

## Analyzing Data

### Activity

Enter the scores of D Ed students in a worksheet and find out the average performance of

Students in your subject.

Find out by using 'help' how to proceed with further analysis of data.

Make a list of different analysis for which you can use MS Excel.

sl no	name	ed1	ed2	ed3	ed4	total	average(c11:f11)	PERCENTAGE
1	A	20	14	19	20	73	18.25	74
2	B	18	24	23	21	86	21.5	86
3	C	23	22	21	22	88	22	88
4	D	15	21	20	19	75	18.75	75
5	E	17	16	19	22	74	18.5	74
6	F	21	20	22	18	81	20.5	82
7	G	20	23	24	19	86	21.5	86
8	H	15	14	17	19	65	16.25	66
9	I	23	20	20	23	86	21.5	86
10	J	20	19	18	18	75	18.75	75
11	K	15	16	18	19	68	17	68
12	L	17	18	15	20	70	17.5	70
13	M	15	14	17	21	67	16.75	67
14	N	15	17	13	16	61	15.25	

by sum formula we can find the total

formula =sum (column

no:columnno)

average marks average(row no:row no) or vice

versa

percentage

secured marks/totalx100

wecan find min &max

,grades,IF FUNCTION

FOR THAT FIRST WE

SHOULD SET MARKS

FOR DIFFERENT

GRADES BY USING

SYMBLES > = < TO A+,

A B+ ETC

we can find min & max by using IF function we can tofind the grades

first we should set the marks for different grades example

for that >85=a+

A+

& then formula in formula bar, we can draw bar graphn or pie chart

etc

## Use of Audio Video CDs

### Activity

1. Keep a few empty CDs with you. Practice CD writing using 'send to' option.
2. Prepare a copy of a videodisc
3. Prepare a data disc using Nero Express.
4. Using 'send to' option try to write different files to the same CD at different times.

Answer) tried cd writing

Steps followed

Insert a cd select any folder

Right click

Send to CD-RWDH:)

CLICK WRITE THESE FILES TO CD  
GIVE ANY NAME.THEN NEXT CLOSE

NERO EXPRESS- open Nero express go to make a data CD

In the table display click add

Select my computer

Any drive click the folder

Click add

Click burn & close the window.

## Creating Educational Programmes

### Activity

1. **Prepare a ppt programme for developing spelling sense among students**

Ppt file already attached

2. **Prepare a reading comprehension passage on a WORD page**

Once a young man returned from a certain university with more folly than learning. One day he was sitting at the dinner table with his parents. The

servant brought two plates full of delicious food. "There are only two, and we are three", said the father. "no", said the clever young man, "I can prove these to be three. This is number one, & that is number two; and one & two make three". The father was fed with his son's scholarship. "Very well", he said, "I take number one & your mother will have number two; and you may eat the third".

Answer the following questions:

1. where did the young man return?

---

Where was he seated one day?

---

What was the problem?

---

Complete the following:

The young man had more \_\_\_\_\_ than learning.

They were seated at the \_\_\_\_\_ table.

One and two make -----

Find the meanings of the following looking in to the dictionary.

Folly \_\_\_\_\_

Delicious \_\_\_\_\_

Prove \_\_\_\_\_

3. Display a picture of a village fair and ask children to talk about it



Pupils were made to describe the picture.  
A few pupils told what they see in the picture. some children related it to jatra of their village they describe in the mother tongue.

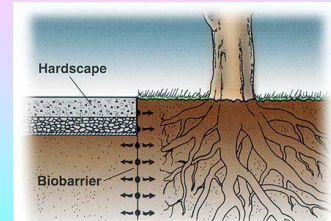
## PARTS OF PLANT

- Root
- Flower
- Stem
- Fruit
- Leaf
- Seeds

## The Root

### : Definition

Roots Grow underground. We have already Learnt that the roots take in water and minerals from the soil.



### Activity :

Gently uproot a vinca (sadabahar) plant or any other plant with a soft stem and white flowers. Clean its roots and stem with water. Place it in a glass jar containing enough **Violet Colored water** to cover only its roots. Observe it after a few hours. What do you see? The roots, stem and the Veins of the Leaves have turned violet.



This indicates that the roots have taken in the colored water, as only the roots were under water. The water then must have traveled upwards to the other parts of the plant.

