

## Triple Physics Foundation

- Draw common circuit symbols like a battery, switch, bulb, ammeter, voltmeter and resistor.
- State what a current is and what flows in a current.
- Calculate a moment using the equation for a moment.
- State the principle of moments
- Explain why a gas exerts a pressure on its container.
- State how heat affects gas pressure
- State Boyle's law (this is an equation)
- Explain how we can demonstrate electromagnetism using iron filings and a solenoid.
- Draw a magnetic field for a bar magnet
- State how the strength of a magnetic field changes with distance from the magnet
- Interpret Sankey diagrams, stating the key features.
- Use a Sankey diagram to calculate efficiency
- State how to calculate weight
- State what is meant by 'work done'.
- State what is meant by power
- Draw the electric field of a point charge.
- Explain how an insulator can become positively charged.
- Explain how insecticides use static electricity to spread over a large area.
- Explain why a build up of static electricity can be dangerous
- State the difference between an AC and DC circuit.
- Calculate the resistance in a simple circuit using Ohms Law.
- Calculate Power in a circuit.
- Explain how the brightness of a lamp changes when more lamps are added in series.
- Explain how to determine the resistance of a component like a lamp or resistor.
- Calculating density of an irregular object
- Describe what sublimation is
- State what specific latent heat is
- State what specific heat capacity is
- Describe how a student could use a circuit, with a joulemeter, heater and power supply to calculate the specific heat capacity of a material