Year 4 Science Knowledge Organiser - Electricity

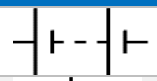
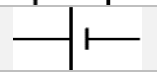
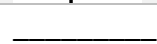
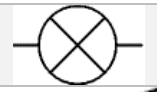
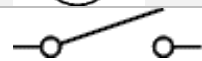
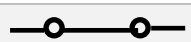
Selected Vocabulary and Definitions

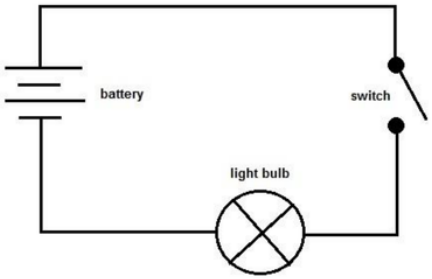
Circuit diagram	A diagram that uses conventional symbols to represent the components of an electrical circuit
Battery	A group of cells. The power source in a circuit
Cell	A single unit power source.
Wire	Conducts electricity
Bulb	An electrical component which lights up in a circuit
Switch	A device that causes a break in the flow of electricity
Buzzer	An electrical component that changes electrical energy into sound
Conductor	A material that allows electricity to flow through it e.g. metals
Insulator	A material which <u>does not</u> allow electricity to flow through it e.g. wood

Curriculum Objectives

- I can talk about common appliances that run on electricity.
- I can construct and draw with labels a simple series electrical circuit which includes cells, wires, bulbs, switches and buzzers.
- I can predict if a lamp will light or not in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.
- I can explain that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.
- I can show that some materials are conductors, some are insulators, and can explain that metals are good conductors.

Circuit Component Diagrams

Battery	
Cell	
Wire	
Bulb	
Open switch	
Closed switch	
Buzzer	



Key Questions

Name three appliances that run on electricity.
Which components would I need to create a series circuit to light a bulb?
The bulb won't light in my circuit. What could the problem be?
A switch in my circuit is closed. Does this mean that the bulb is on or off?
Name one conductor and one insulator of electricity.