

PHYSICS

Composite: Physics P2 - Forces and motion

Year 10

Why do we deliver this?

This topic is taught to help students **belong** by linking physics to movement, sport and transport. Scaffolded calculations and practical demonstrations support students to **achieve**, especially those who need visual and kinaesthetic learning. Understanding forces enables students to **thrive** by applying physics to real-life situations.

Composite: Physics P3- Conservation of energy

Year 10

Why do we deliver this?

We teach this topic to build **belonging** through shared understanding of energy use and efficiency. Structured problem-solving helps all students **achieve**, including those who benefit from guided steps and repetition. This knowledge enables students to **thrive** as energy-aware citizens.

Composite: Physics P4 & 5 - Waves and the EM spectrum

Year 10

Why do we deliver this?

This topic supports **belonging** by connecting physics to sound, light and communication. Visual models and practical investigations help students **achieve**, particularly those who struggle with abstract ideas. Understanding waves allows students to **thrive** in a technology-rich world and learn about medical and digital applications.

Composite: Physics P6 - Radioactivity

Year 10

Why do we deliver this?

This topic is taught to support **belonging** through careful discussion of risk, safety and societal use of radioactive materials. Scaffolded learning and clear ethical context help students **achieve**, particularly vulnerable learners. Understanding radiation enables students to **thrive** as informed and responsible citizens.

Composite: SEPARATE SCIENCE ONLY

Physics P7 - Astronomy

Year 10

Why do we deliver this?

We teach astronomy to inspire **belonging** by connecting students to the wider universe and shared human curiosity. Accessible explanations and visual learning enable all students to **achieve**. This topic allows students to **thrive** by fostering awe, ambition and scientific imagination.

Composite: Physics P8 & P9 - Energy and forces doing work

Year 11

Why do we deliver this?

We teach this topic to support **belonging** by helping students understand how forces shape everyday experiences such as movement, balance and safety and how these abstract concepts can link to energy transfers. Clear diagrams, practical demonstrations and scaffolded problem-solving support all students to **achieve**, particularly those who benefit from visual and kinaesthetic learning. This understanding enables students to **thrive** by applying physics confidently to real-life situations.

Composite: Physics P10 - Electricity

Year 11

Why do we deliver this?

This topic is taught so students **belong** by developing understanding of systems that underpin modern life. Structured practical work, consistent symbols and step-by-step calculations help all students to **achieve**, especially SEND and disadvantaged learners who benefit from routine and clarity. Knowledge of electricity enables students to **thrive** as informed, safety-conscious users of technology.

Composite: SEPARATE SCIENCE ONLY**Physics P11 - Static electricity**

Year 11

Why do we deliver this?

We teach this topic to build **belonging** through engaging, observable phenomena that spark curiosity. Simple experiments and clear cause-and-effect explanations support students to **achieve**, particularly those who may struggle with abstract ideas. This topic helps students **thrive** by strengthening conceptual understanding and scientific confidence.

Composite: Physics P12 - Magnetism

Year 11

Why do we deliver this?

This topic supports **belonging** by linking physics to transport, medicine and modern technology. Visual models, hands-on investigations and explicit vocabulary teaching enable all students to **achieve**, especially those requiring structured learning approaches. Understanding electromagnetism allows students to **thrive** by seeing the relevance of physics in future careers and innovation.

Composite: Physics P13 - Electromagnetic induction

Year 11

Why do we deliver this?

We teach this topic to deepen **belonging** by showing how electricity is generated and used at scale. Carefully sequenced explanations and guided calculations help students to **achieve**, particularly those who benefit from reduced cognitive load. This knowledge enables students to **thrive** by engaging with energy production and sustainability debates.

Composite: Physics P14 & P15 - Particle model & Hooke's law

Year 11

Why do we deliver this?

This topic is taught so students **belong** by understanding how matter behaves in different states. Visual representations, practical investigations and structured reasoning support all students to **achieve**, especially SEND learners who benefit from concrete examples. Mastery of the particle model enables students to **thrive** across chemistry and physics contexts.