



A Level Mathematics

Who is this course for?

This course is for you if you enjoy Mathematics and also achieved well at GCSE Mathematics. An essential part of Mathematics is the challenge of analysing and solving a problem and the satisfaction and confidence gained from achieving a 'correct' answer. However, a big difference between GCSE and A Level is the depth of knowledge and understanding needed. If you want to understand why, rather than just being able to "do" Mathematics, then through A Level Maths your depth of knowledge and understanding will grow. The exams for A Level Maths are taken after your 2 years of the course and they will be different to what you faced in GCSE as they will test a lot more of your understanding. There are many marks for showing how you got the answer; if you choose Maths you will not have to write essays, but you will need to be able to communicate well in written work to explain your solutions.

The Mathematics department at Wyke Sixth Form College

We're based in dedicated Maths classrooms and we are all highly experienced teachers of Mathematics. We have degrees from York, East Anglia, Manchester, Sheffield, Hull and Durham.

The Department comprises:-

Al Robinson - Head of Faculty

Pete Farmer - Head of GCSE Mathematics

James Belham

Peter Edge

Gareth Eldon

Emily Rae

Andrea Turner

Mark Bradley

Our Other Courses

Our other Mathematics courses are;

Further Maths A-Level - Taught in combination with A-Level Maths and gives you a broader and deeper understanding of advanced Mathematics.

Core Maths level 3 (Mathematical Studies) – Equivalent to half an A level and looks at the applications of Mathematics.

Access to A-Level Maths – This is a 1 year course and is ideal for students who did not get the grade required to get onto A-Level Maths.

Foundation GCSE – For those who need to retake GCSE Maths either in a 1 year or 2 year package.

Exam Board

Our A Level and Further Mathematics A Level courses are examined by the AQA exam board materials.

Course Details

The A level course lasts for 2 years with all exams taken at the end of the second year. Students receive 4 lessons each week and additional work is done out of lesson, some of which is producing worked solutions to exam-type questions.

The course develops understanding of:

- The fundamental theories and concepts of Mathematics.
- The practical applications of Mathematics to other areas.
- Logical problem solving.

The new A Level Mathematics syllabus is completely prescribed and the content is the same for each examination board. All external examinations are taken at the end of the 2 year course.

The course is made up of a combination of pure and applied Mathematics.

The pure Mathematics content builds on the algebra, graphs and trigonometry from GCSE, and introduces new topics such as calculus and exponentials. While many of the ideas you will meet in pure Mathematics are interesting in their own right, they also serve as an important foundation for other branches of Mathematics, especially Mechanics and Statistics.

The applied content covers;

- Mechanics including work on forces and Newton's laws of motion and applies Mathematical modelling to simple problems.
- Statistics builds on work on averages and probabilities from GCSE and introduces topics such as probability distributions and correlation.

How the course is delivered

You will have one teacher for the course each year. Lessons include a variety of group, paired and individual work; resources you will draw on include text books, exam questions and jigsaw/ domino/card matching activities as well as web-sites.

Support outside lessons is available, both informally and formally. Regular "mathematics clinic" sessions are run during the college week and all of the department are available for support at lunchtime.

Departmental Enrichment

The Mathematics Department offers a number of enrichment activities:

The Individual Senior Maths Challenge takes place in the autumn term.

