

Year 6: Ravens

Science

Spring 1

Electricity

Symbols

Scientists use universally agreed symbols to represent the components (parts) of a circuit. The ones below are commonly used in Key Stage Two science:



Battery



Wire



Bulb



Buzzer



Motor



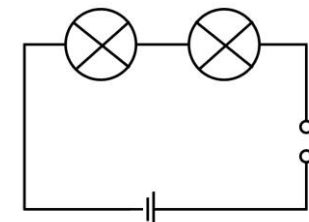
Switch (off)



Switch (on)

Key Vocabulary	Definition
cell	(noun) A cell is a single power-generating unit that stores chemical energy and converts it into electrical energy.
components	(noun) A component is any part that makes up the electrical circuit such as the battery, the buzzer or the lightbulbs.
conductor	(noun) A material or device that allows the current to pass through it.
current	(noun) An electric current is a flow of charged particles, such as electrons or ions, moving through an electrical conductor or space.
insulator	(noun) A material which does not allow electrical current to pass through it.
kill switch	(noun) Also known as an emergency break or emergency stop is a safety mechanism used to shut off machinery in the event of an emergency.
series circuit	(noun) Components connected in series are connected along a single "electrical path", and each component has the same electric current through it, equal to the current through the network.
short circuit	(noun) A type of circuit typically resulting from the unintended contact of components and consequent accidental diversion of the current.
switch	(noun) a device for making and breaking the connection in an electric circuit.
volts	(noun) A unit of measurement used to describe the amount of electrical force that flows through a circuit.

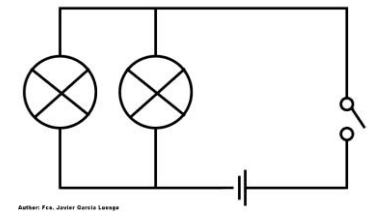
A series circuit



Author: Pto. Javier Garcia Lopez

There is only one path that the current will flow. Each component will have the same electrical current through it. It is either on or off – all of the components will be the same.

A parallel circuit



Author: Pto. Javier Garcia Lopez

There will be different paths that the current could flow through. Depending on the circuit, it can be set up so different components can be turned off and on without impacting on other components.

SAFETY: Electrical circuits can be dangerous and the ones in your houses can carry high voltages which can kill! Never play with electrical circuits and always ensure power is off!