

Instructions

Complete the following questions related to electricity. Make sure to write your answers clearly in the spaces provided. Good luck!

Wordsums

1. Define the term 'current'.

2. What is the difference between 'voltage' and 'current'?

3. Explain what a 'circuit' is.

4. What are the three components of a simple electric circuit?

5. Define 'resistance' in the context of electricity.

6. What is Ohm's Law? Provide the formula.

7. Describe the difference between series and parallel circuits.

8. What is the unit of electrical power?

9. What safety precautions should be taken when working with electricity?

10. Describe the role of a fuse in an electrical circuit.

Memo

1. Current is the flow of electric charge (measured in Amperes).
2. Voltage (or electric potential difference) is the driving force that pushes current through a circuit, while current is the flow of electric charge.
3. A circuit is a closed loop that allows electric current to flow from a power source to a load (e.g., a light bulb) and back again.
4. The three components are a power source (battery or mains), a load (light bulb, resistor), and a conductor (wires).
5. Resistance is the opposition to the flow of current in a circuit, measured in Ohms.
6. Ohm's Law states that $V = I \times R$, where V is voltage, I is current, and R is resistance.
7. In a series circuit, components are connected one after another, and current is the same through all components; in a parallel circuit, components are connected across the same voltage source and current can differ.
8. The unit of electrical power is Watts.
9. Safety precautions include wearing insulated gloves, using insulated tools, and avoiding wet conditions.
10. A fuse is a safety device that protects the circuit from excessive current by melting and breaking the circuit when the current exceeds a safe level.