HICON SERIES

CLASS 3 LESSON 2

SCIENCE

PLANT'S LIFE

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LESSON
PART 2

UNIT 2

PLANTS' LIFE

LESSON-2 PLANT'S PARTS AND THEIR FUNCTIONS

BEFORE WE PROCEED

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

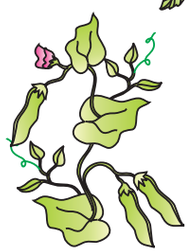
SAY ALOUD

woody, branches, hibiscus, fibrous, support, underground

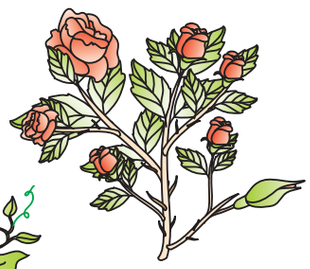
Let us find out more about parts of a plant

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



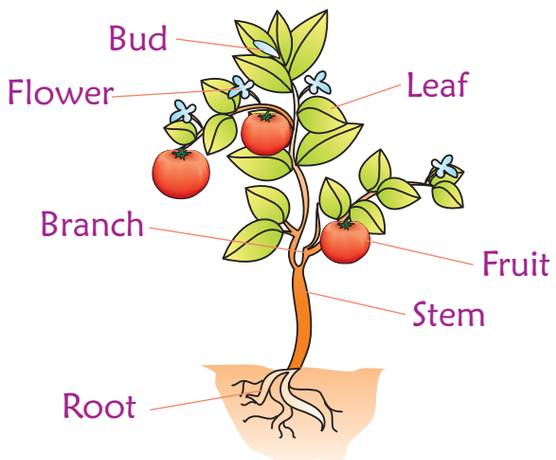
Pea plant



Rose plant

Do you know?

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



Parts of a Plant

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.

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

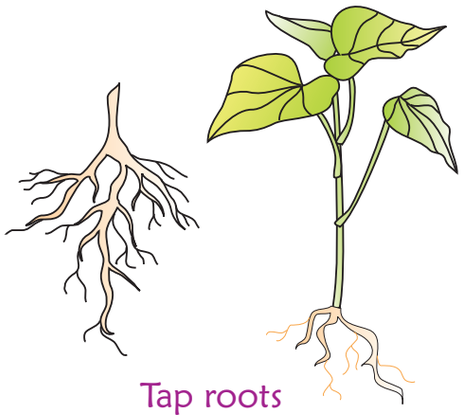
The Root

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.



Tap roots

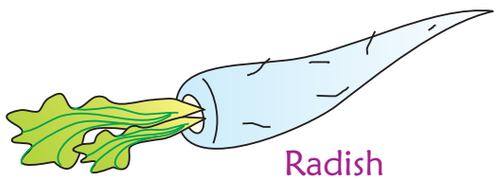
Fibrous roots

2. Fibrous Root

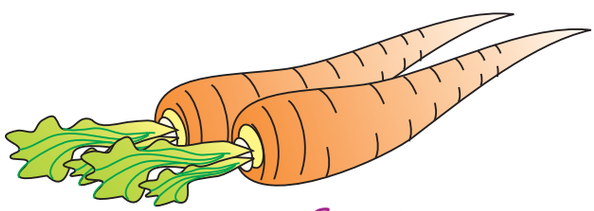
There is no main root. It has a number of tiny roots attached to the end of the stem. It looks like a bunch of roots. These are called fibrous roots. Eg : Grass

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.



Radish

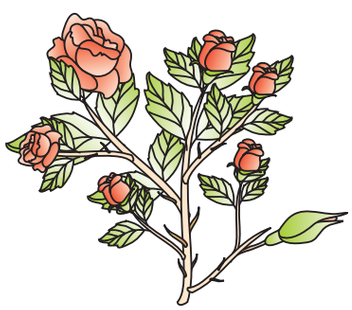


Carrot

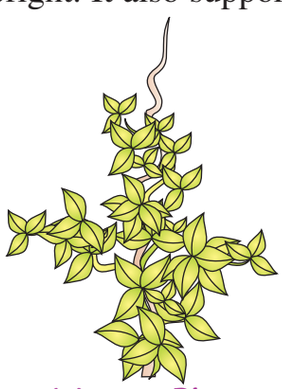
The Stem

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.

