

# ST. DOMINIC'S SIXTH FORM COLLEGE

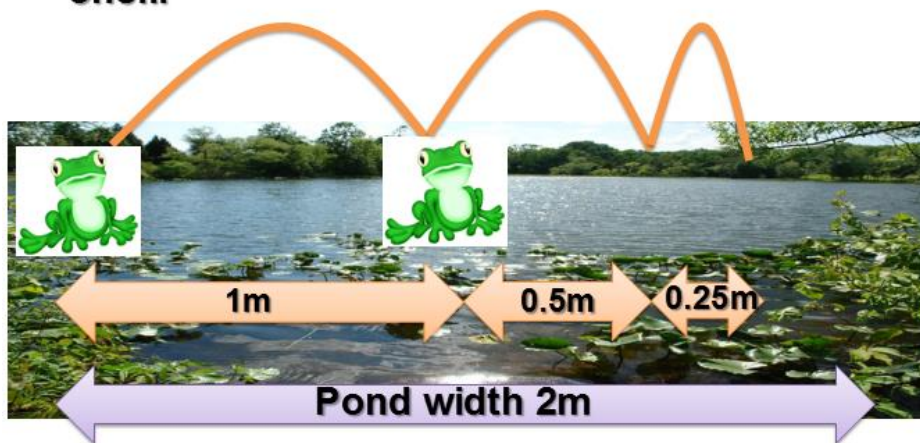
## A LEVEL

### MATHEMATICS & FURTHER MATHEMATICS

A level Maths is a wise choice! This is an interesting, challenging and rewarding course that takes you from the basics learned at GCSE to the rigour and independence of higher level mathematics. Not only will you develop problem solving skills and logical thinking, but the ability to process information and manipulate numbers using mathematical processes.

You must have at least a grade 7 in GCSE Maths to study the A level, or an 8 to study Further Maths A level. Two thirds of the course will be Pure Mathematics (Algebra, Trigonometry, Calculus), one sixth will be Mechanics (using maths to solve physics problems) and one sixth Statistics (Probability, Correlation, Data handling). University courses in a wide range of subjects place a high value on the problem solving skills that A level Maths provides and is highly respected by employers.

**Each jump, is half as long as the previous one...**



**...will Eric the frog make it across the pond?**

This is a geometric series problem you will meet in pure maths.

#### **FURTHER MATHS**

If you are a strong mathematician then you should think seriously about taking a second qualification in Mathematics. Maths and Further Maths count as two A levels. It is also possible to study Further Maths at AS level.

Good mathematicians benefit from tackling easier topics quickly, and other topics in greater depth. To study Maths at a Russell group university (Oxford, Cambridge, Durham, Bristol, Warwick, UCL), Further Maths is usually essential. It is also an advantage if you want to study any subject that uses Maths (Physics, Engineering, Computer Science) at a leading university. We also offer some optional papers in Further Maths, which gives you an opportunity to pursue further Pure Maths, Mechanics or Statistics according to your interests.



*If the larger cartoon character weighs one and a half times as much as the smaller, where should he sit to make the see saw balance? (You will meet this problem in Mechanics)*

## **ACADEMIC STAFF**

Mr Matthew Walsh	BSc (Warwick), PGCE (Loughborough)	<i>Head of Department</i>
Mr Max BurrIDGE	BSc (Nottingham), PGCE (IOE, Lon)	<i>2<sup>nd</sup> in Charge of Maths</i>
Mr Avnish Shah	BSc (Imperial), PGCE (IOE, Lon)	<i>Head of Further Maths</i>
Mr Patrick Miles	BA (Oxford), PGCE (Nottingham)	
Mrs Reena Bouri	BSc (Lon), PGCE (St Mary's)	
Mr Matthew Fowles	BSc (Warwick), PGCE (Oxford)	
Mrs Nadia Ilahi	BSc (QMW), GTP (Goldsmiths)	
Ms Mihaela Zgripcea	BSc (Lon), PGCE (Brunel)	
Mr Chris Somes	BEng (Hatfield), PGCE (Hull), Advanced Diploma (Hull)	
Mr Tom Bolton	BSc (Manchester), PGCE (Manchester)	
Mr Anish Vakani	BSc (LSE), PGCE (IOE, Lon)	
Mr John Rubinstein	BSc (Sheffield), PGCE (Leeds)	

**Mathematics A level is a valuable qualification for many careers and higher education courses.**

**Although the demands of the course require hard work from our students, there is a lot of personal satisfaction to be obtained when you "get it right".**

## **Enrichment Opportunities**

There will be various trips that run in the Maths department throughout the year. In the past we have visited Thorpe Park, Maths in Action at IOE London and Maths Fest at the London Piccadilly Theatre.

Look out for future trips being advertised and sign up quick as interest is high!



<b><u>QUESTION</u></b>	<b><u>ANSWER</u></b>
What qualification do I need to start A level?	The minimum requirement is a grade 7 in GCSE Maths (8 for Further Maths).
What is the difference between GCSE and A level?	The most important difference is that there will be a lot more Algebra and Curve Sketching at A level.
Which examination board are we doing?	Edexcel
Is there much homework?	You will be required to complete 4 pieces of homework each week (8 for Further Maths). Mathematics is a subject in which success comes from practice which is best done on a regular basis.
Is there any coursework?	No
How much teaching time do we get?	A total of 4 hours 20 minutes spread over 4 lessons (8 hours 40 minutes over 8 lessons for Further Maths).
Who teaches us?	Each class is taught by 2 members of staff who share the class time equally (4 for Further Maths).
How will my progress be assessed?	At regular intervals you will be given tests and your class teachers will discuss your progress with you suggesting extra work you might need to undertake to overcome weaknesses.
How is the A level tested?	Maths - 3 exam papers, all 2 hours. Further Maths – 4 exam papers, all 1hr 30mins.
Which A level subjects go with Maths?	ANY
What can I do with an A level qualification in Maths?	Careers in Science, Computing, Business, Law, Engineering, Medicine, Accountancy, Teaching plus a whole range of Higher Education courses.

## **Note on calculators**

Calculators with at least the facility of a Casio fx-991EX Classwiz will be required for A level Maths.