

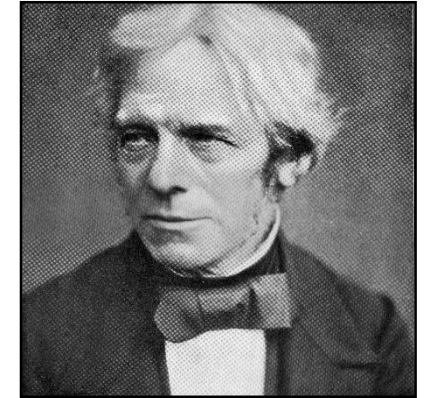
Learning Focus: Switched On – Electricity

Key knowledge to learn

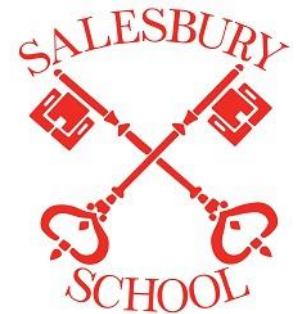
- 1 Michael Faraday made many discoveries to chemistry and electricity. William Gilbert was a physician and scientist who lead research in magnetism and invented the terms 'electricity' and 'force'. James Maxwell showed that electricity and magnetism create **waves of electromagnetic energy**
- 2 The components that make up a series circuit and their symbols: battery, cell, bulb, wire, buzzer, switch, motor, voltage
- 3 That to draw a **series circuit** scientifically you need to use correct symbols and straight lines
- 4 That the **voltage** of a circuit can be changed and this affects bulb brightness, or buzzer volume
- 5 Common **appliances** that use electricity are: toasters, lamps, kettles, laptops, games consoles, phones, torches, TVs, washing machines and irons. Some appliances use **batteries** and some use **mains electricity**
- 6 Metals are often good **conductors** and include: silver, gold, copper, steel and salt water

Vocabulary

| | |
|------------------------|---|
| Circuit diagram | A diagram of a complete and closed path around which a circulating current can flow |
| Current | A flow of electricity which results from the ordered directional movement of electrically charged particles |
| Electrical Cell | A device used to generate electricity |
| Voltage | An electrical force that makes electricity move through a wire, measured in volts |
| Conductor | A material or device which allows heat or electricity to carry through |
| Switch | A device for making and breaking the connection in a circuit |



Michael Faraday



You can find out more by:-

[Circuit symbols - BBC Bitesize](#)

[Electrical components - BBC Bitesize](#)

[Electricity - KS2 Science - BBC Bitesize](#)

