



LITTERA PUBLIC SCHOOL

CLASS 4

CHAPTER 2

SCIENCE

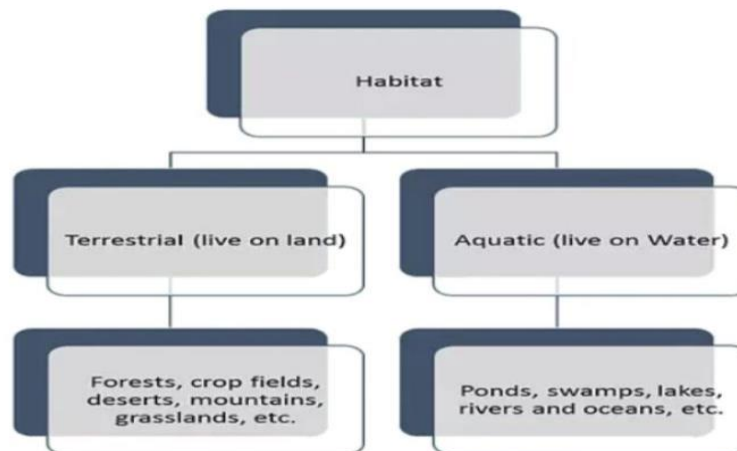
ADAPTATIONS IN PLANTS

Habitat: The place where an organism usually lives and grows in nature is called its habitat. A habitat contains everything that an organism needs. A habitat can be as small as a patch of a garden or as big as a forest.

Adaptations: Sometimes plants find it difficult to live in a climate and they have to adapt or change in order to survive in their habitat.

Depending on the habitat they live in, plants can be divided into two major groups:

1. Water or aquatic plants
2. Land or terrestrial plant



Water or Aquatic Plants

The plants that grow in water are called aquatic plants.

There are three types of aquatic plants floating, fixed, and underwater plant.

1. Floating Plants

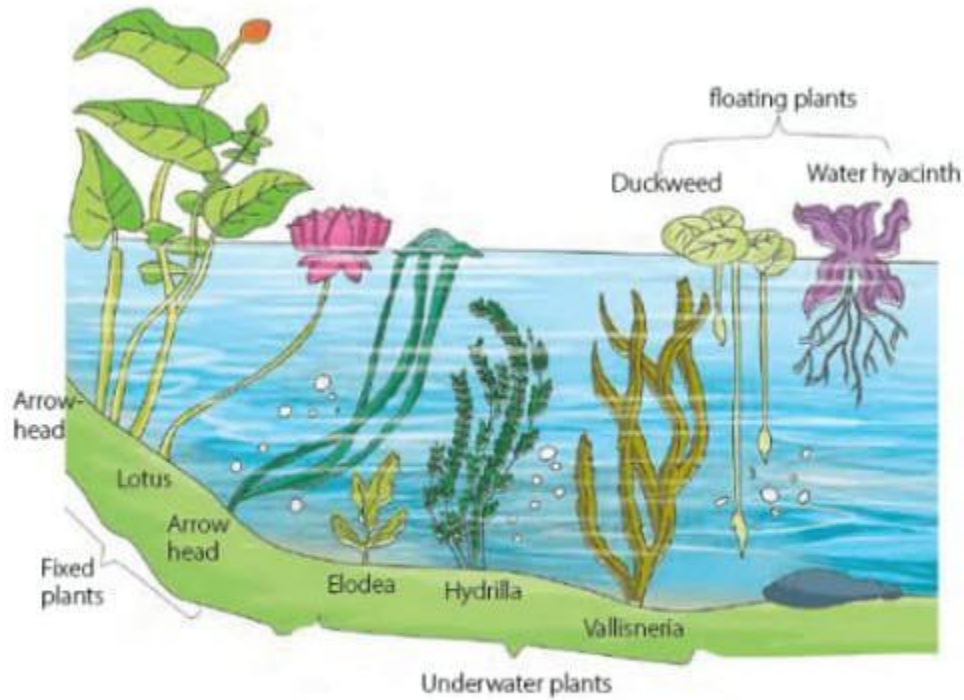
- Floating plants like duckweed, Pistia, and water hyacinth are light and spongy. Similar to a sponge, these plants have lots of empty spaces filled with air. This makes these plants very light.
- The upper surface of the leaves is usually waxy to repel water.
- The roots of these plants are not fixed. The roots hang loosely in the water.

2. Fixed plants

- Fixed plants have roots fixed to the bottom of the water body such as a pond. They have long stems to reach the surface of the water.
- They have broad leaves that float on water.
- Stomata are present on the upper surface of the leaves.
- They have thin , hollow, flexible and light stem which have the leaves to float.
- Example – Lotus, water lily.

3. Underwater plants

- They are fixed to the bottom of the water body and remain fully underwater.
- Stomata are absent in leaves . carbon dioxide comes out of the leaves through the surface.
- They prepare food using the sunlight that filters through the water.
- They have thin narrow lives that late water pass between them.



Aquatic Plants

Land or terrestrial plants

All plants that grow on land are called terrestrial plants or land plants.

1. Plants in the Plains

- Plants growing in plains have more space to spread out so they have several branches.
- They have flat leaves. These help water to evaporate and keep the tree school when the climate get hot.
- Example – mango , Banyan, neem, peepal, sheesham.

2. Plants in deserts

- Deserts are dry and very hot places.
- Plant store water in their stem or leaves.
- Long root system in desert plants go deep into the ground to absorb water.

- In some plants leaves are reduced to spines.
- Stem is green thick and filled with water. Photosynthesis is carried out by stem.

3. Plants in mountains

- Plants on mountains and hills are adapted to grow in very cold temperature.
- Most plants are tall and straight. They are cone shaped so that snowfalls off easily from their surface
- Most plants have needle- like leaves then needle shaped prevents too much water loss and helps shed snow easily.
- These trees do not have flowers but have seeds in cones. They are called conifers.

4. Plants in coastal areas

- Trees in the coastal areas are well adapted to grow in sandy soil salty water and high rainfall.
- They have strong stem that can withstand strong winds.
- They have long roots that grow deep into the sandy soil.
- Coconut and palm trees grow well in these areas.

5. Plants in marshy areas

- Marshy areas have sticky and clayey soil. It is difficult for plants to grow in such areas as air cannot reach the roots.
- This, roots of these plants grow out of the soil to breathe from the air.
- Trees growing in marshy areas are called mangroves.

