Physics

OCR

Further information please email: mail@nhgs.co.uk

Entry Requirements

NHGS Sixth Form entry requirements including a Grade 6 or above in GCSE Physics or a minimum of two Grade 6s in Science at GCSE. You will also need a Grade 6 or above in GCSE Mathematics.



Aims of the Course

Develop knowledge and understanding of different areas of Physics and how they relate to each other. Demonstrate skills, knowledge and understanding of scientific methods. Develop competence in practical, mathematical and problem solving skills.

Course structure and content

The course is taught over six themes, which combined with the Practical Endorsement, constitute the full A Level.

Module 1 - Development of practical skills in Physics.

Module 2 - Foundations in Physics.

Module 3 - Forces and Motion.

Module 4 - Electrons, Waves, and Photons.

Module 5 - Newtonian World and Astrophysics.

Module 6 - Particles and Medical Physics.

Six of the twelve required practical experiments are covered in the Lower 6th, and six in the Upper 6th.

Practical work is highly valued at NHGS and there are many more practical demonstrations and experiments embedded into the Lower 6th and the Upper 6th curriculum.

Topics extend the work covered at GCSE and underpin the understanding of Physics for example forces, motion, energy and waves. In addition we will look at materials and quantum physics by looking at further mechanics, nuclear physics, thermal physics, fields and astrophysics.

Assessment

At the end of the Lower 6th, students sit an exam on all of the Lower 6th content. This does not count towards the final grade, but assesses the content at this half-way point before progression to the Upper 6th.

The final A Level exams, at the end of the Upper 6th, are split into three separate papers and assess content from the whole two year course. There is also a separate, non-examinable Practical Endorsement which is assessed throughout the two years of the course.

Assessment 1 - 37% 2 hours 15 minutes written paper based on modules 1, 2, 3 & 5 (100 marks).

Assessment 2 - 37% 2 hours 15 minutes written paper based on modules 1, 2, 4 & 6 (100 marks).

Assessment 3 - 26% 1 hour 30 minutes written paper based on all modules (70 marks).

Future career opportunities

With a Physics qualification, the career opportunities are numerous and varied. For example a wide variety of Engineering disciplines, Physics research, Computing, Medicine (e.g. Doctor, Radiographer, Medical Physicist, Optometry), Finance and Law.

Please scan here for further course information.