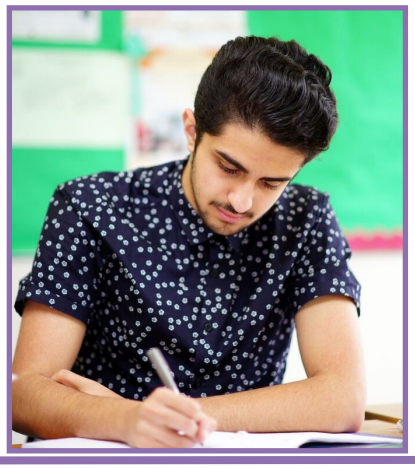
Guilsborough Academy Sixth Form

KS5 CURRICULUM

Course Title: A Level Mathematics

Examination Board: Edexcel



Entry Requirements: GCSE Mathematics Grade B, and to have passed the departmental entry test.

Assessment:

Year 12	Year 13
Core Maths 1	Core Maths 3,
Core Maths 2	Core Maths 4
Statistics 1	Statistics 2

6 equally weighted units each with a 1h 30 minute exam, there is no coursework.

Is This Course Right For Me?

Did you enjoy Mathematics at GCSE? The algebra topics in particular? Then A Level Mathematics is for you. In Core Mathematics you will build on the solid base you have developed at GCSE and explore familiar areas of algebra and geometry in greater depth while also being introduced to the branch of Mathematics known as Calculus. In the Statistics unit you will learn to apply Mathematical techniques to model a variety of different situations.

You will find the style of learning and expectations very similar to those in Year 11. Lesson time will be spent working through examples together and gaining confidence in that topic. You will be expected to complete a large amount of work outside lessons which will involve working through exercises from the book as well as work from other sources. You should be aware of the increased level of challenge.

Unit Contents:

Core Maths 1: Algebra and Functions, Coordinate Geometry, Sequences, Differentiation and Integration

Core Maths 2: Algebra and Functions, Trigonometry, Coordinate Geometry, The Binomial Expansion, Radians, Sequences, Differentiation, Integration.

Core Maths 3: Algebraic Fractions, Functions, Exponentials, Numerical Methods, Transformations of functions, Trigonometry, Differentiation

Core Maths 4: Partial Fractions, Coordinate Geometry, the binomial expansion, Differentiation, Vectors, Integration

Statistics 1: Modelling, Measures of Location, Measures of Spread, Probability, correlation, regression, the Normal Distribution

Statistics 2: The Binomial Distribution, the Poisson Distribution, Continuous random variables, Hypothesis testing

Progression:

This course is suitable for those who would like to continue to study Mathematics at university, or pursue a career in a range of different areas including Physics, medicine and general science, Engineering, Banking and Finance, Teaching.

Example of university courses and grades required

- University of Durham BSc Mathematics requires A*AA
- University of Birmingham BSc Mathematics requires AAA
- Coventry University BSc Mathematics requires ABB
- University of Leicester BEng General Engineering requires BBB

Further Information Contact:

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