HIGHAM LANE SIXTH FORM





Why should
I take
Mathematics
A Level?

- because you enjoy maths
- it looks great on your UCAS applications
- It is an opportunity to challenge yourself academically

# Context:

There are lots of exciting and practical uses of Mathematics in the modern world. This course will help shed some light on them. If you enjoyed solving problems at GCSE and want to be challenged further, studying A-level Mathematics will offer you a rewarding experience. It will help train your mind in clear and logical thought and allow you to develop your reasoning abilities. Whilst worth studying in its own right, A-level Mathematics also provides excellent support for the physical and social sciences.

## Assessment:

3 papers at the end of Year 13 worth 33% each covering:-

Pure mathematics (2 papers)

Mechanics & Statistics (1 paper)

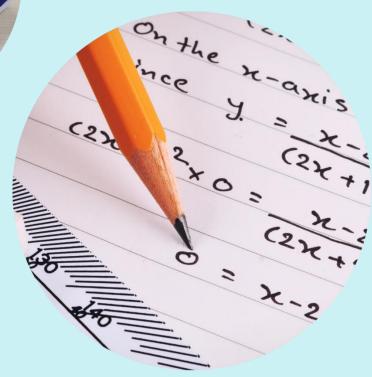
#### **Course Details:**

Pure Mathematics includes:

- Algebra and functions
- Trigonometry
- Exponentials and logarithms
- Differentiation
- Integration
- Further Calculus

- Vectors
- Numerical methods
- Proof
- Coordinate geometry in the (x,y) plane
- Sequences and series







Which exam board will I follow?

We use Edexcel at HLSF.
All exam boards now have
to cover the same content
for A Level.

### **Statistics**

- Mathematical models in probability and statistics
- Representation and summary of data
- Probability
- Correlation and regression
- Discrete random variables
- The Normal Distribution

#### Mechanics

- Quantities and units in mechanics
- Kinematics
- Forces and Newton's laws
- Moments
- Reaction Forces
- Non-Uniform acceleration

# Other Learning Opportunities:

- Supporting KS3/4 students in Mathematics lessons
- Take part in the UKMT Maths Challenge
- Being a member of the Maths Society

- Use of graphing software
- Learning new functions on your calculator

### Where next with this course?

A-level Mathematics is a much sought after qualification which is essential for further study of the subject and is often a requirement for degree courses in Physics, Economics, Medicine, Architecture, Engineering, Accountancy, Psychology and Computing.

A degree in Mathematics could lead to opportunities in Actuarial Work, Investment Banking, Accountancy and Computing.



Will A level
Mathematics
help me with
my other
subjects?

Yes, there are many transferable skills that you will use in other subjects.
Your mathematical knowledge will be useful for Physics, Biology, Chemistry, Computing, Psychology, Geography, Economics and Business Studies.

The problem solving skills you will develop by studying A Level Maths will be useful for the rest of your life.

For more information about courses that are available at Higham Lane Sixth Form, please visit our website





