

What affects the performance of components in a circuit?

Key Vocabulary

series circuit

cell/battery

bulb/lamp

current

voltage

complete circuit

incomplete circuit

switch

buzzer

independent variable

dependent variable

controlled variables

repeatability

accuracy

evaluate

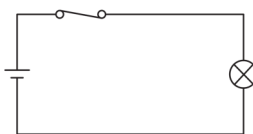
Circuit diagram symbols

	cell
	battery
	lamp/bulb
	buzzer
	motor
	wires
	open switch
	closed switch

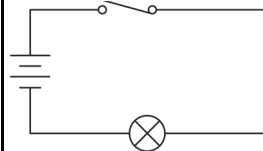
Key Knowledge

- A series circuit is one in which all the components are connected in one continuous loop.
- A series circuit has a cell and wires, plus components such as a bulb, a buzzer and a switch.
- Each component in a circuit diagram is represented by a circuit symbol.
- Current is the flow of electricity in a circuit.
- Voltage causes the current to flow.
- For a circuit to be complete, all the components, including a cell, must be connected by wires and the switch must be closed.
- An incomplete circuit may have a break in the wires, a switch may be open or the cell may be in the holder the wrong way.
- The current does not flow at all in an incomplete circuit.
- The more components there are in a circuit, the dimmer the bulbs and the quieter the buzzers.
- The more components there are in a circuit, the more difficult it is for current to flow.

complete circuit



incomplete circuit



Famous scientists

Nikola Tesla
Joseph Swan
Thomas Edison
Lewis Latimer
Hertha Ayrton
Charles K. Kao
Florence Parpart
Ida Forbes

Asking questions

Asking questions that can be answered using a scientific enquiry.



Making predictions

Using prior knowledge to suggest what will happen in an enquiry.



Setting up tests

Deciding on the method and equipment to use to carry out an enquiry.



Observing and measuring

Using senses and measuring equipment to make observations about the enquiry.



Recording data

Using tables, drawings and other means to note observations and measurements.



Interpreting and communicating results

Using information from the data to say what you found out.



Evaluating

Reflecting on the success of the enquiry approach and identifying further questions for enquiry.

