



Glossary		
1	electricity	a form of energy
2	energy	a source of power
3	appliance	a piece of equipment we use to complete a task
4	electric appliance	a piece of equipment we use to complete a task, powered by electricity
5	non-electric appliance	a piece of equipment we use to complete a task, not powered by electricity
6	wires	metal made into a thin and flexible thread
7	mains	a power supply used via a plug and plug socket
8	battery	a power source
9	plug	is plugged into a plug socket to access electricity
10	circuit	a route that starts and finishes in the same place
11	components	a part (placed in a circuit)
12	light bulb	a component which turns electricity into light
13	buzzer	a component which turns electricity into sound
14	motor	a component which turns electricity into movement
15	brighter	gives out more light
16	dimmer	gives out less light
17	switch	a component which controls the flow of electricity
18	insulator	a material which does not allow electricity to pass through it
19	conductor	a material which does allow electricity to pass through it
20	material	something from which an object can be made



What is electricity and when do we use it?

Electricity is a type of energy which is very useful because it can easily be changed into another type of energy such as heat, light or sound. Electricity can flow along wire and cables and we are then able to use it to power electrical appliances that we use in our everyday lives.

Some electrical appliances we use will need batteries to work and some will need to be plugged into a socket to work but either way, they are using electricity. Everyday appliances that use electricity include: televisions, mobile phones, hairdryers, washing machines, fridges, cars, irons and computers. Can you think of any others?

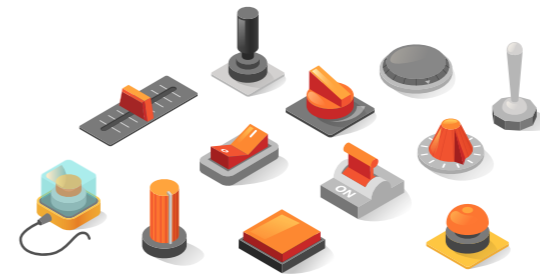


Whenever we are around electricity or electrical appliances it is important that we act safely and sensibly. If we do not, there is a chance we could receive an electric shock and get seriously hurt. We can be safe in our homes by not putting our fingers into plug sockets, not placing electrical appliances near or into water and by not allowing electrical cables to trail along the floor.

What does a switch do?

A switch can both break and complete a circuit. A complete circuit has no gaps and so the electricity can flow around it whereas a broken or incomplete circuit has a gap and the electricity cannot flow around it.

When you turn a switch on the circuit is complete — your appliance works. When you turn a switch off the circuit is incomplete and the appliance does not work.

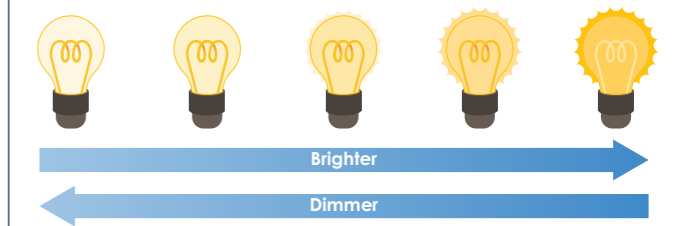


What changes the brightness of a bulb?

When a bulb gives out more light, we say it is brighter. When a bulb gives out less light, we say it is dimmer.

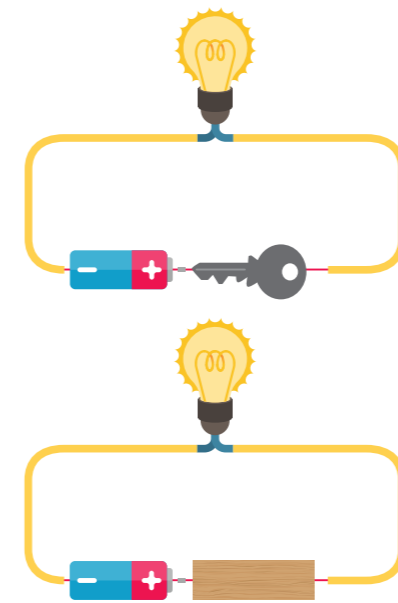
If there are more bulbs in a circuit, the energy from the battery has to be shared, causing each bulb to be dimmer.

If there are more batteries in a circuit, there is more energy, causing bulbs to be brighter.



What are conductors and insulators of electricity?

Materials have many different properties and one of those properties is whether a material is a conductor or an insulator of electricity. A conductor is a material which allows electricity to pass through it. In a circuit it will act in the same way a wire does. An insulator is a material which does not allow electricity to pass through it. Wood is an insulator.



What is a circuit?

A circuit provides a pathway for an electrical current to flow. We use circuits to take the flow of electricity from a power source to the appliance we want to use.

A simple circuit needs wires, a power source and an appliance such as the light bulb in this circuit here. The flow of electricity from the power source is lighting up the bulb.

