

MATHS

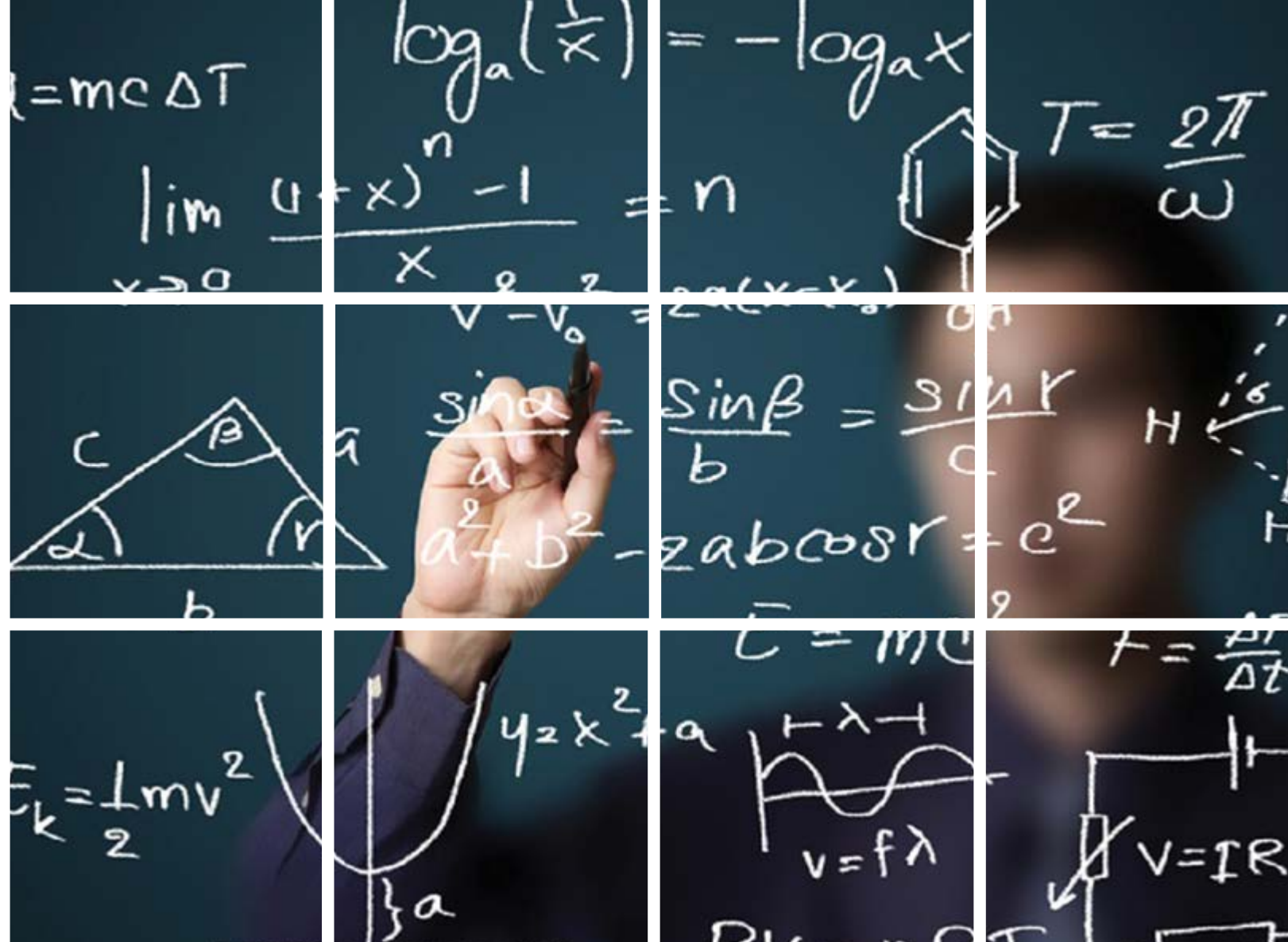
A LEVEL COURSE DESCRIPTION

Mathematics is interesting and enjoyable. Students like its challenge, its clarity, and the fact that you know when you are right. The solution of a problem provides a level of excitement and satisfaction. You will find all these aspects at A Level Mathematics.

You should also be aware of the wider importance of Mathematics, and the way in which it is advancing at a spectacular rate. Mathematics is about pattern and structure; it is about logical analysis, deduction, calculation within these patterns and structures. When patterns are found, often in widely different areas of science and technology, the mathematics of these patterns can be used to explain and control natural happenings and situations. Mathematics has a pervasive influence on our every-day lives, and contributes to the wealth of the country.

Mathematics at this level consists of the study of Pure Mathematics and the study of the application of Mathematics to the physical world: Mechanics (for understanding how and why physical objects move and behave as they do) and Statistics (for understanding and interpreting information).

