



CLICK HERE TO ACTIVATE

LESSON
PART 2



LESSON-2

THE WORLD OF LEAVES

BEFORE WE PROCEED

- ❖ Are all leaves green in colour ?
- ❖ Are all leaves of the same size and shape ?
- ❖ What are the parts of a leaf ?
- ❖ Do non-green leaves carry on photosynthesis ?



SAY ALOUD

leaves, textures, veins, photosynthesis, interdependence

Let us find out more about various types of leaves

Leaf:

The leaf is the most important part of a plant. Most plants have green leaves as they contain a green pigment called chlorophyll. Plants need lots of leaves because food for the plant is made in leaves.

Different types of leaves

Different plants have leaves of different sizes, colours, shapes and textures. Some leaves are big and some are small.



Different types of leaves



Coloured leaves

Most of the leaves are green. But some may be yellow, red, white etc. They may be light or dark in shades. Leaves may be thin or thick. The same kind of plants have the same type of leaves.

Edible leaves

We eat leaves of many plants such as spinach, lettuce, coriander, methi, mustard, tulsi, mint etc.

They are good sources of roughage. They are rich in vitamins and minerals. Leaves prepare food for the plant. Leaves are very important for a plant.



Lettuce



Coriander



Spinach



Mustard



Methi



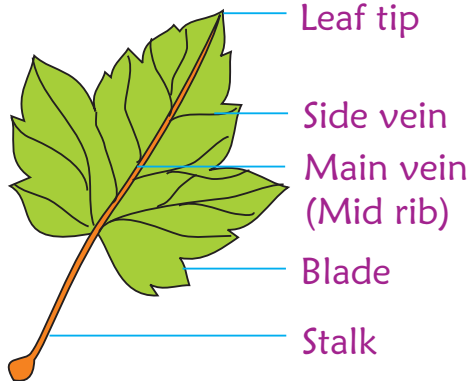
Tulsi



Mint

Do you know?

Banana leaves are extensively used as disposable plates in India, South Korea, Sri Lanka, Malaysia and some other countries.



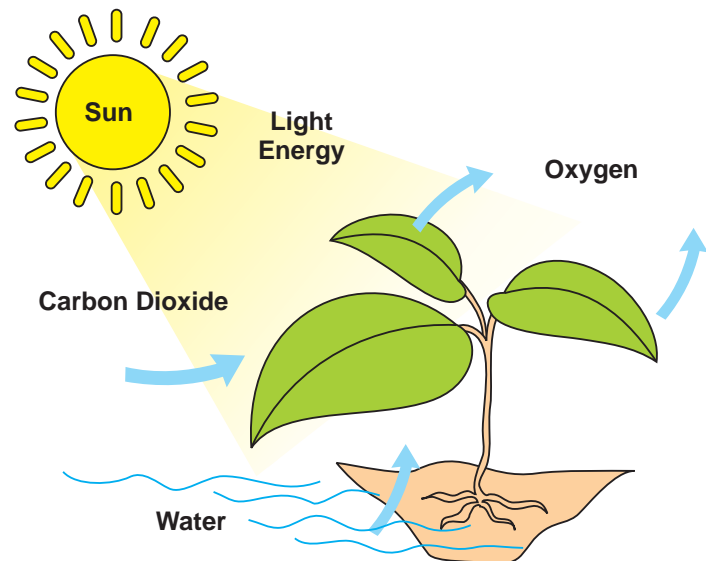
Parts of a leaf

The leaf is attached to the stem of the plant with a stalk. The flat green part of the leaf is called the leaf blade. The thick tube in the middle of the leaf is the mid rib. The thinner tubes on the sides are called side veins. The end of the leaf is called leaf tip.

Photosynthesis in green leaves

Leaves make food by a process called photosynthesis. 'Photo' means 'light' and 'synthesis' means 'combination of parts'. In the presence of the sunlight, green leaves mix water, minerals and carbon dioxide together to make food. This plant-food is a kind of sugar called glucose. When leaves make food, they give off oxygen.

This may be written as :



As green leaves prepare food, they are called the food factories or kitchen of the plant.



Cactus



Croton



Mushroom

How do non-green leafy plants make food ?

We know that plants with green leaves make food and leaves must contain chlorophyll in order to make food.

In plants whose leaves are not green, other parts help in photosynthesis. Eg: stem in cactus etc.

In cactus, leaves are modified into thorns. The food is prepared in its thick green stem.

Mushrooms grow in moist wood. They absorb nutrients from the dead and decaying plants and animals.

The leaves of some species of croton are red in colour. The red pigment in the leaves hides the green colour of chlorophyll. Though the green colour is less, the presence of chlorophyll in croton leaves allows photosynthesis to take place.

