



#### INTRODUCTION

The Physics Department at Westcliff High School for Boys (WHSB) has been a high performing Department for many years. We have had consistently outstanding results in GCSE and Advanced Level Physics, with the Department obtaining particularly pleasing results at GCSE Level. There are 44 students currently studying Physics in the Lower Sixth and 55 studying in Upper Sixth. At GCSE, 176 pupils sit the AQA GCSE course.

The Physics Department also plays an important role in the extra-curricular life of the School. The Department offers a variety of additional clubs which pupils can attend, aimed at supporting those in need of support or extending the more able. We have a particularly effective mentoring scheme, in which Sixth Form students mentor those lower down the School. Students in the Upper Sixth will also sit the British Physics Olympiad. Further to this, we offer our students the opportunity to visit CERN in Geneva and the Sizewell B nuclear power station.

We are an Isaac Embedded School with a Isaac Physics Ambassador in the Department and have strong links with the Isaac Physics project and the University of Cambridge. The Department makes extensive use of digital resources to facilitate teaching and assessment, and to promote pupils' independent work.

#### **ACCOMMODATION AND FACILITIES**

The Physics Department occupies four laboratories; two within the Science building and two dedicated Sixth Form Physics laboratories in the Sixth Form Building. The Science building has just recently undergone a considerable refurbishment and now offers the most up-to-date facilities and an attractive teaching environment. On a practical level, the Physics Department is well stocked with apparatus, including laptop computers and data logging equipment. We have updated our textbooks to reflect a change in syllabus for Advanced Level as well as GCSE.

#### **CURRICULUM**

In the Lower School (Years 7-9) syllabus in Physics, pupils learn about the fundamentals of forces and energy in Year 7, ensuring that pupils have a firm understanding of Newton's Laws and Conservation of Energy. In Year 8, those fundamentals are applied to contexts such as gravity and pressure. Pupils also explore the fundamentals of electricity and electrostatics. In Year 9, pupils further develop their mathematical skills, practical skills and their use of technical language in the context of mechanics, waves and astronomy.

The AQA Physics GCSE curriculum follows on from the work that has been completed in the Lower School, both consolidating parts of it that have previously been covered to GCSE Level but also extending other parts so pupils can access the Grade 9 GCSE grade.



In the Sixth Form, students can choose to study AQA Advanced Level Physics if they attained a Level 7, 8 or 9 in GCSE Physics. In the Lower Sixth, Physics students will study mechanics, electric circuits, particle physics, quantum physics, waves, optics, thermal physics and gases. In Upper Sixth, we cover periodic motion, fields and nuclear physics. We choose the Turning Points option, which includes the discovery of the electron, wave-particle duality and special relativity.

At all divisions in Physics, the Department devotes time to the development of examination technique and regularly assesses students so they are best placed to succeed at examination time.

#### **EXAMINATION RESULTS**

Results in all Public Examinations are outstanding and those who choose to continue their Physics studies at University generally do so at established Universities, including the Universities of Oxford and Cambridge. The Examination Board used for Public Examinations is AQA for both GCSE and Advanced Level.

In Summer 2020, 81% of candidates at Advanced Level were awarded  $A^*$ -B grades, with 17% of candidates achieving an  $A^*$  grade. At GCSE, in the Summer of 2020, 86% of pupils were graded at 9-7 with 40% being awarded the very highest grade.



#### JOB DESCRIPTION

#### **TEACHER OF PHYSICS**

#### **Job Purpose:**

The teacher is required to carry out the general professional duties of a school teacher under the reasonable direction of the Head of Department and Headmaster and to perform such particular duties that from time to time which may reasonably be assigned him/her by the Headmaster. Teachers on the Upper Pay Scale (UPS) will be expected to make broader contribution to the School as a normal part of their work.

#### **Duties and Responsibilities:**

The following responsibilities are included in the professional duties which the teacher is required to perform:

#### **General Duties:**

- to support and promote the School's general purposes, ethos and Learner Profile;
- to be familiar with and respect and follow the School's Policies and Procedures;
- to maintain a good understanding of whole School Evaluation and Development Planning;
- to act as a role model to pupils through always being punctual and well prepared and to maintain appropriate professional relationships and an atmosphere conducive to learning;
- to attend School and Year Assemblies and to carry out a share of supervision duties in accordance with published rotas;
- to contribute actively to the maintenance of the School as an orderly community by upholding the provisions of the School's Rules and the Pupils' Code of Conduct;
- to maintain good order and discipline among the pupils, safeguarding their welfare both on School premises and when engaged in authorized activities elsewhere;
- to participate in staff and other meetings relating to the School's curricular, pastoral or administrative arrangements;
- to assist with covering or taking other classes as and when required (e.g. staff illness) and being available for examination invigilation;
- to communicate and co-operate on educational issues with persons or bodies outside the School as appropriate;
- to contribute to the extra-curricular life of the School as appropriate and attend and support School and House events wherever possible.

