



Westcliff High School
for Boys

JOB DESCRIPTION

SECOND IN MATHEMATICS

INTRODUCTION

The Mathematics Department at Westcliff High School for Boys (WHSB) has been a strong Department for many years. It has had consistently good results in GCSE and Advanced Level Mathematics, and the introduction of the GCSE in Further Mathematics to the top half of Year 10 and 11 has produced encouraging results. The Department has a high uptake of Mathematics at A Level, approximately 65% of Year 12, with about 20% of the same cohort opting to study Further Mathematics.

The Department offers a variety of additional clubs which pupils can attend, aimed at helping those in need of additional support, or extending the more able. This includes a particularly effective mentoring scheme, in which Sixth Form students mentor those lower down the School. Pupils in Years 8, 11 and 13 will also sit the respective Junior, Intermediate and Senior Mathematics Challenges organised by the UKMT, and students often progress to the follow-on rounds at all levels. The Department also offers a range of activities for Enrichment Days, such as the Architecture Workshop (Year 12), Mathematics and Magic (Year 7), Fractal Geometry (Year 10) and Mathematics and Pirates (prospective Year 5 pupils).

ACCOMMODATION AND FACILITIES

The Mathematics Department is well-equipped and has updated its textbooks to reflect a change in syllabus for Years 7 to 9. All students in Year 10, 11, 12 and 13 have textbooks for their various courses; *Edexcel 9-1 GCSE Mathematics*, *AQA GCSE Further Mathematics* and *Edexcel Modular Textbooks* at A Level. The Mathematics and Music Building houses seven Mathematics classrooms (three of which are for A Level / GCSE teaching only), and there are a further two classrooms close to the Mathematics Building, all of which are equipped with Interactive whiteboards, projectors and standard whiteboards. All staff are trained in the use of the interactive whiteboards and use them effectively to support Teaching & Learning.

The classrooms area spacious, light and air conditioned. The Mathematics Building is adjacent to the Year 7 playground and staff occasionally make use of the outdoor space when conducting investigations with their classes.

CURRICULUM

The new Year 7-9 syllabus has been designed by the Mathematics staff at WHSB to encourage independent learning, alongside improving examination technique. The Department uses a range of assessment and investigations to introduce, consolidate and extend pupils' understanding of Mathematics. It does not attempt to accelerate pupils' learning, but instead it encourages them to develop a more in-depth understanding of the principles they are currently learning.

The Edexcel GCSE 9-1 Curriculum dovetails neatly with the course studied by pupils in Years 7-9, both consolidating parts of it that have previously been covered to GCSE Level but also extending other parts so pupils can access the level 9 grade.

The AQA Further Mathematics curriculum is studied by the highest attaining four (out of seven) classes after they have completed the GCSE 9-1 syllabus. The pupils start this course in January of Year 10 and finish it by March of Year 11, allowing time for revision of both GCSE Mathematics and Further Mathematics material.

In the Sixth Form, students can choose to study Edexcel A Level Mathematics if they attained a Level 7, 8 or 9 in GCSE Mathematics. Sixth Form students study a mix of the Year 1 and Year 2 material from both Pure Mathematics and Applied Mathematics. The Scheme of Work has been designed so that Mathematics and Further Mathematics can be studied in parallel. Consequently, Further Mathematics students are present in all Mathematics classes which, in turn, helps to raise the standards of all students.

Students can also choose to study Edexcel A Level Further Mathematics if they have attained a Level 8 or 9 in GCSE Mathematics. To date, students study the traditional Core Mathematics 1 and Core Mathematics 2 alongside the option units of Further Pure Mathematics 1 and Further Mechanics 1. The Department is planning to expand this provision to offer a greater flexibility, with teacher training to teach Decision Mathematics 1 and 2, Further Statistics 1 and 2, Further Pure Mathematics 2 and Further Mechanics 2.

EXAMINATION RESULTS

Results in all public examinations are strong and those who choose to continue their Mathematics studies at University generally do so at established Universities, including the Universities of Oxford and Cambridge.

In Summer 2019, pupils at Westcliff attained 77.6% 7, 8 and 9 grade in Edexcel GCSE Mathematics, of which 96.6% was 9 to 5. In AQA GCSE Further Mathematics, 82.7% attained A⁺/A^{*}/A.

In Advanced Level Mathematics, 60.7% of students at Westcliff attained A^{*}, A or B, and in A Level Further Mathematics 77.3% of students at Westcliff attained A^{*}, A or B.

In Summer 2020, pupils at WHSB attained 83% 7, 8 and 9 grade in Edexcel GCSE Mathematics, of which 59% were Grades 8 and 9. In AQA GCSE Further Mathematics, 90% attained Grades 7-9 with 57% of at Grades 8 and 9.

In Advanced Level Mathematics, 71% of students at Westcliff attained A^{*}, A or B, and in A Level Further Mathematics 81% of students at WHSB attained A^{*}, A or B.

Year 12 do not take a public examination in Mathematics or Further Mathematics but instead take internal examinations.

JOB DESCRIPTION

SECOND IN MATHEMATICS DEPARTMENT

Duties and Responsibilities:

- To prepare and keep under review Schemes of Work and teaching materials relating to Key Stage 4 (GCSE Mathematics and GCSE Further Mathematics) as directed by the Head of Mathematics, addressing the needs of the full ability range.
- To put in place appropriate assessment procedures relating to GCSE Mathematics, GCSE Further Mathematics and Advanced Level Further Mathematics ensuring that judgments are cumulative and to give due regard to the work completed by pupils in homework.
- To maintain records of the progress of all pupils in Mathematics for GCSE Mathematics, GCSE Further Mathematics and Advanced Level Further Mathematics and to advise the Head of Department of areas of concern.
- To manage the preparation of all internal examination papers for GCSE Mathematics, GCSE Further Mathematics and Advanced Level Further Mathematics, including any necessary trial examinations, and to maintain an appropriate band of practice examination material for GCSE Mathematics, Further Mathematics and Advanced Level Further Mathematics through the direction of the departmental Teaching Assistant as appropriate.
- To ensure, working under the direction of the Head of Mathematics, departmental members use information on prior pupil attainment in planning lessons and that teachers respect and follow the School's assessment procedures, including those for pupil tracking and target setting to enhance performance for GCSE Mathematics, GCSE Further Mathematics and Advanced Level Further Mathematics.
- To assist the Head of Department in raising standards and in the organization of suitable enrichment tasks, in particular the Junior, Intermediate and Senior Mathematical Challenges and the Years 8, 10 and 12 Team Challenges. This will also include coordinating the preparation of students for extension awards and university entrance examinations at Advanced Level.
- To coordinate, develop and deliver the extra-curricular opportunities offered by the Mathematics Department.
- To be responsible for the deployment and monitoring of Year 12 Subject Prefects in their mentoring of younger pupils; to meet with each Subject Prefect at least once every term to assess and monitor progress.
- To work with the Head of Mathematics to maintain records of the Department's stock of textbooks and other resources and directing the Teaching Assistant, as required, to recover stock or remuneration as appropriate.
- To work, in consultation with the Head of Department, to develop Teaching & Learning within Middle School. This will involve, working with the Head of Department, conducting lesson observations, work sampling and pupil voice, alongside any other strategies that may be suggested.

- To act as Head of Department as and when required.
- To undertake such other duties, from time to time, as the Head of Department or the Headmaster may reasonably request.

TEACHER OF MATHEMATICS

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.



Westcliff High School for Boys

Headmaster: Mr MA Skelly M.A.

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