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PROTECT YOUR ENVIRONMENT

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Types of Plants

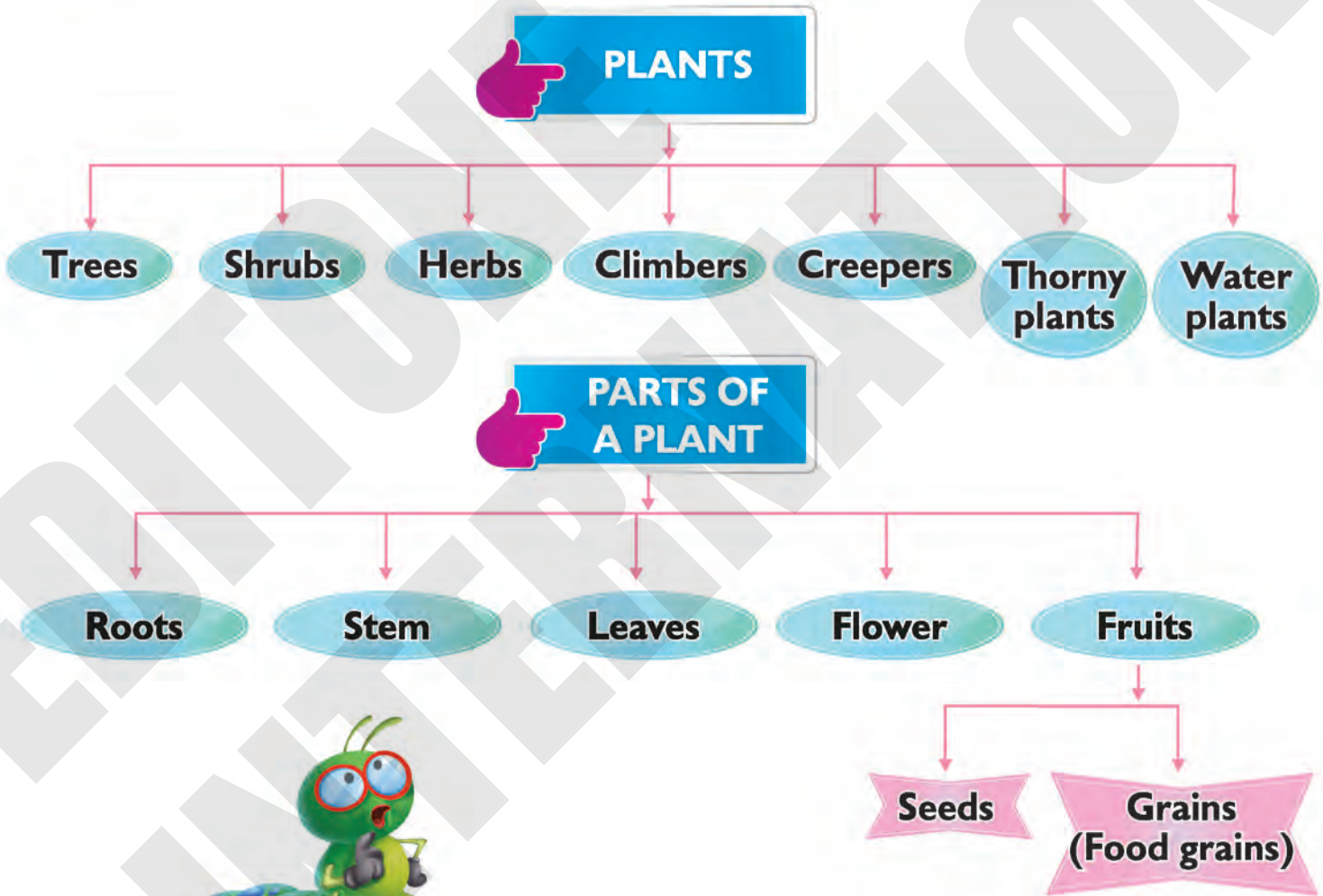
Learning Objectives

1. Trees
2. Herbs
3. Shrubs
4. Climbers
5. Creepers
6. Thorny plants
7. Water plants



Let Me Answer

Depending on the presence of flowers, plants are classified into two type how many types?



