Long Term Curriculum Plan: Mathematics

5 year roadmap	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 7	Working with number Estimating Averages Statistical diagrams Indices Factors and multiples	Negative numbers Intro to Algebra Formulae Fractions and mixed numbers	Working with percentages Introduction to 2D shapes Introducing equations	Probability Sample space diagrams Angles in parallel lines Triangles and quadrilaterals Ratio	Coordinates Linear graphs Circles	**End of Year Assessment** Expanding and factorising Equations with brackets Units Standard form
Year 8	Properties of polygons Tessellation Harder linear equations Rearranging formulae Sequences	Introduction to 3D shapes Transformations Constructions Two-way tables Working with grouped data	Pythagoras' theorem Quadratic graphs Real life graphs Working with quadratic expressions	Surface area and volume of 3D shapes Scatter graphs Proportion formulae	Compound units Inequalities Solving inequalities Error bounds	**End of Year Assessment** Similar shapes Congruence Bearings
Year 9 Important End of Topic test completed at the end of each unit of work	**Number** (Counting strategies, Estimating, HCF/LCM, Indices, Standard form, Surds) **Algebra** (Indices, expanding, factorising, equations, formulae, sequences)	**Algebra** (complete from term 1) **Interpreting and representing data** (data types, displaying data, time-series, scatter graphs) **Fractions, ratio & percentages** (starting for term 2)	**Fractions, ratio & percentages** (Fractions, ratio, proportion, Percentages) **Angles & trigonometry** (Triangles and quadrilaterals, polygons, Pythagoras' theorem, right-angle trigonometry, exact values)	**Angles & trigonometry** (complete from term 1) **Graphs** (Linear graphs, rates of change, linear segments, quadratic and cubic graphs, reciprocals, other graphs)	**Area and volume** (Perimeter, area, prisms, circles, sectors, cylinders, spheres, pyramids, cones)	**End of Year Assessment** **Transformations and constructions** (3D solids, transformations, scale drawings, bearings, constructions, loci)
Year 10 Important End of Topic test completed at the end of each unit of work	**Equations & inequalities** (linear equations, quadratic equations, completing the square, simultaneous equations) **Probability** (Combined events, mutually exclusive, independent/dependent	**Probability** (complete from term 1) **Multiplicative reasoning** (growth and decay, compound measures, ratio and proportion) **Similarity & congruence** (Congruence, proof, similarity, 3D similarity)	**Similarity & congruence** (complete from term 2) **More trigonometry** (Accuracy, Trig graphs, Sine/Cosine rules, 3D problems, transforming graphs)	**Further statistics** (Sampling, cumulative frequency, box plots, histograms, comparing data) **Revision for Mock Exams**	**Mock Exams** **Equations & graphs** (Graphical simultaneous equations, graphical inequalities, quadratic and cubic equations, iteration)	**Equations & graphs** (complete from term 5) **Circle theorems** (Radii, chords, angles, tangents)
Year 11 Mock exam papers to be sat, Wednesday doubles	**Vectors** (Properties of vectors, vectors in geometry) **Mindmap Reviews** - number work - statistics	**Mindmap Reviews** - algebra - geometry	**Mindmap Reviews** - geometry - probability	**Mindmap Reviews** - probability - ratio & proportion		

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Sixth form roadmap	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
YEAR 12	GCSE recap (with elements of Ch 2, 3, 5) Pure 1 Ch 3 – Equations and inequalities Pure 1 Ch 5 – Straight line graphs Pure 1 Ch 6 – Circles	Pure 1 Ch 6 – Circles Pure 1 Ch 8 – Binomial expansion Pure 1 Ch 9 – Trigonometric ratios Pure 1 Ch 10 – Trigonometric identities and equations	Pure 1 Ch 13 – Integration Pure 1 Ch 14 – Exponentials and logarithms	Mech Ch 8 – Modelling in mechanics Mech Ch 9 – Constant acceleration Mech Ch 10 – Forces and motion	**Mock exams** Mech Ch 11 – Variable acceleration Pure 2 Ch 1 – Algebraic methods	Pure 2 Ch 2 – Functions and graphs Pure 2 Ch 3 – Sequences and series
	GCSE recap (with elements of Ch 1, 7, 11) Pure 1 Ch 2 – Quadratics Pure 1 Ch 4 – Graphs and transformations	Pure 1 Ch 7 – Algebraic methods Pure 1 Ch 12 – Differentiation	Pure 1 Ch 11 – Vectors Stats Ch 1 – Data collection	Stats Ch 2 –Measures of location and spread Stats Ch 3 – Representations of data	**Mock exams** Stats Ch 4 – Correlation Stats Ch 5 – Probability	Stats Ch 6 – Statistical distributions Stats Ch 7 – Hypothesis testing
YEAR 13	Pure 2 Ch 4 – Binomial expansion Pure 2 Ch 6 –Trigonometric functions Pure 2 Ch 8 –Parametric equations Pure 2 Ch 9 –Differentiation	Pure 2 Ch 9 – Differentiation Pure 2 Ch 10 – Numerical methods Pure 2 Ch 12 – Vectors	Mech Ch 4 – Moments Mech Ch 5 – Forces and friction	Mech Ch 6 – Projectiles Mech Ch 7 – Applications of forces Mech Ch 8 – Further kinematics	Revision	[redacted]
	Pure 2 Ch 5 – Radians Pure 2 Ch 7 – Trigonometry and modelling	Pure 2 Ch 11 – Integration	Stats Ch 1 – Regression, correlation and hypothesis testing Stats Ch 2 – Conditional probability	Stats Ch 3 –The normal distribution	Revision	