



## A LEVEL PHYSICS

### What does the course involve?

Physics (from the Greek, φυσικός (phusikos), "natural", and φύσις (phusis) "nature"), is the science of nature in the broadest sense. Also known as natural philosophy, physics involves the study of matter and energy, ranging from the sub-atomic particles through to the universe as a whole.

Physics is a course for students interested in understanding how things work and why they are as they are; who have wondered why the sky is blue, how the universe is evolving, and what are the fundamental forces and particles of nature, making up all things.

Within Physics students learn to apply knowledge and understanding of the world around them to a whole variety of situations, extending their capacity to problem solve and to think in a logical manner as they do so. These skills can then be applied to other subjects as well as to life in general.

### What exams and coursework are involved?

The course follows the AQA Physics A syllabus.

**Paper 1:** Measurements and their errors, Particles and radiation, Waves, Mechanics and materials, Electricity and Periodic Motion.

Paper 1 is assessed as a written 2 hour exam worth 85 marks or 34% of the A-level. 60 marks of short and long answer questions and 25 multiple choice questions on content.

**Paper 2:** Thermal physics, Fields and their consequences and Nuclear Physics PLUS assumed knowledge from all topic in paper 1.

Paper 2 is assessed as a written 2 hour exam worth 85 marks or 34% of the A-level. 60 marks of short and long answer questions and 25 multiple choice questions on content.

**Paper 3:** Practical skills, Data analysis PLUS one option: Astrophysics, Medical physics, Engineering physics, Turning points in physics or Electronics.

Paper 3 is assessed as a written 2 hour exam worth 80 marks or 32% of the A-level. Section A is compulsory on Practical skills and Data analysis. It contains 45 marks of short and long answer questions. Section B is the options. It contains 35 marks of short and long answer questions on optional topic.

**Coursework:** Coursework has been removed, so practical work does not count towards the final A level grade. However, there are still many practical sessions and specific investigations that will be used to prepare students for questions on practical work within exam papers. Students will also be assessed on their practical ability through 12 key investigations and these will be recorded separately as the Practical Endorsement, which will be marked as Pass or Fail.

### **What are the minimum entry qualifications?**

GCSE Physics: Grade 6 or above

GCSE Combined Science: Grade 6,6 or above

GCSE Mathematics: Grade 6 or above

### **What are the desirable entry qualifications?**

GCSE Biology or GCSE Chemistry: Grade 6 or above

GCSE English Language: Grade 5 or above

### **What could I do after completing the course?**

An A Level in Physics is a widely respected qualification with both universities and employers. University Medical departments highly regard students who have studied Physics. Other major careers include Engineering and Finance which can be amongst the most highly paid careers.

**FOR FURTHER INFORMATION, PLEASE CONTACT MR J LOWE**