TYPES OF PLANTS

Plants are present all around us.

There are different types of plants on the Earth.

Some grow in cold places while some grow in hot places.

Some grow on land while some grow in water.

The food we eat, the juices we drink and the clothes we wear, all come from plants. Trees provide us wood for fuel, furniture and tools.

Plants use the sunlight as a source of energy to produce food.

This process is known as **photosynthesis**.

Plants differ in size and shape.

Let us learn about various kinds of plants.

Trees

Trees are big plants.

They have hard woody stems called **trunks**.

Most trees have branches, e.g. : gulmohar, mango, banyan etc.

Trees live for many years.

They give us fresh air.

Some trees do not have branches.

They are called **branchless trees**, e.g. : papaya, date, coconut etc.

They grow straight/erect.



Banyan tree



Mango tree



Gulmohar tree



Papaya tree



Date tree



Coconut tree

Shrubs

Shrubs are small **bushy plants**.

They have thin and weak stems with many branches.

They do not live for many years.

Some shrubs have good smell, so they are used to make perfumes and deodorants, e.g. : rose, jasmine, hibiscus etc.

Cotton plant is a shrub that provides cotton to make cotton clothes.

The oil that mothers and grandmothers use in kitchen for cooking, also comes from the shrubs like mustard and sunflower.



Jasmine plant



Cotton plant



Sunflower plant

Herbs

Herbs are very small plants.

These have soft, thin and weak stems.

They live for three-four months. So, they are called **seasonal plants**, e.g. : brinjal, coriander, spinach etc.



Brinjal plant



Mint plant



Spinach plant

Climbers

Some plants have weak and soft stems.

They cannot stand on their own.

They need support to stand and grow.



Pea plant



Bean plant

These plants are called climbers, e.g. : pea plant, money plant, grapevine etc.



Money plant



Grapevine

Creepers

Some plants have very weak and soft stems. They spread on the ground.

These plants are called creepers, e.g. : pumpkin, cucumber, watermelon etc.



Pumpkin plant



Cucumber plant



Watermelon plant

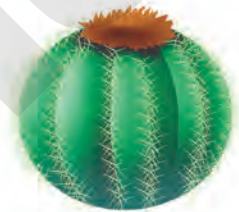
Thorny Plants

Some plants bear thorns. So, these are called thorny plants, e.g. : cactus, barberry etc.

Thorns protect these plants.

Thorns also save water for plants from evaporation.

They mostly grow in desert region.



Largest barrel cactus plant



Cactus plant

Water Plants

Some plants grow in water.

These plants are called water plants, e.g. : lotus, water lily etc.

