

Dear Parents, in this hour of WORLDWIDE CRISIS let us utilize our time at home judiciously in this unforeseen circumstances let us prepare in advance for the upcoming sessions for our children starting from today we would be sending notes as home assignments along with the summary of the chapters, kindly help your child with this assignment so that they are not missing their studies and together we can help our children in learning at home.

CLASS –IV
SCIENCE
LESSON 1 –MAKING FOOD

Learning objectives

By the end of the chapter you will be able to

- * explain the process of photosynthesis and the role of chlorophyll**
- *describe the parts of a leaf**
- *how plants get energy from the food they prepare**
- *explain non green plants**

Dear students you know that the plants are the most important part of the environment. All living things depend on plants for their survival .

Plants can make their own food.

Leaves are green in colour due to the presence of green pigments or substances called **chlorophyll**.

Let us learn how plants make their own food

Green plants make their own food in the presence of sunlight, chlorophyll, water and carbon dioxide.

The special way by which plants make their food is called **photosynthesis**.

Here **Photo** means **Light** and **Synthesis** means **putting together**.

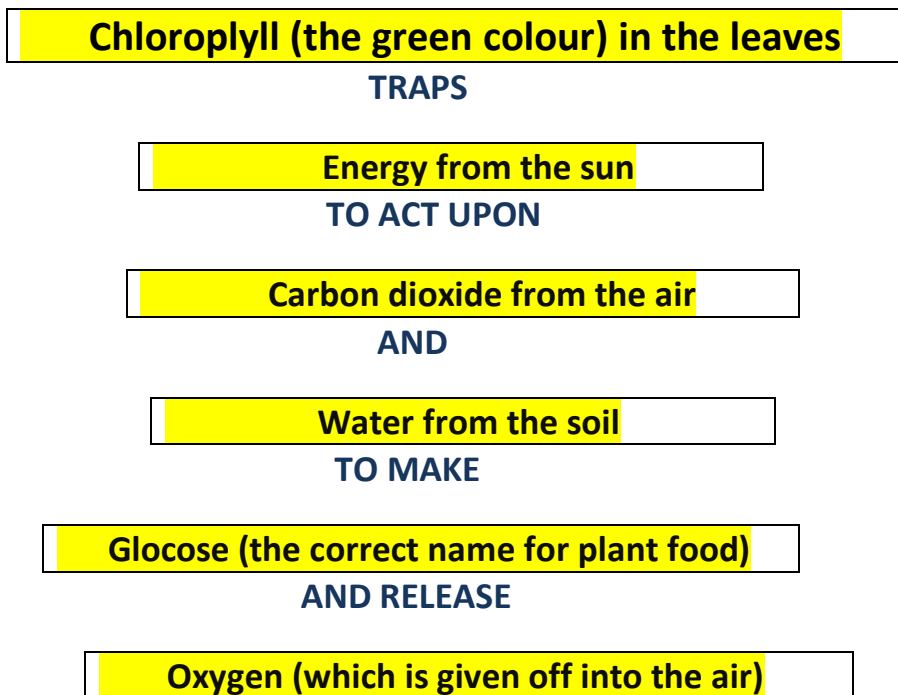
Leaves use chlorophyll, water from the soil, carbon-di-oxide from the air and sunlight from the sun to make food.

“NO SUNLIGHT - NO PHOTOSYNTHESIS”

Food made by the plant is called **glucose**.

Oxygen is released as waste product.

FLOW CHART TO EXPLAIN PHOTOSYNTHESIS



Dear students do you know the leaves of different colours eg. croton leaves and coleus leaves can also prepare their own food by the process of photosynthesis. This is because they have chlorophyll hidden under the colour of the leaves.

Let us learn about the leaves where food is made by the plants.

Leaf blade- It is the flat part of the leaf. Part of the sunlight falling on a leaf is trapped by it.

Main vein and side veins – They have tiny tubes that take water and nutrients to the leaf while others carry food from the leaves to different parts of the plants.

