

Life Processes in Living Organisms

Chapter 15: Life Processes in Living Organisms · Topic 1

Key Concept

Nutrition involves obtaining and processing food for energy and growth, differing between autotrophs (plants) and heterotrophs (animals).

Respiration is the process of releasing energy from food, occurring in cells through aerobic (with oxygen) or anaerobic (without oxygen) pathways.

Excretion removes waste products from metabolism, with different organisms having specialised excretory organs like kidneys in humans.

These life processes work together, ensuring organisms obtain energy, grow, and maintain internal balance necessary for survival.

Quick Revision Notes

- Nutrition: obtaining, processing food.
- Autotrophs (plants) vs heterotrophs (animals).
- Respiration: releasing energy from food.
- Aerobic (with oxygen) or anaerobic pathways.
- Excretion: removes metabolic waste.
- Specialised organs like kidneys in humans.
- These processes work together for survival.
- They maintain energy, growth, internal balance.

Practice Questions

- 1 Discuss the difference between autotrophs and heterotrophs.
- 2 Discuss the difference between aerobic and anaerobic respiration.
- 3 Research the role of kidneys in excretion.
- 4 Discuss how nutrition and respiration work together.
- 5 Discuss why excretion is necessary for organisms.
- 6 Explain one life process in your own words.