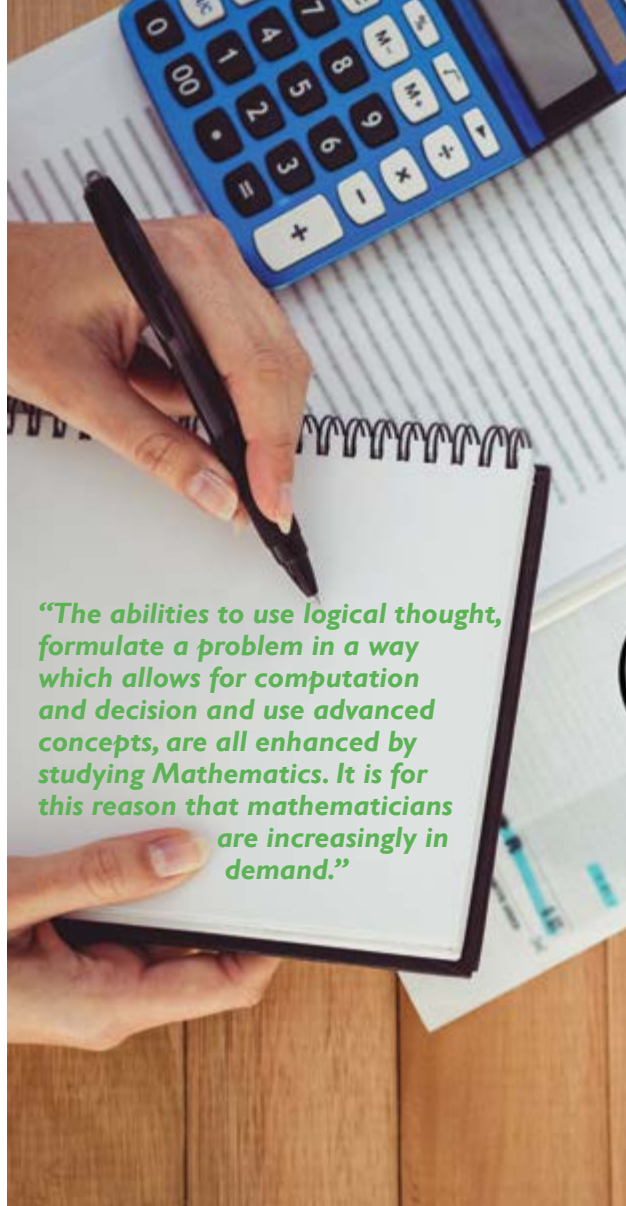
Students will study the Edexcel linear course for AS/A Level Mathematics.



Progression

Those who study Mathematics are in the fortunate position of having a wide range of university and career choices. With an A-Level in Mathematics, you should be able to turn your hand to mathematics, finance, statistics, engineering, computers, and teaching or accountancy degrees with a success not possible to other students. This flexibility is even more important nowadays, with the considerable uncertainty as to which areas will be the best for employment in future years. Furthermore, the most recent surveys show graduates in Mathematics and Computer Science at the top of the earning lists six years after graduation. Mathematics is also one of the sciences, and is a popular choice to study alongside Chemistry, Physics and Biology for medicine candidates. Former students of St Angela's Sixth Form have gone on to study Mathematics and Mathematics related subjects at degree level at many top institutes including Oxford, Cambridge, UCL, LSE, Kings College and Warwick.





“The abilities to use logical thought, formulate a problem in a way which allows for computation and decision and use advanced concepts, are all enhanced by studying Mathematics. It is for this reason that mathematicians are increasingly in demand.”

FURTHER MATHEMATICS

In this sixth form centre it is possible to study for either an AS or A level in Further Mathematics. Further Mathematics is a subject which allows you to develop your mathematical knowledge and skills and be able to apply them in a wider context. It is particularly relevant for those who wish to study mathematically rigorous degrees like Engineering, Physics and, of course, Mathematics.

ENTRY REQUIREMENTS

Mathematics

Students must achieve at least a grade 7 or above in GCSE Mathematics.

Further Mathematics

Students must have at least a grade 8 at GCSE. Year 12 students with strong AS results are also welcome to study to Further Mathematics.

ASSESSMENT

Students will be sit examinations at the end of Year 12 to achieve an AS Level award. They will then sit examinations at the end of Year 13 to achieve the A Level award. The examinations sat to achieve the AS Level award will not count towards achieving the A Level award. The final examinations take the following structure:

MATHEMATICS

AS Level:

Pure Mathematics 1
Statistics and Mechanics

A Level:

Pure Mathematics 1
Pure Mathematics 2
Statistics and Mechanics

FURTHER MATHEMATICS

AS Level:

Core Pure
Mathematics 1

Further Pure 1

Further Mechanics 1

A Level:

Core Pure Mathematics 1

Core Pure Mathematics 2

Further Pure 1

Further Mechanics 1

Internal assessments take place regularly and students' progress is monitored rigorously. These assessments are in the form of tests, mock examinations, written homework tasks and online tasks.

Tests will be set every couple of weeks and will be focussed on the topics which you would have just studied. The assessments are always based on past AS and A level examination questions to give you an idea of what to expect in the final external.

DEPARTMENTAL ENRICHMENT AND STUDENT SUPPORT

Students are offered enrichment opportunities and support throughout the duration of the course.

- UKMT Senior Maths Challenge
- Saturday Maths classes at universities
- Mentoring/tutoring younger pupils
- After school and holiday revision classes

Routes for Success - Business and Economics OR Sciences

The Routes to Success Programme is designed for ALL students in Year 12 at St Angela's Ursuline 6th Form. The BUSINESS AND ECONOMICS OR SCIENCES programme aims to offer students opportunities to work with both industry and universities, opportunities will include links with; BUSINESS & ECONOMICS ROUTE: London Metals Exchange, Royal Bank of Canada, Credit

Suisse and UCL. Summer school opportunities will include links with; UCL, London Met and Leicester University and Deloitte. SCIENCES ROUTE: London Hospital, Institute of Civil Engineers, Sutton Trust, Kings' College London, Barts and Royal London and Imperial. Summer school opportunities will include links with; City Medicine, City Nursing, Chrysalis, Surrey Science, Queen Mary

Engineering and Warwick Medicine.

Please note- All Year 12 students will select one main 'Route for Success' from these in order to experience a specialist enrichment and learning support programme. It will, of course, be possible to select a subject/subjects from another route on your timetable. We base our Routes to Success Programme on the university curriculum structure and university links are not exclusive to one route, so can be accessed by all students.