Thin tubes run along the length of the roots. These tubes continue to run in to the stem and then in to the branches. Water and minerals from the soil enter into the tubes present in the roots. Thus, we say that **the roots absorb water and minerals from the soil**. The stem carries water and mineral to the branches and leaves through the tubes present in it.

### Activity :

Observe some trees, plants, grass and saplings on a windy day. What do you see? Though the weather is windy, the trees or plants are not uprooted. Plants with weak and soft stems may bend in the wind, but they too remain fixed in the soil. This is because **roots hold the soil particles firmly and fix the plant in the soil**.

We eat carrots and beetroots. Which parts of the plants are these? These are roots. **Excess food prepared by the leaves is stored in the roots of some plants.**

## Functions of the Roots

1. Roots take in water and minerals from the soil and transport these up to the stem and leaves through the thin tubes present in them.
2. Roots hold the soil particles firmly thereby fixing the plant in the soil.
3. Some roots like carrot store excess food prepared by the leaves.



## The Stem

### Definition :

The stem grows above the soil. It supports the branches, leaves, flowers and fruits. Again, water and minerals absorbed by the roots are carried to the leaves by the tubes in the stem. Food prepared by the leaves is also carried to all parts of the plant by the stem.



### Activity

1. Select a geranium or a vinca sapling.
2. Gently pull it out of the soil along with its roots.
3. Place this plant with its roots immersed in some red – colored water taken in a glass.
4. After a few hours, remove the plant from the colored water.
5. With a sharp knife cut the stem above the roots.
6. Feel the stem where it has been cut. It feels wet.
7. Observe the cut section through a magnifying glass. You will see colored spots at the cut section.
8. Now cut along the length of the stem. You will see colored lines running through the entire length. Observe these through a magnifying glass.

### Functions of the stem

1. The stem supports other parts of the plant such as the branches. Leaves, flowers and fruits.
2. The thin tubes in the stem carry water and minerals absorbed by the roots to the branches and leaves.
3. The stem also transports the food prepared by the leaves to the different parts of the plant.
4. Some stems like potato and sugar cane store excess food prepared by the leaves.

## The Leaf

### Definition

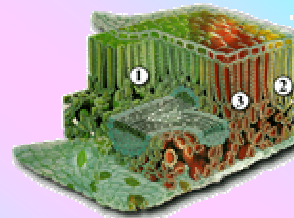
Leaves grow on the stem and the branches. The leaf is the food factory of the plant. Only green plants make their own food. Food is made in the Leaves. Chlorophyll is a green pigment present in the leaves. It helps the leaves to make food. Thus, a plant needs plenty of green leaves to be able to make sufficient food.

A leaf is made up of layers of cells. A cell is the basic unit of all living things. Cells are of different types and they perform various functions.

Observe a leaf closely. At the center of the leaf runs the mid-vein. From this vein, a fine network of veins is spread all over the leaf.

The mid-vein of the leaf is formed of rows of two types of cells. Each row of cells appears like a pipeline.

Rows of one type of cells bring in water and minerals into the leaves while food prepared by the leaves travels out to other parts of the plant through the rows of the other type of cells.



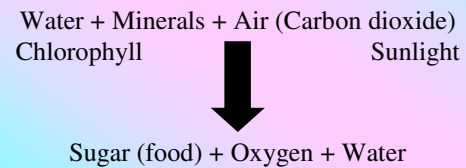
The lowest layer of cells of the leaf has openings called stomata. **Air enters and exits through the stomata.** The excess water reaching the leaf through the rows of cells on it is also given out through the stomata. This process is called **transpiration**.

## How do the leaves prepare food?

We have learnt that the leaves prepare food for plants. This is because **chlorophyll**, a green colored pigment present in leaves, is essential for the preparation of food in plants. Chlorophyll absorbs energy from the **sunlight**. **Air** enters the leaf through the stomata. Only carbon dioxide from the air is used by the leaf to prepare food. **Water** and minerals enter the leaf through the mid-vein. In the presence of sunlight and chlorophyll, the leaf uses carbon dioxide, water and minerals to prepare food.



The prepared food is in the form of **simple sugar** which provides energy for the growth of plants.



The process by which green leaves prepare food using air, water and minerals in the presence of sunlight and chlorophyll, is called photosynthesis. 'Photo' means 'Light' and 'synthesis' means 'combining of things to prepare something new'. During photosynthesis, leaves give out excess oxygen and water through the stomata.

Food prepared by the leaf is in the form of sugar. Excess sugar is converted into starch and stored in different parts of the plant.

