

Household Circuits

Chapter 9: Household Circuits · Topic 1

Key Concept

A fuse is a safety device that melts and breaks the circuit when current exceeds a safe limit, protecting appliances and preventing fires.

Earthing (grounding) connects an appliance's metal body to the earth, providing a safe path for current in case of a fault, preventing electric shocks.

Household circuits use a three-pin plug system with live, neutral, and earth wires, each serving distinct safety and functional purposes.

Appliances are connected in parallel in household wiring, ensuring each device receives full voltage and operates independently of others.

Quick Revision Notes

- A fuse melts and breaks circuit on overcurrent.
- It protects appliances and prevents fires.
- Earthing connects metal body to earth.
- This provides a safe path during faults.
- It prevents electric shocks.
- Three-pin plugs: live, neutral, earth wires.
- Each wire has a distinct purpose.
- Household appliances connect in parallel.

Practice Questions

- 1 Discuss the function of a fuse in a circuit.
- 2 Explain how earthing prevents electric shocks.
- 3 Discuss the three wires in a household plug.
- 4 Research why appliances use parallel connections.
- 5 Discuss common household electrical safety practices.
- 6 Explain fuse and earthing in your own words.