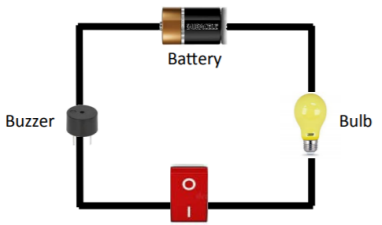
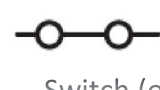
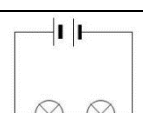
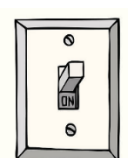
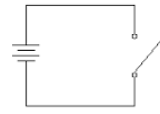
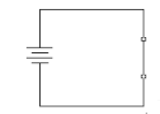
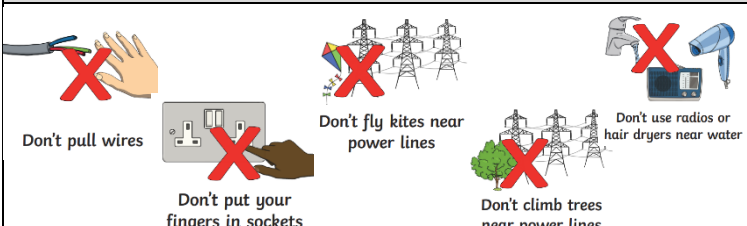


Electricity			
Key Knowledge			
Electricity		An Electrical Circuit	
What is Electricity? - Electricity is created by generators which can be powered by gas, coal, oil, wind or solar. - The electrical energy can be converted into other types of energy such as light, heat, movement or sound. - Electricity is dangerous, so be careful when using electrical appliances.		 A series circuit (One pathway around the circuit)	
What are common appliances that run on electricity?	Any appliances that need to be plugged in run on electricity. For example: ⇒ Television ⇒ Computer ⇒ Microwave ⇒ Lights 	- Electricity can flow through the components in a complete electrical circuit. - 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). - A circuit can also contain other electrical components, such as bulbs, buzzers or motors, which allow electricity to pass through. - Electricity will only travel around a circuit that is complete. That means it has no gaps.	
Diagrams and Symbols		Electrical Conductors and Insulators	
 Cell	 Bulb	Conductors - Some materials let electricity pass through them easily. They are known as electrical conductors. - Many metals, such as iron, copper and steel, are good electrical conductors.	
 Wire	 Motor		
 Switch (on)	A series circuit is a closed circuit in which the current follows one path 	Insulators - Some materials do not allow electricity to pass through them. They are known as electrical insulators. - Wood, glass, plastic and rubber are good electrical insulators. That is why they are used to cover materials that carry electricity.	
What is a switch?			
	-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. -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.		
		Open circuit: an electrical circuit in which the continuity is broken so that current does not flow.	Closed circuit: a complete electrical connection around which current flows or circulates
Electrical dangers		Key Vocabulary	
 Don't pull wires Don't put your fingers in sockets Don't fly kites near power lines Don't use radios or hair dryers near water Don't climb trees near power lines		Generator	A machine that makes electrical energy
		Component	A part of something (a part of a circuit)
		Circuit	A path through which electrical current flows
		Connected	Something that is joined or linked
Working scientifically			
Which materials make the best conductors or insulators? How can we find out? How can we test if a circuit works? What happens if we add multiple components to a circuit? What happens if there is a break in a circuit? How does a switch work?			