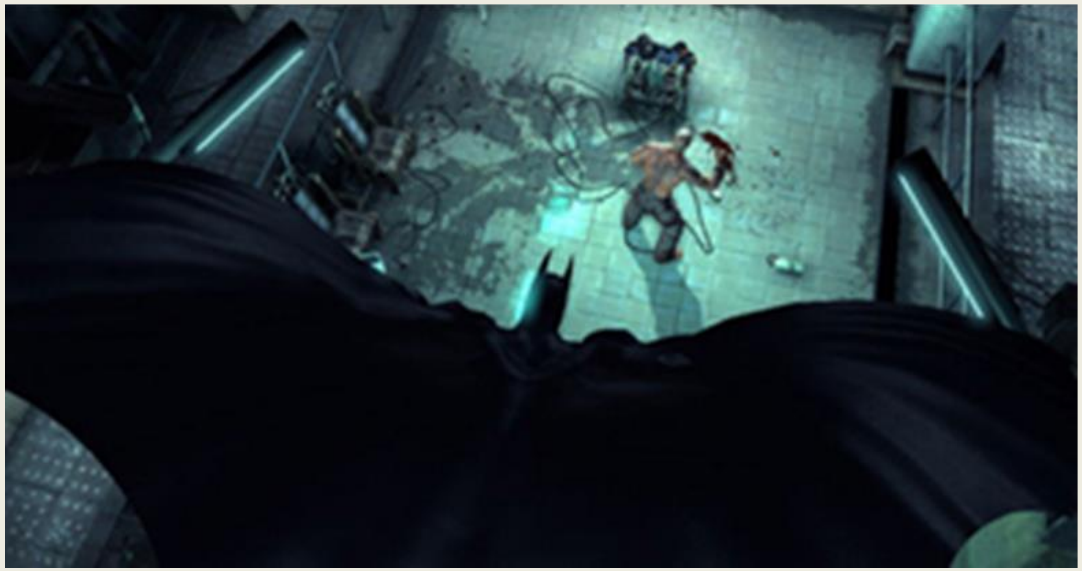
ENNISKILLEN ROYAL GRAMMAR SCHOOL

'PERSTARE ET PRAESTARE'



Why Study Mathematics and Further Mathematics?

Get in the game……

Find out what's behind the on-screen action of all your favourite video games.

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Why Study Mathematics and Further Mathematics?

Is it ever 'only a game'?

What are the rules, and what's the best strategy to win? Game theory has proved useful in many different fields today.

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Why Study Mathematics and Further Mathematics?

Cutting down on crime…

Crime is a problem everywhere, and especially in big cities, but why are some areas more at risk than others?

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Why Study Mathematics and Further Mathematics?

The answer is blowing in the wind…

Howling gales might not be much fun, but they could light up the country.

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Why Study Mathematics and Further Mathematics?

Maths in motion…

From Call of Duty to Wallace & Gromit, animators apply their Maths skills to bring characters to life.

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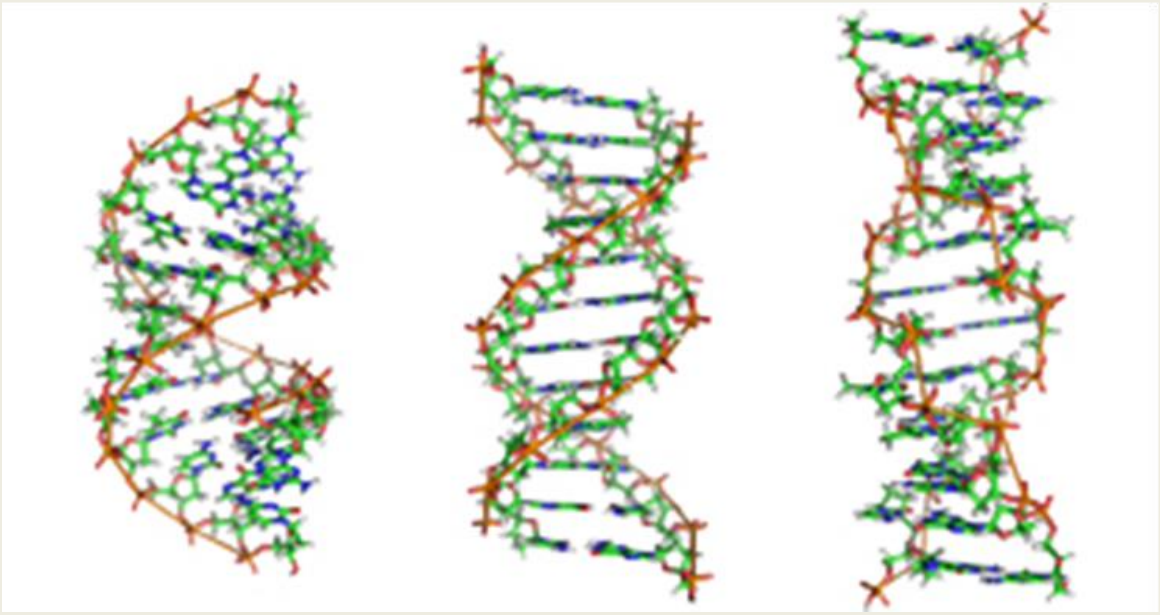

Why Study Mathematics and Further Mathematics?