Stomata-leaf has tiny pores or opening called stomata. Air enters the leaves through these openings. Leaves take in carbon dioxide from the air to make food and oxygen is given out during this process.

Excess water from leaves goes out through stomata(this process is called transpiration).

If you cut through a leaf and look at it under the microscope, you will see leaf cells. These contain chlorophyll.

Dear students all living things, whether plants or animals are made of cells.

SAP- It is plant food that turned into a liquid.

Plants get energy from the food they make/prepare

Plants use energy to grow. Branches grow longer stems grow taller and roots grow deeper, making flowers, fruits and seeds.

Plants also need energy to repair damaged parts of it.

Example-If a branch is chopped off or some leaves are nibbled off, the plant begins to repair them.

Stored food

The rest of food is changed to a substance called **starch** and stored in fruits, seeds, leaves, roots or the stem. Examples: spinach (leaves), sugarcane (stem), cauliflower (flower), carrot (root), mango (fruit), kidney beans / Rajma (seeds), etc.

Some non green plants

Fungi is similar to a plant but it has no chlorophyll, they cannot prepare their own food .They obtained their food from dead and decaying matter (plants and animals).Example :Moulds ,Mushrooms, etc.

Mushrooms – There are about 14,000 types of mushrooms growing in the world but only a few types are edible.

Yeast- It is fungus used to prepare bread. It makes the bread soft as dough with yeast becomes light and fluffy.

Mould- It is also fungus that grows mostly on food items. It spoils the food

ACTIVITY – TRY IT OUT

Take a slice of bread .Sprinkle some water on it and place it in a room without much light for a few days.You will see the moulds growing on it.

TO BE DONE IN TEXT BOOK

Tick on the right answer:

- | | |
|---|---------------------------|
| 1.carbon dioxide, water, chlorophyll and sunlight | 6.sugarcane |
| 2.stomata | 7.oxygen and water vapour |
| 3 .oxygen | 8.leaf cells |
| 4.glucose | 9.blue black |
| 5.alcohol | 10.fungi |

EXERCISES

A.Write the word:

- | | |
|------------------|----------|
| 1.Photosynthesis | 6.oxygen |
| 2.energy | 7.cells |

3.glucose

8.carbon dioxide

4.sap

9.Iodine

5.starch

10.stomata

TO BE DONE IN SCIENCE NOTEBOOK (WRITE IN GOOD HANDWRITING AND DO NEAT WORK)

B.Answer the following questions:

Q1.Why is chlorophyll important?

A1.Chlorophyll is important because it helps to take energy from the sunlight.

Q2.What is photosynthesis?

A2.The special way by which plants make their food is called photosynthesis.

Q3.What does a leaf need to make food? From where does the leaf get these things?

A3.A leaf needs carbon dioxide, water, chlorophyll and sunlight to make food.

The leaf get these things as follows-Carbon dioxide from air, water from soil, chlorophyll is present in the leaf itself and sunlight from the sun.

Q4.How does a plant use food?

A4.The food is used up by the plant for its growth and in making flowers, fruits and seeds. Food is also used by the plant to repair the damaged parts of it.

Q5.What do the tiny tubes inside the plant carry?

A5.There is a network of tiny tubes inside the plant. Some tubes carry water and minerals from the root to the leaf and others carry sap from the leaf to every part of the plant.

Q6.Name a few non green plants.

A6. Some non green plants are mushrooms, yeast and moulds.

Q7. How do mushrooms get their nutrition?

A7. Mushrooms get their food from dead and decaying matter of plants and animals in the soil.

TO BE DONE IN TEXT BOOK

C. Give reasons:

1. because plants need sunlight which is present during the day time not at night.
2. because it is used by them for breathing.
3. because it is highly inflammable and catches fire easily.
4. because they do not contain chlorophyll.

Draw ,colour and label the following:

i. parts of a leaf –pg.no.4

ii. leaf cells pgno.4

Note- some activities we will perform in the class.

Children those who have not purchased book set, they can write in their old notebooks and diagrams you can draw after the purchasing of book set.

stay home.... stay safe