

PHYSICS

A Level

COURSE CONTENT

Fundamental Physics aims to deepen the knowledge gained from GCSE Physics. Covering Mechanics, Electricity and Materials.

Theoretical Physics tests the everyday thinking. From discovering the true subatomic particles that make up our universe, to explaining why classical physics fails to describe the properties of light. Covering Quantum Phenomena, Particle Physics, Waves and Optics.

Kinematics uses mathematical equations to illustrate the conditions needed for an object to remain in motion, whether that be in a Gravitational, Electric or/and a Magnetic Field. Including Nuclear Physics and Thermal Physics

Astrophysics, the branch of astronomy, studies the physical nature of stars and other celestial bodies. From The Big Bang Theory to Supernovae and Blackholes.

Practical Physics including all of the topics above and learning practical Physics skills for Apprenticeships, University and Employment

ASSESSMENT CRITERIA

100% Final examinations in the summer of Year 13 with required practical experiments every few weeks.

EXTRA-CURRICULAR OR ENRICHMENT OPPORTUNITIES

Opportunity to visit The Large Hadron Collider in Geneva, trips to universities and conferences on careers using Physics including Medicine and Medical Physics, Engineering, Nuclear Engineering and Astronomy.

FUTURE OPPORTUNITIES

Physics opens the doors to most career-based opportunities such as, engineering, robotics, renewable energies, computer science, communications, and space exploration. It is one of the most highly regarded A level subjects. Physics combines experiments with theory and mathematics and is suitable to anyone who enjoys science experiments and maths work who achieves the necessary grades.

PRIOR KNOWLEDGE

Essential: GCSE Science and GCSE Maths

