

# The Cell - Structure and Functions

Chapter 2: The Cell - Structure and Functions · Topic 1

---

## Key Concept

The cell membrane controls what enters and exits the cell, while the nucleus contains genetic material and controls cell activities.

Mitochondria are the 'powerhouse of the cell', producing energy through cellular respiration for the cell's activities.

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

Understanding cell structure and function helps us appreciate how living things grow, function, and maintain life at the most basic level.

## Quick Revision Notes

- The cell membrane controls entry and exit.
- The nucleus contains genetic material.
- It controls cell activities.
- Mitochondria are the 'powerhouse of the cell'.
- They produce energy through respiration.
- Plant cells have cell walls and chloroplasts.
- Animal cells lack these structures.
- Cell structure explains growth and life functions.

## Practice Questions

- 1 Draw and label a plant cell.
- 2 Draw and label an animal cell.
- 3 Discuss the function of mitochondria.
- 4 Explain the role of the nucleus.
- 5 Compare plant and animal cell structures.
- 6 Research why chloroplasts are important for plants.