

Electricity – Knowledge Organiser Year 4 Spring One

| VOCABULARY | |
|-------------------|--|
| electricity | A type of energy. It can be used to power appliances. |
| appliance | A device, often electrical, that does a particular job. |
| mains electricity | Electricity that comes from a power station and is sent to homes and other places. |
| components | The parts of electric circuit - for example, bulb, wire, buzzer |
| circuit | The path around which electricity flows. |
| complete circuit | A circuit with no gaps (the opposite is an incomplete circuit). |
| current | Scientific word for the flow of electricity. |
| cell | Component that changes chemical energy into electrical energy. |
| battery | One or more cells working together. |
| conductor | Material that allows electricity to flow through it. |
| insulator | Material that does not allow electricity to flow through it. |
| switch | Opens and closes a gap in a circuit to turn an appliance on and off. |
| hazard | A danger or risk. |

Components of an electric circuit



cell



wire

buzzer



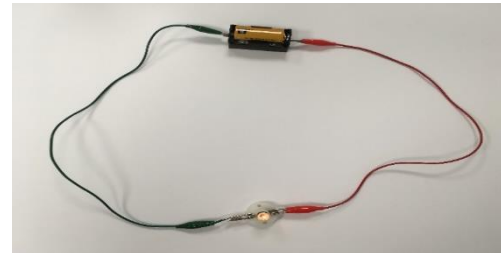
lamp



switch



A complete circuit



Electrical conductors

Many metals (for example copper, iron and steel) are good conductors. A plug uses metal to allow electricity to transfer from the plug to the device.



Electrical insulators

Paper, rubber, wood and plastic are examples of good insulators. The plastic coating on wires protects people from getting an electrical shock.



Hazards

- Overloading a plug socket
- Exposed wires
- Damaged wall sockets
- Wires left out to trip over
- Placing metal objects into electrical appliances or sockets
- Electrical appliances or wires near water