

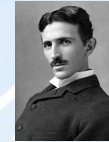
Why do we need to be able to control electricity?

Electricity Y6



Key scientist - Nikola Tesla

He was a Serbian-American inventor who worked on electrics and radio technology. He discovered that electrical machines work better using alternating current (AC), which means the electricity reverses back and forth.

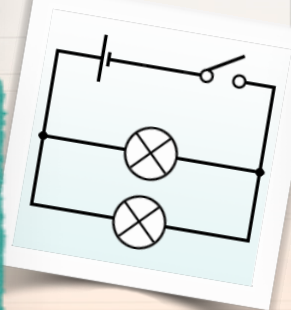
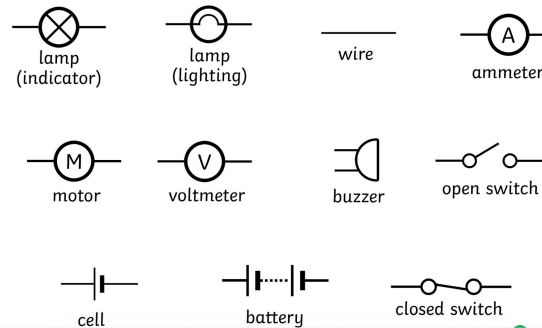
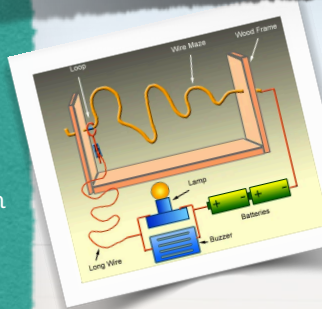


Key vocabulary

battery	A container that stores cells to convert chemical energy into electrical energy
cell	A single unit that converts chemical energy into electrical energy
circuit	A complete circular path that electricity flows through
components	Part of an electrical circuit
electrical conductor	A material that allows electricity to flow through it
current energy	Electricity that flows through wires
energy	The power to make things move and work
electrical insulator	A material that does not allow electricity to flow through it
output	the amount of something produced (e.g. brightness of a bulb)
switch	A gap that can be closed to allow electricity to flow or opened to stop the flow
Voltage (V)	A measure of stored electrical potential, named after Alessandro Volta
Watt (W)	A unit of electrical power named after the inventor James Watt
wires	a thin piece of metal which electric currents flow through, usually covered in plastic

Key learning

- To associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit
- To 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
- To use recognised symbols when representing a simple circuit in a diagram



Scientific enquiry types



Pattern seeking



Research

Working scientifically focus

- Making predictions
- Setting up tests
- Recording data

Electricity - Our Learning Journey

Year 3/4

- Constructing simple circuits
- Electrical conductors and insulators

Year 5/6

- Variation of circuits including brightness of bulbs
- Using correct symbols to draw circuit diagrams



Ethics

Is electricity a human right?



