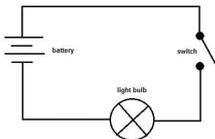


Things you already know

- You know that common appliances such as ovens, washing machines, toaster and computers run on electricity
- You know that components need to be in a complete loop with the battery in order to work
- You know a switch opens and closes a circuit and this will turn on and off a lamp in a simple series circuit
- You know conductors of electricity are materials which allow electricity to pass through, insulators do not let electricity pass through
- You know metals are good conductors of electricity as is seawater
- You know insulators of electricity include glass, rubber, dry wood and oil

Skills you already have

- You can construct a simple series electrical circuit, naming its basic parts including cells, wires, bulbs, switches and buzzers



Key Vocabulary

cell	a device containing electrodes, used for generating current
battery	a collection of electrical cells joined together
electrodes	a conductor through which electricity enters or leaves an object
electrolytes	an electric conductor in which current is carried
current	the moving electrical charges, eg electrons moving through a metal wire
component	the working parts of a circuit
voltage	the pressure from an electrical power source that pushes charged electrons (current) through the circuit

- You will know major discoveries in electricity, including Benjamin Franklin discovering negative and positive charges, and Alessandro Volta inventing the first battery
- You will know a cell is a single unit with two electrodes and an electrolyte and a battery is a collection of cells
- You will know we use simple symbols to represent the different components, this is to ensure that the same symbols are used in all countries across the world, no matter which language is spoken
- You will know the current in a series circuit depends upon the number of cells and if you make the cells face in the same direction, the more cells you add, the greater the current
- You will know that if you put more lamps into a series circuit, the lamps will be dimmer than before because less current will flow through them



New Science Skills

- You will be able to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
- You will be able to select the most appropriate way to record my data
- You will be able to report and present findings from my investigations