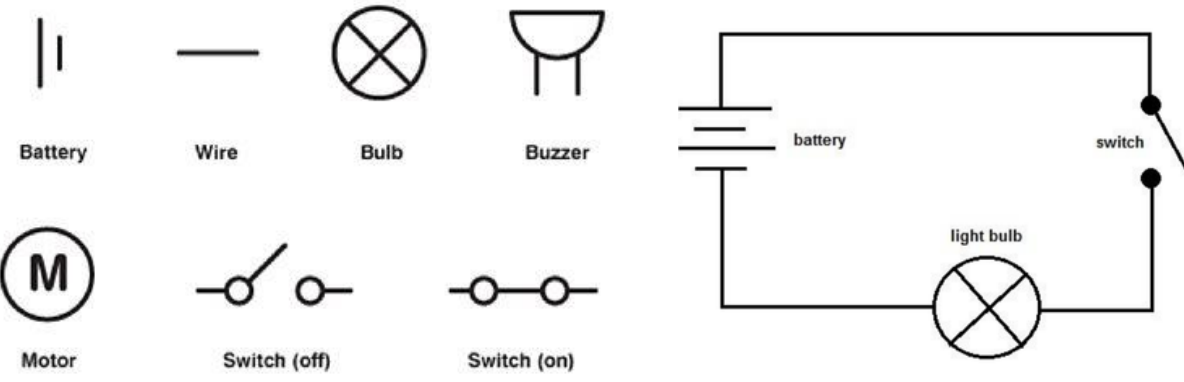





Key Facts	Diagram/Investigations	
<p>Where does electricity come from? Electricity is generated using energy from natural sources such as the Sun, oil, water and wind. These can also be called fuel sources.</p> <p>What are electrical conductors and insulators?</p> <ul style="list-style-type: none"> • When objects are placed in the circuits, they may or may not allow electricity to pass through. • Objects that are made from materials that allow electricity to pass through a create a complete circuit are called electrical conductors. • Objects that are made from materials that do not allow electricity to pass through and do not complete a circuit are called electrical insulators. 	 <p>The diagram illustrates various electrical symbols and a complete circuit. The symbols include: Battery (two parallel lines of unequal length), Wire (a single horizontal line), Bulb (a circle with a cross inside), Buzzer (a semi-circle with two short lines), Motor (a circle with an 'M' inside), Switch (off) (two small circles with a diagonal line between them), and Switch (on) (two small circles connected by a horizontal line). A complete circuit diagram is shown on the right, consisting of a battery, a switch, and a light bulb connected in a loop.</p>	
Key Learning:	Prior Learning:	Books to support/ Enrichment Opportunities:
<p>To identify common appliances that run on electricity</p> <p>To construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers</p> <p>To identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery</p> <p>To recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit</p> <p>To recognise some common conductors and insulators, and associate metals with being good conductors</p>	<p>Year 1 – identifying and grouping materials</p> <p>Year 2 – identify and compare suitability of materials</p>	 <p>The books shown are 'OSCAR and the BIRD: A BOOK ABOUT ELECTRICITY' by Geoff Waring, 'See Inside ENERGY' by An Usborne Flip Book, and 'COOL CIRCUITS AND WICKED WIRES' by Katie Kemp.</p>

Subject Specific Vocabulary

Key word	Definition
appliances	a device or machine in your home that you use to do a job such as cleaning or cooking. Appliances are often electrical .
battery	small devices that provide the power for electrical items such as torches
bulb	the glass part of an electric lamp, which gives out light when electricity passes through it.
buzzer	an electrical device that is used to make a buzzing sound
circuit	a complete route which an electric current can flow around
component	the parts that something is made of
conductor	a substance that heat or electricity can pass through or along
current	a flow of electricity through a wire or circuit
device	an object that has been invented for a particular purpose
electricity	a form of energy that can be carried by wires and is used for heating and lighting, and to provide power for devices
energy	the power from sources such as electricity that makes machines work or provides heat
insulator	a non-conductor of electricity or heat
switch	a small control for an electrical device which you use to turn the device on or off
wires	a long thin piece of metal that is used to fasten things or to carry electric current