animal to live in its surroundings, is called adaptations.

Different plants and animals are adapted to their surroundings in different ways.

For example, the polar bear is adapted to snow and cold climate. But the camel is adapted to the hot sand and hot climate. So if we bring the polar bear to the desert and camel to the north pole, they will not be able to survive, because they are not adapted the special features which they need to survive there.



# ADAPTATIONS IN TERRESTRIAL HABITATS



DESERTS



# Adaptations In Desert Plants

1. Leaves are absent /reduced or modified as spines and thorns to reduce water loss by transpiration.



2. Stem is green .  
So prepares food by the  
process of photosynthesis.



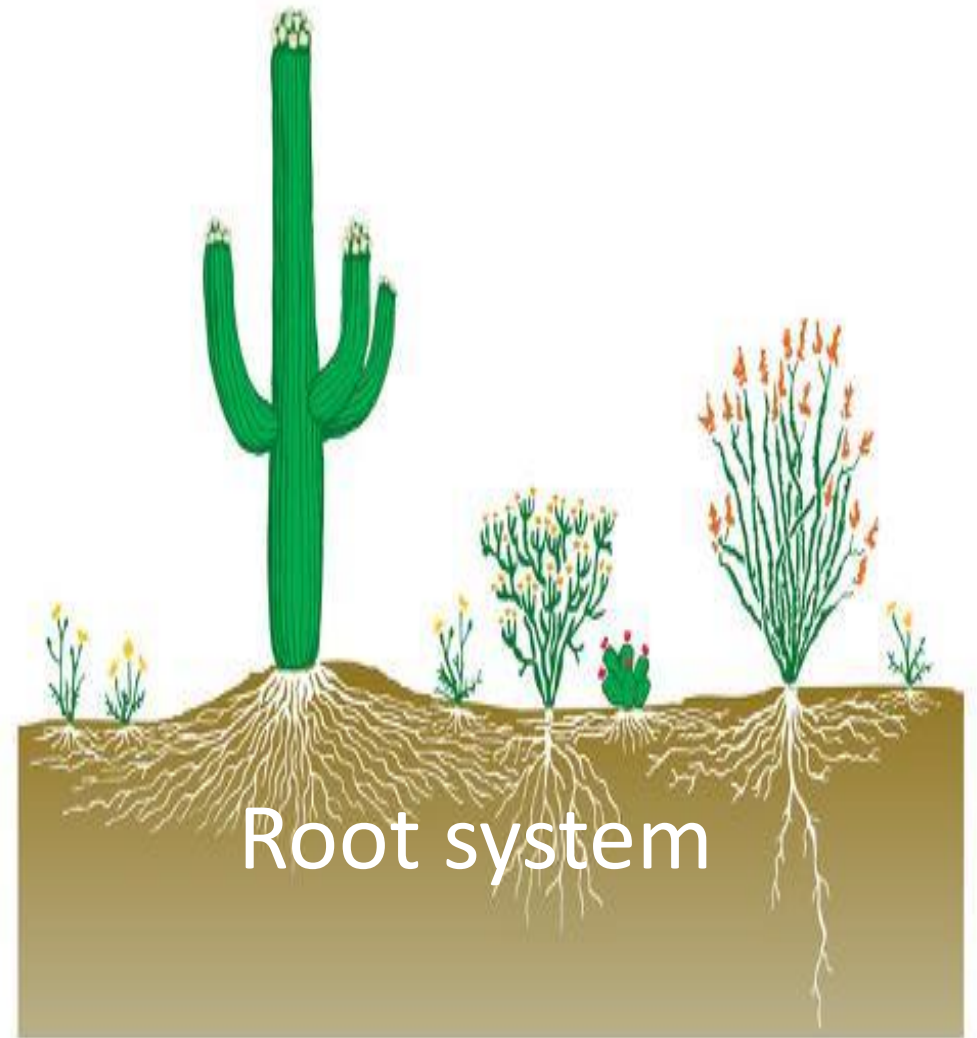


3. Stem is thick and fleshy to store water.





4. Desert plants have well developed root system to collect maximum water from deep soil.



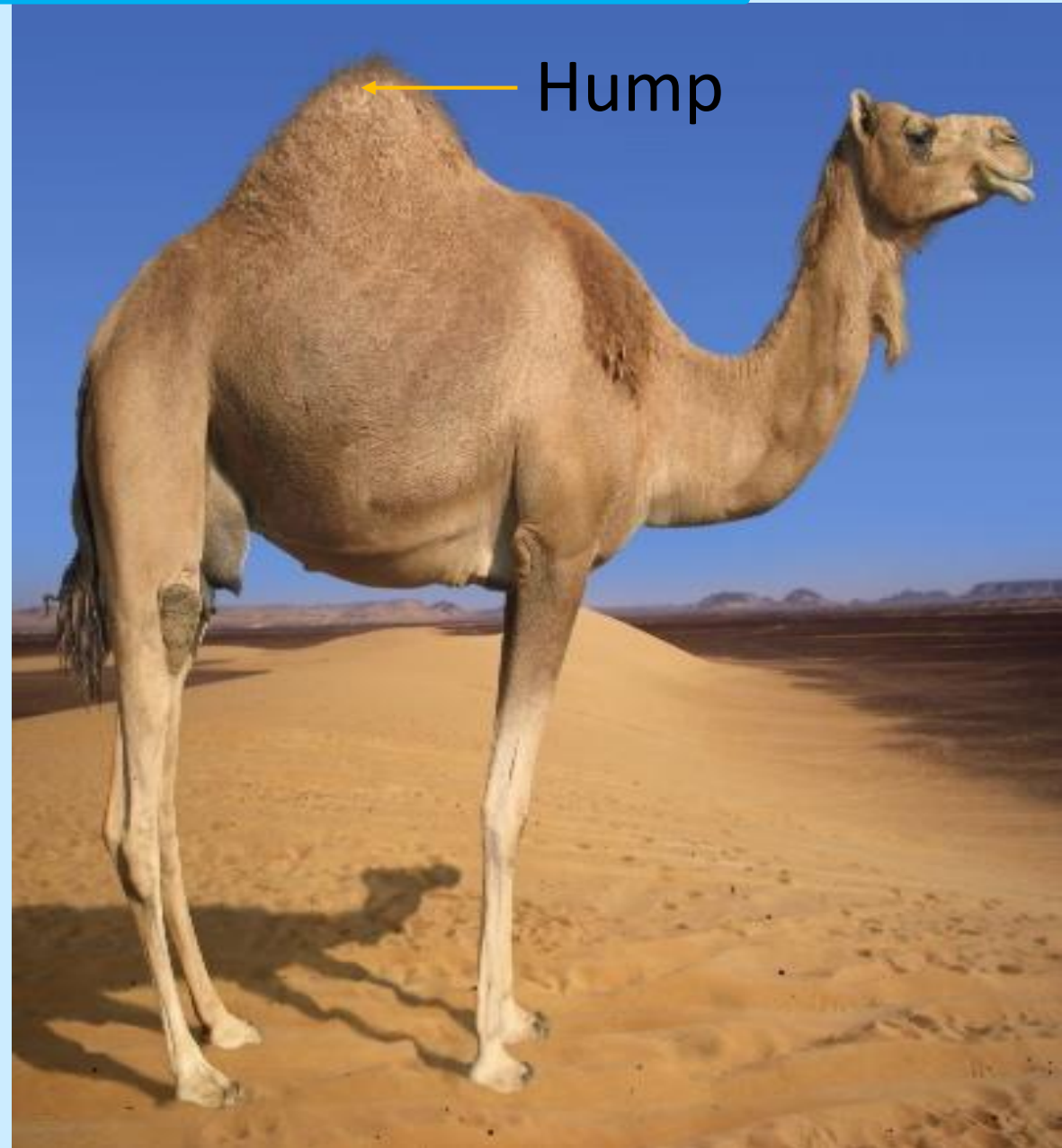
# Adaptations In Desert Animals:

Camel is called  
the SHIP of the desert



# Adaptations in Camel for Desert Habitat:

1. A camel has long legs to keep the body away from hot sand.
2. It stores food as fat in its hump.
3. It can store water in its body.





4. Long eye lashes prevent sand from falling into eyes.



5. The camel has strong hooves with spongy pads to walk on sand.



Some animals like rats, snakes etc. in deserts remain in burrows during the day and come out only during the night, when it is cooler.





A mountain goat with large, curved horns is standing on a snowy mountain slope. The background shows a vast, snow-covered mountain range under a clear blue sky. The text 'HABITAT SURVIVAL' is at the top, 'MOUNTAINS' is in the middle, and two paragraphs of text are at the bottom.

HABITAT  
SURVIVAL

# MOUNTAINS

These habitats are normally very cold and windy.

In some areas snow fall may take place in winters.



# Adaptations in Plants to Mountain Habitat:

1. Trees in mountain regions are normally cone shaped with sloping branches that helps snow to slide down.





2. Some trees have needle like leaves that helps rain water and snow to slide off easily.



# Adaptations in Animals Living in Mountain Regions:

## ***SNOW LEOPARD***

*It has thick fur on its body including feet and toes to protect it from the cold when it walks on the snow.*





2. It camouflages with the surroundings.

\*Camouflage: means making animals or objects hard to see or by disguising them as something else (mimesis).



