

# A-LEVEL PHYSICS

## INTRODUCTION

From the microscopically small to the incredibly large, physics is the study of energy and matter and the forces which govern the Universe. In this age of computers, laser technology and the internet, physics has played a key role in the technological advances, making a physicist of each of us, and the course is designed to place your studies in this wider context. The breadth of study gives you flexibility in the future, whether you wish to continue to study science beyond A-Level or move straight into a job in the technological field.

The course is structured so that you will be given an opportunity to encounter a range of learning activities and to provide you some choice in the style of task that you complete. As such, the course will place demands on your motivation and ability to study independently of the teacher, making sure that you use your time and the resources available to you to the best effect. These skills will be invaluable both to your success at A-Level and to any studies beyond A-Level.

## CAREER OPPORTUNITIES

Physicists are in great demand nationwide. Physics is an obvious choice if you are considering a career in physical science such as engineering, aeronautics or architecture, but it is also a useful choice if you are intending to pursue a career in biological sciences, including medicine. The analytical, logical and disciplined methods developed through a study of physics are also highly valued in careers such as law, finance and computer programming. It is also, of course, an excellent foundation for anyone intending to study the subject beyond A-Level. Employers continue to look favourably on physics students, as they have displayed an ability to work methodically and will have knowledge of new technologies. This opens up a multitude of career options from applied sciences and medical physics, through to commerce, business and marketing.

## ENTRY REQUIREMENTS

Physics is often regarded as a 'hard' A-Level, and not without justification. The course is academically challenging, and can be a daunting step to take from a GCSE Science course.

Acceptance requires that you have attained at least a grade B in either Physics or in Additional Science. Mathematics is an important feature of A-Level Physics, and it is advisable (although not essential) that it is studied at A-Level in addition to Physics. The course also requires a willingness to seek help and advice outside lesson times, and to work independently.

A-Level Physics will be taught using the OCR B Specification – Advancing Physics – which is an innovative and distinctive course, prepared by the Institute of Physics. It is written with a focus on the use of physics in our everyday lives and makes full use of traditional teaching expertise and integrated software. In year 1 the modules 'Physics in Action', 'Understanding Processes' and the coursework based 'Physics in Practice' form the AS. In year 2 the A2 modules 'Rise and Fall of the Clockwork Universe', 'Field and Particle Pictures' and 'Researching Physics' are studied.

**For more information, contact Mr Tudor, Mrs Dixon or Mr Pinder**