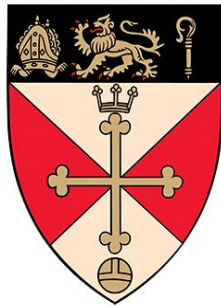


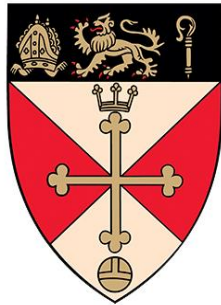
FACULTY OF MATHEMATICS SIXTH FORM INFORMATION



Malmesbury School

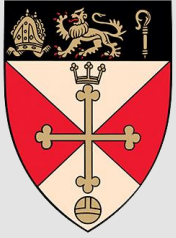
A Specialist School for Science, the Performing Arts, Maths and ICT

WHY SHOULD I STUDY MATHS?



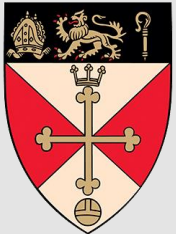
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Mathematics continues to be one of the most popular A-Levels offered across the sixth form.

Last year 34 students studied A2 mathematics and 16 students studied Further Mathematics.



What skills will I develop ?

Problem solving



Critical Thinking



Resilience

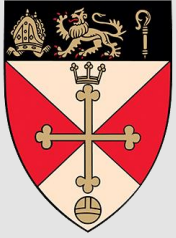


Communication



Organisation





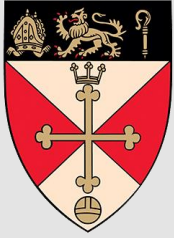
What will I study?

Maths:

- **Pure**
- **Statistics**
- **Mechanics**

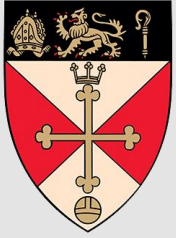
Further Maths (In addition to the units above):

- **Core Pure**
- **Further Statistics**
- **Further Mechanics**



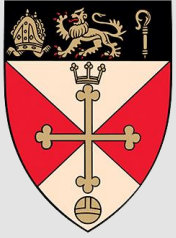
Pure topics

- Proof
- Algebra and functions
- Coordinate geometry in the (x, y) plane
 - Sequences and series
 - Trigonometry
- Exponentials and logarithms
 - Differentiation
 - Integration
- Numerical methods
 - Vectors



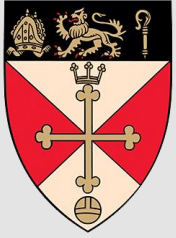
Statistics topics

- Statistical sampling
- Data presentation and interpretation
 - Probability
 - Statistical distributions
- Statistical hypothesis testing



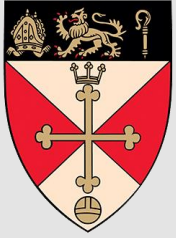
Mechanics topics

- Quantities and units in mechanics
 - Kinematics
 - Forces and Newton's laws
 - Moments



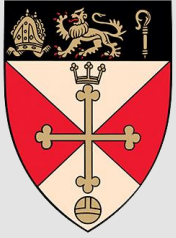
Further pure topics

- Proof
- Complex numbers
- Matrices
- Further algebra and functions
 - Further calculus
 - Further vectors
 - Polar coordinates
- Hyperbolic functions
- Differential equations



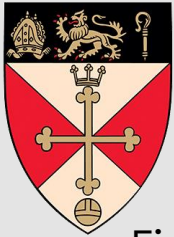
Further statistics topics

- Poisson & binomial distribution
- Discrete probability distributions
 - Chi squared tests



Further mechanics topics

- Momentum and impulse
- Work, energy and power
 - Elastic collisions



What could it lead to?

Maths teacher

Financial science



Investigating space



Artificial intelligence



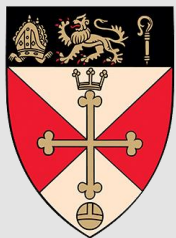
Medical professions



Research

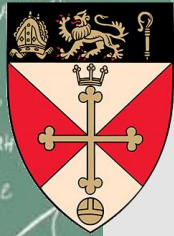


Faculty of Mathematics and Computing



How will it be assessed?

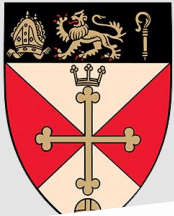
- **100% Examination**
- **All units taken in summer**
- **Maths has three calculator exams at the end of Year 13**
- **Further Maths has 4 calculator exams**
- **Specific calculators will be required**



Are you not sure what you would like to do in the future yet?

Maths and Further Maths are facilitating subjects – meaning it will keep your options open for whatever degree or career you would like to do eventually! 😊





It will pay off in the end!

