



Vocabulary

battery/cell an electrical energy source

bulb a light source powered by electricity

buzzer a source of sound powered by electricity

motor a device which uses electricity to produce movement

break in an electrical circuit, this will stop the circuit from working

insulator in an electrical circuit, this will not allow electricity to flow through it

conductor in an electrical circuit, this will allow electricity to flow through it

switch a break in a circuit which you can control

circuit a loop through which electricity can flow

Physics

Science Y4: Electricity

Key symbols

Component	Symbol
Cell (Battery)	
Power supply	
Wire	
Bulb/light	
Motor	
Buzzer	
Switch	

Key diagrams and knowledge

Electricity (or **electrical current**) is a flow of **electrons** (negatively charged particles) which transfers energy. It requires an energy source, such as the chemical reaction that takes place in the cell, and a complete circuit.

A **complete circuit** is required for electricity to flow and that the cell is the power source for the circuit, which creates the flow of electricity. The flow of electricity (which carries energy) through a bulb, motor or buzzer is what makes it work.

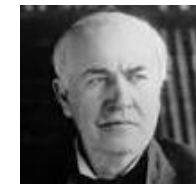
Links to prior learning and next steps:

Year 2: identify common appliances that run on electricity. Construct a simple series electrical circuit, identifying and naming its basic parts. Identify whether or not a lamp will light in a simple series circuit.

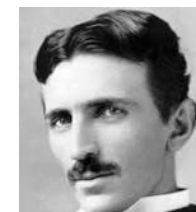
Scientists



Michael Faraday
(electromagnetism)



Thomas Edison
(inventor)



Nikola Tesla
(engineer)



Benjamin Franklin
(inventor)

Links to other subjects:
D&T: Morse code machines
Maths: Data handling