Maths Curriculum Topic Overview

Key Stage 3

Year Group	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 7 *CLF Curriculum*	• Probability • Factors, Multiples and Primes • Fractions – simplifying, adding and subtracting	• Directed Numbers • Manipulating Algebra	• Exploring Sequences • Fractions – multiplying and dividing	• Decimals • Proportional Reasoning • Ratios	• Units of Measure • Properties of Shapes • Perimeter and Area	• Circles and Circumference • Coordinate Grids and Horizontal/Vertical Line Graphs
Year 8 *CLF Curriculum*	• Drawing and Measuring Angles • Interpreting and Comparing Data • Averages • Scatter Graphs	• Solving Linear Equations • Sequences – Nth Term	• Graphs of Linear Functions (y = mx + c) • Using Percentages	• Calculating with Decimals • Fractions, Decimals and Percentages • Ratios and Fractions	• Scale Diagrams • Pythagoras' Theorem	• 3D Shapes • Volume • Calculating Angles
Year 9 *CLF Curriculum*	• Rounding and Estimation • Indices • Standard Form • Expanding and Factorising • Rearranging Formulae	• Using Percentages • Maths & Money • Probability & Frequency Trees	• Statistical Measures • Averages from Frequency Tables • Angles in Parallel Lines	• Bearings • Constructions & Loci • Substitution & Formulae • Solving Equations • Inequalities	• Linear Nth Term • Recognising Fibonacci, Quadratic and Geometric Sequences • Straight Line Graphs • Rearranging Formulae	• Units and Compound Measures • Direct & Inverse Proportion • Scale Diagrams • Transformations • Plans & Elevations

Key Stage 4

Year Group	Course	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6

Year 10 Tewkesbury Academy Curriculum Edexcel GCSE	Higher	• Calculating with Indices, Surds and Bounds • Transformations • Simultaneous Equations	• Trigonometry • Two way tables, Venn Diagrams and Tree Diagrams • Analysing Statistics	• Direct & Inverse Proportion • Solving Inequalities • Recuring Decimals • Compound Interest	• Vectors • Solving Quadratic Equations • 3D Shapes	• Equations of Parallel and Perpendicular Lines • Equations of Circles and tangents • Quadratic Sequences • Plotting and Interpreting graphs	• Circle Theorems • Pythagoras' Theorem in 3D • Trigonometric Rules (Sine, Cosine and Area of a triangle)
	Foundation	• Investigating Angles • Calculating with Powers, Including Standard Form	• Applying Ratios • Direct & Inverse Proportion • Algebraic Manipulation • Analysing Statistics	• Rounding, Estimation and Bounds • Calculating Area and Perimeter (Including Circles) • Calculating with Fractions	• Transformations • Solving Equations and Inequalities	• Fractions, Decimals and Percentages • Analysing Statistics – Discrete Data • Equations of Lines	• Two way tables and Venn Diagrams • Scale Diagrams • Nth Term • Vectors
Year 11 Tewkesbury Academy Curriculum Edexcel GCSE	Higher	• Manipulating Surds • Histograms • Functions, Composite Functions and Inverse Functions • Solving More Complex Quadratic Equations	• Exponential Graphs • Trigonometric Graphs • Direct and Inverse Proportion • Quadratic Inequalities • Vector Proofs	• Geometric Sequences • Algebraic Fractions			
	Foundation	• Probability Tree Diagrams • Constructions and Loci • Pythagoras' Theorem and Trigonometry	• Simultaneous Equations • Surface Area and Volume of 3D Shapes • Solving Quadratic Equations	• Geometric Proof and Congruence • Plotting non-linear graphs • Direct and Inverse Proportion			

Key Stage 5 – A-Level Mathematics (Edexcel)

Year Group	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 12	**Pure** • Algebra & Functions • Co-ordinate Geometry • Further Algebra	**Pure** • Trigonometry • Vectors • Differentiation • Integration	**Pure** • Logarithms **Statistics** • Data Collection • Data Presentation	**Statistics** • Probability • Statistical Distributions • Hypothesis Testing **Mechanics** • Quantities and Units • Kinematics 1	**Mechanics** • Forces and Newtons Laws • Kinematics 2 **Mechanics (Year 2)** • Moments • Forces at an angle • Projectiles	**Mechanics (Year 2)** • Applications of forces • Further Kinematics
Year 13	**Statistics** • Regression & Correlation • Probability • Normal Distribution **Pure** • Patrial and Algebraic Fractions • Proof • Functions & Modelling	**Pure** • Sequences and Series • Binomial Theorem • Trigonometry	**Pure** • Parametric Equations • Differentiation • Numerical Methods	**Pure** • Integration • Vectors	**Mechanics** • Projectiles • Further Kinematics	

Key Stage 5 – Core Mathematics (AQA Level 3 Mathematical Studies)

Year Group	Term 1 & Term 2		Term 3 & Term 4		Term 5 & Term 6	
1 Year Course	**Personal Finance** • Percentage Calculations • Budgeting • Debts and Borrowing • Mortgages • Interest APR and AER • Taxation **Estimation** • Fermi Estimation	**Analysis of Data** • Sampling Methods • Data Comparisons	**Statistical Techniques** • Correlation & Regression • Normal Distribution	**Statistical Techniques** • Confidence Intervals **Critical Analysis** • Critical Analysis of Given Data and Models		