

What specification is proposed?

AQA Specification.

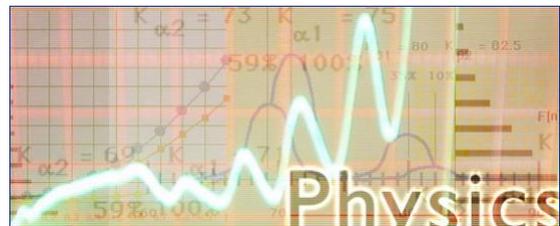
Physics is the fundamental science. It is central to our understanding of the nature of matter and the Universe around us and the basis of all developments in high technology and engineering. Physicists tackle problems at the frontiers of knowledge, looking for new phenomena and insights into the workings of nature. They also work on challenges arising in the application of physical ideas to industrial problems. There is no industry, commercial activity, medical treatment, communications system, or form of entertainment that does not depend on the application of physical principles.

The course is concept led. This means that you concentrate on the principles first, and then consider how these are applied in various contexts. In each year, there are three units that count towards your final mark. In year 13 you will be expected to use and build upon learning from the Year 12 part of the course.

What will I be covering in the course?

Year 12

- Measurements and their errors
- Particles, Radiation and Quantum Phenomena
- Waves
- Mechanics and Materials
- Electricity



Year 13

- Further Mechanics and Thermal physics
- Fields and their consequences
- Nuclear physics

Engineering Physics



Optional Modules

- Astrophysics
- Medical Physics
- Engineering Physics
- Turning Points in Physics
- Electronics

What can I do with this subject?

Physics is an essential qualification for a large number of careers as well as an excellent subject to study alongside any other subject. Having a qualification in physics can create opportunities to enter careers in engineering, medicine, medical physics, seismology, communications, defence, meteorology, astronomy to name but a few. You will develop team working abilities, analytical skills, problem solving and creative thinking, an ability to evaluate risk and communication and numeracy skills; all of which are highly valued by **all** employers.



How will I be assessed? All assessments will take place in the summer of Year 13

As with all sciences, physics is fundamentally an experimental subject. Practical skills will be developed throughout the course and assessed within your final exams. Both exams will require the use of Level 2 (Higher tier GCSE) mathematical skills (roughly 40% of content).

Assessments

Paper 1	+	Paper 2	+	Paper 3
What's assessed Sections 1 – 5 and 6.1 (Periodic motion)		What's assessed Sections 6.2 (Thermal physics), 7 and 8 Assumed knowledge from sections 1 to 6.1		What's assessed Section A Compulsory section: practical skills and data analysis Section B: students enter for one of sections 9, 10, 11, 12 or 13
Assessed <ul style="list-style-type: none"> written exam: 2 hours 85 marks 34% of A-level 		Assessed <ul style="list-style-type: none"> written exam: 2 hours 85 marks 34% of A-level 		Assessed <ul style="list-style-type: none"> written exam: 2 hours 80 marks 32% of A-level
Questions 60 marks of short and long answer questions and 25 multiple choice questions on content.		Questions 60 marks of short and long answer questions and 25 multiple choice questions on content.		Questions 45 marks of short and long answer questions on practical experiments and data analysis. 35 marks of short and long answer questions on optional topic.

The full specification can be found online

<http://www.aqa.org.uk/subjects/science/as-and-a-level>

Specific entry requirements for this course

Students must achieve a B/6 grade at GCSE physics or in GCSE science trilogy. It is important that a B/6 is achieved in all examined units.

Students selecting A level chemistry and not A level maths, must study core maths.

