



Westcliff High School
for Boys

JOB DESCRIPTION

HEAD OF MATHEMATICS

INTRODUCTION

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

The Department offers a variety of additional clubs which students can attend, some of these are aimed at helping those in need of additional support, or extending the more able. This includes an effective mentoring scheme, in which Sixth Form students mentor younger pupils. Pupils in Years 8, 11 and the Upper Sixth 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 (Lower Sixth), Mathematics and Magic (Year 7), Fractal Geometry (Year 10) and Mathematics and Pirates (prospective Year 5 pupils).

ACCOMMODATION AND FACILITIES

The Mathematics and Music Building houses eight Mathematics classrooms (three of which are for A Level and GCSE teaching only), and there is one further classroom adjacent to the Mathematics Building. All of the classrooms 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 are 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. The Mathematics staff room is also located in the Mathematics building as is the Head of Department's Office.

The Mathematics Department is well-equipped and has recently updated its textbooks to reflect a change in syllabus for Years 7 to 9. All students in Years 10, 11 and Sixth Form have textbooks for their various courses; *Edexcel 9-1 GCSE Mathematics*, *AQA GCSE Further Mathematics* and *Edexcel Modular Textbooks* at A Level.

CURRICULUM

The 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 assessments and investigations to introduce, consolidate and extend pupils' understanding of Mathematics. It does not attempt to accelerate pupils' learning, but instead it encourages pupils to develop a more in-depth understanding of the principles they are studying.

The Edexcel GCSE 9-1 curriculum builds on the content covered in the Lower School (including some elements that have previously been covered to GCSE Level) and also offers greater challenge and use of problem-solving methods to allow pupils to access Grades 8 and 9.

The AQA GCSE Further Mathematics curriculum is studied by the highest attaining three (out of seven) classes once they have completed the GCSE Mathematics syllabus. The pupils start this course in

January of Year 10 and finish it by February 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 or Further Decision 1, but this is being extended to include a number of additional modules depending on the teachers' specialities. The Department is always seeking to expand this provision to offer a greater flexibility.

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 2021, pupils at WHSB attained 84.7% Grades 7, 8 and 9 in GCSE Mathematics, of which 59.7% were awarded Grades 8 and 9. In GCSE Further Mathematics, 94.6% attained Grades 7, 8 and 9, of which 81.1% were awarded Grades 8 and 9. In Advanced Level Mathematics in Summer 2021, 79.7% of entries at WHSB were graded A*, A or B, and in A Level Further Mathematics 94.6% of entries at WHSB were graded A*, A or B. Lower Sixth students do not take a Public Examination in Mathematics or Further Mathematics but instead take internal examinations in the Summer Term.

DEPARTMENTAL STAFF

The Mathematics Department consists of nine full-time members of staff. Most of our colleagues teach from Year 7 through to Advanced Level. The successful candidate will be able to deliver Mathematics (including Further Mathematics) to Advanced and Oxbridge entrance level. The Department has a highly collegiate and supportive atmosphere.

Currently, leadership in the Mathematics Department consists of a Head of Mathematics and Coordinators for the Sixth Form, Middle and Lower School. The successful candidate will work with the Senior Team to review and develop the leadership structure in Mathematics, therefore some experience of managing a team is desirable. The Head of Department would ordinarily teach 42 periods a fortnight. The School operates a 60 teaching-period, fortnightly timetable and teaching periods are 50 minutes in duration.

JOB DESCRIPTION

POSITION: Head of Mathematics

TLR: 1B – 1D (Currently £10,203 - £14,030)
Dependent on experience

Line of Responsibility:

The Head of Mathematics is responsible to the Director of Studies (Mathematics)

Line Management:

The Head of Mathematics is responsible for appraising (as appropriate) and line managing the work of the Mathematics Department.

Job Content: / Core Responsibilities:

The Head of Mathematics is

- 1 to provide for the Department guidance, advice and leadership on:
 - aims and objectives
 - Schemes of Work (which shall reflect the values the School seeks to inculcate)
 - teaching methods
 - Assessment, Recording and Reporting
 - the classroom environment
 - differentiationand to ensure that these matters are the focus of regular departmental discussion.
- 2 to determine, in consultation with the Director of Studies, the choice of syllabus, Examination Board and course structure.
- 3 to manage the Department's staff and contribute to the School's Appraisal arrangements, in particular to monitor standards of teaching and assessment in the Department, to make recommendations on INSET, and to seek to achieve targets on examination results set out in the Departmental Development Plan.
- 4 to manage the Department's resources, human and material, and to have regard to the quality of teaching materials both purchased and internally prepared. This will also involve recommending suitable library acquisitions.
- 5 to ensure that the Department has in place arrangements to provide for the needs of pupils of differing abilities, including the most able and those who are within the School's Special Educational Needs provision.
- 6 to organize pupils into groups, to recommend the allocation of staff and to contribute to the appointment and induction of new staff. To be conscious of ways in which the engagement of

others from outside School might enrich our curricular provision and to ensure the appropriate incorporation of such elements.

- 7 to ensure that members of the Department use information on prior pupil attainment in planning their teaching of particular groups and that the Department respects and follows the School's procedures for pupil tracking and target setting to enhance performance.
- 8 to monitor academic standards within the Department, to maintain pupil records, to identify difficulties with individual pupils and to generate solutions, to ensure that all report data is in SIMS and has been checked by published deadlines.
- 9 to ensure, through the use of departmental INSET time, that members of the Department are familiar with School and other relevant curriculum documentation and are responsive as well to relevant national developments and initiatives bearing on the work of the Department.
- 10 to motivate members of the Department and to give them the opportunity to contribute to policy. To maintain a record of matters discussed at meetings and to make a copy available for the Headmaster and the Director of Studies.
- 11 to be responsible for the preparation and updating of coursework guidelines (if relevant) at GCSE and Advanced Level and to ensure that coursework submitted across the Department meets an appropriate standard.
- 12 to ensure that, within the Department, one member of staff has responsibility for the effective use of ICT and to ensure that that use promotes Teaching & Learning in accordance with whole-school policy.
- 13 to have a familiarity with the School's Policy on Health & Safety (H&S), to direct colleagues in the Department on H&S issues and to draw to the attention of the Facilities Manager any departmental matters covering H&S requiring attention.
- 14 to have overall responsibility for quality of displays in departmental teaching rooms and to ensure that arrangements are in place (using the designated Teaching Assistant) for the periodic changing of departmental display materials.
- 15 to contribute as requested to whole-school initiatives such as the Year 7 and Sixth Form Induction Courses.
- 16 to promote the Department in the School's wider agenda, e.g. via the website, *The Westcliff Diary* and through participation in the School's Outreach programmes.
- 17 to produce each year, according to agreed schedules, a written review of the Department's work, covering public examination results; Teaching & Learning in Years 7-13; staff development; departmental extra-curricular activity; departmental resources; and progress made towards meeting targets laid down in the School Development Plan.
- 18 to undertake such other duties, from time to time, as the Director of Studies or the Headmaster may reasonably request.

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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