

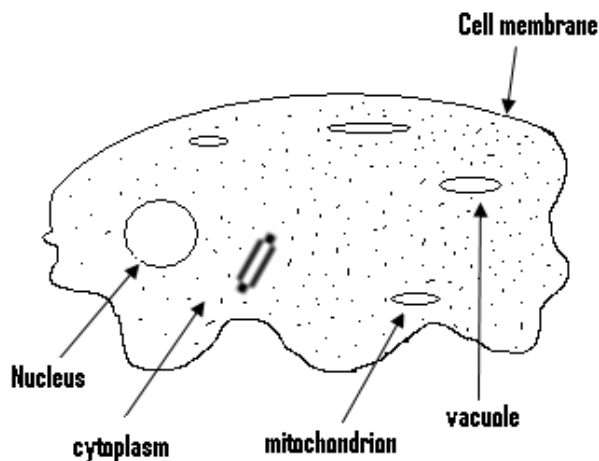
# **Chapter Fourteen**

## **Cells And Blood:**

### **Cells:**

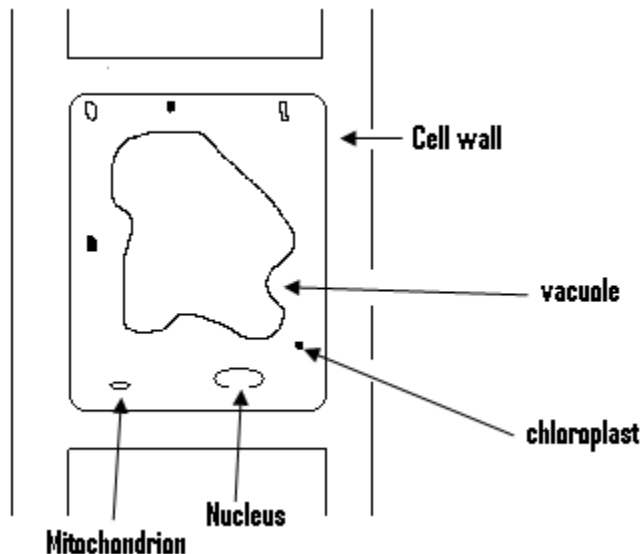
- All living things are made up of cells.
- Because these cells are also living, they breathe, excrete and reproduce.
- The cell is made up of the cytoplasm and the nucleus.
- The cytoplasm is mostly made up of water which contains salt and sugar.
- When a cell grows into an adult, it divides into two equal parts , each of them then grows into an adult and divides into two parts.
- There are two types of cells and these are the plant cell and the animal cell.

### **The animal cell:**



- Animal cells do not have one particular shape, for they are of different shapes.
- They are also of different sizes, which mean that while some are big, others are small.
- An animal cell is covered by a cover called the cell membrane.
- Found within the animal cell are the vacuoles.
- Food to be used by the cell is kept within the vacuole.
- Apart from that, waste products produced by the cell are also kept within the vacuole.

## **The plant cell:**



- Unlike the animal cell, the plant cell has a fixed shape.
- It is covered by the cell wall.
- Found within the plant cell are the chloroplasts, and it is these chloroplasts which make the leaves and stems of most plants green in colour.
- Food and waste are also kept within the vacuole.

## **The differences between the plant and the animal cells:**

- These differences are that:
  - (i) The plant cell has wall, but the animal cell has cell membrane.
  - (ii) The plant cell has chloroplast but the animal cell does not have chloroplast.

## **Blood:**

- The blood performs many tasks or work for the body.
- It supplies the cells of the body with the food and the oxygen they need.
- It also carries the waste products produced by the body, to special organs for them to be removed from the body.
- It is the heart which pumps blood throughout the body.

## **The composition of blood:**

- Blood is made up of four parts and these are:
  - (1) The plasma.
  - (2) The red blood cells.
  - (3) The white blood cells.
  - (4) The platelets.

## **The plasma:**

- This refers to the liquid part of the blood.

- It contains the red blood cells, the white blood cells and the platelets, which are all solids.

### **The red blood cells:**

- They are also called the red blood corpuscles.
- Their main job is to carry oxygen from the lungs to the cells of the body.
- The cells of the body use this oxygen for respiration or breathing.
- If carbon dioxide is produced by these cells, it is the same red blood cells which will carry it from these cells to the lungs.
- The lungs will then bring the carbon dioxide out of the body.

### **The white blood cells:**

- They are also called the white blood corpuscles.
- Their main work is to prevent the body from being attacked by diseases.

### **Platelets:**

- They help in the clotting of blood, when we get injured.
- If this clotting does not occur, then a person will bleed to death if he even gets a small cut.

### **The functions of the blood:**

- (1) It carries oxygen from the lungs to the cells of the body for respiration.
- (2) It carries carbon dioxide from the cells of the body to the lungs for excretion.

### **Questions:**

- (1) What are cells?

Ans:

- They are what living things are made up of.

- (2) Why is a cell said to be a living thing?

Ans:

- Because it breathes, excretes and reproduces.

- (3) Explain what happens to a cell which grows into an adult.

Ans:

- It divides into two equal parts and each one grows into an adult.

- (4) Name the two types of cells we have.

Ans:

- These are the plant and animal cells.

- (5) Give the use or the importance of the vacuole to a cell.

Ans:

- The food for the cell is kept in it.
- The waste produced by the cell is also kept in it.