

Leintwardine Endowed CE Primary School Learning Journey Key

'Letting Our Light Shine'

SUBJECT : Science

YEAR : B

TERM : Spring 2

YEAR GROUPS : 3/4

Key Question: What makes a circuit complete?

Question	Vocabulary to Use	Information which will help me	Can I....?						
What appliances around me run on electricity?	appliance, mains, battery, electricity, powered, device, electricity,	<div data-bbox="582 406 1086 678"> <p>Appliances Many everyday appliances rely on electricity for them to work. Some appliances use mains electricity (are plugged into a socket) and others have a battery to make them work. Examples of mains-powered appliances include toasters and televisions. Battery-powered appliances can include mobile phones and torches.</p> </div> <div data-bbox="1108 478 1848 718"> <p>Materials can be tested in a circuit to see if they are electrical conductors or electrical insulators.</p> <p>10p = metal = electrical conductors test circuit ruler = plastic = electrical insulators</p> </div>	Define what an electrical appliance is and identify which use mains or which use batteries?						
What are the components of a circuit?	circuit, series, bulb, wire, buzzer, switch,	<div data-bbox="582 718 1086 925"> <p>mains-powered battery-powered</p> </div>	Identify different components of a circuit and what they do?						
Is a circuit complete or incomplete?	cell, battery, component, diagram, complete circuit, incomplete circuit, energy ball, conductor,	<div data-bbox="1265 790 1859 1173"> <p>Components (Parts) Vocabulary</p> <table border="1"> <tr> <td data-bbox="1265 813 1467 997"> <p>cell: Normally we'd call this a battery but scientifically this is a cell. Two or more cells joined together form a battery.</p> </td> <td data-bbox="1467 813 1668 997"> <p>bulb: Lights up in a complete circuit.</p> </td> <td data-bbox="1668 813 1859 997"> <p>buzzer: Makes a noise in a complete circuit.</p> </td> </tr> <tr> <td data-bbox="1265 997 1467 1173"> <p>wires: Used to connect the different component in the circuit together.</p> </td> <td data-bbox="1467 997 1668 1173"> <p>motor: Produces movement in a complete circuit.</p> </td> <td data-bbox="1668 997 1859 1173"> <p>switch: Used to turn other components in the circuit on or off.</p> </td> </tr> </table> </div>	<p>cell: Normally we'd call this a battery but scientifically this is a cell. Two or more cells joined together form a battery.</p>	<p>bulb: Lights up in a complete circuit.</p>	<p>buzzer: Makes a noise in a complete circuit.</p>	<p>wires: Used to connect the different component in the circuit together.</p>	<p>motor: Produces movement in a complete circuit.</p>	<p>switch: Used to turn other components in the circuit on or off.</p>	Build a series of circuits and identify if they are complete or incomplete?
<p>cell: Normally we'd call this a battery but scientifically this is a cell. Two or more cells joined together form a battery.</p>	<p>bulb: Lights up in a complete circuit.</p>	<p>buzzer: Makes a noise in a complete circuit.</p>							
<p>wires: Used to connect the different component in the circuit together.</p>	<p>motor: Produces movement in a complete circuit.</p>	<p>switch: Used to turn other components in the circuit on or off.</p>							
What are conductors and what are insulators?	insulator, material, object, equipment, prediction,	<div data-bbox="571 933 1254 1173"> <p>Key Knowledge</p> <table border="1"> <tr> <td data-bbox="571 965 907 1173"> <p>Examples of Electrical Conductors</p> <p>water metal</p> </td> <td data-bbox="907 965 1254 1173"> <p>Examples of Electrical Insulators</p> <p>wood plastic paper rubber glass fabric</p> </td> </tr> </table> </div>	<p>Examples of Electrical Conductors</p> <p>water metal</p>	<p>Examples of Electrical Insulators</p> <p>wood plastic paper rubber glass fabric</p>	Explain what electrical conductors and insulators are and give examples of them?				
<p>Examples of Electrical Conductors</p> <p>water metal</p>	<p>Examples of Electrical Insulators</p> <p>wood plastic paper rubber glass fabric</p>								
How do switches work?	result, conclusion, closed, open, on, off, slide switch, toggle switch,	<div data-bbox="1176 1189 1769 1444"> <p>Switches can be used to open or close a circuit. When off, a switch 'breaks' the circuit to stop the flow of electricity. When on, a switch 'completes' the circuit and allows the electricity to flow.</p> <p>toggle switch push button switch slide switch</p> </div>	Identify different switches and explain how they work?						
Can I fix problems with electrical circuits?	selector switch, push button switch, battery-powered, mains-powered,	<div data-bbox="560 1189 1153 1444"> <table border="1"> <tr> <td data-bbox="560 1189 806 1444"> <p>Complete Circuit</p> <p>Electricity can flow. Components will work.</p> </td> <td data-bbox="806 1189 1153 1444"> <p>Incomplete Circuit</p> <p>There is a break in the circuit that prevents the electricity from flowing. The components will not work.</p> </td> </tr> </table> </div>	<p>Complete Circuit</p> <p>Electricity can flow. Components will work.</p>	<p>Incomplete Circuit</p> <p>There is a break in the circuit that prevents the electricity from flowing. The components will not work.</p>	Apply my knowledge of electricity to different situations?				
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