WILLIAM BROOKES SIXTH FORM

PHYSICS

Advanced Level Subject Guide
Exam Board: AQA

COURSE OVERVIEW

PHYSICS IS FUN and we will try and teach you in that way. It is a demanding and complex area of study but all students who work hard are rewarded with a great sense of achievement.

COURSE OUTLINE

YEAR 1

The first year of the course covers Electricity, Particles and Radiation enabling you to understand and design electrical circuits and introducing the strange world of quantum physics. You will gain a deep understanding of the particles and energy that make up the universe. The second unit taught in the first year is Mechanics, Materials and Waves. This will give you the ability to analyse and solve problems with forces and energy, building on GCSE courses, and laying foundations for understanding, man-made and natural structures and machines. The mathematics required is straightforward; students need to be competent in re-arranging formulae and using trigonometry.

YEAR 2

We explore Magnetic, Electrical and Gravitational Field theories and extend the Mechanics taught in the first year. The third unit is chosen from a range of options including Astrophysics and Medical Physics. Year 2 is a more mathematical approach to the subject, laying the foundations for University study.

Over both years of the course, you will do many experiments to develop your practical skills and to understand and apply the principles taught. Twelve of these experiments are a compulsory requirement for completing the course and are assessed more formally.

You should consider Physics if you enjoyed it as a triple science subject or you did well in the physics modules of Additional Science. Physics is about understanding the world around you, recognising patterns and being able to model them in your mind. Skills gained here are desirable for any further study at HE level—not purely in science and maths. Good partner subjects are Maths, Chemistry, Biology and Design.

ENTRY REQUIREMENTS

Students considering this course will be expected to have achieved at least a Grade 6 or above in GCSE Science and Grade 6 or above in GCSE Maths. Students also studying Maths alongside this qualification will be at a slight advantage.

"A Student who succeeds at Physics A-Level will have a good grasp of mathematics and be able to use this maths knowledge to solve problems. There is a lot of use of mathematical concepts so that we can imagine how Physics works! There is no need to be doing A-Level Maths but it really does help!"

CAREER OPPORTUNITIES

This is an important subject which is required for a whole range of careers in physics, engineering computer game design and medicine. Physics and engineering degrees can lead to a wide range of careers in manufacturing, including medicine, telecommunications, aerospace, computing and micro technology. Students with an A-level in Physics have skills sought after by commerce, business and management.

Sixth Form PSO : Miss M White
Head of Sixth Form: Mrs L Hennessy
Strategic Lead: Mrs C Mincher
Farley Road | Much Wenlock | TF13 6NB
01952 728900 | wbs-sixthform@wbs.318education.co.uk