

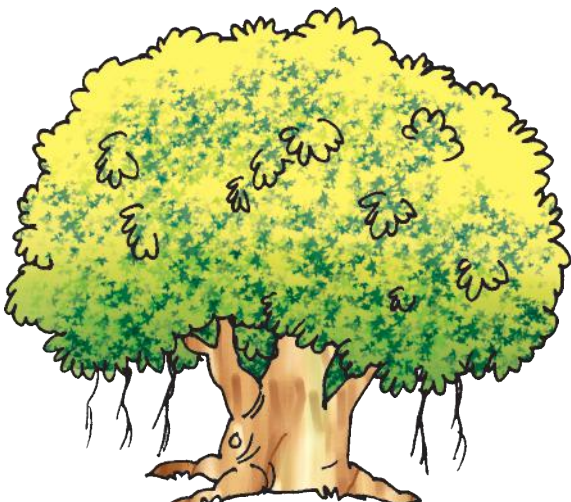
Parts Of A Plant

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UNIT-II : PLANT LIFE

Plants have different parts. The plant has its parts above the soil and inside the soil also.

These are the basic parts of plants.



Tree

The parts of a plant above the soil are called **shoot system** and the parts of plants below the soil are called **root system**. The shoot has **stem, branches, leaves, buds, flowers and fruits**.

Root is the part of plant from where the plant originates. Each part carries out some important functions.

PARTS OF A PLANT

Seeds is the most important part of a plant. The plant has many other parts also.

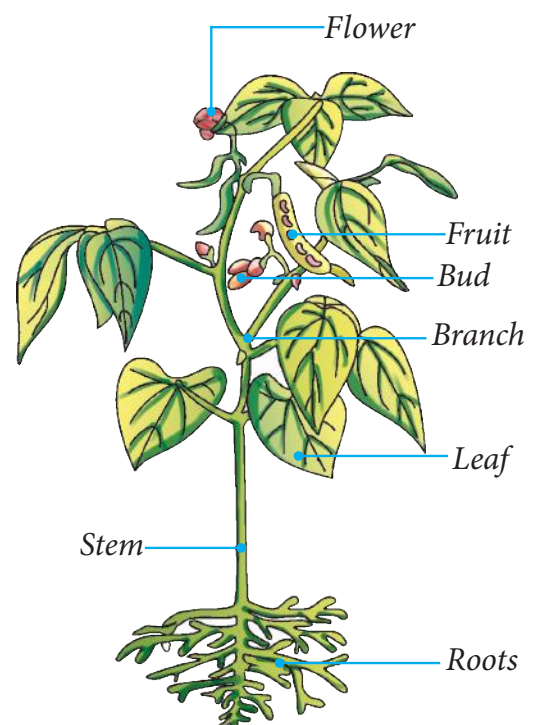
Seedling

When a new plant grows from a seed, it is called a seedling.

A seedling has roots, stem and leaves.

In this picture a bean seedling is shown.

As the seedling grows, it develops bigger roots, stem and many leaves. The seedling of a mango tree grows into a big tree. The seedling of a pea grows into a small plant.



Parts of Plants

DIFFERENT PARTS OF A PLANT AND THEIR FUNCTIONS



Root

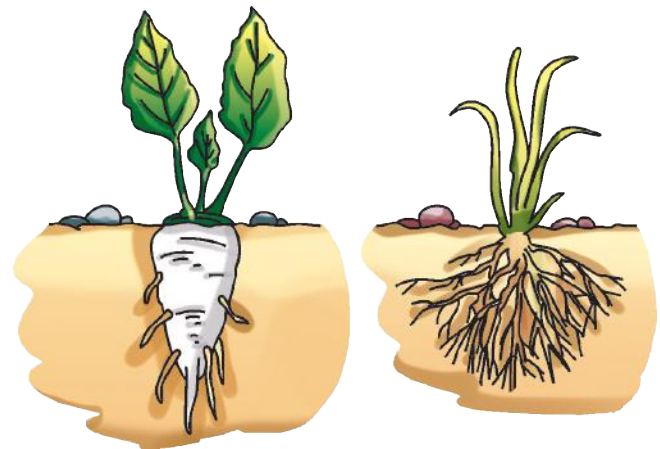
The Root and Its Functions

The root of a plant always grows below the ground. It is off white in colour. Some plants have one big root with small roots coming all around it. Such roots go deep into the soil.

In other plants, all roots have the same thickness. They do not go deep. They spread out in the soil.

