

Class: IV.
Science.
Chapter: 1
Plants Make Food.

A. ORAL.

Q1. Why are leaves mostly green in colour?

Ans. Leaves are mostly green in colour due to the presence of a green pigment called Chlorophyll.

Q2. What will happen if the number of animals increases suddenly?

Ans. When the number of animals increases suddenly the plants will not provide oxygen for each of them for breathing. It will disturb the complete balance in nature.

Q3. What happens to the oxygen made by leaves?

Ans. The oxygen produced by leaves is used in breathing by plants and animals.

Q11.

B. Science Quiz.

1. In which form plants prepare their food?

Ans. Glucose.

Q2. Name the process by which green plants make their food.

Ans. Photosynthesis.

Q3. Name the solution which is used to test the presence of starch in the leaves.

Ans. Iodine Solution

Q11. Multiple choice.

1. Which of the following can make its own food.

(a) Lion ☐ (b) Cactus ☒ (c) deer ☐

2. The colour of chlorophyll is

(a) green. ☒ (b) red ☐ (c) blue ☐

B. Circle the odd ones. Give reason for your choice.

1. Mango tree, dodder plant, rose plant.

Ans. dodder - Others make their own food whereas it is a parasite.

2. Main vein, stomata, stem.

Ans. Stem :- Others are parts of leaf.

3. Carbon dioxide, Sunlight, Oxygen.

Ans: Oxygen:- Others are used in photosynthesis whereas it is produced during photosynthesis.

Qiv. Fill in the blanks:-

1. Leaf blade helps a leaf to trap sunlight.
2. Food made by the leaves is glucose.
3. Dodder cannot make its own food.
4. Leaf is attached to the stem with the help of stalks.

Qv. Identify the plants and write its name.
[see book.]

- Ans:
1. Cactus.
 2. Croton.
 3. Cuscuta./ dodder.

Qvi. Join the dots, identify the picture and label it. Also, colour it.

Stalks.

Leaf blade.

Main vein

Side veins.

Parts of a leaf.

Section B.

Multiple Choice Question answers.

A1. A starch solution, on adding a few drops of iodine solution, turns

Ans: blue black.

2. Boiling the leaf first in water and then in alcohol removes the _____ of the leaf.

Ans: chlorophyll.

B Very Short answers:

1. A food chain always starts with which organism?

Ans: Plants.

2. Name the vein that runs through the middle of a leaf.

Ans: Main vein or midrib.

C. Short answers: -

1. What is the role of stomata in photosynthesis?

Ans: During photosynthesis stomata take part in gaseous exchange, i.e. taking in carbon dioxide and releasing oxygen.

2. What is food chain?

Ans: Food chain is the flow of energy in the form of food from one living thing to another.

3. Leaves are called the kitchen of plants but cactus doesn't have any. Still it manages to prepare its food with the help of green fleshy stems and survives in desert.

(a) Why leaves are called kitchen of the plant?

Ans: Leaves are called kitchen of the plant because they prepare food for the plant.

(b) What can we learn from the Cactus plant?

Ans: We can learn to survive even in extreme difficult conditions from the cactus plant.

D. Long Answer Questions.

1. How can you check that chlorophyll is necessary for photosynthesis?

Ans. Take a plant with variegated (partly green and partly white) leaves. Keep it in sunlight for 2-3 hours. Pluck a leaf from this plant. Bleach the leaf by boiling it first in water and then in alcohol. Now wash the leaf in water again. Add a few drops of iodine to it. You observe blue-black colour in green part of leaf. The white part of leaf does not become blue black. This activity shows that Chlorophyll is necessary for photosynthesis.

2. How do the plants use their food?

Ans. Plants use their food or glucose in the following ways.

- (i). They burn it to produce energy.
- (ii). They use it for their growth and repairing of damaged cells and tissues.
- (iii). They store extra food in the form of starch in their different parts like - leaves, roots, fruits stems or flowers. We eat those part where food is stored.

E Think And Answer: -

1. Leaves of some plants like croton, are not green. Still, they are able to make their food by photosynthesis. How?

Ans: The leaves of croton have chlorophyll and it can also do photosynthesis. They appear dark red in colour because the red pigment present in them hides the green colour of the chlorophyll.

2. How can you check whether potato contains starch or not?

Ans Take a cut slice of potato and add a few drops of iodine solution on it. It turns blue-black. It is because iodine solution gives blue-black colour with starch. This shows potato contains starch.