

Year 6 - Electricity

Why are wires so important in a circuit?

Prior learning

In Year 4, you named components in an electrical circuit (not symbols) and constructed simple circuits including switches and various conductors.

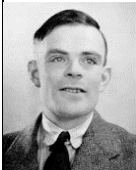
Future learning

In secondary school, you will construct parallel circuits and develop your knowledge of voltage and current.

In this unit you will:

- Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit
- Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches
- Use recognised symbols when representing a simple circuit in a diagram

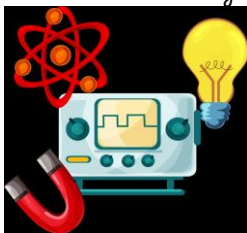
Key Scientist: Alan Turing



Alan Turing became famous for creating a machine which solved the 'Enigma code' in World War Two. This machine decoded secret messages from the Germans.

Science discipline: Physics

Physics is the study of the relationship of objects, forces, and energy. Physics explains gravity, and the way things move, according to Newton's Laws of Motion. It also helps us understand behaviour and movement of energy such as heat, light and electricity.



Scientific diagram

Light		
Cell		
Battery		
Open switch		
Closed switch		
Motor		
Buzzer		
Voltmeter		

Vocabulary:

- **Circuit:** A circuit is a complete path around which electricity can flow. It must include a source of electricity, such as a battery.
- **Cell:** A cell is a device used to power electrical circuits. It has two terminals; positive and negative.
- **Battery:** A battery is a sort of container that stores energy until it is needed. Chemicals inside the battery store the energy.
- **Motor:** An electric motor changes electrical energy into mechanical movement.
- **Voltage:** A measure of how strong the current is in a circuit. It is what "pushes" the current through the circuit to a device.
- **Resistors:** The part of an electrical circuit that resists, or limits, the power of an electrical current in a circuit.