



The Mathematics department at Durham Johnston is a highly successful department with a strong team ethos. Our high achievement is built on a passion for teaching engaging lessons, a spirit of collaboration and a desire to continually improve. The maths team is made up of 9 full time teachers, two part-time teachers and a member of the senior leadership team.

The leadership of the department consists of:

Mrs Pauline Urwin – Head of department
Mr Matthew Horrocks – 2nd in department
Mr George Cooke – KS3 coordinator

All members of the department have degrees in mathematics or a related discipline and we are proud to be able to offer a complete range of mathematics courses at all levels. Our students have the opportunity to take part in national mathematics contests, the uptake to which is high, and we have a very good record of success.

Results: Summer 2017

| | |
|------------------------|--|
| KS4 | 62% of students achieved grade 5 or higher |
| | 79% of students achieved grade 4 or higher |
| A2 Mathematics | 91% of students achieved grades A*-B |
| A2 Further Mathematics | 75% of students achieved grades A*-B |

Setting

At KS3 and KS4, all students are placed in sets according to ability. Setting is reviewed on a regular basis to ensure that each student is placed in the appropriate teaching group. We endeavour to provide an ethos of challenge in a supportive environment for students of all abilities.

| Year Group | |
|------------|---|
| 7 | 12 teaching groups arranged in 3 parallel populations |
| 8 | 11 teaching groups arranged in two parallel populations |
| 9 | 12 teaching groups arranged in two parallel populations |
| 10 and 11 | 11 teaching groups arranged into two populations |

KS3

Following the recent changes in the mathematics curriculum, we are excited to be developing a new KS3 scheme of work. George Cooke is leading this, the scheme focuses

on ensuring strong foundations in basic numeracy whilst developing the skills needed in preparation for the A02, and A03 objectives at GCSE where students are expected to reason, interpret and communicate mathematically.

KS4

All students in KS4 are following the AQA GCSE course for the new specification. There is also an opportunity for selected students to study for an additional qualification. Currently this is the AQA level 2 FSMQ (Free Standing Mathematics Qualification) in Further Mathematics.

As with KS3, the KS4 scheme of work is being continually developed to prepare students to solve more open ended, problem solving and multi topic questions. Matthew Horrocks is leading this development and we aim to embed tasks that encourage and develop reasoning, foster an ability to make inferences and deductions, and allow students to challenge the validity of an argument.

KS5

Uptake and performance is very good in both AS and A2 Mathematics and Further Mathematics. We have highly motivated students who work well and enjoy excellent relations with teachers. Many of them go on to maths-related courses at highly competitive universities. There are currently over 150 students studying maths in the sixth form which means that all members of the department have the opportunity to teach A level.

Opportunities for Development

As both a school and a department, we value our staff at Durham Johnston and have an ethos of continual improvement. As a department, we enjoy collaborating, sharing best practice, ideas and expertise and we are supportive of each other in the development of teaching skills, including A-level.

Professional development is important to us as a department and staff are encouraged to attend external courses and to take a lead on initiatives within both the department and the whole school. In the last two years, the department have built strong links with the Great North Maths Hub through courses, networking events and participating in research projects. As a result one member of the department has been accredited as a Professional Development Lead with NCETM and is currently leading a local workgroup participating in a national research project. Another member of the department is involved in running reasoning sessions in the local authority. We enrol staff new to A-Level teaching in the MEI TAMs course (Teaching A-level Maths); several members of the department have completed or are currently completing this course.