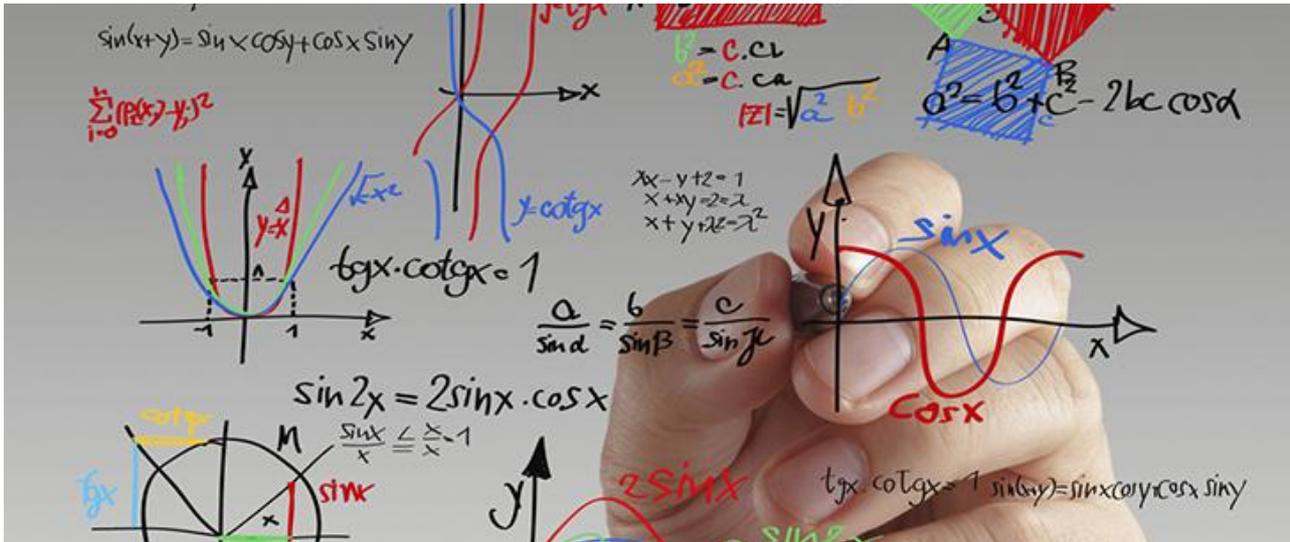

A Level Mathematics

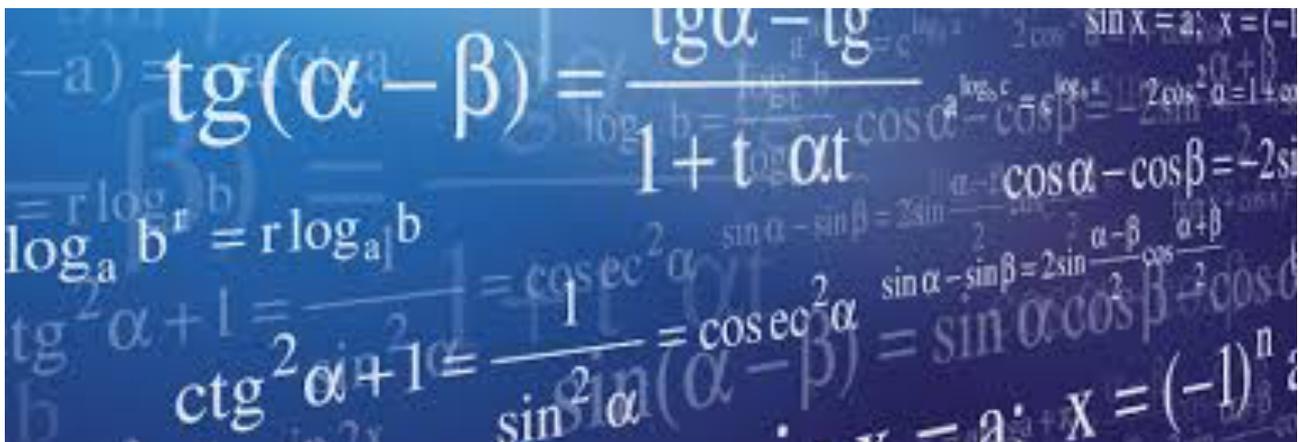
at Keswick School

Welcome to the Open Evening - 27 January 2016

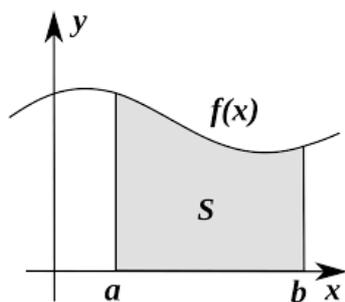


“Mathematics makes you better at things. Knowing mathematics is like wearing a pair of X-ray specs that reveal hidden structures underneath the messy and chaotic surface of the world. Mathematics is the science of not being wrong about things.”