**Why it pays to do maths A level:
Analysis shows qualification adds
£6,000 to a salary in just six years**

- The 10 most lucrative A-level subjects**
1. Further mathematics (MEI): £25,600
 2. Further mathematics: £25,500

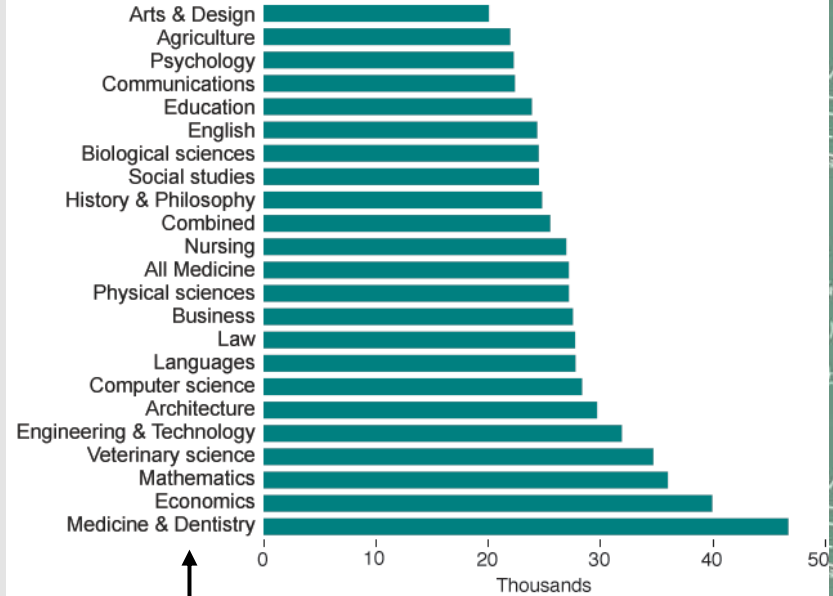
Best college degrees for earning a high salary

Rank	Degree major	Degree type	Early career pay	Mid-career pay
1	Petroleum engineering	Bachelor's	\$96,700	\$172,000
2	Systems engineering	Bachelor's	\$66,400	\$121,000
=3	Actuarial science	Bachelor's	\$60,800	\$119,000

All of these require a maths A Level

Which graduates earn the most?

Median annual earnings (£) by subject, five years after graduating

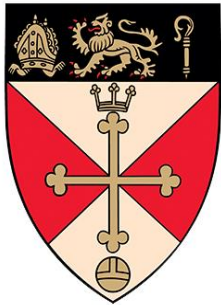


Source: Institute for Fiscal Studies



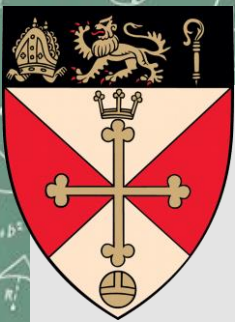
A maths A-level would complement all of the highest earning degrees

CORE MATHS



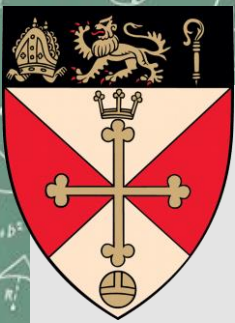
Malmesbury School

A Specialist School for Science, the Performing Arts, Maths and ICT



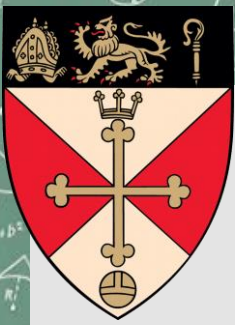
What is Core Maths?

- A course for those who want to keep up their valuable mathematics skills but are not planning to take AS or A-level mathematics.
- A 2-year level 3 qualification – similar to an AS.
- Focuses on using and applying mathematics to address authentic problems drawn from study, work and life.
- Includes new content such as statistics and financial mathematics.



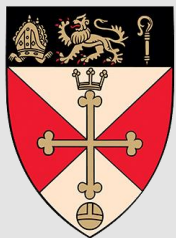
What topics are covered?

- Maths for personal finance
 - Income tax
 - National Insurance
 - Students loans
 - Mortgages
- Statistical techniques
 - Analysing data
 - Calculating key statistics



Why study Core Maths?

- Helps develop real-life mathematics skills.
- Supports other A level subjects – geography, social sciences, business etc.
- Develops ability in mathematics in preparation for university study.
- Useful skills for employment.
- Develops valuable life skills which will help **you** to understand information and make better informed decisions.



Mathematics Faculty

Mr Long

Senior Curriculum
Leader for Maths
and Computing

Miss Vincent

KS3 Curriculum
Leader

Miss Mason

KS4 Curriculum
Leader

Miss Cable

KS5 Curriculum Leader

Mrs McCombe

Primary Liaison, LS
Liaison and enrichment

Mr Shadrick

Assistant Headteacher

Mrs Howe

Assistant Headteacher

Mr Loveday

Senior pastoral leader
for year 8 and 9

Mrs Hunt

Maths teacher

Dr Jefferies

Maths teacher

Mrs Stafford

Maths teacher

Mrs Burrows

Maths teacher

Mrs Crago

Maths teacher

Mr Knibbs

Maths teacher

Miss Lilly

Maths teacher

Mrs Gilbert

Maths teacher