Electricity (Y3&4)

knowledge

Many household devices and appliances run on electricity. Some plug in to the mains and others run on batteries. (Name some.)	An electrical circuit consists of a cell or battery connected to a component using wires.
If there is a break in the circuit, a loose connection or a short circuit the component will not work.	A switch can be added to the circuit to turn the component on and off.
Metals are good conductors so they can be used as wires in a circuit.	Non-metallic solids are insulators except for graphite (pencil lead).
Water, if not completely pure, also conducts electricity.	Conductors allow electricity to pass through them, whereas insulators do not.
Make a series circuit that works and name the components in it.	Know whether a lamp will or will not light based on the circuit being complete or not.

Children in year 4 do NOT need to use standard symbols for the components.

Subject Vocabulary

cell/ battery	a source of energy giving a push of energy to move the current
wire	something that connects different parts of a circuit
bulb	produces light if electricity is flowing
switch	starts and stops electricity flowing
buzzer	makes a noise if electricity is flowing
circuit	a roughly circular route that starts & finishes at the same cell
series	a closed circuit in which the current follows one path
conductor	allows electricity to pass through it
insulator	doesn't allow electricity to pass through it
component	a part of a circuit
positive	one side of a cell
negative	the opposite side of a cell
short circuit	where wires that are not supposed to come in contact with each other touch
motor	changes electrical energy to movement
crocodile clip	makes temporary electrical connection
loose connection	a cause of an imperfect circuit
current	the flow of an electric charge