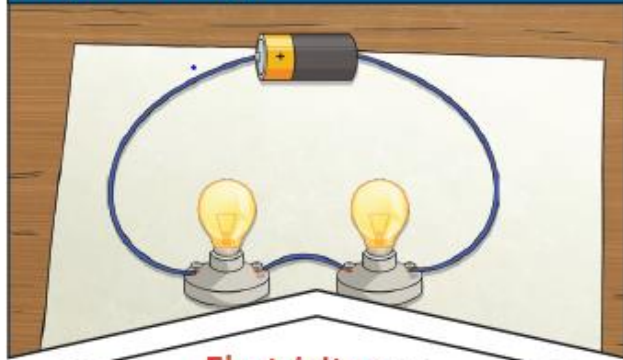


# Year 4 – Electricity

## Key Knowledge



**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.



## Vocabulary Dozen

|                          |  |
|--------------------------|--|
| <b>electricity</b>       | Energy caused by the movement of electrons through matter                            |
| <b>Series circuit</b>    | A closed circuit in which the current follows one path                               |
| <b>conductor</b>         | Anything that carries or allows passage of heat, electricity or sound                |
| <b>insulator</b>         | A material that does not conduct electricity   |
| <b>cell</b>              | A device that makes electricity by chemical means                                    |
| <b>switch</b>            | A device that opens and closes an electrical circuit                                 |
| <b>buzzer</b>            | An electrical device that signals by buzzing   |
| <b>bulb</b>              | A device made of rounded glass used to create electric light                         |
| <b>appliance</b>         | A service used for a particular purpose e.g. stoves and fridges are home appliances. |
| <b>Mains electricity</b> | Electricity supply from power stations to households.                                |
| <b>batteries</b>         | A device that makes electricity by using chemical reactions                          |
| <b>Power source</b>      | It supplies electrical power to at least one electric item.                          |

### Electrical Conductors

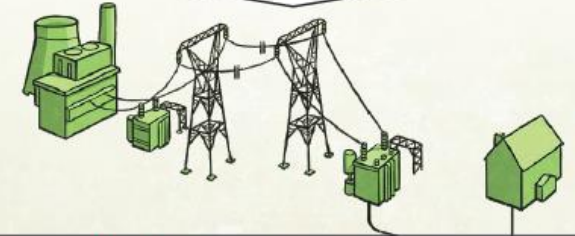
Copper  
Iron  
Steel  
Silver  
Gold

### Electrical Insulators

Rubber  
Wood  
Plastic  
Paper

There are two types of electric current.

**Mains electricity:** power stations send an electric charge through wires to transformers and pylons. Then, underground wires carry the electricity into our homes via wires in the walls and out through plug sockets.



**Battery electricity:** **batteries** store chemicals which produce an electric current. Eventually, even rechargeable **batteries** will stop producing an electric current.



I can identify some common appliances that run on electricity

