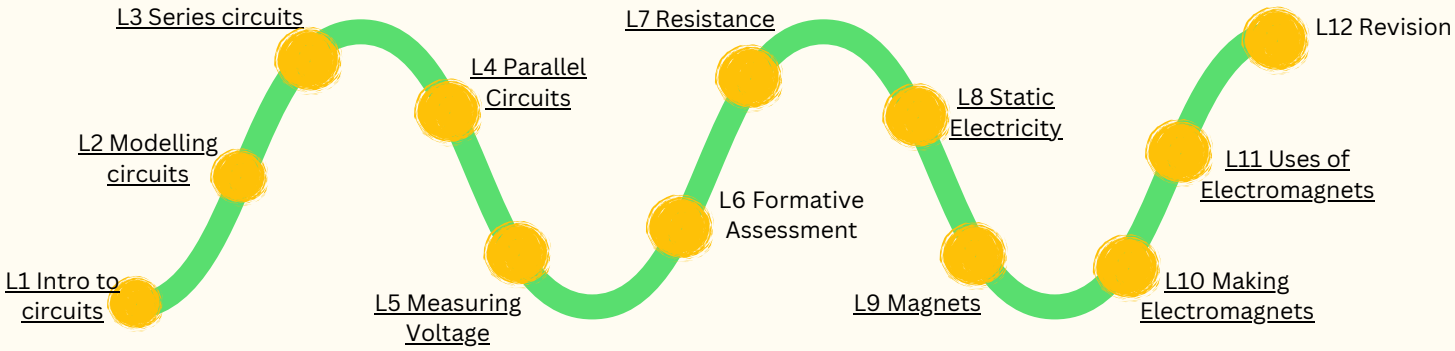
Yr8 Electricity

Physics

In this unit you will learn:

- Current is the flow of charge; voltage drives it; resistance affects it.
- Compare series and parallel circuits, measuring with ammeters and voltmeters.
- Learn safe uses of electricity and how energy is transferred.
- Explore electromagnets, how to make them stronger, and their uses.



Prior learning link: KS2 Electricity

Key words

- **Current** – The flow of electric charge around a circuit, measured in amperes (A).
- **Charge** – A property of particles (such as electrons) that causes them to experience a force in an electric field.
- **Potential difference (voltage)** – The energy transferred per unit charge, measured in volts (V).
- **Resistance** – A measure of how much a component opposes the flow of current, measured in ohms (Ω).
- **Conductor** – A material that allows electric current to flow easily.
- **Insulator** – A material that does not allow electric current to flow easily.
- **Series circuit** – A circuit where components are connected one after another in a single loop.
- **Parallel circuit** – A circuit where components are connected in separate branches.
- **Ammeter** – A device used to measure current in a circuit.
- **Voltmeter** – A device used to measure potential difference in a circuit.
- **Power** – The rate at which energy is transferred, measured in watts (W).
- **Electromagnet** – A magnet created by an electric current flowing through a coil of wire.
- **Solenoid** – A coil of wire that produces a magnetic field when current flows through it.
- **Magnetic field** – The region around a magnet or current-carrying wire where magnetic forces can be felt.
- **Relay** – An electrically operated switch that uses an electromagnet to control a circuit.

Revision Resources

BBC KS3 Electricity

BBC KS3 Magnetism and Electromagnetism