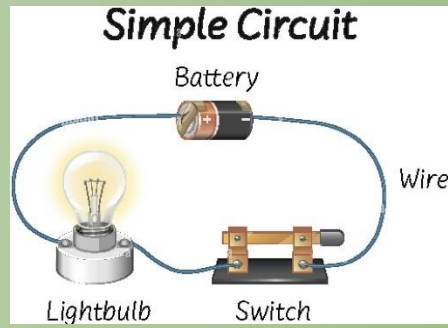


Electricity

Year 4 Autumn 1
Sparks Might Fly!

Sticky Knowledge



What common appliances run on electricity?

Some examples are:

Oven, fridge, freezer, television, microwave, toaster, electric toothbrush, hair dryer, laptops etc..

What is a series circuit?

These are circuits where all the parts are connected in a single loop.

What stops a circuit from working?

A bulb will not light in a circuit if it is not in a complete loop with the cell. A bulb will not light in a circuit if a switch is open.

What is a switch? Where are switches used? It is a device that allows a circuit to be opened or closed without having to detach the energy source. Switches are used around the home e.g. lighting circuit,

What are conductors and insulators? A **conductor** is a material that allows electricity to flow through it e.g. most metals. An **insulator** is a material that does not allow electricity to flow through it e.g. rubber.

What are the dangers of electricity?

Electricity can cause severe burn injuries, fatal shocks and even death. Create a poster about how to stay safe around electricity.

- appliances** – electrical devices used for a particular purpose, e.g. fridge, oven



- plug** – a device put into a socket to connect to an electrical circuit



- socket** – the part of the electrical circuit where the plug fits to make a connection



- cell** – a portable store of energy



Useful websites

<https://www.bbc.co.uk/bitesize/articles/zcwn>

Science



battery



wire



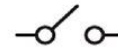
bulb



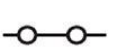
buzzer



motor



switch open



switch closed

- conductor** – a material that allows energy to flow through it



- insulator** – a material that does not allow energy to flow through it



- metal** – a material which can be hard, shiny and a conductor of electricity



Key Vocabulary

Vocabulary	Definition
Electricity	Electricity is a flow of charged particles. Electricity is a way of moving the energy needed to power appliances.
circuit	A closed path that energy can flow through
conductor	A material that allows electricity to flow through it.
insulator	A material that does not allow electricity to flow through it.
cell	A portable source of energy
battery	Two or more cells joined together to store more energy
switch	A device that opens and closes an electrical circuit