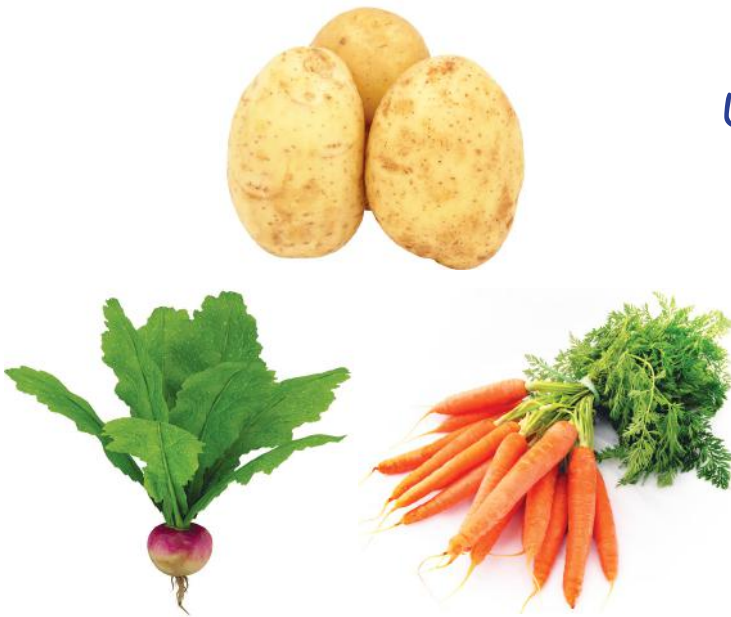
Kinds of Roots

1. **Fibrous Root** : In it, a cluster of roots grow from the end of the stem. Wheat, rice, sugar-cane, maize and banana are examples of fibrous roots.
2. **Tap Root** : In it, the main root grows from the end of the stem and many small roots come out from it.



Tap Root

Fibrous Root



A root which stores food

Uses of Root

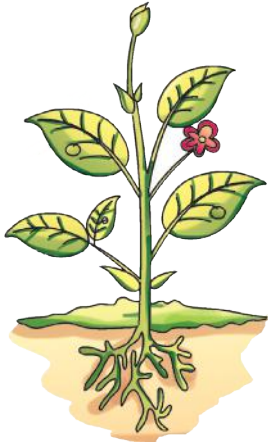
1. It fixes the plant firmly in the ground.
2. It provides water and minerals from the soil to the stem.
3. Roots like carrot, store food within themselves.

Do You Know ?

Banyan is the national tree of India.

THE STEM AND ITS FUNCTIONS

The stem of a plant is above the soil. In **herbs**, it is **green and soft**. In **trees**, it is **hard and woody**. The **creepers** have **weak stems**.



Green and soft stem



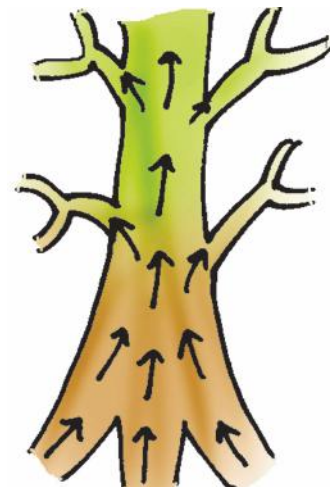
Hard and woody stem



Weak stem

Uses of Stem

1. The stem keeps the plants erect.
2. It carries water and minerals from the roots to other parts of the plants.
3. It bears leaves, flowers, fruits and seeds.
4. It also carries food prepared by the leaves to other parts of the plant.



Test your Self

1. Name two kinds of Root.

2. How is the stem in trees ?

3. What is called the new plant grow from a seed ?

THE LEAVES AND ITS FUNCTIONS

Different plants have different kinds of leaves.



Different kinds of leaves

Chlorophyll and Photosynthesis

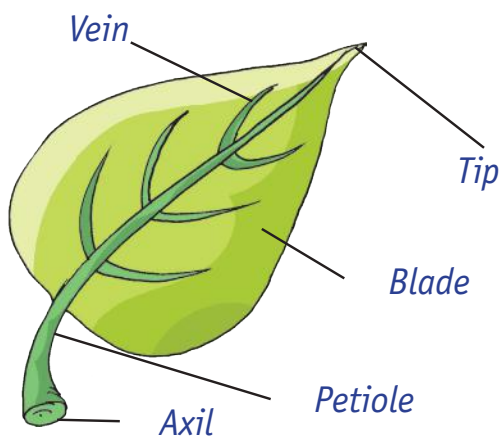
Do You Know ?

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

Most leaves are green because of **chlorophyll**. It helps the plant in making food. Therefore, only green plants make their own food from soil, air and water, with the help of sunlight. This process is called **photosynthesis**.

Parts of A Leaf

1. **Leaf Blade** : It is the flat broad part of the leaf.



2. **Main Vein** : It is in the middle of the leaf.

3. **Side Veins** : These arise from the main vein. Veins bring water to the leaf.

4. **Stomata** : These are tiny pores under the surface of a leaf which throw out extra water.

