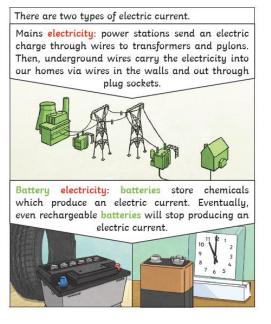
## **Key Learning**

- 1. To identify common appliances that run on electricity
- 2. To know how electricity can be dangerous
- 3. To know that batteries push electricity around a circuit and to name the parts of a circuit
- 4. To recognise conductors and insulators and recognise how a switch can open and close a circuit
- 5. To conduct electrical circuit and identify whether a bulb will light or

## Science – Y4 Electricity Knowledge Organiser



## Key vocabulary

Key Word	Definition
series circuit	A looped circuit where the electricity flows from the positive to negative terminal of the battery.
circuit diagram	Electrical components shown in a picture by using standard symbols.
parallel circuit	A circuit with two or more pathways for the current to flow through.
conductor	Materials which allow electricity to flow through them with ease.
insulator	Materials that do not allow electricity to pass through them with ease.
loop	A complete circuit.
switch	A toggle which is changed by someone as way of controlling an electrical circuit or system.
resistance	A measure of how much an object opposes the flow of electrons.

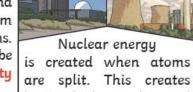
## Key Knowledge

Lightning and static electricity are examples of electricity occurring naturallu but for us to use electricity to power appliances, we need to make it.



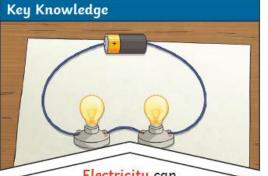
Coal, oil and natural gases are fossil fuels which, when produce burnt. heat which can be used to generate electricity.

Electricity can be generated from wind power used to turn windmills and hydroelectric power from water used in dams. The Sun's rays can be converted into electricity by solar panels.



are split. This creates heat which can be used to generate electricity. Geothermal energy is heat from the Earth that is converted into electricity.





Electricity can

only flow around a complete circuit that has no gaps. There must be wires connected to both the positive and negative end of the power supply/battery.

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.



A conductor of electricity is a material that will allow electricity to flow through it. Metals are good conductors. Materials that are electrical insulators do not allow electricity to flow through them. Wood, plastic and glass are good insulators

