

<u>SCIENCE</u> PLANT'S LIFE





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PLANTS' LIFE

LESSON-2 / PLANT'S PARTS AND THEIR FUNCTIONS

BEFORE WE PROCEED

- What are trees ?
- What are herbs?
- What are shrubs ?

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woody, branches, hibiscus, fibrous, support, underground

Let us find out more about parts of a plant

We see plants all around us. They are of different sizes and shapes. Plants having tall and woody stems are called trees. Some plants are small. They have soft green stems. They are called herbs. Some bushy plants have woody stems and branches. They are called shrubs.

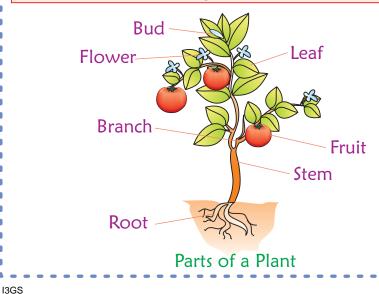


Mango tree

Pea plant

Do you know?

The Bamboo Plant can grow upto 48 cm in one day.



The part of the plant which holds it in the soil is called the root. The part of the plant which is above the soil is called the shoot.

Rose plant

The shoot has stem, branches, leaves, buds, flowers, thorns and fruits.

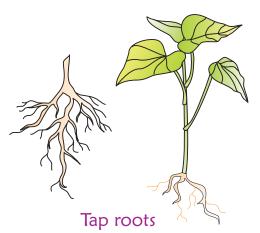


The Root

There are two kinds of roots. 1. Tap root 2. Fibrous root

1. Tap Root

There is a main root. Several thin roots grow from the main root. Such roots are called tap roots. Balsam, hibiscus, bean and mustard have tap roots.





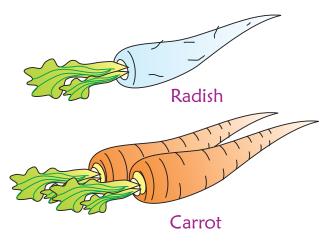
2. Fibrous Root

There is no main root. It has a number of tiny roots attached to the end of the stem. It looks like a bunch of roots. These are called fibrous roots. Eg : Grass

Fibrous roots

The main functions of root :

- It holds the plant firmly in the soil.
- It takes water and mineral salts from the soil and sends them to other parts of the plant through the stem.
- Some roots store food. Vegetables such as carrot and radish are roots with food stored in them.



The Stem

The stem of a plant grows above the ground. It holds the plant upright. It also supports the branches and leaves. Different plants have different kinds of stems.

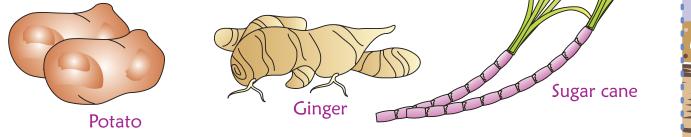




The stem of a banyan tree or coconut tree is thick, hard and woody. It is called a trunk. A money plant has soft and weak stem. A rose plant has short, woody stem which is strong and hard.

The main functions of a stem :

- ♦ The stem gives support to the plant.
- It holds the plant upright.
- It carries water to the leaves.
- ▶ It also carries the food prepared by leaves to all parts of the plant.
- In some plants, the stem stores food. Vegetables such as ginger and potato are stems that store food. They grow underground. The stem_ of sugar cane stores sugar and water.



The Leaf

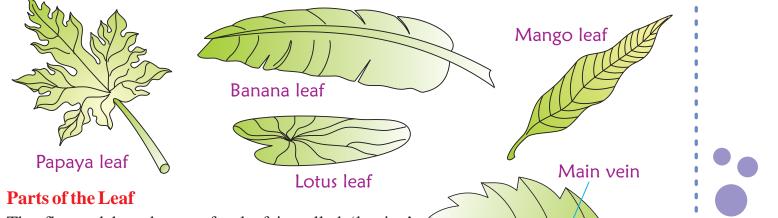
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Leaves are of different shapes and sizes. Some are long and narrow. Some are big and broad, while some are round and some are small.

