Year 9 – 11 Curriculum Map FOUNDATION

Year	9	10	11
Number	Build on 4 operations with fractions, decimals, BODMAS. Powers and roots. Factors and multiples, prime factors. Sig Fig.	Revisit Fractions and Significant Figures, Standard Form, Listing Strategies, Factorials,	Recognising special numbers, Following through revisiting topics and extending
Algebra	Vocab. Simplifying and substitution. Expanding and factorising. Index Laws. Co-ordinates, straight line graphs, y=mx+c, recognise parallel and perpendicular, linear equations incl. on a graph, sequences	Revisit expanding, factorising, and collecting terms, factorise (and later solve) quadratics, revisit and extend Index Laws, Rearranging, using y=mx+c, plot non-linear graphs, Linear Simultaneous Equations, solving equations incl. simultaneous graphically	Linear inequalities and on a number line, translate situations into algebra, Function Machines, Proportion/Kinematics graphs, Gradient between two points, Following through revisiting topics and extending
Ratio and Proportion	Notation, maps and scales, sharing, context problems, % and change, reverse, changing from decimal/percentage/fraction, similarity for lengths	Revisit percentages and move into Interest, relate ratio to fractions and worded ratio problems, Best Buy and unitary method, Direct and Inverse Proportion incl. algebraic,	Convert units, Following through revisiting topics and extending
Geometry and Measure	Vocab. Labelling conventions, basic angle facts, in parallel lines, exterior/interior, use of ruler and compass, loci and constructions, transformations incl. use of vectors, compound measure, circle parts, area and circumference, area/perimeter of 2D shapes, 3D shapes, surface area, prism volumes	Pythagoras. Basic Congruent triangles and similarity, Enlargement, Plans and Elevations, Trig ratios and exact values,	Arcs and Sectors, Bearings, Transformations, Vectors, revisit Constructions and scale drawings, Following through revisiting topics and extending
Probability and Statistics	0-1 scale, experimental prob and expected frequency, frequency trees, sample space, listing strategies, tables and charts including pie charts, time series, types of data, averages	Revisit basic probability concepts, Venn diagrams, Scatter Graphs with correlation, best fit, inter/extrapolation, two-way tables, averages from tables and grouped data, Probability trees,	Following through revisiting topics and extending

Throughout all years and especially into Year 11, teachers are trusted to revise specific topics based off classroom and assessment performance through recall starters, revision lessons, revisiting topics, assessment feedback lessons etc

Year 9 – 11 Curriculum Map HIGHER

Year	9	10	11
Number	Build on 4 operations with fractions, decimals, BODMAS. Powers and roots. Factors and multiples, prime factors. Sig Fig, inequalities	exact solutions, surds and rationalising, standard form, bounds, factorial/listing strategies	Following through revisiting topics and extending
Algebra	Vocab. Simplifying and substitution. Expanding and factorising. Index Laws. Co-ordinates, straight line graphs, y=mx+c, recognise parallel and perpendicular, linear equations incl. on a graph, sequences **into quadratic**	index laws incl. fractions, rearranging, circle equation, diff 2 squares, quadratic formula and completing the square, gradient of tangent, circle theorems, exp/cubic/reciprocal graphs, forming and solving, sim eqns incl quadratic	Real-life graphs, further work on sketching esp. trig, proof
Ratio and Proportion	Notation, maps and scales, sharing, context problems, % and change, reverse, changing from decimal/percentage/fraction, similarity for lengths	ratio to fractions and similarity, interest, best buys, direct/inverse proportion incl. graphical, plus forming equation within ratio and proportion	Rate of change from graphs
Geometry and Measure	Vocab. Labelling conventions, basic angle facts, in parallel lines, exterior/interior, use of ruler and compass, loci and constructions, transformations incl. use of vectors, compound measure, circle parts, area and circumference, area/perimeter of 2D shapes, 3D shapes, surface area, prism volumes	Congruent triangles, enlargement incl. fractional and negative s.f., plans and elevations, knowing and using trig ratios into 3D shapes, exact values, trig graphs and translations, sine/cosine/area rules, arcs and sectors, apply circle theorems	Vector arguments and proofs, prove circle theorems
Probability and Statistics	0-1 scale, experimental prob and expected frequency, frequency trees, sample space, listing strategies, tables and charts including pie charts, time series, types of data, averages **into frequency tables**	Histograms, cumulative frequency, quartiles, venn and probability trees, box plots, data comparison, making predictions	Following through revisiting topics and extending

Throughout all years and especially into Year 11, teachers are trusted to revise specific topics based off classroom and assessment performance through recall starters, revision lessons, revisiting topics, assessment feedback lessons etc

A Level Maths Curriculum Map

	Year 12		
	Pure	Stats	Mech
Term 1	Quadratics, Surds and Indices, Equations and Inequalities, Co-Ordinate Geometry, Polynomials, Vectors, Binomial Expansion	Data Collection, Presenting Data, Probability	Kinematics, Forces and Newton's Laws
Term 2	Trigonometry, Differentiation, Integration, Problem Solving, Graphs and Transformations, Exponentials and Logarithms	Binomial Distribution, Hypothesis Testing	Variable Acceleration
Term 3	Revision of topics, exam style question practice, practice papers. Start Year 13 work after AS exams.		

	Year 13		
	Pure	Stats	Mech
All Change	Differentiation, Vectors (into 3D), Trigonometry (Radians), Further Algebra		Kinematics
Term 1	Further Algebra, Further Differentiation, Further Integration, Parametric Equations, Functions, Trig Functions, Trig Identities		Kinematics
Term 2	Differential Equations, Sequences and Series	Probability, Statistical Distributions, Hypothesis Testing	Forces and Motion, Moments, Projectiles, Friction
Term 3	Numerical Methods, Proof, Revision and exam practice	Revision and exam practice	Revision and exam practice

Skills	Construct and present mathematical arguments, use mathematical notation and terminology, portray tricky mathematical concepts in simple terms, address real world problems with mathematical knowledge, improve group and individual work skills, resilience, and determination

Throughout the course teachers will use starters and lessons to re-visit previous topics, using a mixture of resources including exam questions.