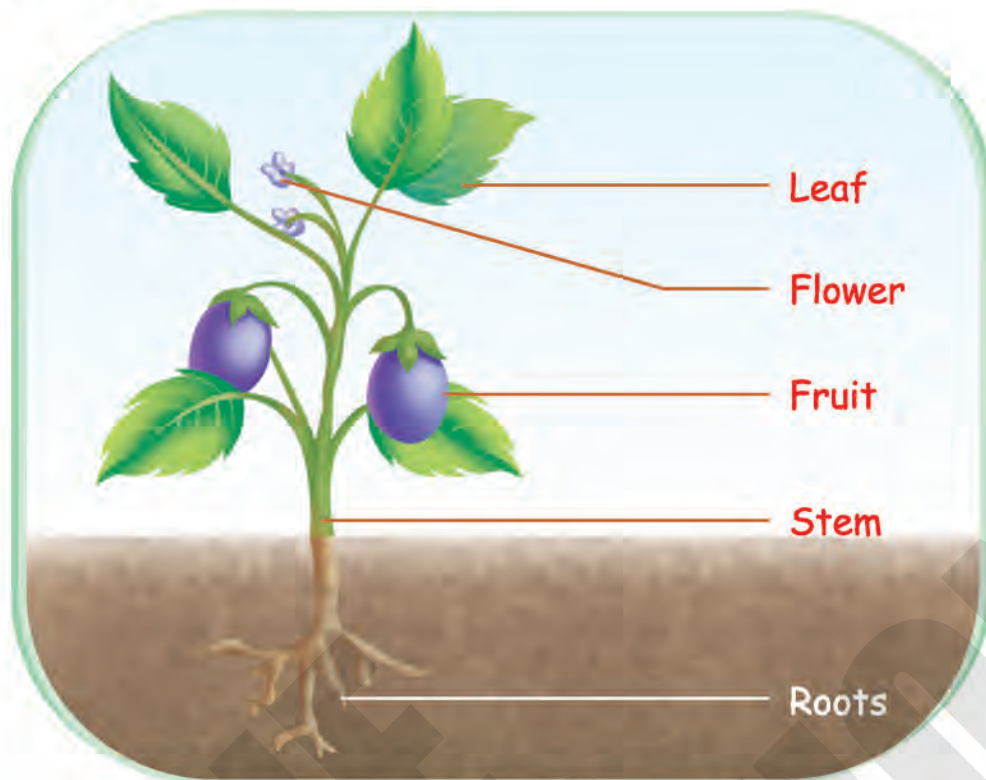
They have soft stems.

Some water plants float in water and act as a water purifier, e.g. : hydrilla, tape grass etc.



Lotus plant

PARTS OF A PLANT



Roots

Roots usually grow under the ground. They give support to the plant. Roots collect water and minerals from the soil and send them to the other parts of the plant.

Stem

Stem usually grows above the ground. It is the main body of the plant. It bears branches, leaves and flowers. It carries food and water to other parts of the plant.

Leaves

Leaves are usually green coloured part of the plant. They make food for the plant. Leaves are also called the "Kitchen of the Plant".



Flower

A flower is the colourful part of the plant from which the seed or fruit develops.
It gives beauty to plant.



Fruit

Fruit is the fleshy part of a plant.
Fruit grows from flower and contains either one or many seeds inside it.



Seed

A seed is that part of a plant from which a new plant can grow.
Those seeds which are edible are called **food grains**.



Facts to know

- ☉ All living things are natural.
- ☉ All natural things may not have life.

LET'S RECALL

1. Plants differ in size and shape.
2. Trees are huge plants with strong, woody stems called trunks.
3. Papaya, palm and coconut are some of the branchless trees.
4. Shrubs are small bushy plants with thin and weak stems.
5. Herbs are weak plants with soft, thin and weak stems.
6. Climbers are plants with weak stems. They need support to stand and grow.
7. Creepers are plants with very weak stems. They spread on the ground.





- branches : the part of tree growing out of stem (trunk)
- food grains : the seeds that are used as food, two types of grains-cereals and pulses
- photosynthesis : a process of making food by plants using sunlight, water and carbon dioxide



Cross Curriculum Connect

1. Answer the following questions in short.

- What is the name of plant having thin and weak stem?
- Which plants creep on the ground?
- Name any two branchless trees.
- Name any two climbers.

2. Fill up the blanks with suitable words.

Cactus shrubs climber branches Creeper

- Most trees have
- Pea plant is a
- have thin and weak stems.
- Watermelon plant is a
- is a thorny plant.

3. Answer the following questions.

- What kind of stems do trees have?



- b. Which plants are called seasonal plants? Why?
- c. What are shrubs?
- d. What are climbers?
- e. What are creepers?

4. Tick (✓) the right and cross (✗) the wrong statements.

- a. Trees have strong woody stems.
- b. Brinjal and banana are herbs.
- c. Creepers have strong stems.
- d. Jasmine is a climber.
- e. Cactus and rose plants have thorns.