## Function of Leaves

1. Leaves take in carbon dioxide and give out oxygen thus helping the plant in preparing its own food by **photosynthesis**.
2. Leaves take in oxygen needed for the **respiration** in plant.
3. During **transpiration**, plants lose water through the stomata in leaves.

## How do non-Leafy plants or non-green plants make food?

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

In cactus, Leaves are modified into thorns. Then which part of this plant makes food? The food is prepared in its thick green stems.

Have you seen mushrooms growing on moist wood? But they are not green in color. They do not contain chlorophyll to make food. Then how do they survive?



Cactus



Croton



Mushroom

They absorb nutrients from the dead and decaying plants and animals.

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

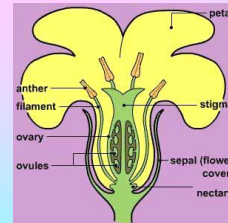
## Functions of flowers, fruits and seeds

### Flowers

Have you seen a gulmohur tree or a *chameli* creeper in full bloom? It is indeed a lovely sight. Flowers come in many colors, sizes and shapes. Many of them have fragrance.

## PARTS OF FLOWERS

Observe a hibiscus flower to study the parts of a flower. **Sepals** are the outermost part of the flower. It is green and Leaf – like.



It protects the flower when the flower is in the form of a bud. A bud gradually blooms in to a flower.

**Petals** form the colored part of the flower. They attract insects with their colors and fragrance.

The carpel is the female part of the flower. It lies in the center of the flower. Around the carpel are a number of stalks called **stamens**. These are the male parts of a flower. The stamens have yellow heads that contain **pollens**. Due to the movement of insects, wind or water, the pollen grains fall on the carpel.

For example, when an insect sits on a flower, the pollen grains stick to its legs. As the insect moves from one flower to another, the pollen grains of the flower are carried along and deposited on another flower.



**Pollination** takes place when a pollen grain unites with the carpel. Due to this, the carpel gradually develops into a fruit.

Pollination is a way of reproduction in plants.

## Function of flowers

1. Flowers attract insects for pollination
2. After pollination, the carpel of the flower changes in to a fruit.



## Fruits

Fruits grow on branches. They come in different colors, shapes, sizes and tastes. Seeds lie within the fruit. The excess food prepared by leaves gets stored around the seeds to form the fleshy part of the fruit.

### Functions of Fruits

1. Fruits protect the seeds that lie within
2. Fruits store the excess food prepared by the leaves. Hence, many fruits are edible.

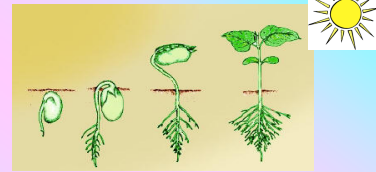


## Seeds

Seeds are found inside the fruit. They may vary in number in different fruits.



Each seed contains a baby plant within it. When these seeds are planted, they grow in to new plants using air, sunlight and water. This process is called the **germination** of seeds.



## Functions of seeds

1. A seed protects the baby plant inside it.
2. Seeds also store excess food prepared by the leaves. Groundnut and walnut are edible seeds.

## Uses of Plants

### 1] Plants give us oxygen

During photosynthesis, plants make food and oxygen. Some oxygen is used during respiration and the excess oxygen is given out by the plants. All living things breathe in oxygen. It helps them stay alive.

Thus, it is good to grow plants and trees near our homes. That way, we get plenty of oxygen to breathe.



### 2] Plants give us food.

Plants are the main source of food. We depend on plants for food directly or indirectly.



### 3] Oil from plants

Oil obtained from seeds of mustard, sunflower, groundnut and coconut is used to cook food



### 4] Medicines from plants

Oil obtained from eucalyptus leaves is used for curing colds

Ginger, turmeric, leaves of the Tulsi plant and lemon grass help to relieve cough and cold.

Leaves of the neem tree are used to keep away insects. Neem twigs are used to clean gums and teeth.

Ginger is also used to relieve nausea. Dried roots of the **khus** plant serve to relieve itching and prickly heat.



- **6] Paper form plants**

The tender parts of bamboo and eucalyptus trees are crushed into pulp from which paper is made.



- **7] Gum form plants**

Gum is obtained from the bark of trees like acacia.

Gum is used for making cosmetics and in textile industry.



- **8] Rubber from trees**

- Sap from the rubber tree is collected to make rubber. We use rubber to make tyres, tubes, erasers and many other things we use in our daily life.

