

Nova's Starlight Electricity Flashcards

Learning objective: To recall and apply knowledge of electrical circuits, symbols, and components as required by the Year 6 Science curriculum.

Use these flashcards to test your knowledge of electricity. Look at the term or question on the left, then flip to check if your answer matches Nova the Owl's scientific notes.

What is an electrical circuit?

A complete path that allows electricity to flow from a source to a component and back again.

What does a cell provide in a simple circuit?

A cell provides the energy (voltage) needed to push the electrical current around the circuit.

What is the function of a switch in a circuit?

A switch is used to break or complete a circuit, allowing the flow of electricity to be controlled.

What is the difference between a conductor and an insulator?

A conductor allows electricity to flow through it easily (e.g., metals), while an insulator stops or blocks the flow (e.g., plastic or wood).

How does increasing the number of cells affect a bulb in a circuit?

Increasing the number of cells increases the voltage, which makes the bulb shine brighter (provided the voltage is not too high for the bulb).

What happens if a circuit is broken?

The electrical current cannot flow, and any components like bulbs or buzzers will stop working.

Name three common electrical components that use symbols in circuit diagrams.

Cells, bulbs, and switches.

Why do we use symbols to draw circuit diagrams?

Symbols provide a universal, clear, and quick way to represent electrical components so that anyone can understand the circuit design.

If a bulb is dim, what could you do to make it brighter using components?

You could add another cell to the circuit to increase the voltage.

Is plastic a good material to use for the coating of an electrical wire? Why?

Yes, because plastic is an insulator, which protects us from touching the live metal wire and getting an electric shock.