

Subject Area: Mathematics

'We aim to provide students with the mathematical tools, problem solving skills and confidence to make sense of the world around them and to appreciate the beauty of mathematics.

We promote active participation and resilience, which increases future opportunities, employability and enriches lives'

| Curriculum | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
|-----------------------------|--|--|--|---|--|---|
| Overviews | | | | | | |
| Year 12 AS Maths | Algebra and functions Statistical Sampling Data representation and interpretation Quantities and units in Mechanics Kinematics | Co-ordinate geometry Further algebra Data representation and interpretation Kinematics | Trigonometry Vectors Probability Statistical Distributions Forces and Newton's laws | Differentiation Integration Statistical Hypothesis testing Forces and Newton's laws | Exponentials and logarithms Statistical Hypothesis testing Further Kinematics Revision and application AS examinations | Commence Year 13 A-Level Maths Proof Algebraic and partial fractions |
| Year 13 A-level Maths | Functions and graphs Sequences and series Binomial expansion Regression and correlation Moments | Trigonometry Parametric equations Probability Forces at any angle | Differentiation Numerical methods The Normal distribution Applications of kinematics | Integration The Normal distribution Applications of forces | Vectors The Normal distribution Further kinematics Revision and application | A-Level examinations |
| Year 12 Further Maths | Core Pure Complex numbers and Argand diagrams Series Roots of polynomials | Volumes of revolution Matrices Linear transformations | Linear transformations Proof by induction | Vectors Revision | Revision and application AS-Level examinations | Commence Year 13 A-Level Further Maths Complex numbers |
| Year 13 Further Maths | Further Mechanics 1 complete Core Pure 2 Complex numbers Series | Further Mechanics 2 – own study Core Pure 2 Methods in calculus Volumes of revolution | Further Mechanics 2 – own study Core Pure 2 Polar coordinates Hyperbolic functions | Further Mechanics 2 – own study Core Pure 2 Differential equations | Revision and application | A-Level examinations |

Exam Boards and Useful Websites:

Key Stage 5 (Year 12 – 13) Exam Board – Edexcel A level and AS level Integralmaths.com Alevelmathsrevision.com Mathsandphysicstutor.co.uk Drfrost.co.uk