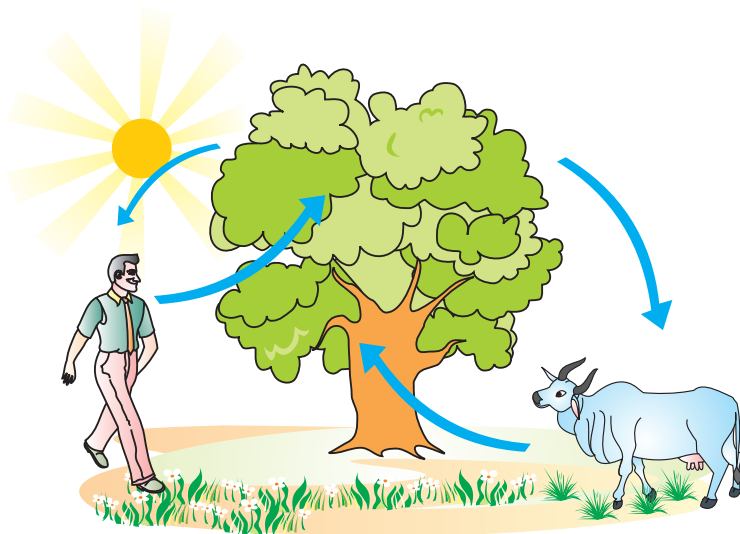
Do you know?

If the man wants to survive on the earth for a long time, he must maintain a balance in nature.

Interdependence between plants and animals


Plants and animals depend on one another for survival. Plants give food to eat and oxygen to breathe to the animals. Plants need carbon dioxide to make their food. Animals breathe out carbon dioxide which is used by the plants. This shows that both plants and animals are dependent on one another.

So, it is important to have a balance between plants, animals and human beings.





Some more functions of leaves :

- ◆ Leaves of trees give shade that cools the environment.
 - ◆ Leaves block the wind and the soil from drying out.
 - ◆ Fallen leaves rot and enrich the soil with humus.
 - ◆ Leaves provide food for plant-eating animals.
 - ◆ Leaves absorb sound and help in reducing noise pollution.
 - ◆ Leaves give out water vapour which cools the atmosphere.
- 



Key Ideas


- ★ *Leaves are green because of the presence of chlorophyll.*
- ★ *Leaves are the food factories of the plant.*
- ★ *Plants manufacture food by the process of photosynthesis.*
- ★ *To make food, leaves need light, carbon dioxide and water.*



LET'S WRITE TOGETHER



A. Answer these questions :

1. What is photosynthesis ?
 2. Why is a green leaf known as a food factory of the plant ?
 3. What is the importance of chlorophyll in plants ?
 4. Why is sunlight so important for a plant to make its food ?
 5. What are the functions of the leaves ?
- 

B. Complete the sentences :

1. The green substance present in leaves is called _____.
2. Leaves prepare food for the plant only in the presence of _____.
3. _____ have leaves of different colours.
4. _____ are called the food factories of a plant.

C. Fill in the missing parts in the statement for photosynthesis :

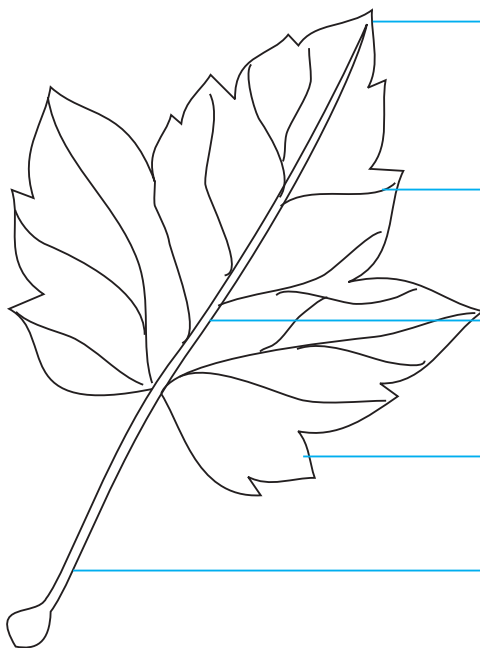


D. Write 'T' for True and 'F' for False :

1. All plants have green leaves.
2. Only green parts of a plant can make food.
3. Chlorophyll is red in colour.
4. Leaves are the food factories of the plant.
5. Carbon dioxide is given out during photosynthesis.

LET US DO

Label the following diagram :

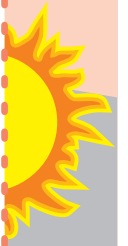






Fun
Activity



Collect the leaves of four plants and study their differences. Dry these leaves and paste them here :



GLOSSARY

- 
- 
- Texture - the way a surface, substance feels when you touch it
 - Roughage - the part of food that helps to keep a person healthy (fibre)
 - Synthesis - the natural chemical production of a substance in animals and plants
 - Chlorophyll - the green substance in plants that absorbs light from the sun to help them grow
 - Absorb - to take in and hold
 - Species - a group of plants or animals that are all the same and that can breed together
 - Survival - the state of continuing to live or exist