

A Level Maths and Further Maths curriculum map

Students who choose to study both Maths and Further Maths will learn the full A Level Maths course, before moving onto learning the Further Maths content.

All exams will still be taken at the end of year 2.

In Mathematics, we must study the compulsory content of Pure, Mechanics and Statistics. The exam board is AQA.

In Further Mathematics, we study the two compulsory Core Pure modules. We also study Further Mechanics and Decision Mathematics as our two choice modules. The exam board is Edexcel.

Year 1

Half Term	Topics	Assessment
1	<p style="text-align: center;">A Level Maths content</p> <p>Pure: Basic algebra; polynomials; graphs and transformations; coordinate geometry; trigonometry; radian measures; vectors</p> <p>Mechanics: Modelling in mechanics</p>	Topic assessments
2	<p>Pure: Vector geometry; functions; differentiation; binomial expansion; exponentials and logarithms; trigonometry</p> <p>Mechanics: Forces and Newton's laws of motion; constant acceleration</p>	Autumn exams
3	<p>Pure: Integration; sequences and series; differential equations; proof</p> <p>Mechanics: Kinematics; forces and motion; moments; forces and friction</p>	Topic assessments
4	<p>Pure: Sequences and series; Parametric equations; numerical methods</p> <p>Mechanics: Projectiles; variable acceleration; forces and friction</p> <p>Statistics: Data processing; probability; binomial distributions; hypothesis testing</p>	Spring exams
5	<p>Statistics: normal distributions, regression and correlation</p> <p>Mechanics: Applications for forces; further kinematics</p> <p style="text-align: center;">A Level Further Maths content</p> <p>Further Pure: Complex numbers; argand diagrams; series; roots of polynomials</p> <p>Decision: Algorithms and optimisation; algorithms on graphs</p> <p>Further Mechanics: Momentum and impulse</p>	Topic assessments
6	<p>Further Pure: volumes of revolution</p> <p>Decision: Algorithms on graphs</p> <p>Further Mechanics: Work; energy and power</p>	Summer exams

Year 2

Half Term	Topics	Assessments
1	<p style="text-align: center;">A Level Further Maths content (continued)</p> <p>Further Pure: Matrices; linear transformations; proof by induction; 3D vectors</p> <p>Decision: The Route Inspection problem; The travelling salesman problem</p> <p>Further Mechanics: Elastic strings and springs</p>	Topic assessments
2	<p>Further Pure: Polar coordinates and methods in calculus</p> <p>Decision: Linear programming; the simplex algorithm</p> <p>Further Mechanics: Elastic collisions in one dimension</p>	Autumn exams
3	<p>Further Pure: Methods in differential equations and volumes of revolution</p> <p>Decision: Critical path analysis</p> <p>Further Mechanics: Elastic collisions in two dimensions</p>	Topic assessments
4	<p>Further Pure: Modelling with differential equations and hyperbolic functions</p>	Spring exams
5	Revision	A Level Examinations
6	Revision	A Level Examinations