



Sixth Form Information - Mathematics Department

Key People

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Key Information

We offer three courses in the maths department:

- **A Level Maths:** the most popular choice for students who want to continue to study mathematics in years 12 and 13. Students should be aiming for a 7 or above in GCSE Maths. Students study topics such as trigonometry and calculus as well as mechanics and statistics.
- **A Level Further Maths:** an additional A level course for students who want to study maths or a maths adjacent course at university. Students picking Further Maths must take A level Maths as well. Students should be aiming for an 8 or above in GCSE Maths.
- **Level 3 Core Maths:** for students who want transferable maths skills to support their other A Level options, such as Geography, Psychology or Sociology. Students study topics such as statistics, finance and risk.

A Level Maths

Maths is a very useful and strong A level option highly regarded by universities. It supports students studying A levels in the sciences, computer science, engineering etc. It is a popular A level option; at Budmouth Sixth Form we normally have 2 classes and nationally it is the largest A level. We have a well experienced and qualified team of teachers who know the content very well.

Maths can be a challenging A level and potential students should be aiming for a 7 or above in GCSE. Students should understand that they will have to work hard and do lots of practice over the two years, including students who find GCSE maths easy.

Some of the topics we study are a more in depth look at GCSE content, such as exploring trigonometry. Most topics in the course will be new areas of maths, such as calculus (which is differentiation and integration). The course is split into pure and applied:

Pure (66% of the course)	Applied (33% of the course)
Algebra Binomial Theorem Trigonometry Sequences Differentiation and Integration Exponentials and Logarithms Vectors	Mechanics Kinematics Newton's Laws Friction Statistics Data and the Large Data Set Probability Hypothesis Testing

A level Maths is assessed by 3 exams in summer of year 13. Each exam is 2 hours long and all exams are calculator exams. Two of the exams are based on the Pure content and the third is split between Mechanics and Statistics. There is a formula book provided but there are some formulas students will need to remember.

Over the last two years we have a 97% pass rate, with 50% of students getting a grade C or above and 16% getting an A or above.

Students have the option to purchase a textbook to provide them with worked examples and practice questions. We use the online platform Dr Frost Maths which allows students to practise questions from any part of the course.

A Level Further Maths

This is a second A level course which students can take alongside A level Maths. Picking both A level Maths and A level Further Maths will take two of your options. This course is for students who want to do lots of maths or who are looking to study a degree in maths or in a subject close to maths. Students should be aiming for an 8+ in GCSE.

This course is assessed by 4 exams in summer of year 13, all of which are 1 hour 30 long. Two exams are on the Core Pure content which covers topics like Complex Numbers, Series, Integration, Matrices and Differential Equations. The other two exams are taken from a choice of two units from Further Pure, Further Mechanics, Further Statistics and Decision - the class group and teacher will decide which units are taken at the start of year 13.

Level 3 Core Maths

This is a two year course equivalent to half an A level. This qualification is designed to support Sixth Form students with the mathematical and statistical needs of their study of other subjects, as well as for employment and everyday life. This qualification gives students the mathematical skills to tackle problems in a variety of authentic situations. Students cover modelling, statistics, finance, exponentials, graphs, geometry, risk and the use of technology. The course is assessed by 2 exams.

Any Questions?

If you have any other questions or anything else you'd like to discuss then please don't hesitate to reach out to your child's class teacher or to Dr George Stone or Mrs Nikki Davidson.