Banyan Tree



Rose Plant

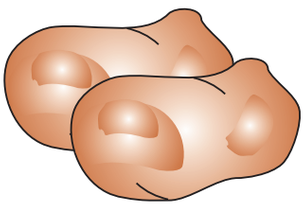


Money Plant

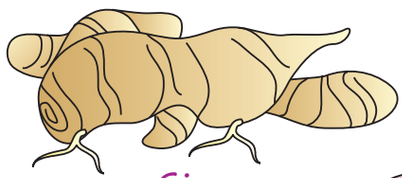
The stem of a banyan tree or coconut tree is thick, hard and woody. It is called a trunk. A money plant has soft and weak stem. A rose plant has short, woody stem which is strong and hard.

The main functions of a stem :

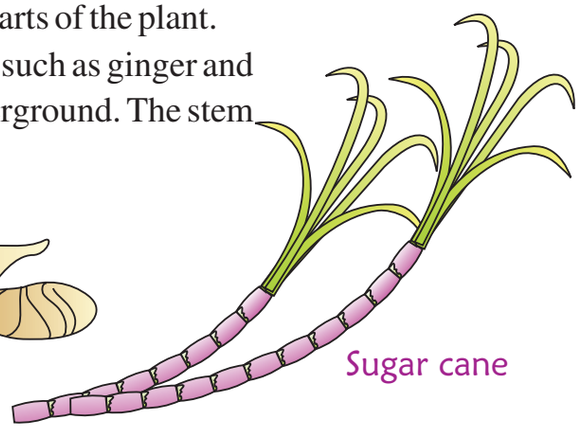
- The stem gives support to the plant.
- It holds the plant upright.
- It carries water to the leaves.
- It also carries the food prepared by leaves to all parts of the plant.
- In some plants, the stem stores food. Vegetables such as ginger and potato are stems that store food. They grow underground.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



Potato



Ginger



Sugar cane

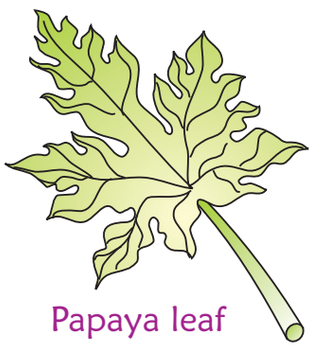
The Leaf

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.

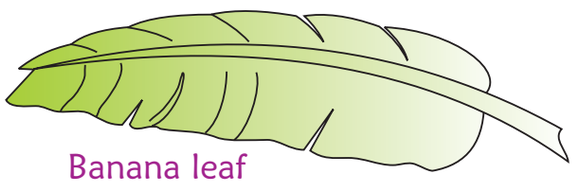
Even their margins differ. Some are straight while some are uneven. However, most leaves are green in colour.

Do you know?

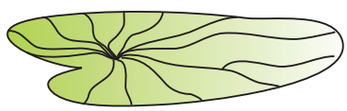
Leaves contain a green pigment, chlorophyll, which helps them to make food.