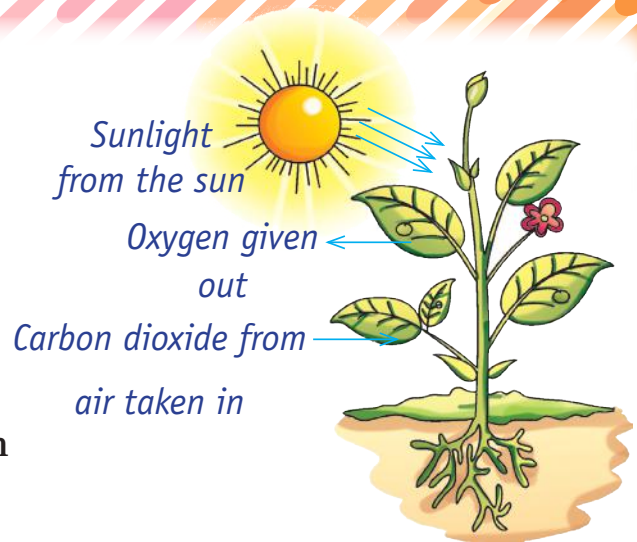
5. **Stalk** : It joins the leaf to the branch or stem.

Uses of Leaf

1. A green leaf makes food for the plant. It is called the kitchen of the plant.

The leaf makes food from water, carbon-di-oxide and sunshine. This food helps the plant to grow.

2. Some plants store food in the leaves such as mint and cabbage. We eat these leaves.
3. Leaves help the plant to breathe through stomata.



Water and nutrient are taken in by the roots from the soil.

Test your Self

- Some plants are grown for their leaves. Which plants are grown for their leaves? Name them.



Flower

FLOWERS AND ITS FUNCTIONS

Flowers are of many shapes, sizes, colours and fragrances. They attract insects and birds.

Insects and birds scatter the seeds of flowers. Flowers grow into fruits. They help the plants to reproduce.

FRUITS AND SEEDS AND THEIR FUNCTIONS

Fruits are of different shapes, sizes, colours, smell and taste. Fruits have seeds inside them.



Apple with seed



Mango with seed



Plum with seed



Papaya with seed

Some fruits have one or two seeds while others have many seeds. Some fruits have no seeds. Seeds are protected inside the fruits.

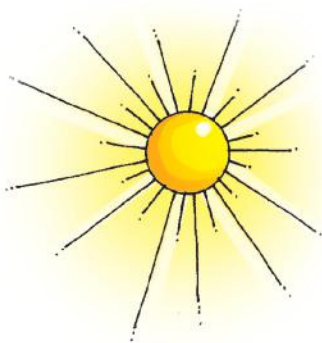
Test your Self

- Match the fruits with their seeds :



Ways of Sowing Seeds

- Direct Method** : Seeds of wheat, gram, beans and peas are directly scattered in the field.
- Indirect Method** : Seeds of rice are first grown in small seed beds. When the seedlings are a few inches high, they are sown in the fields full of water.



A plant growing from its seed



Know the Keywords :

- Root : Underground part of a plant.
 Bud : Part of a plant from which a stem, leaf and flower develops.
 Leaf : The green, flat and thin part of the plant.
 Flower : The most beautiful part of a plant.

Point to Remember

- The portion of the plant below the ground are the roots.
- The portion of the plant above the ground is the shoot.
- The shoot bears the stem, branches, leaves, flowers and fruits.
- The leaves make food for the plant.
- Fruits have seeds inside them.
- A seed if provided with the right amount of air, moisture and sunlight, will grow into a healthy plant.

EXERCISE TIME

A. Multiple choice questions (MCQs).

Tick (✓) the correct option :

- We eat roots of _____.
 a. Banana b. Mango c. Radish
- We eat stem of _____.
 a. Potato b. Coconut c. Orange
- Banana has _____.
 a. One seed b. No seed c. Many seeds
- Leaves contain a substance called _____.
 a. Chlorophyll b. Fibrous c. Liver

B. Tick (✓) the correct and cross (X) the incorrect ones :

- Root grows below the ground.
- Rice plant has fibrous root.
- Root of a sugar-cane plant store food.
- Mango has many seeds.
- A seed has a fruit inside it.

C. Fill in the blanks with the given words :

Fruits, Roots, Stem, Leaves, Flowers

1. _____ attract insects and birds.
2. _____ have seeds in them.
3. _____ keeps the plant straight.
4. _____ provide food to the plant.
5. _____ provide water and minerals to the plant.

D. Match the parts of the plant with their functions :

- | | |
|-----------|---------------------------------|
| 1. Root | a. Making food |
| 2. Stem | b. Producing fruit |
| 3. Leaf | c. Absorbing water and minerals |
| 4. Flower | d. Carrying food |
| 5. Fruit | e. Growing into a new plant |
| 6. Seed | f. Protecting seed |

E. Answer the following questions :

1. What is a root?
2. What are the two main parts of the plant?
3. What are the uses of leaves?
4. Why are flowers multi-coloured?
5. What is the function of a fruit?



Creative Work

- Name these parts of a Leaf :

