

PHYSICS KS4 CURRICULUM

ROADMAP

1

Energy

Students will investigate energy transfers, efficiency, and specific heat capacity through practical experiments to develop measurement and analysis skills.

Combined **Triple**

Electricity

Students will build and test circuits to measure current, voltage, and resistance, exploring the relationships between electrical quantities.

Combined **Triple**

2

3

Particle Model of Matter

Students will study density, changes of state, and gas pressure to understand particle behaviour in different materials.

Combined **Triple**

Atomic Structure

Students will detect and measure radiation to explore nuclear properties and develop safe handling techniques.

Combined **Triple**

4

5

Forces

Students will measure forces, acceleration, and elasticity using practical methods to apply Newton's laws and formulae.

Combined **Triple**

Waves

Students will investigate wave properties such as frequency, wavelength, and speed with experiments involving sound and light.

Combined **Triple**

6

7

magnetism and Electromagnetism

Students will explore magnetic fields and electromagnets, observing how electricity and magnetism interact.

Combined **Triple**

Space Physics – Separate Science only

Students will simulate orbits and gravitational forces to understand astrophysical mechanics and space phenomena.