

The Cell

Chapter 16: The Cell · Topic 1

Key Concept

Cells have a cell membrane (outer boundary), cytoplasm (jelly-like substance inside), and a nucleus (control centre) in most cells.

Plant cells have additional structures, like a cell wall (rigid outer layer) and chloroplasts (for photosynthesis), which animal cells lack.

Cells can be seen only under a microscope, as they are too small to see with the naked eye.

Understanding cells helps us learn about how living things grow, function, and reproduce at the most basic level.

Quick Revision Notes

- The cell is the basic unit of life.
- All living things are made of cells.
- Cells have a membrane, cytoplasm and nucleus.
- Plant cells have a cell wall additionally.
- Plant cells have chloroplasts for photosynthesis.
- Animal cells lack cell walls and chloroplasts.
- Cells are seen only under a microscope.
- Cells are key to growth and life functions.

Practice Questions

- 1 Draw and label a plant cell.
- 2 Draw and label an animal cell.
- 3 Discuss the difference between plant and animal cells.
- 4 Research what a microscope is used for.
- 5 Explain the role of the nucleus.
- 6 Discuss why chloroplasts are important for plants.