

# Physics at Whitgift

A team of five dedicated subject specialists, supported by their own technician, teach physics as a separate subject to boys starting in the Upper Third (Year 9) through to the Sixth Form. Each member of staff teaches fully across this age range, so that however much time a boy spends studying physics at Whitgift, he can expect to benefit from and enjoy a variety of teaching styles and methods.

Boys are taught from five designated physics laboratories equipped with specialist facilities. Practical work is an important and regular feature of lessons in physics, so that facilities in laboratories are often further supplemented by practical materials and resources made available from a generously stocked prep. room. A further two, smaller, laboratories are available and tend to be used more for smaller groups or Sixth Form work; these are particularly well suited to work in optics and computer aided experiments.

From the Upper Third to the Upper Fifth (Years 9 to 11) the vast majority of boys prepare for and sit GCSE Physics (OCR) as a “separate” science. A small number play better to their strengths by taking Double Award Science. As part of the GCSE course, all pupils will carry out two extended investigative style pieces of practical coursework that contribute 20% towards their final award. GCSE Physics is an exciting and positive opportunity for boys to study natural phenomena and think carefully about both specific systems or theories (such as are found in mechanics or optics), and more broadly about issues such as connections with technology or accepted truths in science.

GCSE Physics is further seen as vital preparation for Post 16 study, be that A-Level (OCR) or as part of the International Baccalaureate. Post 16 study in physics is important of course to boys who may be considering further study or careers in such fields as the physical sciences, engineering or architecture. Furthermore, however, the study of physics does have its own inherent value – it is rightly considered by boys to be a subject that is a challenging, enjoyable, and a sound academic discipline.

A-Level Physics has an established track record of being enjoyed thoroughly by boys and has had considerable success in public examinations. The specification is delivered in the laboratory across six teaching and learning modules. Again, as at GCSE, much use is made in lessons of practical work and demonstrations, with boys expected to take increasing autonomy over their own interpretations of experiments in terms of analysis and links with theory.

From September 2004, IB Physics is additionally available to boys in the Sixth Form. This is an exciting curriculum challenge for the department that, initially, appears to have been well received by pupils and which will doubtless develop as an important alternative route for Post 16 study in this subject. As part of the IB programme, boys either can choose to study at ‘Standard’ or ‘Higher’ level, depending on the nature of their chosen studies.

For all ages, staff are keen to share with pupils their enthusiasm for this subject and to share teaching and learning experiences with the boys that are pleasurable and constructive - physics is a challenging subject from which boys of all abilities should derive some sense of satisfaction.