#### **Teaching:**

to ensure that lessons are planned in appropriate detail (considering pupils' prior attainment)
and are prepared and delivered in accordance with the Learner Profile, departmental Schemes
of Work and regulatory standards, reinforcing the need for high expectations which inspire,
motivate and challenge pupils;



- to take account of pupils' educational needs (differentiating where appropriate), to teach in a manner appropriate to a Grammar School (as outlined in the School's Guide to Outstanding Teaching), including the setting and marking of work, to be carried out by the pupils in School and elsewhere (homework), according to agreed schedules;
- to assess, record and report on the development, progress and attainment of pupils in accordance with the School's policy, in order to ensure pupils fulfil their potential. This record of assessment should be available to the Head of Department or Directors of Studies on request;
- to regularly mark pupils' work, giving appropriate feedback and keeping records of marks;
- to provide mark lists, grading lists, written reports, internal comments or references relating to individual pupils as the School may require;
- to communicate with Head of Department and Form Tutor regarding the progress of individual pupils, as necessary;
- to attend Parent Evenings to discuss the progress of pupils and use such occasions to offer constructive advice on what pupils need to do to improve their progress;
- to participate, within the guidelines laid down by the Head of Department, in the evaluation and development of appropriate methods of teaching, syllabuses and materials, writing Schemes of Work as reasonably requested and contributing to the development of departmental policy;
- to assist with displays and publishing of pupils' work;
- to utilise ICT as an effective tool to aid teaching and other classroom resources as appropriate;
- to assist with departmental voluntary activities, societies, trips and initiatives.

#### **Pastoral Care:**

Teachers will act as Form Tutors under the direction of a Progress Leader and Head of School/Director of Sixth Form and they will:

- be 'in loco parentis', responsible for the welfare of pupils in the Form and the first point of contact for those seeking help or guidance or wishing to express concern;
- take an interest in the personal circumstances and development of each pupil in the designated Form Group, in his/her happiness and security, and to be available for advice or consultation with parents as well as provide comments on Reports, and to handle correspondence;
- promote the academic progress and well-being of individual pupils and any Form Group, class or group, ensuring consistent feedback is given, which guides pupils. Discussing Reports and supporting self-evaluation activities with the designated Form Group;
- providing tutees with guidance and advice on educational, careers and social matters, monitoring their welfare and making relevant records and reports (including reference and personal profiles) in accordance with the School's policies. If necessary, directing pupils to sources of more expert advice on specific questions;
- ensure that the Form Group's Pupil Planners are kept up to date and to ensure they are used effectively by pupils including as a means of parent(s)/School communication;
- promote the Learner Profile and high standards of behaviour, attendance, punctuality and attitudes to work.
- ensure that pupils' dress and appearance conform to the requirements set out in the Code of Conduct;
- encourage pupils to develop their interests and talents through participation in extra-curricular activities and the broader life of the School;
- discharge effectively a range of Form administrative duties.



#### Personnel and Continuing Professional Development:

- to attend and participate in Staff INSET and training courses and events, as requested;
- to contribute, as requested, to the selection, appointment and professional development of staff, including the induction of new teachers;
- teachers on the Upper Pay Scale will be expected to make a greater contribution to the School's Appraisal and CPD arrangements as part of their normal working arrangements.

#### CONDITIONS OF EMPLOYMENT

- The above responsibilities are subject to the general duties and responsibilities contained in the written Statement of Conditions of Employment (the Contract of Employment).
- The postholder is required to support and encourage the School's ethos and its objectives, policies and procedures as agreed by the Governing Body.
- To uphold the School's policy in respect of child protection and safeguarding matters.
- The postholder shall be subject to all relevant statutory requirements as detailed in the most recent School Teachers' Pay and Conditions Document.
- The postholder may be required to perform any other reasonable tasks after consultation.
- This job description allocates duties and responsibilities but does not direct the particular amount of time to be spent on carrying them out and no part of it may be so constructed.
- This job description is not necessarily a comprehensive definition of the post. It will be reviewed at regular intervals and it may be subject to modification at any time after consultation with the postholder.
- All staff members are required to participate in the School's Appraisal Scheme.



Headmaster: Mr MA Skelly M.A.

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