

## Electrical Systems - Greeting cards

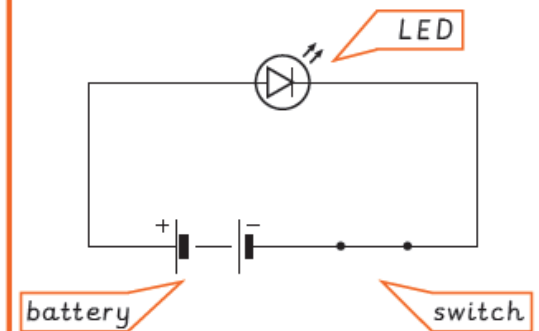
Battery	A cell or connected group of cells which store electrical energy.
Buzzer	A component which makes a loud noise as electricity passes through it.
Circuit	A collection of components which make an electrical system.
Component	One of several parts of which something is made.
Conductor	A material that allows electricity or heat to pass along it or through it.
Copper	A metal material that is one of the best conductors of heat and electricity. It is often used to make wires and pipes.
Design	To make, draw or write plans for something.
Design criteria	To help designers focus their ideas and test the success of them.
Function	How an object or product operates or works.
Graphite	A conductive, black carbon material that is used to make pencil leads.
Innovative	Introducing or using new ideas or ways of doing something.
Insulator	A material that doesn't allow electricity or heat to pass along or through it.
LED	A light emitting diode which lights up as electricity passes through.
Modify	Changing something to improve or fix it.
Parallel circuit	An open circuit where the current follows two or more paths.
Series circuit	A closed circuit where the current only follows one path.
Switch	A component which opens and closes to turn the circuit on or off.
Target audience	A particular group of people who the product is aimed at.
Test	To find out whether something works as it should.
Wire	A conducting material which transfers electricity within a circuit.

## Key facts



**Electricity** needs a complete **circuit** to flow around.  
**Switches** work by closing the gap in a circuit.  
**Bulbs, cells, buzzers, motors** and **switches** are all types of **components**.

### Series Circuit Diagram



### More circuit symbols

wire	_____
switch open	_____ / _____
switch closed	_____

## Did you know?



Electricity travels at the speed of light.  
 That's more than 186,000 miles a second!