

8/11/2020

Subject - Science  
CLASS - VII

CHAPTER - I (Nutrition)

Task-A: Read the chapter

Task-B: Write down these Q/A in your fair notebook.

Q4. What are autotrophs? Give eg.  
A. The organisms which prepare their food ~~themselves~~ and are called autotrophs. eg. Plants.

Q5. What are heterotrophs? Give eg.  
A. The organisms which depend upon others for their food are called heterotrophs. eg. Animals & humans.

Q6. What is cell?  
A. Try yourself.

Q7. What is stomata?  
A. Try yourself.

Task-C: To be learnt these Q/A.

## Cells

You have seen that buildings are made of bricks. Similarly, the bodies of living organisms are made of tiny units called **cells**. Cells can be seen only under the microscope. Some organisms are made of only one cell. The cell is enclosed by a thin outer boundary, called the **cell membrane**. Most cells have a distinct, centrally located spherical structure called the **nucleus** (Fig. 1.1). The nucleus is surrounded by a jelly-like substance called **cytoplasm**.

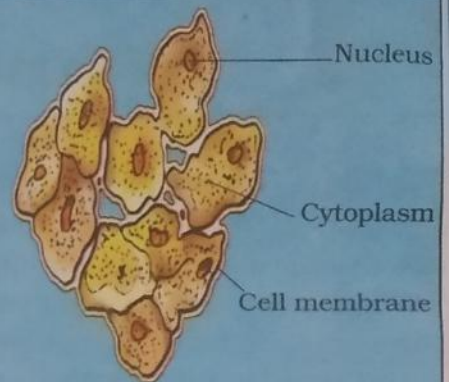


Fig. 1.1 Cell

through the tiny pores present on the surface of leaves. These pores are surrounded by 'guard cells'. Such pores are called **stomata** [Fig. 1.2 (c)].



Boojho wants to know how water and minerals absorbed by roots reach the leaves.

Water and minerals are transported to the leaves by the vessels which run like pipes throughout the root, the stem, the branches and the leaves. They form a continuous path or passage for the nutrients to reach the leaf. They are called vessels. You will learn more about transport of materials in plants in Chapter 11.



Paheli wants to know what is so special about the leaves that they can synthesise food but other parts of the plant cannot.

The leaves have a **green pigment** called **chlorophyll**. It helps leaves to capture the energy of the sunlight. This energy is used to synthesise (prepare) food from carbon dioxide and water. Since the synthesis of food occurs in the presence of sunlight, it is called **photosynthesis** (*Photo*: light; *synthesis*: to prepare). So we find that chlorophyll, sunlight, carbon dioxide and water are necessary to carry out the process of photosynthesis. It is a unique process on the earth. The solar energy is captured by the leaves and stored in the plant in the form of food. **Thus, sun is the ultimate source of energy for all living organisms.**

Can you imagine life on earth in the absence of photosynthesis!

In the absence of photosynthesis there would not be any food. The survival of almost all living organisms directly or indirectly depends upon the food made by the plants. Besides, oxygen which is essential for the survival