Solving crime with Science and Maths…

Understanding probability can mean the difference between catching a criminal and convicting the innocent.

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Why Study Mathematics and Further Mathematics?

Finding the lay of the land….

Surveyors play an important role in our society, helping us to construct buildings and roads, settle land ownership, and draw maps.

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Why Study Mathematics and Further Mathematics?

One, two, three...fore!

What have golfing and grandfather clocks got in common? It's all in the swing...

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Why Study Mathematics and Further Mathematics?

Flying through water…..

Swimming records have tumbled thanks to futuristic swimsuits designed with mathematical precision.

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Why Study Mathematics and Further Mathematics?

Football fixtures: what's the score?

League organisers schedule more than 2000 football matches each season. That's certainly going to take more than 90 minutes – even with extra time!

Maths opens doors!

Maths A level students and graduates are in high demand by employers.

People with Maths qualifications have some of the lowest unemployment rates.

Students with A Level Maths earn on average around 10% more than those without.

Maths is part of just about everything!

The logical thinking skills you develop in Maths are important in a rapidly changing world.

No matter how the world changes, maths will always be at the heart of life.

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Structure of the AS Mathematics course

AS 1	Pure Mathematics Algebra and Functions, Coordinate Geometry, Sequences and Series, Trigonometry, Exponentials and Logarithms, Differentiation, Integration and Vectors.
AS 2	Applied Mathematics Kinematics, Forces and Newton's Laws, Statistical Sampling, Data presentation and interpretation, Probability and Statistical Distributions.

AS level Modules

A2 1	Pure Mathematics Algebra and Functions, Coordinate Geometry, Sequences and Series, Trigonometry, Differentiation, Integration and Numerical Methods.
A2 2	Applied Mathematics Kinematics, Moments, Impulse and Momentum, Probability, Statistical Distributions and Statistical Hypothesis Testing.

A level Modules

Requirements

ESSENTIAL

GCSE Mathematics, not lower than a grade B, including completion of the M4 and M8 modules

DESIRABLE

Grade A or higher in GCSE Mathematics including completion of the M4 and M8 modules

Further Maths opens doors wider!

Further Maths will stretch you beyond what you experience in the ordinary Maths A level course.

Several exotic topics including imaginary numbers and group theory are encountered only in this subject.

If you have any interest in pursuing Maths or another numerate degree at university, Further Maths will set you apart from those applying with only a Maths A level.

Further Maths will provide a bridge towards elements of a first-year university course, easing your transition.

Be prepared to have your algebra expanded and concept of numbers challenged!

Structure of the AS Further Mathematics course

AS 1	**Pure Mathematics** **Further Algebra and Functions, Complex Numbers, Matrices, Roots of Polynomials and Vectors.**
AS 2	**Applied Mathematics (choice of questions from two out of four sections)** **Section A: Mechanics 1** **Section B: Mechanics 2** **Section C: Statistics** **Section D: Discrete and Decision Mathematics**

AS level Modules

A2 1	**Pure Mathematics** **Proof, Further Algebra and Functions, Complex Numbers, Further Calculus, Polar Co-ordinates, Hyperbolic Functions and Differential Equations.**
A2 2	**Applied Mathematics (choice of questions from two out of four sections)** **Section A: Mechanics 1** **Section B: Mechanics 2** **Section C: Statistics** **Section D: Discrete and Decision Mathematics.**

A level Modules

Requirements

Essential:

Not lower than an A in GCSE Mathematics including completion of the M4 & M8 modules AND Grade B in GCSE Further Mathematics

Desirable:

Grade A in GCSE Mathematics including completion of the M4 & M8 modules AND Grade A in GCSE Further Mathematics

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Why Study Mathematics at ERGS?

Last year:

- *A2 Mathematics pupils achieved 97.6% A* - C, with 52.4% of those achieving A* - A grades.*
- *AS Mathematics pupils achieved 86.6% A – C, with 51.9% of those achieving A grades.*
- *GCSE Mathematics pupils achieved 98.6% A* - C, with 63.5% of those achieving A* - A grades.*

ENNISKILLEN ROYAL GRAMMAR SCHOOL

'PERSTARE ET PRAESTARE'

Why Study Further Mathematics at ERGS?

Last year:

- *A2 Further Mathematics pupils achieved 100% A* - A grades.*
- *AS Further Mathematics pupils achieved 100% A* - B grades.*
- *GCSE Further Mathematics pupils achieved 96% A* - C, with 62% of those achieving A* - A grades.*

ENNISKILLEN ROYAL GRAMMAR SCHOOL

'PERSTARE ET PRAESTARE'

Why Study Further Mathematics at ERGS?

Here at Enniskillen Royal Grammar School, we have lots of talented mathematicians who are challenged, encouraged and supported to help them meet their full potential.

Both at AS and A2 presently, we have 3 classes for each year group, with around 60 students studying AS Mathematics and around 50 studying A2 Mathematics.

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What do pupils who have studied Mathematics or Further Mathematics go on to study at university?

Physics, Civil Engineering, Biomedical Science, Finance, Law, Nursing, Accountancy, Mechanical Engineering, Veterinary Science, Actuarial Science, Mathematics, Degree in Education, Finance, Pharmacy, Software Engineering, Management, Psychology, Civil Engineering and Nutrition are just a few examples.