Papaya leaf



Banana leaf

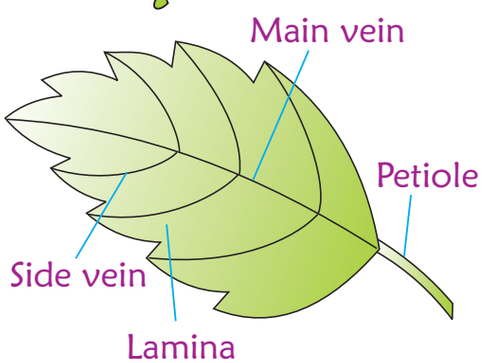


Lotus leaf

Mango leaf

Parts of the Leaf

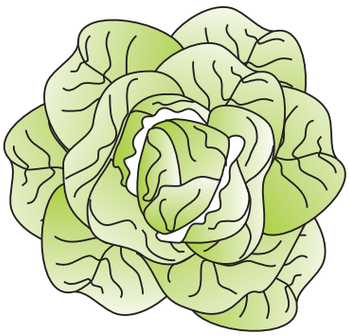
The flat and broad part of a leaf is called ‘lamina’. Through the middle of leaf runs a thin tube that divides it into two parts. This tube is called the ‘main vein’. A lot of small veins arise from the main vein forming a network of veins. These veins are called side veins or venules. The stalk of the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



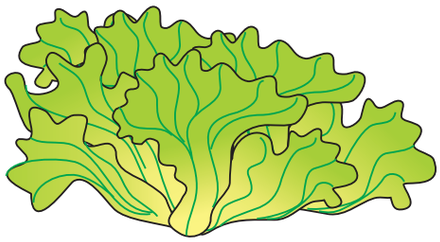
Parts of a Leaf

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.



Cabbage



Lettuce

Spinach

Do you know?

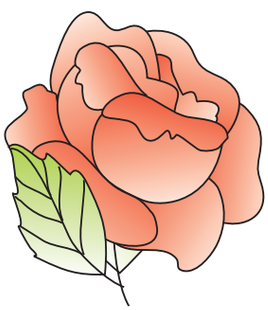
Some parts of a Croton leaf are not green. These parts cannot make food as they do not have chlorophyll.

Flowers

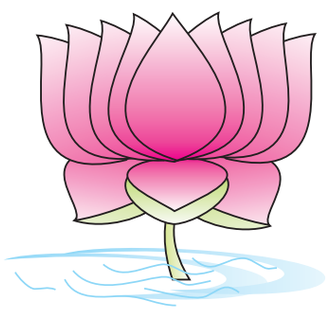
The flower is the brightest part of a plant. Flowers are of different shapes, sizes and colours. Most of the flowers have a pleasant smell.

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

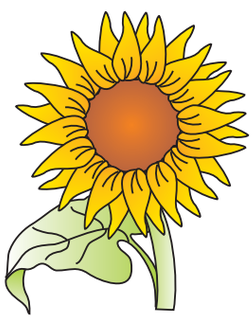
The sepals protect the flower when it is a bud. Just inside the sepals are petals. The petals attract insects and birds.



Rose



Lotus



Sunflower

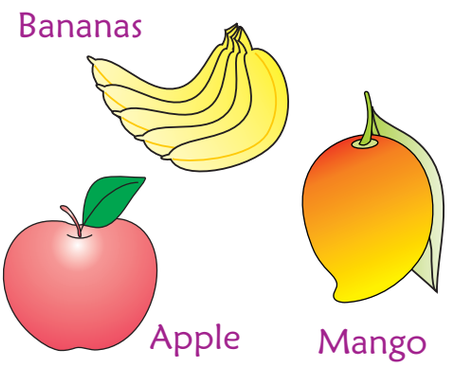
The main functions of a flower :

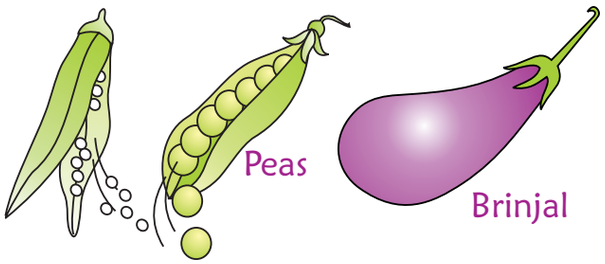
- Flower is the site of reproduction in plants.
- They attract insects for pollination.

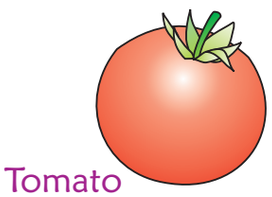
Fruits

A flower develops into a fruit. The petals fall and the lower part of the flower gets swollen into a fruit. When a fruit becomes ripe, it changes its colour.

