

Key Stage 3 Curriculum Map: Maths

Year 8	Autumn 1			Autumn 2		
	Sequences and functions	Calculations	Shape	Fractions, Decimals and Percentages	Sampling and Discrete Data	Expressions, formulae
	Generating linear and non-linear sequences; finding simple nth term rules; mapping diagrams; inverse functions.	BiDMAS in more complex calculations; further arithmetic with negative numbers; efficient use of a calculator.	Circles (circumference and area); surface area and volume of prisms (including cylinders); units in area and volume.	Further percentage change using a multiplying factor; reverse percentages; more complex calculations with fractions.	Types of data; sampling and bias; averages from discrete data; representing discrete data with a variety of diagrams.	Manipulating expressions using indices; further substitution; changing the subject of a simple formula.
	Baseline Test					
	Spring 1			Spring 2		
	Place value, ordering and rounding	Linear Equations		Lines and Angles	Graphs	Continuous and Bivariate Data
	Rounding and estimation; standard form notation and simple calculations.	Form and solve more complicated linear equations.		Angles in polygons; three-figure bearings; geometrical reasoning; Pythagoras' Theorem.	Equation of a straight line; graphs in context; calculating and interpreting gradients.	Averages from grouped data; graphs and tables using continuous data; scatter graphs and correlation.
	Summer 1			Summer 2		
	Probability	Equations and Inequalities	Transformations	Ratio and Proportion	Construction and Loci	
	Mutually exclusive events; sample space and Venn diagrams; relative frequency.	Trial and improvement; solve linear inequalities and represent solution on a number line; creating and solve equations from contextual problems.	Further transformations; enlargement by a negative or fractional scale factor; combined transformations; planes of symmetry in 3D shapes.	Further direct proportion; inverse proportion; calculations with ratios; comparing ratios.	Scale drawing; further ruler and compass constructions; simple loci.	
	Pre unit diagnostic tests to assess prior knowledge of a topic, common fortnightly homework assignments which test problem solving from any topic across prior taught material, questions for mastery to formatively assess progress Common class tests will be issued to test curriculum knowledge.					

Key Stage 3 Curriculum Map: Maths

	Autumn 1			Autumn 2			
Year 9	Graphs 1	Pythagoras and Trigonometry	Fractions/Decimals/ Percentages	Equations	Indices	Transformations	Simultaneous Equations
	Further linear graphs, intersections, mid points.	Further use of Pythagoras' theorem. Use of trigonometry to find angles and sides.	Further calculations with fractions and decimals, recurring decimals, reciprocals, use of calculator and compound percentage change.	Complex linear equations. Solving inequalities. Regions on a graph.	Powers and roots, laws of indices, using prime factor decomposition, simple surds and standard form.	Combinations of transformations, congruence and similarity, and units in length, area and volume.	Solve pairs of equations with two unknowns.
	Baseline Test						
	Spring 1			Spring 2			
	Data Handling and Analysis	Probability	Brackets and Quadratics		Graphs 2		Angles, Construction and Loci
	Calculating averages, range, IQR, statistical diagrams and comparing data sets.	Further probability work including compound events, independent events and use of tree diagrams.	Expand and factorise expressions. Solving quadratic equations by factorisation.		Using graphs in context. Plotting and simple use of quadratic, cubic and reciprocal graphs. Graphs of the trigonometric functions.		Use of angle properties, circle theorems, constructions and loci.
	Summer 1			Summer 2			
	Estimation and Place Value	Sequences and Functions	Formulae	Proportion	Mensuration	Further Quadratics	
	Further ratio problems, direct and inverse proportion, upper and lower bounds, and estimation.	Finding the nth term. Fractional sequences, Fibonacci-type sequences, simple quadratic sequences.	Further change of subject and substitution. Function notation.	Further ratio problems, direct and inverse proportion.	Area and perimeter, circles, arcs and sectors, surface area and volume of prisms.	Further expansion and factorisation, the quadratic formula. Completing the square.	
Pre unit diagnostic tests to assess prior knowledge of a topic, common fortnightly homework assignments which test problem solving from any topic across prior taught material, questions for mastery to formatively assess progress Common class tests will be issued to test curriculum knowledge.							