5. Multiple choice questions

- a. live for many years.
 - (i) Shrubs (ii) Trees (iii) Herbs
- b. Cactus is a
 - (i) herb (ii) shrub (iii) desert plant
- c. The stems of are very weak.
 - (i) trees (ii) herbs (iii) shrubs
- d. Sunflower is a
 - (i) shrub (ii) tree (iii) water plant
- e. have many branches.
 - (i) Trees (ii) Desert plants (iii) Shrubs

6. Give one word for each one of the following.

- a. One seasonal plant

- b. One shrub
- c. Name of the place where lotus grows
- d. The thorny desert plant

.....

.....

.....

7. Match the columns.

Column A

- a. Tree
- b. Shrub
- c. Herb
- d. Climber
- e. Creeper
- f. Thorny plant

Column B

(i)



(ii)



(iii)



(iv)



(v)



(vi)



Activity Time

Take two plants. Provide water to both the plants. Keep one plant in a dark room and keep the another plant in the sunlight. You will observe that the plant, kept in dark, turns pale. This shows that plants need sunlight for growth.



HOTS

1. What kind of plants serve as home for birds and animals ? Can you tell the reason ?
2. Two friends Ravi and Rahul were talking about the oldest Banyan tree in the world. Do you know where is it found ?

Project Time

Complete the following table with the names of plants other than those mentioned in the lesson. Tick the correct category of plants, they belong to.

S No.	Name of the plant	Trees	Herbs	Shrubs	Climbers	Creepers

Uses of Plants

Learning Objectives

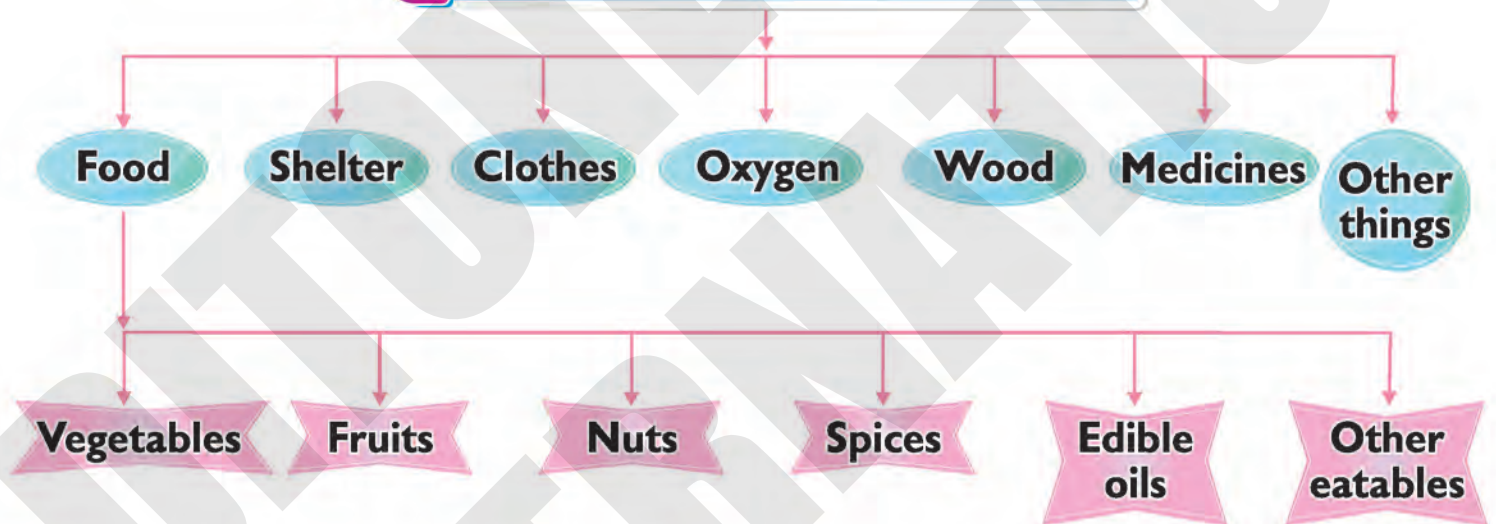
1. Food grains and fodder from plants
2. Fruits and vegetables from plants
3. Wood, fibre and paper from plants
4. Edible oils, rubber, herbs and gum from plants