Even their margins differ. Some are straight while some are uneven. However, most leaves are green in colour.

Do you know?

Leaves contain a green pigment, chlorophyll, which helps them to make food.



Side vein

Lamina

Parts of a Leaf

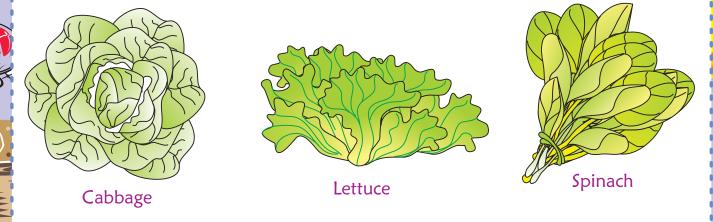
The flat and broad part of a leaf is called 'lamina'. Through the middle of leaf runs a thin tube that divides it into two parts. This tube is called the 'main vein'. A lot of small veins arise from the main vein forming a network of veins. These veins are called side veins or venules. The stalk of the leaf is called 'petiole'. The surface of a leaf has tiny pores called 'stomata'. The leaf breathes in and out through the stomata.

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Petiole

The main functions of a leaf :

- Leaves prepare food for the plant.
- Stomata are present in leaves for the exchange of gases.
- Leaves store extra food as in cabbage, lettuce, spinach etc.



Do you know?

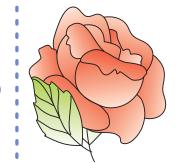
Some parts of a Croton leaf are not green. These parts cannot make food as they do not have chlorophyll.

Flowers

The flower is the brightest part of a plant. Flowers are of different shapes, sizes and colours. Most of the flowers have a pleasant smell.

Flowers look beautiful. They grow at the tip of the main part called stalk.

The sepals protect the flower when it is a bud. Just inside the sepals are petals. The petals attract insects and birds.



