

Subject Narrative

Mathematics

	LC1	LC2	LC3	LC4	LC5
YEAR 7	<p>Number I</p> <p>Wk1: Roman numerals and negative numbers</p> <p>Wk2: Arithmetic techniques including decimals and large numbers.</p> <p>Wk3: Factors, Multiples, and Primes HCF, LCM.</p> <p>Wk4: Indices & roots</p> <p>Order of operations</p> <p>Rounding and estimates</p> <p>Wk5: Fractions: of amounts and mixed numbers.</p> <p>Assessment: Non-Calculator</p>	<p>Algebra I & Geometry I</p> <p>Wk1: Intro to algebra and simplifying expressions.</p> <p>Wk2: Substitution and expanding brackets</p> <p>Wk3: Solving equations</p> <p>Wk4: Angle properties and notation</p> <p>Wk5: Angles in triangles and quadrilaterals</p> <p>Assessment: Calculator</p>	<p>Number II & RP I</p> <p>Wk1: Equivalent fractions and calculations with fractions..</p> <p>Wk2: Fractions, Decimals and Percentages. Conversions.</p> <p>Wk3: Percentages of amounts. Percentage increase and decrease. Use of Multipliers.</p> <p>Wk4: Ratio: Simplifying Sharing</p> <p>Wk5: Proportion: Recipes Best Buys Currency</p> <p>Assessment: Calculator</p>	<p>Geometry II</p> <p>Wk1: Use of and conversion between /imperial units.</p> <p>Wk2: Perimeter and area of shapes..</p> <p>Wk3: Volume of regular prisms. Plans and Elevations.</p> <p>Wk4: Investigating Pi. Circumference and area of circles.</p> <p>Wk5: Semi-circles and sectors. Volume of cylinder.</p> <p>Assessment: Calculator</p>	<p>Probability I & Data I</p> <p>Wk1: Introduction to probability.</p> <p>Wk2: Data Cycle, Data types and collecting Data.</p> <p>Wk3: Averages</p> <p>Wk4: Pictograms and bar charts..</p> <p>Wk5: Pie charts</p> <p>Assessment: Non-Calculator</p>

