

Chapter 3

The Cell

LESSON PLAN

SPECIFIC OBJECTIVES

The students will learn about

- ❖ discovery of cell and cell theory
- ❖ cell structure
- ❖ differences between plant cells and animal cells
- ❖ methods to study cells
- ❖ need of cell division

Teaching Aids

Pictures/charts/models/animation on Robert Hook's microscope and cork cells as observed by him, picture of Robert Hooke; different shapes of cells; animal cell and its components, structure of nucleus, vacuole; plant cell and animal cell showing differences

Teaching Strategy

- ❖ Teacher will start the chapter by introducing and defining cell.
- ❖ Teacher will discuss brief history of discovery of cell by discussing about the scientists who contributed in the discovery and study of cell and the instruments developed by them.
- ❖ Now, teacher will define the cell theory and will tell the names of the scientists who developed the theory.
- ❖ Teacher will discuss types of organisms on the basis of the number of cells.
- ❖ Teacher will discuss various shapes and size of the cells found in living organisms.
- ❖ Now, teacher will ask the students to solve 'Check Point 1'.
- ❖ Now, teacher will describe the structure of cell and its parts.
- ❖ With the help of suitable teaching aids, teacher will discuss the differences between plant cells and animal cells.
- ❖ Teacher will discuss the need of cell division.
- ❖ Teacher will discuss the methods to study the cell by demonstrating Activities 1, 2, 3 and 4.
- ❖ To evaluate students, teacher will ask them to solve 'Check Point 2'.

- ❖ At last, teacher will sum up the lesson by going through the points given under the head 'Wrapping It Up'.
- ❖ Teacher will finally help students to answer the questions given under the head 'Test Yourself'.

Boost Up

- ❖ Teacher can help students to perform the activities given in chapter.
- ❖ Teacher can make students revise new terms given under the head 'Know These Terms'.
- ❖ Teacher can encourage students to learn the facts given under the head 'Something More'.
- ❖ Teacher can show animations related to the topics taught, if possible.

Expected Learning Outcomes

The students understand and know:

- ❖ the cell as basic unit of life
- ❖ significance of invention of microscope in the discovery of cell
- ❖ cell theory
- ❖ types of organisms on the basis of number of cells
- ❖ various shapes and sizes of cells
- ❖ cell structure and components of cell
- ❖ differences between a plant cell and an animal cell
- ❖ cell division and its significance in living beings
- ❖ process to study cell

Evaluative Questions

The teacher should ask the following questions to evaluate the students:

1. Why is cell called the basic unit of structure in all living beings?
2. Who gave the cell theory?
3. What are the three main parts of a cell?
4. Which part controls all the activities of the cell?
5. How are new cells formed?