



## The Physics Department

Housed in the Thomson Building along with the Biology and Chemistry Departments, the Physics Department is well-established, well-equipped and successful. There is a strong academic ethos that takes advantage of the School's location in Cambridge, maintaining active links with the University of Cambridge's Cavendish (Physics) Laboratory, including attending lectures. We also have good links with the Engineering department, enjoying the closer proximity of their lectures as well as working on occasional projects with undergraduates. Outside of the University, we have connections to Cambridge's world-class science and engineering industries. We have made visits to ARM, PACE and more recently Cambustion. It is a lively and interesting place to work amongst highly qualified and professional colleagues who place an emphasis on the enjoyment of Physics for both pupils and teachers alike. Consequently, as much practical work as possible is performed and a large amount of visually stimulating and educational displays are on show. New ideas for promoting Physics are always welcomed and the department makes good use of Twitter to this end.

There are currently three subject specialist teaching members of staff, a Physics technician, as well as a laboratory assistant shared across the Science Faculty. There are four well-equipped laboratories, one of which is part of the recent Great Hall project, a new building housing the Science extension and the Theatre. There is a Prep room and departmental office. Staff make significant use of ICT both in lessons and for administration and we were one of the first departments in the country to use Bluetooth dataloggers with iPads.

Years 7 and 8 are taught through an "in-house" combined science course, predominantly practical and skills based, overseen by The Lower School Science Co-ordinator. GCSE courses begin in Year 9. There are five groups, taught for two 50 minute periods a week. In Years 10 and 11 pupils are taught in five sets in two bands for eight 50 minute periods over three weeks. Most pupils study separate Sciences, with Double Science for two groups from Year 11 beginning in September 2021. Previous GCSE results have been excellent.

The take up of Physics by pupils in the Sixth Form remains buoyant and recent results have been excellent. The department is committed to entering pupils for the various Physics Olympiads and often gains Gold awards. We have also been successful in the Astronomy and Astrophysics Olympiad and in the future we hope to be able to offer GCSE Astronomy.

## Physics Department Personnel

Andrew P Harmsworth MA (Oxon) FRAS

Alexandra Annett

Edward Hodgson

Paul J Birch

Head of Department

Physics teacher,

Head of Academic Enrichment, STEM Coordinator

Physics teacher and Assistant Housemaster of West House

Senior Technician

## **Job Description – Physics Teacher, full-time (maternity cover)**

### **In General**

- To teach pupils within the school
- To create a well-ordered teaching environment in which pupils can thrive and explore their academic potential
- To have a clear knowledge of the individuals in their class and differentiate accordingly. This should mean both their individual learning needs as well as their individual personality
- To bear in mind the Christian ethos that underpins the life of the school community and bring its values into the classroom
- To plan lessons clearly and within the departmental scheme of work
- To mark work regularly and promptly, in line with departmental and school marking policies and to keep clear and full records of pupils' progress
- To insist upon high levels of behaviour and respect for others in the classroom
- To be a subject expert who regularly updates their knowledge to stay 'current' in their subject
- To apply the necessary health and safety procedures when appropriate
- To contribute to the pastoral care of the pupils, including weekly duties in houses
- To contribute to extra curricular activities
- To adhere to and maintain School Policies and Procedures
- To take responsibility for safeguarding the pupils
- To carry out other associated duties as are reasonably assigned by the Headmaster.

## Person Specification

Criteria	Essential	Desirable
Qualifications Knowledge Experience	Good honours degree in Physics or related subject Relevant teaching experience	PGCE, QTS or equivalent teaching qualification Ability to teach Physics to A level Ability to teach Science (KS3 and/or KS4)
Skills Abilities	Excellent teaching skills Strong communication and inter-personal skills Ability to motivate and manage students Ability to deal positively and constructively with students and colleagues at all levels	Good working knowledge of IT and familiarisation with online digital platforms Ability to work on your own initiative and as part of a team Ability to coach a sport
Personal Qualities	Capacity to be efficient and organized, flexible and adaptable Ability to prioritise effectively The ability to work in a busy environment and meet deadlines Suitable to work with children	A good sense of humour Ambition
Personal Commitment	Candidates should be willing and able to commit themselves actively to support the ethos of the school	

These attributes will be identified from your application form, references and interviews.