Let Me Answer

- Do you think Plants prevent air pollution?
- Do you think Plants are a good source of wood and timber?

THINGS WE GET FROM PLANTS



THINGS WE GET FROM PLANTS

Plants are very useful to us.

We get many things from plants.

They keep the **air**, fresh and clean.

They give us **oxygen** to breathe in.

Plants give us **food**.

Wood for our chair, table or bed comes from plants.
We get herbs and oils from plants.
We get cotton from plants to make our clothes.
Paper comes from plants.

1. Food

Plants give us food.

As Vegetables



We get vegetables

from roots

from stem

from leaves

from fruits

Some plants store their food in roots.
These roots bulge up and are used as food, e.g. : radish, carrot, beet etc.



Beetroot



Carrot

Some plants store their food in stems.
These stems are eaten as food, e.g. : sugarcane, onion etc.



Sugarcane



Onion

Some plants store their food in leaves.
These leaves are used as food, e.g. : lettuce, cabbage, spinach etc.



Cabbage



Spinach

Some plants store their food in fruits.
These fruits are eaten as vegetables, e.g. : brinjal, tomato etc.



Brinjal



Tomato





Apple



Mango



Orange



Banana

As Fruits

Fruits are the fleshy parts of a plant that can be eaten as food.

Fruits are **sweet** in taste.

They keep us healthy, e.g. : mango, orange, banana etc.



Almond



Cashew nut



Walnut

As Nuts

We also get nuts from plants.

Nuts are dried fruits with a hard shell.

Nuts give us **energy**, e.g. : almond, cashew-nut etc.



Black pepper



Clove



Turmeric

As Spices

Plants give us spices.

Spices add **taste**, **colour** and **flavour** to food, e.g. : pepper, clove, turmeric etc.



Coconut oil



Sunflower oil



Mustard oil

As Edible Oils

We get edible oils from plants.

These are used for cooking, as medicines and for applying on hair and body, e.g. : coconut oil, sunflower oil, mustard oil etc.



Tea



Coffee



Sugar

As Other Eatables

Plants also give us **tea**, **coffee** and **sugar**.

We get tea from tea-leaves, coffee from cocoa beans and sugar from sugarcane.



2. Shelter

Many animals like monkeys, squirrels, birds and insects live on plants and trees. Plants provide shelter to these animals. Sometimes, on hot sunny days or when it rains, people take shelter under big trees.



3. Clothes

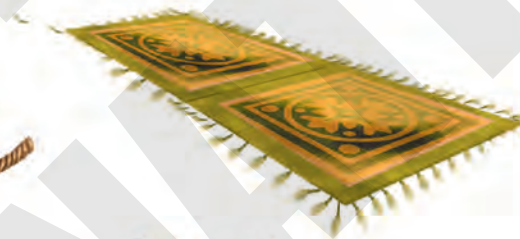
Cotton plants give us fibres to make cotton cloth. We also get jute fibres from jute plants. Different clothes and items like sacks, ropes, bags etc., are made from jute.



Cotton shirt



Rope



Jute mat



Jute sack

4. Oxygen

Plants keep the air fresh. Plants provide oxygen which is needed for living organisms to breathe. Oxygen is also needed for **burning**.



The woody trunk of big trees is used as wood to make wooden houses, furniture, doors and windows.

Plants also give us wood for fuel.

Wood from some trees is also used for making boats and carts.