Rose



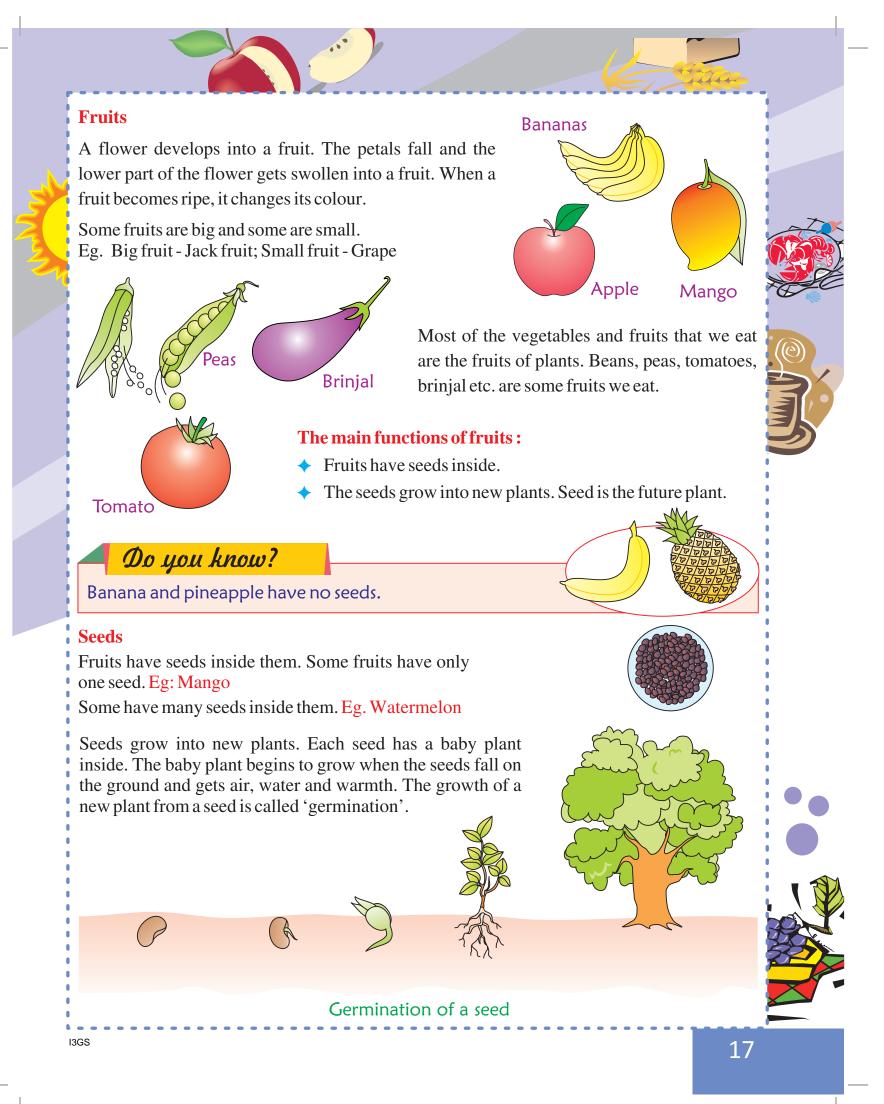






The main functions of a flower :

- Flower is the site of reproduction in plants.
- They attract insects for pollination.



Key Ideas

- ★ Roots, stem, leaves, flowers and fruits are parts of a plant.
- \star There are two types of roots tap root and fibrous root.
- \star Green plants make their own food.
- ★ Fruits have seeds inside them.
- ★ Plants help us in many ways.
- ★ Each seed has a baby plant inside.

LET'S WRITE TOGETHER



- 1. In which way are the roots helpful to plants?
- 2. Name the two kinds of roots.
- 3. Why is a leaf important to plants?
- 4. How do seeds grow into new plants?
- 5. What are the main functions of a flower?

B. Complete the sentences :

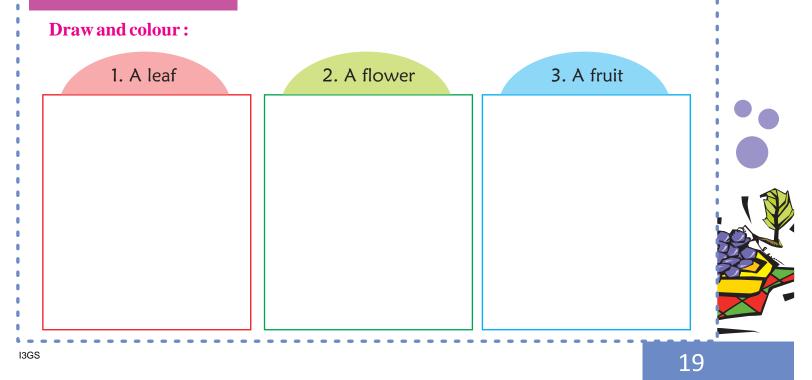
- 1. There are _____kinds of roots..
- 2. _____has no main root.
- 3. _____holds the plant upright.
- 4. The stem gives support to the _____.
- 5. The flat and broad part of a leaf is called _____

C. Name these :

- 1. Any two parts of a plant
- 2. Types of roots
- 3. Two underground stems
- 4. Three fruits we eat
- 5. Two leaves we eat
- 6. The pigment present in green leaves
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- D. Match the following : 1. (A) stomata [] 2. (B) seeds 1 Γ 3. (C) tap, fibrous Γ 1 (D) backbone of the plant 4. ſ] 5. (E) bud 1 ſ E. Write 'T' for True and 'F' for False :
 - 1. There are three kinds of roots.
 - 2. Shoot is underground part of a plant.
 - 3. The stem gives support to the plant.
 - 4. The sepals attract insects and birds.
 - 5. The leaf breathes through the stomata.

LET US DO

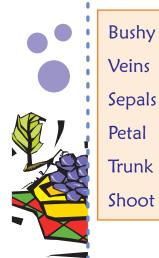




Look at the picture and label its parts :



GLOSSARY



- **Bushy** - growing thickly
 - very thin tubes that form the frame of a leaf
 - the delicate green coloured parts of the flower
 - an attractive and delicate coloured part of a flower
 - the thick main stem of a tree, where the branches grow from
- Shoot - the part that grows above the ground when a plant starts to grow

Veins

Petal

Trunk