Jordan Ellenberg



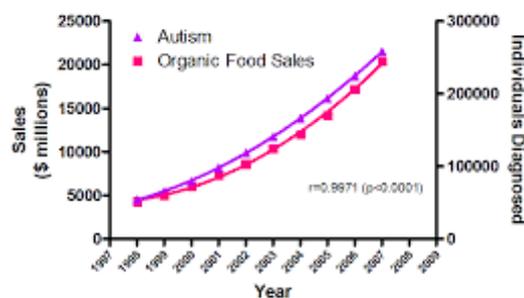
What Will I Study?



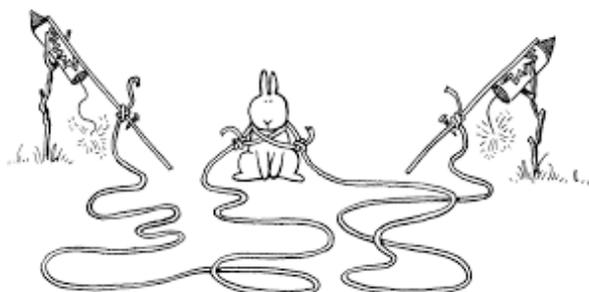
A large part of the A Level Mathematics course studies pure mathematics in modules Core 1, 2, 3 and 4. These are the units that will develop your understanding of algebra and geometry, sequences and trigonometry, for example, as well as introducing the important topic of calculus. Ideally, you should already enjoy these topics, or be keen to find out more about them.

Students also choose to study additional units in either Mechanics or Statistics:

Studying statistics will develop your understanding of graphs and data, but ultimately, it will teach you when you can trust information, and when you should question it. A knowledge of statistical thinking is a fundamental tool in the physical, chemical, biological and social sciences, economics and psychology.



Sources: Organic Trade Association, 2011 Organic Industry Survey, U.S. Department of Education, Office of Special Education Programs, Data Analysis System (DANS), OMB# 1820-0043, "Children with Disabilities Receiving Special Education Under Part B of the Individuals with Disabilities Education Act"



Mechanics is the study of the ideas behind structures and motion. You will develop an understanding of modelling that will allow you to predict whether structures are stable or not, and make predictions about objects in motion. This course links well to the physics course, and there is some overlap, but that does not mean that only physics students need apply.

Who Will Teach Me?

We have a department of specialists, with a strong understanding of each of the A Level Modules and beyond, and Mr Campion, Mr Naylor, Mr Crossley, Mr Ely and Mr Watkins all currently teach some parts of the course. The course is delivered in five one hour lessons per week, split broadly into three hours of pure mathematics, and two hours of applied mathematics.

Is This the Right Course For Me?

You should be expecting to get a grade B or above in your GCSE Mathematics. Further Mathematics GCSE is an advantage, but it is not expected. You should be working hard, and be prepared to work harder - even the very best students are challenged by the course. It is essential that you enjoy Mathematics, especially subjects like algebra. Our teachers can inspire a love of the subject in our students, but it helps if you can give us a head start!

ALL YOU NEED IS

$$y = \frac{1}{x}$$



$$x^2 + y^2 = 9$$



$$y = |-2x|$$



$$x = -3|\sin y|$$



What Do Mathematics Students Do next?

We have a successful track record with helping students get to their first choice university, and Mathematics students are very employable in a number of fields ranging from engineering and the sciences, to banking, accountancy and research. All employers recognise the importance of the logical, analytical, problem solving approach that Mathematics will help you to develop.

What Is Further Mathematics?

Please ask for the leaflet "Further Mathematics A Level at Keswick School" where the course is outlined separately.

What Should I Do Now?

Focus on your GCSEs - a strong understanding of all aspects of the GCSE course will be an invaluable start to the course. Develop good study habits. Develop your tenacity and perseverance. Enjoy the process of solving a difficult problem and getting the right answer, and be prepared to tackle our Bridging Unit over the summer.

If you want to be further inspired, get hold of a copy of Jordan Ellenberg's "How Not to be Wrong - The Hidden Mathematics of Everyday Life" or one of the other wonderful books about popular Mathematics that will allow you to start thinking more mathematically.