



Science – Year 4  
Spring 1 - Electricity



Energy can be transferred from one place to another in many different forms. Appliances can change electricity to light, heat, sound or movement energy.



To construct a simple circuit, we need...



...an electrical cell...



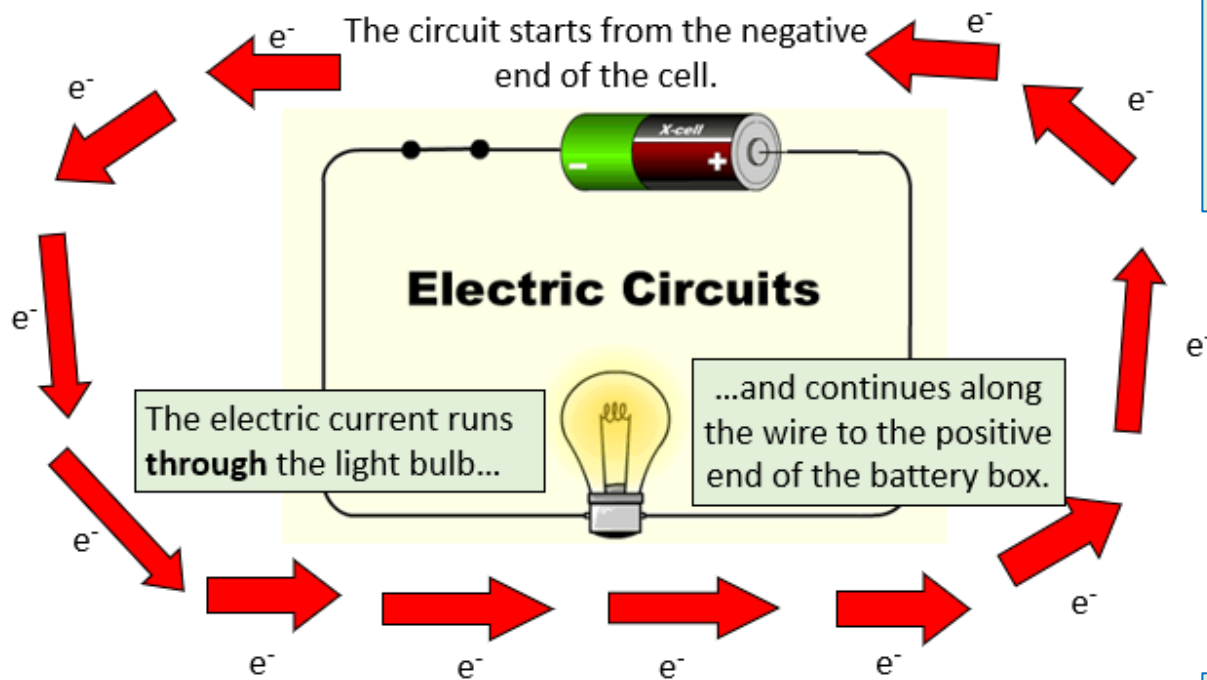
...a light bulb...



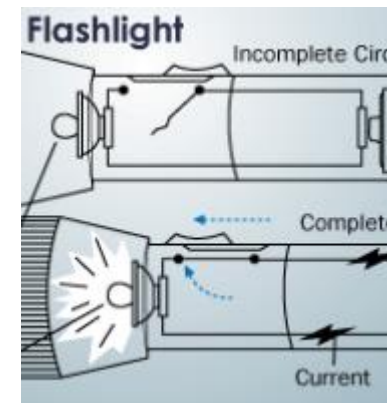
...electrical wires and crocodile clips.

Some materials do not allow electricity to pass through them. These materials are known as electrical insulators.

Key Vocabulary	Definition
<b>Electricity</b>	Form of energy that is carried through wires and used to operate lights, etc.
<b>Plug</b>	Device for making an electrical connection between an appliance and the mains.
<b>Electrical circuit</b>	Path in which electrons from a voltage or current flow.
<b>Circuit symbol</b>	Diagram of an electrical component.
<b>Component</b>	Part of a larger whole.
<b>Cell</b>	Device used to generate electricity.
<b>Battery</b>	Device that produces electricity, in parallel or series.
<b>Conductor</b>	Material that conducts or transmits energy.



When a switch is open (off), there is a gap in the circuit. Electricity cannot travel around the circuit.



When a switch is closed (on), it makes the circuit complete. Electricity can travel around the circuit.

Many metals, such as copper, iron and steel, are good electrical conductors. That is why the parts of electrical objects that need to let electricity pass through are always made of metal.

Cell	Supplies electrical energy.
Switch	Allows electricity to flow when closed.
Bulb	Converts electrical energy to light.
Bell/buzzer	Converts electrical energy to sound.
Wire	Connects components and passes electricity from one part of the circuit to another.
Motor	Converts electrical energy to movement.