



Overview

Physics has long been thought of as the most fundamental of all sciences and at Cardinal Newman, students study a wide variety of topics in Physics ranging from the macro to micro scale such as galaxies to sub-atomic particles. Full of exciting questions, it offers the exciting opportunity to prove theories that are still in doubt. Students learn to question why things happens and how these events are governed by the fundamental laws of nature. Many students might consider physics to be a difficult subject, however it is more challenging than difficult and it is equally exciting as it is practical in nature. Students need to be fully committed to working hard consistently all through the course which requires a good memory, ability to apply knowledge to new situations and good mathematical ability.

What do you need to join us?

You need to have achieved at least a 6-6 in GCSE Science or a 6 in GCSE Physics. You also require a 6 in GCSE Mathematics and at least a 4 in GCSE English. Overall, you must 5 GCSEs at grade 5 or above. When considering A-level Physics, it is important to realize that 40% of the final exam mark is based on mathematical skills so a sound knowledge of GCSE Mathematics is essential. It is advisable to study Mathematics as one of your A-level subjects. You will develop your practical ability as well as the ability to recognise, recall and show understanding of specific physics facts, terminology, principles & concepts.

What will the course involve?

The A-Level will be a 2 year course with all assessments at the end of the second year.

Content Overview	Assessment Overview	
Content is split into six teaching modules:	Learners must complete all components (01, 02, 03 and 04).	
Module 1 – Development of practical skills in physics Practical skills assessed in a written examination, Practical skills assessed in the practical endorsement	Modelling physics (01) 100 marks 2 hours 15 minutes (written paper)	37% of total A level
Module 2 – Foundations of physics Physical quantities and units, Making measurements and analyzing data, Nature of quantities	Exploring physics (02) 100 marks 2 hours 15 minutes (written paper)	37% of total A level
Module 3 – Forces and motion Motion, Forces in action, Work, energy and power, Materials, Momentum	Unified physics (03) 70 marks 1 hour 30 minutes (written paper)	26% of total A level
Module 4 – Electrons, waves and photons Charge and current, Energy, power and resistance, Electrical circuits, Waves, Quantum physics	Practical endorsement in physics (04)* (not an examined assessment) *The Practical Endorsement requires a minimum of 12 practical activities to be completed and passed by the end of the course.	Reported separately
Module 5 – Newtonian world and astrophysics Thermal physics, Circular motion, Oscillations, Gravitational fields, Astrophysics and cosmology		
Module 6 – Particles and medical physics Capacitors, Electric fields, Electromagnetism, Nuclear and particle physics, Medical imaging		

Where could A-Level Physics take you?

A-level physics is a very desirable qualification when applying for university courses, especially if combined with complimentary subjects such as the other Sciences and Maths. Having A-level physics is very impressive in a variety of ways, offering you access to a huge range of options for both further education and careers. Possible career options with A-level physics include food scientist, climatologist, radiographer and engineering possibilities to name just a few.