



President  
Kennedy  
School  
*Building Brighter Futures*



# Mathematics

Students studying A-Level Mathematics at Barr's Hill will be driven to achieve exceptional academic success and will be highly motivated to take their mathematical skills to the next destination following their studies. This course will reveal opportunities into career paths students have not yet explored. Mathematics at Barr's Hill will help students develop fundamental problem-solving, critical thinking and analytical skills. We have a team of high-quality Mathematics teachers who will support and encourage students throughout the two-year course.

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## Entry Requirements

Grade 6 in GCSE Mathematics

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## Topics covered

- Pure Mathematics
- Statistics
- Mechanics

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## Skills you will develop on the course

- Problem-solving
- Quantitative Reasoning
- Analysing and interpreting data
- Critical thinking
- Time Management

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## Assessment

100% Exam  
3 exam papers – 2 pure / 1 statistics & mechanics

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## Educational trips, visits and wider experiences

- We will organise a trip to Bletchley Park, where students can learn how Mathematicians cracked secret codes and saved millions of lives
- We will organise trips to universities, such as the University of Warwick, where students have the opportunity to attend Maths workshops and visit mathematics departments.
- We will give our students a wider experience of careers involving Mathematics with trips to companies such as Jaguar Land Rover, where students will be able to see the uses of Mathematics in careers in the areas of engineering, finance, etc.

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## What type of students will do well on this course?

Students who are motivated to study Mathematics at a higher level and have the ambition for a career involving Mathematics. Students should be resilient and determined, and ready to face a challenging but extremely rewarding A-level course.

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## For more information contact:

Mrs French - Head of Maths  
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Mr Rigby - Teacher of Maths  
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## Post-School Progression Opportunities

University	Entry requirements	Other similar courses offered
<b>University of Warwick</b> Engineering BEng (Hons)	AAA that includes Mathematics	Civil Engineering BEng Electrical and Electronic Engineering BEng Mechanical Engineering BEng
<b>Coventry University</b> Data Science BSc (Hons)	ABB that includes Mathematics	Cloud Computing BSc(Hons) Mathematics and Statistics BSc (Hons) Global Marketing BSc (Hons)
<b>University of Leicester</b> Mathematics and Artificial Intelligence BSc (Hons)	ABB that includes Mathematics	Mathematics MMath Mathematics BSc Mathematics and Actuarial Science BSc

## Career Opportunities

### Financial Advisor

#### What would I do?

- talking to clients about their finances and plans
- researching financial products and explaining them simply and clearly
- negotiating with providers of financial products
- updating clients about their investments
- meeting performance and sales targets

**Salary: Starting:** £25,000

**UK average:** £45,000

**Routes in:** Relevant Bachelor's degree

### Software Developer

#### What would I do?

- talking through requirements with the client and the development team
- taking part in technical design and progress meetings
- writing or amending computer code
- testing software and fixing problems

**Salary: Starting:** £20,000

**UK average:** £40,000

**Routes in:** Relevant Bachelor's degree / Apprenticeship

### Aerospace Engineer

#### What would I do?

- developing navigation, communications or weapons systems
- researching ways to make fuel-efficient parts, such as wings, fuselage and engines
- using CAD software for design
- testing prototypes
- collecting and analysing test data
- planning and supervising the fitting of aircraft and components

**Salary: Starting:** £20,000

**UK average:** £40,000

**Routes in:** Relevant Bachelor's degree