Wooden house



Chair



Almirah



Boat

6. Medicine

Many medicines are made from plants like tulsi, neem, mint, eucalyptus etc.

Tulsi leaves are used to cure cold and cough.

Amla, turmeric and aloe vera are also used as medicines.



Mint



Neem



Amla



Aloe vera



Tulsi

Useful things

We get **perfumes** from flowers like rose, jasmine etc.

Some oils are used to make **soap** and **shampoo**.

We get **rubber** from the latex (liquid) of rubber tree.

Gum is made from the latex of trees like keekar and acacia.

Paper is made from the pulp of trees like bamboo.



We make **dyes, paints** and **varnishes** from juices of some trees.

We get dyes from plants like henna, true indigo etc.

We make **compost** with dry leaves.

Flowers and leaves of many plants are used for decoration and making bouquets.



Perfumes



Soap



Paper



Paint

Facts to know

- ◎ Bamboo is a giant grass, not a tree.
- ◎ Some stems grow underground and give vegetables as food, e.g. : potato and ginger.

LET'S RECALL

1. Plants give us food.
2. Some plants store their food in roots.
3. Fruits are the fleshy parts of a plant that can be eaten as food.
4. We also get nuts from plants.
5. Plants give us spices.
6. We get edible oils from plants.
7. Plants also give us tea, coffee and sugar.
8. Many animals like monkeys, squirrels, birds and insects live on plants and trees.
9. Cotton plants give us fibres to make cotton cloth.
10. Plants keep the air fresh.





- bulge up : a rounded swelling
- fibre : a thread or filament from textile plant or animal
- fleshy : the soft part
- latex : a milky fluid in plant
- shelter : a place giving protection

Train Your Brain



Cross Curriculum Connect

1. Answer the following questions in short.

- a. Which gas do plants give us?
- b. Where does paper come from?
- c. Why do we use spices?
- d. Which gas do we need for burning?

2. Fill up the blanks with suitable words.

Cotton bamboo gum Rose, hibiscus and jasmine medicinal

- a. Tulsi is a plant.
- b., and plants give us perfumes.
- c. plant gives us fibre.
- d. Acacia plant gives us
- e. We get paper from tree.

3. Answer the following questions.

- a. Why are plants useful for us?
- b. Write the names of some fruits and vegetables, we get from plants.
- c. Which are the medicinal plants?



- d. How do we get the following?
 - (i) Rubber
 - (ii) Gum
 - (iii) Paper

4. Tick (✓) the right and cross (✗) the wrong statements.

- a. Plants give us food, vegetables and fruits.
- b. Plants keep the air dirty.
- c. Plants provide us wood, medicines, fibres, perfumes etc.
- d. We get rubber from the latex of rubber tree.
- e. Gum is made from the latex of acacia tree.

5. Multiple choice questions

- a. Which statement is right?
 - (i) Plants provide us food and shelter.
 - (ii) Plants keep the air dirty.
 - (iii) Plants give us oxygen.
- b. Which statement is wrong?
 - (i) Plants provide us oxygen.
 - (ii) Plants give us fibres.
 - (iii) Plants do not provide us food and shelter.

6. Name any two plants which give us the following.

- a. Gum
- b. Vegetables
- c. Perfumes
- d. Edible oils
- e. Medicines
- f. Fibres

7. Match the columns.

Column A

- a. Pulse
- b. Paper
- c. Gum
- d. Fibre
- e. Vegetable

Column B

- (i) Acacia
- (ii) Pumpkin
- (iii) Moong
- (iv) Bamboo
- (v) Jute

Activity Time

Take a piece of paper, some leaves of a plant like neem and some pieces of carrot and ladyfinger. Dip one side of a leaf in a colour of your choice. Gently place the side of the leaf dipped in colour on the piece of paper and press it. Now, remove the leaf. You will be able to see the imprint of the leaf. Do the same with pieces of carrot and ladyfinger. You can make greeting cards with prints like these and give them to your friends.