YEAR 8	<p>Number III & Algebra II</p> <p>Wk1: Order of operations including powers & roots</p> <p>Wk2: Percentages, Multipliers increase & decrease percentage change</p> <p>Wk3: repeated percentage change</p> <p>FDP: ordering and calculations</p> <p>Wk4: Expanding and factorising single brackets</p> <p>Expanding double brackets</p> <p>Wk5: Expressions Substitution Solving equations</p> <p>Assessment: Calculator</p>	<p>Geometry III</p> <p>Wk1: Area and Perimeter including compound shapes.</p> <p>Wk2: Surface area.</p> <p>Wk3: Volume</p> <p>Wk4: Pythagoras' Theorem</p> <p>Wk5: Constructions</p> <p>Assessment: Calculator</p>	<p>RP II & Data II</p> <p>Wk1: Simplifying ratios Writing ratios as fractions</p> <p>Sharing into a ratio</p> <p>Wk2: Direct proportion Recipes</p> <p>Conversion rates</p> <p>Conversion graphs</p> <p>Wk3: Types of data</p> <p>How to collect data</p> <p>Finding averages</p> <p>Wk4: Displaying & interpreting Data: Bar charts</p> <p>Pie charts</p> <p>Quartiles</p> <p>Wk5: Displaying & interpreting Data: Box plots</p> <p>Cumulative frequency diagram</p> <p>Assessment: Non-Calculator</p>	<p>Algebra III</p> <p>Wk1: Linear equations</p> <p>Wk2: Sequences and nth term</p> <p>Wk3: Linear graphs</p> <p>Wk4: Linear graphs; gradient and intercepts</p> <p>Wk5: Inequalities: number line, solve, plotting</p> <p>Assessment: Non-Calculator</p>	<p>Geometry IV & Probability II</p> <p>Wk1: Congruence, tessellation and symmetry</p> <p>Wk2: Transformations</p> <p>Wk3: Transformations II</p> <p>Wk4: Simple and Single event probability</p> <p>Wk5: Multiple event probability</p> <p>Assessment: Calculator</p>
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<p>YEAR 9 Higher</p>	<p>Number IV & Algebra IV Wk1: Rounding to decimal places and significant figures. Finding the error interval. Upper and Lower bounds. Wk2: Standard form and calculations in standard form. Wk3: Algebraic expressions, rearranging equations. Wk4: Factorising linear and quadratic expressions. Wk5: Solving linear equations with brackets and fractions. Solving quadratic equations.</p>	<p>Geometry V & Algebra V Wk1: Angles at a point, angles on a straight line, corresponding and alternate angles. Wk2: Interior and exterior angles. Wk3: Congruent and similar shapes Area and volume scale factors. Wk4: Sequences, patterns and nth term. Quadratic sequences. Wk5: Calculation of the gradient of a line and identification of the y-intercept. Calculating the equation of a line given two points. Parallel and perpendicular gradients.</p>	<p>Number V & RP III Wk1: Calculations with decimals (non calculator). Simple and compound interest. Recurring decimals to fractions. Wk2: Calculations with fractions. Algebraic fractions. Wk3: Simplifying ratio, unitary method. Sharing an amount into a ratio and its real life applications. Best value. Wk4: Direct proportion and worded problems (hours, workers, days). Inverse proportion. Wk5: Bearings, scales and maps.</p>	<p>Geometry VI Wk1: Area and surface area of compound shapes. Wk2: Volume of 3D shapes. Include cones, pyramids, spheres & frustums. Wk3: Pythagoras' theorem. 3D Pythagoras. Right angle trigonometry. Wk4: Reflections and rotations. Wk5: Enlargements and translations. Multi-step.</p>	<p>Probability and Statistics Wk1: Data handling cycle, sampling and data analysis. Wk2: Scatter graphs and line of best fit. Cumulative Frequency & Box Plots. Wk3: Speed, Distance Time. Real life graphs. Velocity time graphs. Wk4: Probability- Single and multiple event probability, Conditional Probability Wk5: Probability Venn Diagrams.</p>
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<p>YEAR 10 Foundation</p>	<p>Number Wk1: Powers and roots BiDMAS recap Wk2: Standard form, converting both ways Wk3: Percentage of an amount, increase, decrease, change and reverse percentage Wk4: Simple and compound interest. Wk5: Converting units, problem solving linked to conversion graphs.</p>	<p>Algebra Wk1: Factorising linear expressions, expanding brackets, simplification and substitution. Wk2: Factorising linear and quadratic expressions, expanding double brackets Wk3: Linear Graphs Quadratic Graphs Wk4: Solving linear equations and nth term review. Wk5: Simultaneous Equations.</p>	<p>Statistics Wk1: Real life graphs: distance-time graphs. Wk2: Sampling and Types of data and Displaying data: pie charts, two way tables, frequency trees Wk3: Displaying data: scatter diagrams cumulative frequency and box plots. Histograms Wk4: Averages, outliers and averages from tables.. Wk5: Probability: sample spaces and probability trees. REACH: Venn diagrams.</p>	<p>Geometry Wk1: Triangles and Pythagoras Wk2: Trigonometry: SOHCAHTOA Wk3: Exact Trig ratios and SOHCAHTOA Wk4: Perimeter, Area, Circles and Surface area. Wk5: Volume, Similarity and congruence.</p>	<p>Geometry Wk1: Transformations Wk2: Interior and exterior angles of polygons. Corresponding and alternate angles. Wk3: Ratio review. Wk4: Worded problems with Ratio. Wk5: Fractions review. MOCK EXAMS.</p>
<p>YEAR 10 Higher</p>	<p>Wk1: Powers, roots and surds Wk2: Four operations with values expressed in standard form Wk3: amount, increase, decrease change and reverse percentage</p>	<p>Wk1: Factorising linear and quadratic expressions, expanding brackets, rearranging and substitution. Wk2: Linear Graphs Quadratics: Graphs, factorise/solve, Cubic and reciprocal graphs Wk3: Quadratics:</p>	<p>Wk1: SDT, ,Real life graphs: distance-time graphs and velocity time graphs. Wk2: Displaying data: pie charts, cumulative frequency and box plots. Wk3: Displaying data: Histograms. Wk4: Averages, outliers</p>	<p>Wk1: Triangles and Pythagoras 2D and 3D Wk2: Trigonometry: SOHCAHTOA Wk3: Area of a triangle $\frac{1}{2}ab\sin C$ Sine rule Wk4: Cosine Rule and mixed problems Wk5: Exact Trig ratios Trigonometric graphs.</p>	<p>Wk1: Transformations Transformations of trig graphs. Wk2: Problem solving with Interior and exterior angles of polygons. Corresponding and alternate angles. Wk3: Circle Theorems Wk4: Circle Theorems Wk5: Equation of Circle.</p>

	<p>Recurring decimals</p> <p>Wk4: Simple and compound interest recap and reverse interest problems</p> <p>Wk5: Fractions review including algebraic fractions.</p>	<p>completing the square and using the formula.</p> <p>Wk4: Quadratics: sequences, Generating and finding the nth term of linear and quadratic sequences</p> <p>Wk5: Simultaneous equations.</p>	<p>and averages from tables.</p> <p>Wk5: Probability: Venn Diagrams and Set Notation.</p>		MOCK EXAMS
<p>YEAR 11 Foundation Key topic reviews. Subject to change.</p>	<p>Wk1: Percentages (percentage increase, percentage change and reverse percentages) and interest. .</p> <p>Wk2: Simultaneous equations</p> <p>Wk3: Simplification, substitution, brackets, equations.</p> <p>Wk4: Pythagoras,</p>	<p>Wk1: Ratio review.</p> <p>Wk2: Direct and inverse proportion.</p> <p>Wk3: Rearranging formulae</p> <p>Wk4: Factorising, Solving equations</p> <p>Wk5: Inequalities</p>	<p>GAP based on Mock exams</p>		EXAMS

	SOHCAHTOA Wk5: Averages from tables and frequency polygons.				
YEAR 11 Higher	Wk1: Surds (simplification, calculations and rationalisation). Wk2: Simultaneous equations linear and quadratic. Wk3: Algebraic Proofs Wk4: Iteration Wk5: Functions.	Wk1: Direct and inverse proportion. Wk2: Ratio problem solving including volume. Wk3: Vectors. Wk4: Trig review Wk5: Transformation of trigonometric graphs.	Wk1: GAP based on Mock exams		

Homeworks based on prior knowledge

Quizzes to keep topics in working memory

Mock exams include and LC test multiple choice