



Science Focus:	Electricity	Year 4	Summer Term 1
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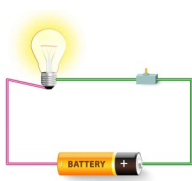
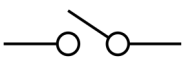
Key Vocabulary		Conductors and Insulators	
Spelling	Definition	Conductors	<ul style="list-style-type: none"> <li>Some materials let electricity pass through them easily. They are known as electrical conductors.</li> <li>Many metals, such as iron, copper and steel, are good electrical conductors.</li> </ul>
battery	An electric cell or connected electric cells for providing electric current.	Insulators	<ul style="list-style-type: none"> <li>Some materials do not allow electricity to pass through them. They are known as electrical insulators.</li> <li>Wood, glass, plastic and rubber are good electrical insulators. That is why they are used to cover materials that carry electricity.</li> </ul>
circuit	A path through which an electrical current flows.		
component	A part of something (a part of a circuit).		
conductor	A substance or body capable of transmitting light, electricity, heat, or sound.		
current	The flow of electrical charge.		
generator	A machine that make electrical energy.		
insulator	A material that is a poor conductor (as of electricity or heat).		








**Key Knowledge**

Electricity	
What is electricity?	Electricity is created by generators which can be powered by gas, coal, oil, wind or solar. The electrical energy can be converted into other types of energy such as light, heat, movement or sound.
Electrical safety	Electricity is dangerous, so be careful when using electrical appliances.
What are common appliances that run on electricity?	Any appliances that need to be plugged in run on electricity. For example: <ul style="list-style-type: none"> <li>television</li> <li>computer</li> <li>microwave</li> <li>lights</li> </ul>



**Electrical Circuits**

A series circuit 	<ul style="list-style-type: none"> <li>Electricity can flow through the components in a complete electrical circuit.</li> <li>A circuit always needs a power source, such as a battery, with wires connected to both the positive (+) and negative (-) ends. (A battery is made from a collection of cells connected together).</li> <li>A circuit can also contain other electrical components, such as bulbs, buzzers or motors, which allow electricity to pass through.</li> <li>Electricity will only travel around a circuit that is complete. That means it has no gaps.</li> </ul>
What is a switch? 	<ul style="list-style-type: none"> <li>You can use a switch in a circuit to create a gap in a circuit. This can be used to switch it on and off.</li> <li>When a switch is open (off), there is a gap in the circuit. Electricity cannot travel around the circuit.</li> <li>When a switch is closed (on), it makes the circuit complete. Electricity can travel around the circuit.</li> </ul>

			
Battery	Wire	Bulb	Buzzer
			
Motor	Switch (off)	Switch (on)	

