

A LEVEL

PHYSICS

Exam Board: AQA	Course Code: 7408A
Entry Requirements: Average of grade 5 or higher across all GCSE exams including a minimum grade of 5 for English. Grade 7 in Science (Physics specifically) Grade 6 in Maths	

Course Summary:

First year pupils will start to unravel the universe starting with how to effectively investigate the laws of nature before plunging into the mysteries of the subatomic realms and the bizarre nature of light. Pupils continue their GCSE learning to a greater depth with forces and motion and broaden to new topics such as stationary waves as well as the elastic properties of materials. Pupils also learn how electric circuits really work and have those amazing Physics questions students have always wanted to ask, answered.

In the second year, pupils will continue their progression into understanding the very fabric of how our universe is constructed.

They will learn the first levels of some of the most fundamental concepts in Physics such as simple harmonic motion and thermal energy transfers. Pupils will also learn how gravitational, electrical and magnetic fields are constructed along with their properties.

The fun continues into deepening their understanding of radiation and radioactive decay. The course will end with students learning about how to look into space and make appropriate measurements. This is followed with a (metaphorical) trip into the stars to see how change in their life cycles.

Skills:

- Develop essential knowledge and understanding of different areas of the subject and how they relate to each other
 - Develop and demonstrate a deep appreciation of the skills, knowledge and understanding of scientific methods
 - Develop competence and confidence in a variety of practical, mathematical and problem solving skills
 - Use theories, models and ideas to develop scientific explanations
 - Use knowledge and understanding to pose scientific questions, define scientific problems, present scientific arguments and scientific ideas
 - Conduct experimental and investigative activities, including appropriate risk management, in a range of contexts
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- Analyse and interpret data to provide evidence, recognising correlations and causal relationships
- Evaluate methodology, evidence and data, and resolve conflicting evidence
- Communicate information and ideas in appropriate ways using appropriate terminology
- Evaluate the role of the scientific community in validating new knowledge and ensuring integrity
- Evaluate the ways in which society uses science to inform decision making

Assessments:

Paper 1: Written exam, 2 hours, 85 marks, 34% of Level

- Measurements and their errors
- Particles and radiation
- Waves
- Mechanics and materials
- Electricity
- Periodic Motion

Paper 2: Written exam, 2 hours, 85 marks, 34% of A Level

- Thermal physics
- Fields and their consequences
- Nuclear physics

Paper 3: Written exam, 80 marks, 32% of A Level

- Astrophysics
- Practical skills

Physics Practical Endorsement

- Assessment for practical skills
 - Pass or fail - no grade given
- Assessed throughout course

This course is suitable for students who...

...those willing to take risks

...those with an interest in any of the possible career paths mentioned in Future Careers

...those who enjoy finding out how things work

Future careers:

Below is a list of areas that A Level Physics will enable. This is not an extensive list:

Astronomy and space, Climate Science and meteorology, Design and invention, Education, Engineering and architecture, Lasers and photonics, Medical physics and digital healthcare, Nanotechnology, Physics, Renewable energy, Robotics and AI, VFX and gaming, Finance and law

FAQ: Do I need to take A-level Maths to do well in A Level Physics?

No, it is not a requirement or necessary. Many students are successful at A Level Physics without undertaking A Level Maths.