# Animals Living In Mountain Regions:

## YAKS:

- Yaks has thick skin covered with long hair to keep them warm.
- Short and powerful legs help to balance on the steep ,icy mountain slopes.





# Animals Living In Mountain Regions:

## MOUNTAIN GOATS:

- ❖ The mountain goats have strong hooves for running up the rocky slopes of the mountains.



Hooves

# *GRASSLANDS*





# Adaptations in Animals Living in Grasslands:

## LION:

- It is light brown in colour which helps it to hide in dry grasslands when it hunts for prey.
- The eyes in front of the face allow it to have a correct idea about the location of its prey.



- Lions have long claws in their front legs that can be withdrawn inside the toes.





# Adaptations in Animals Living in Grasslands:

## DEER:

A deer is another animal that lives in grasslands and forests.

- A deer has strong teeth for chewing hard plant stems.
- It has long ears to hear movements of predators.



➤ The eyes on the side of its head allow it to look in all directions for danger.



➤ It has strong, skinny legs that enables them to run very fast. The speed of the deer helps them to run away from the predators.





# *ADAPTATIONS IN AQUATIC HABITAT*



# Animals living in Oceans/ Aquatic habitats

## FISH:

- Have streamlined body that help them to move/ swim easily in water
- The body is covered with scales.
- Have fins to help in swimming.
- Have gills to breathe in oxygen dissolved in water.

❖ Squids and octopus do not have streamlined body.





- ❑ Some sea animals like whales and dolphins do not have gills. They breathe in air through nostrils or blowholes located in the upper part of their heads.



- ❑ Some animals like frogs use ponds as their habitat.
- ❑ They can stay both inside the water as well as move on land.
- ❑ They have strong back legs that help them in leaping and catching prey.
- ❑ They have webbed feet which help them swim in water.



Webbed feet



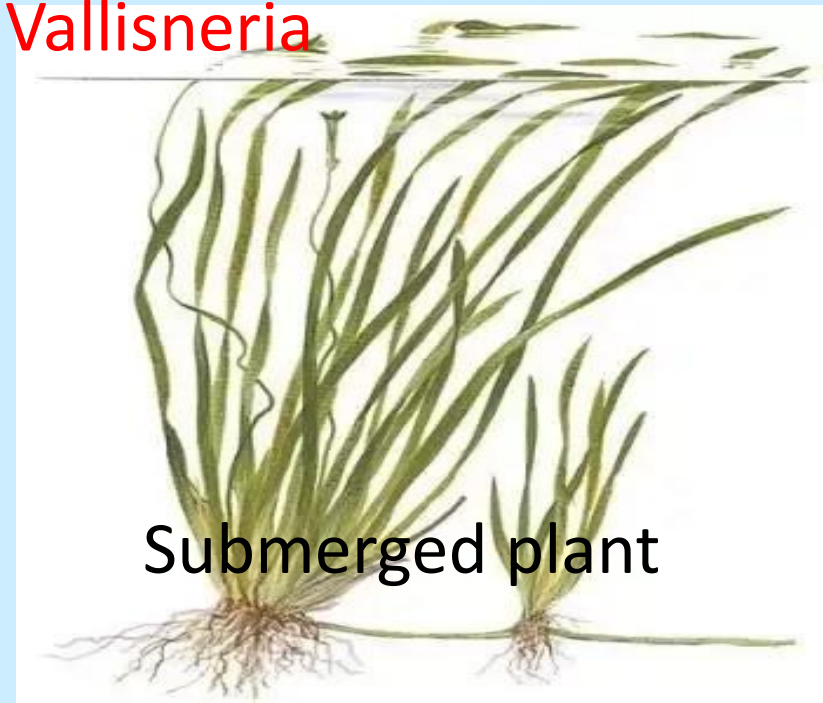
An underwater photograph showing a variety of marine life. In the foreground, there are large, green, leafy seaweed plants with prominent veins. To the right, there are smaller, feathery green plants. The background is filled with a dense field of coral and other smaller marine organisms, all set against a clear, blue-green water environment. The lighting is bright, suggesting a shallow depth.

# *ADAPTATIONS IN AQUATIC PLANTS*



- Aquatic plants are of two types:
- Some plants are totally submerged and some are free floating
- In aquatic plants, roots are much reduced in size and their main function is to hold the plant in place.

Vallisneria





➤ The stems are long ,hollow and light.

➤ The stems grow up to the surface of water.

➤ The leaves and flowers float on the surface of the water



- In totally submerged plants----
- all parts of the plants grow under water.
- Some plants have narrow and thin ribbon like leaves  
and  
in some plants, leaves are highly divided, through which the water can easily flow without damaging them.

Vallisneria



Hydrilla







***THANK YOU***