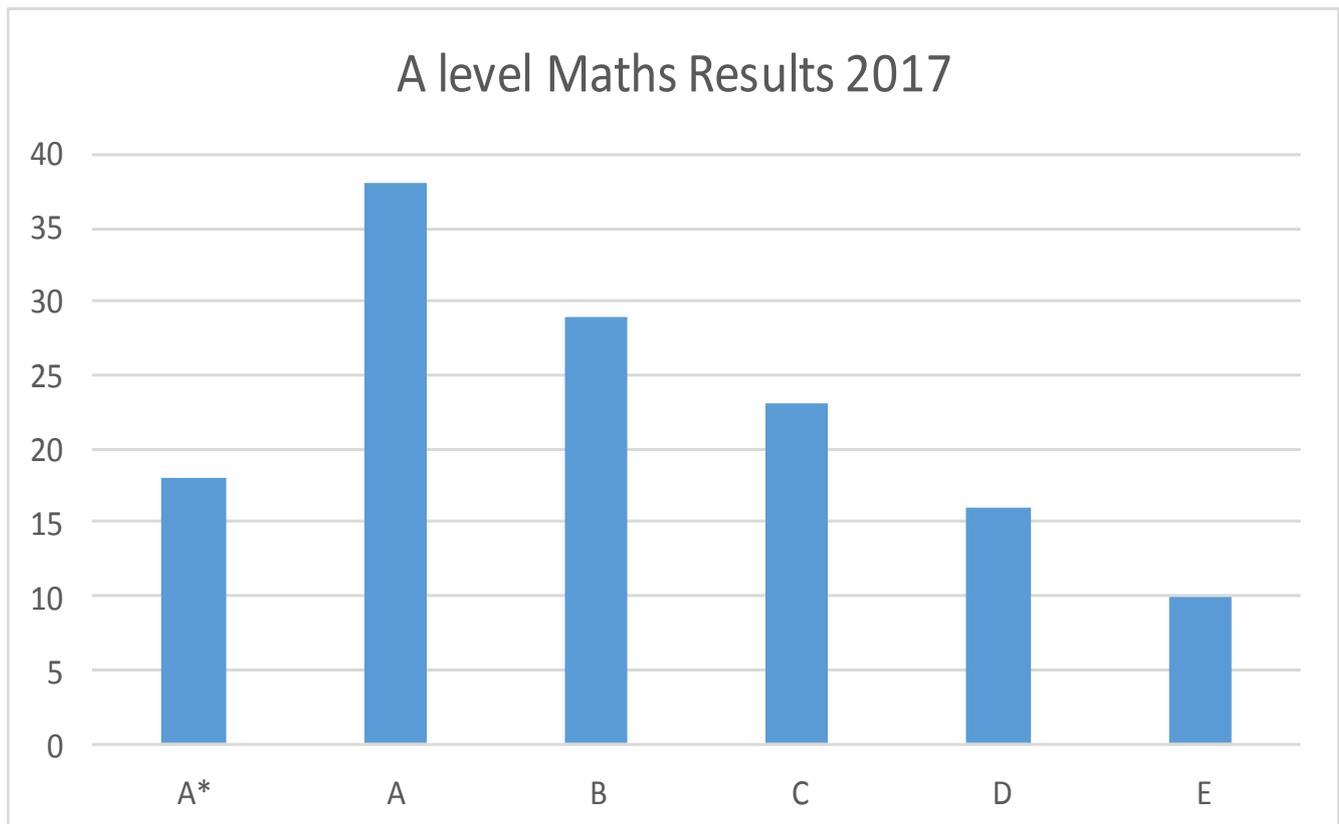
The Team Challenge involves our students competing against other Maths students both at a regional and national level.

STEP is designed to challenge the top students and is offered to all students aiming for a place at the more prestigious universities.

We also take a group of students to the Maths Enrichment talks in Leeds each year. These are always very popular and include topics such as “the maths of juggling”, “musical maths”, and “the maths behind the dam busters”.

Success 2017

Over 62% of our students achieved high grades with 18 students achieving A* and 38 grade A. The pass rate on the course was 98%.



What does this course lead to?

Students have gone on to a wide variety of careers from their Mathematics A Level. These include;

Mathematics at York

Biochemistry at Queen Mary University London

Natural Sciences at Cambridge

Aeronautical Engineering at Loughborough University

Mechanical Engineering at Newcastle University.

What can I do now that would help prepare me for this course?

Students who have taken GCSE Mathematics early may find they need to review what they have learnt at GCSE through the Summer; Mathematics skills need to be kept in use. Many Mathematics students enjoy extending their knowledge of Mathematics and there are many ways of doing this including;

Use of websites such as www.nrich.co.uk; www.furthermaths.org.uk

Reading books such as

“Alex’s Adventures in Numberland” by Alex Bellos

“The Music of Primes” by Marcus Du Sautoy

“Fermat’s Last Theorem” by Simon Singh

“A Mathematician’s Apology” by GH Hardy

“Littlewood’s Miscellany” edited by Bells Bollobas

“The Man Who Loved Only Numbers” by Paul Hoffman

What our students have said

“Maths is always challenging but with the fantastic teachers and support available, every aspect is easier”

“Intriguing, challenging, fun”

“It’s great how everything you learn fits together”

“One does not walk out of maths unhappy”

“Further Maths expands your mathematical knowledge and introduces you to a different way of thinking”