
MATHEMATICS

Examination Board: Edexcel

Syllabus: 9MA0

WHY STUDY MATHEMATICS?

Mathematics is a challenging but rewarding subject, building on the foundations students have in place from GCSE. A-Level Mathematics extends many of the topics previously studied at GCSE, and introduces students to new areas of mathematics, such as calculus and mechanics. Other subjects that work well alongside A Level Mathematics include Physics, Chemistry, Biology, Economics, Computing, Geography and other Social Sciences.

THE A LEVEL PROGRAMME OF STUDY: How you will be assessed

Unit	Unit contents	Assessment and duration
Papers 1 and 2: Pure Mathematics 1 and 2.	<ul style="list-style-type: none">• Topic 1 – Proof• Topic 2 – Algebra and functions• Topic 3 – Coordinate geometry• 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	2 hours each 33.33% each
Paper 3: Statistics and Mechanics	Section A: Statistics <ul style="list-style-type: none">• Topic 1 – Statistical sampling• Topic 2 – Data presentation• Topic 3 – Probability• Topic 4 – Statistical distributions• Topic 5 – Statistical hypothesis testing Section B: Mechanics <ul style="list-style-type: none">• Topic 6 – Quantities and units• Topic 7 – Kinematics• Topic 8 – Forces and Newton's laws• Topic 9 – Moments	2 hours 33.33%

HIGHER EDUCATION AND CAREER OPPORTUNITIES

Students with an A Level in Mathematics can progress to degrees such as Mathematics and Engineering, as well as the Sciences, Social Sciences (e.g., Economics) or Computing. Very good careers beckon for A-Level mathematicians - e.g., Actuaries, Accountants.

SUBJECT SPECIFIC ENTRY REQUIREMENTS

Students must have achieved grade 7 or higher in GCSE Mathematics.

FOR FURTHER INFORMATION please contact Mr G Stephens gst@sandon.essex.sch.uk or Mrs J Blackman jbl@sandon.essex.sch.uk