Further Maths

Aims

- Mathematical argument, language and proof
- Mathematical problem solving
- Mathematical modelling

Content

Pure: Proof, Complex numbers, Matrices, Further Algebra and Functions, Further Calculus, Further Vectors, Polar coordinates, Hyperbolic functions, Differential equations, Trigonometry, Coordinate geometry.

Statistics: Discrete random variables and expectation, Poisson distribution, Type I and II errors, Continuous random variables, Chi tests, Exponential distribution, Inference

Mechanics: Dimensional analysis, Momentum and collisions, Work energy and power, Circular motion, Centres of mass and moments

Why

- Studying Maths at a deeper level
- Gaining two A-levels in Maths – Maths and Further Maths
- The strong foundation that a deeper understanding of Maths gives them for study in other areas
- That Maths complements many other A-level subjects
- Building mathematical skills that will help them in a variety of careers.
- Understanding of the Mathematics, both practical and theoretical, that underpin nearly all aspects of our lives
- Acute logical thinking and problem-solving abilities

Assessment

- Edexcel: Three A-Level Maths exams taken summer 2022 – see A Level Maths
- Edexcel: Four A-Level **Further** Maths exams, taken summer 2022

Course requirements

Grade 8+ or above at GCSE

Teacher: Miss Bushell