

Year 11 Maths

Our Year 11 Mathematics course follows the UK Higher GCSE and IGCSE Schemes of Work. The course is flexible for students, and student can follow the full 32-week teaching programme or pick and choose topics they need extra support with. Homework will be a series of worksheets for students, focusing on GCSE and IGCSE Higher Mathematics problems, plus extensive revision of topics for School end exams.

Term 1

Lesson 1	Quadratic Equations	• Solving Quadratics by factorising • Solve complex quadratics by factorising
Lesson 2	Quadratic Equations	• Completing the square
Lesson 3	Quadratic Equations	• Solving quadratic identities
Lesson 4	Quadratic Equations	• Using the quadratic formula
Lesson 5	Quadratic Equations	• Form and solve quadratic equations • Sketching quadratics
Lesson 6	Quadratic Equations	• Quadratic and linear simultaneous equations • Quadratic inequalities
Lesson 7	Mathematical Proof	• Algebraic Proof • Geometrical Proof
Lesson 8	Mathematical Proof	• Vector Problems with Ratio • Proof with Vectors
Lesson 9	Trigonometrical Graphs	• Trigonometrical Graphs • Exact Solutions
Lesson 10	Algebraic Fractions	• Simplifying Algebraic Fractions • Addition with algebraic fractions
Lesson 11	Algebraic Fractions	• Multiplying and dividing with algebraic fractions • Equations with Algebraic Fractions
Lesson 12	Algebraic Fractions	• Quadratic equations with algebraic fractions
Lesson 13	Functions and Calculus	• Working with functions • Translating Functions
Lesson 14	Functions and Calculus	• Stretching Functions • Composite functions
Lesson 15	Functions and Calculus	• Inverse functions • Solving equations through iteration

Lesson 16	Functions and Calculus	• Instantaneous rates of change • Estimating the area under a curve
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Term 2

Lesson 1	Revision Cycle 1	• Limits of Accuracy and Error intervals • Variation • Similarity
Lesson 2	Revision Cycle 1	• Drawing and Interpreting Histograms • Indices with Fractional and negative powers • 3D Trigonometry
Lesson 3	Revision Cycle 2	• Conditional probability • Completing the square • Functions and composite functions
Lesson 4	Revision Cycle 2	• Sine and area rules • Expanding cubic expressions
Lesson 5	Revision Cycle 3	• Parallel and perpendicular gradients • Sine, cosine and area rules • Rearrange complex formulae
Lesson 6	Revision Cycle 3	• Area under non-linear graphs • Algebraic proof
Lesson 7	Revision Cycle 4	• Trigonometric Graphs and equations • Solving $ax^2 + bx + c = 0$ by Factorisation • Gradients of curves
Lesson 8	Revision Cycle 4	• Non-linear sequences • Inverse functions
Lesson 9	Revision Cycle 5	• Simplify algebraic fractions • Spheres, cones and pyramids • Geometrical proof
Lesson 10	Revision Cycle 5	• Calculations with surds • Transforming functions
Lesson 11	Revision Cycle 6	• Equations with algebraic fractions • Circle theorems

		• Vectors and geometry
Lesson 12	Revision Cycle 6	• Setting up and solving quadtratics • Linear and quadratic simultaneous equations
Lesson 13	Past Paper 1	•
Lesson 14	Past Paper 1 review	•
Lesson 15	Past Paper 2	•
Lesson 16	Past Paper 2 review	•