SOME SPECIAL PLANTS

Plants like moulds, mushrooms and fungi are non-green plants. They do not have chlorophyll. So, they cannot prepare their own food. They get their food from the dead and decaying matter.

Some plants like croton have colourful leaves (mostly red). These leaves have chlorophyll but that is hidden by the other colour. So, these plants can prepare their own food in the presence of sunlight.

Mushroom

Moulds

Fungi

Croton plant

Plants like Dodder (amarbel) cannot make their own food. They depend on other green plants. They use the food prepared by other green plants. They are parasitic plants.

In plants like cactus, leaves are reduced to spines. So, the process of photosynthesis and storing the food takes place in stems only.

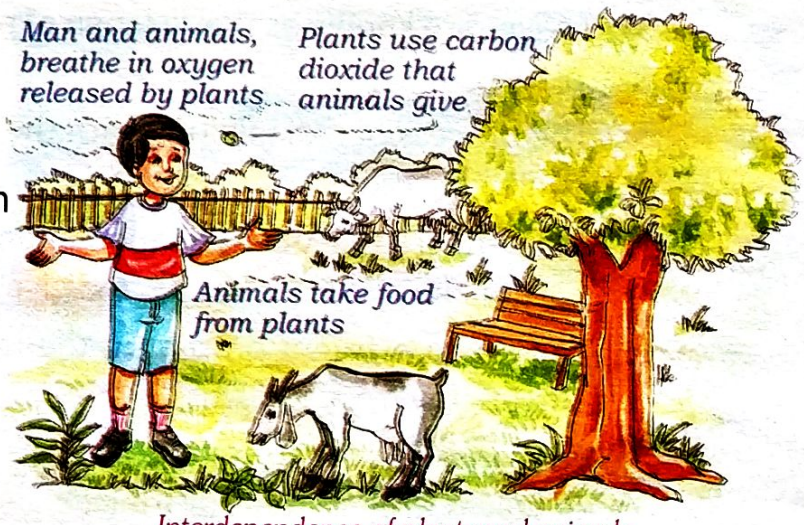
Dodder plant

Cactus

INTERDEPENDENCE OF PLANTS AND ANIMALS

Both plants and animals are dependent on each other in various ways for their survival.

As the green plants are the main food producers, they also give out oxygen. Animals breathe in oxygen and breathe out carbon dioxide, which is needed by plants for photosynthesis. Also, animals help plants in dispersing their seeds.



Interdependence of plants and animals

BALANCE IN NATURE

A balance between the number of plants and animals is very important. If the number of animals increases, plants may not be able to supply enough food and oxygen to all the animals. If there is an increase in the number of plants, the carbon dioxide supplied by animals may not be enough for the plants.

To maintain the balance in nature, we have to protect both the plant and animal life. Many projects are going on to protect the wildlife and plant life. Wild animals are given special protection under Wildlife Protection Act. Programmes like Vanmahotasava, Chipko Movement and Apiko movement to save plants are gaining popularity.

A balance in nature has to be maintained for life on the earth to go on.

Words to Remember

Chlorophyll : a green coloured substance in plants

Photosynthesis : the process of making food in plants with the help of air, water and sunlight

Stomata : tiny openings on the lower surface of a leaf that help in exchange of gases

Bleaching : (here) removing green colour from the leaf

Parasitic plants : plants that depend on green plants for getting their food

Quick Recall

- Leaves are known as the "kitchen of plants" as they prepare food for the plants.
- The process of making food with the help of carbon dioxide, water and sunlight is called photosynthesis. Oxygen is released in this process.
- Stomata are the kidney-shaped openings, through which leaves take in carbon dioxide from the air and give out oxygen.
- The green pigment present in the leaves is called chlorophyll. It traps the energy from sunlight.
- Food made by plants is in the form of sugar or starch and is stored either in leaves, fruits, stems or roots.

- Moulds, mushrooms and fungi are non-green plants, they do not have chlorophyll.
- Dodder (amarbel) is a parasitic plant. It depends on other plants for its food. It takes the food prepared by other green plants. .
- A balance between plants and animals is needed to maintain life on the earth.

A. Choose the correct answer.

1. The leaf is attached to the stem by
   (a) midrib (b) stalk (c) side veins (d) leaf blade
2. Water and carbon dioxide enter the leaf through
   (a) roots (b) stems (c) stomata (d) buds
3. The food prepared by the plants is in the form of
   (a) starch (b) protein (c) mineral (d) roughage
4. Which of the following is not needed in photosynthesis ?
   (a) chlorophyll (b) carbon dioxide (c) oxygen (d) sunlight
5. The energy that we get from the food produced by plants is the energy of the
   (a) soil (b) minerals (c) sun (d) stars
6. Non-green plants get their food through
   (a) sun (b) dead and decaying matter
   (c) green plants (d) all of these
7. The process of photosynthesis takes place in
   (a) aquatic plants only (b) all plants
   (c) non-green plants (d) green plants only

D. Name any two.

1. Edible roots : Carrot , Radish
2. Edible stems : Sugarcane , Potato
3. Edible leaves : Spinach , Cabbage
4. Edible seeds : Pea , Gram

Higher Order Thinking Skills (HOTS)

1. Plants like croton (which has colourful leaves) can make their food but plants like mushrooms cannot. Why?
   [Hint : Which substance traps energy of the sun to make food for the plants?

QUICK ASSIGNMENT

A. Correct the following statements by crossing (✗) the wrong word.

1. In photosynthesis a plant gives out oxygen/carbon dioxide.
2. The energy from the sun is trapped in stomata/chlorophyll.
3. The small openings on leaves for taking in air are called stalk/stomata.
4. Dodder/croton plant depends on other green plants for its food.

B. Fill in the blanks with appropriate words.

1. Plants are the producer of food.
2. Leaves are known as the kitchen of a plant.
3. Plant uses the energy of Sun to prepare its food.
4. Moulds and mushrooms get their food from dead and decaying matter
5. Iodine is used to test the presence of starch.

C. Match the following column A with column B.

Column A	Column B
1. The process of preparing food	(a) starch 5
2. The flat surface of the leaf	(b) mould 3
3. A non-green plant	(c) photosynthesis 1
4. Gas required during photosynthesis	(d) leaf blade 2
5. Prepared food is stored as	(e) carbon dioxide 4

D. Label the diagram

Label the stomata.