Some fruits are big and some are small.
Eg. Big fruit - Jack fruit; Small fruit - Grape







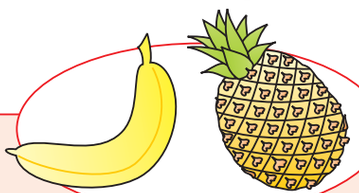
Most of the vegetables and fruits that we eat are the fruits of plants. Beans, peas, tomatoes, brinjal etc. are some fruits we eat.

The main functions of fruits :

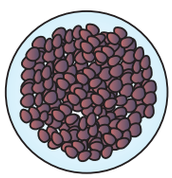
- Fruits have seeds inside.
- The seeds grow into new plants. Seed is the future plant.

Do you know?

Banana and pineapple have no seeds.



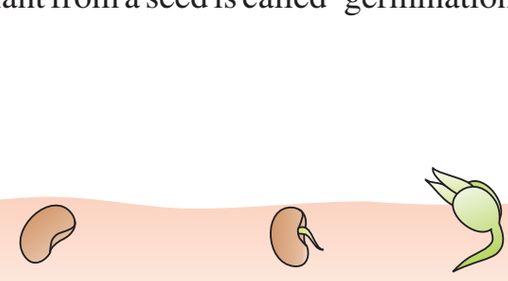
Seeds



Fruits have seeds inside them. Some fruits have only one seed. Eg: Mango

Some have many seeds inside them. Eg. Watermelon

Seeds grow into new plants. Each seed has a baby plant inside. The baby plant begins to grow when the seeds fall on the ground and gets air, water and warmth. The growth of a new plant from a seed is called 'germination'.



Germination of a seed

Key Ideas

- ★ *Roots, stem, leaves, flowers and fruits are parts of a plant.*
- ★ *There are two types of roots - tap root and fibrous root.*
- ★ *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

A. Answer these questions :

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 _____

D. Match the following :

1.		[ ]	(A) stomata
2.		[ ]	(B) seeds
3.		[ ]	(C) tap, fibrous
4.		[ ]	(D) backbone of the plant
5.		[ ]	(E) bud

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. ☐

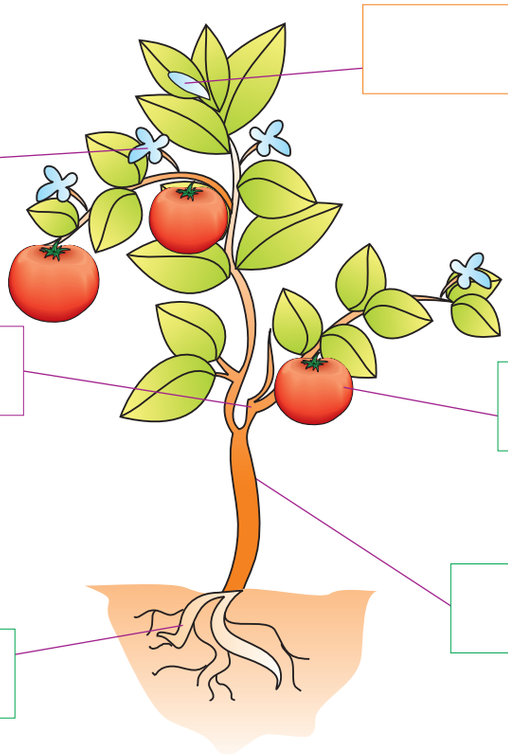
LET US DO

Draw and colour :

1. A leaf	2. A flower	3. A fruit

Fun Activity

Look at the picture and label its parts :



GLOSSARY

Bushy	-	growing thickly
Veins	-	very thin tubes that form the frame of a leaf
Sepals	-	the delicate green coloured parts of the flower
Petal	-	an attractive and delicate coloured part of a flower
Trunk	-	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