A-Level Mathematics

Contact: Miss N O'Hare

Course Outline:

This course develops the understanding of mathematics and mathematical processes in a way that promotes confidence and fosters enjoyment whilst developing an ability to reason logically, to generalise and to construct mathematical proofs.

We teach using the Edexcel specifications.

The link to the specifications for the exam board is below:

Edexcel:
http://qualifications.pearson.com/content/dam/pdf/A%20Level/Mathematics/2017/Teaching%20and%20learning%20materials/Assessment-at-a-glance.pdf

The course requires the pupils to have a firm knowledge of Higher GCSE material as this forms the foundations and basics of the A level course.

Summer homework is set and the pupils are tested very near to the start of year 12 so that weaknesses can be addressed.

The Core elements of the course for 2/3 of the final assessments. The Core elements are:-

Content overview

- Topic 1 – Proof
- Topic 2 – Algebra and functions
- Topic 3 – Coordinate geometry in the (x, y) plane
- Topic 4 – Sequences and series
- Topic 5 – Trigonometry
- Topic 6 – Exponentials and logarithms
- Topic 7 – Differentiation
- Topic 8 – Integration
- Topic 9 – Numerical methods
- Topic 10 – Vectors

Assessment Framework:

In the current specifications, pupils will sit 3 exams at the end of year 13. Each exam will be 2 hours long and will be worth a third of the course.

2 examinations will be Core
1 examination will be Applied

The content that will be assessed in each exam is from the Core, Statistics and Mechanics branches of Mathematics. The papers contain a mix of question styles from short, single-mark questions to multi step-problems.

Over the course of both years 12 and 13 we assess pupils regularly with both end of unit tests and practice papers. This allows us and the pupils to be fully aware of their current achievement and progress.

Course Entry Requirements:

Mathematics 7.

Why Study A-Level Mathematics?

Mathematics is highly regarded and relevant to many career paths including science, engineering, economics, computing, teaching and architecture. Graduate Mathematicians are in high demand and those students thinking of taking this route should seriously consider the Maths/Further Maths combination especially is they intend applying to a more selective university.