

Plant Cell vs Animal Cell

Chapter 5: The Fundamental Unit of Life · Topic 2

Key Concept

The cell wall gives plant cells a fixed, rectangular shape and structural rigidity, allowing plants to stand upright without a skeleton, while animal cells, having only a flexible cell membrane, are typically more irregular or rounded in shape. Chloroplasts contain chlorophyll, the green pigment that captures light energy for photosynthesis — a process animal cells cannot perform, which is why animals must obtain energy by consuming other organisms rather than making their own food.

Quick Revision Notes

- Plant cells have a cell wall, large vacuole, and chloroplasts; animal cells lack these.
- The cell wall gives plant cells rigidity and a fixed shape.
- Chloroplasts, found only in plant cells, contain chlorophyll for photosynthesis.
- Animal cells are typically more rounded/irregular due to lacking a rigid cell wall.

Practice Questions

- 1 List two differences between a plant cell and an animal cell.
- 2 Explain why animal cells generally have a more irregular shape than plant cells.
- 3 Why can plant cells make their own food but animal cells cannot?