

	Exam Board & Specification	Autumn Term			Spring Term			Summer Term		
Year 7 Key stage 3		Algebraic Manipulation 1 Forming expressions; Substitution; Collecting Like terms; Linear sequences.	Place Value 1 Calculations with powers of 10 Standard form; Ordering, rounding and estimation.	Calculations 1 Calculations in context; Decimal arithmetic; BIDMAS; Calculator skills; Equivalent fractions, decimals and percentages.	Angles 1 Properties of 2D shapes; Angle facts (not including parallel lines); Angles in polygons; Congruent shapes.	Proportional Reasoning 1 Linking fractions and ratio notation; Dividing amounts in a ratio; Arithmetic with fractions.	Calculations 2 Directed number calculations including with fractions, decimals and in context.	Properties of Number 1 Exploring properties of factors, multiples and primes; Conjectures and counter examples	Shape 1 Area of 2D shapes; Surface area of prisms; Converting units of length, area and volume.	
Year 8 Key stage 3		Algebraic Manipulation 2 Index laws; Expanding single brackets; Factorising with common factors.	Proportional Reasoning 2 Percentage of amounts including using multipliers; Percentage increase and decrease; Simple interest calculations.	Angles 2 Angles on parallel lines; Multi-step angle problems.	Proportional Reasoning 3 Currency conversions; Converting units of measure; Compound measures; Solving problems involving scale.	Graphs 1 Real life graphs; Distance-time graphs; Linear graphs of algebraic functions.	Equations and Inequalities 1 Forming and solving linear equations and inequalities; Represent inequalities on a number line and graphically.	Shape 2 Isometric drawing; Plans and elevations; Scale drawings and enlargement; Volume of prisms.	Circles 1 Area and circumference of circles, semi circles and quarter circles; Volume and surface area of cylinders.	Statistics 1 Calculating and interpreting averages and measures of spread; Draw and interpret bar charts, pie charts and line graphs.

<p>Year 9 Key Stage 3</p>		<p>Probability 1</p> <p>Listing outcomes; Calculating probabilities including from tables and frequency trees; Applications of venn diagrams to probability.</p>	<p>Algebraic Manipulation 3</p> <p>Expand, simplify and factorise linear and quadratic expressions; Simplify algebraic fractions Form and solve equations in a variety of contexts; Rearrange formulae; Find and use position to term rules for linear and quadratic sequences.</p>	<p>Shape 3</p> <p>Derive and apply Pythagoras' theorem;</p>	<p>Proportional Reasoning 4</p> <p>Calculate repeated percentage changes; Understand compound interest and depreciation; Solve percentage change calculations in reverse.</p>	<p>Calculations 3</p> <p>Index laws; Calculations with standard form; Surd.</p>	<p>Angles 3</p> <p>Use ruler, protractor and compasses to complete basic constructions; Solve loci problems.</p>	<p>Graphs 2</p> <p>Properties of parallel and perpendicular lines; Plotting quadratic and cubic graphs.</p>	<p>Shape 4</p> <p>Reflect shapes in a mirror line on a coordinate grid; Rotate shapes around a given point; Translate shapes using column vectors; Carry out basic vector calculations. Enlargement and similar shapes</p>
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<p>Year 10 Key Stage 4</p>		<p>Place Value 2</p> <p>Rounding to significant figures; Estimation; Error intervals; Upper and lower bounds of calculations; Related calculations</p>	<p>Proportional Reasoning 6</p> <p>Compound measures; Draw and interpret graphs of real life scenarios including finding the area under a graph. Stratified sampling.</p>	<p>Equations and Inequalities 2</p> <p>Factorising quadratics; Solve quadratics by factorising; Quadratic formula; Factorise by completing the square; Explore quadratic inequalities.</p>	<p>Graphs 3</p> <p>Quadratic, cubic and reciprocal graphs; Circle geometry; Transformations of graphs. Solve linear simultaneous equations graphically;</p>	<p>Probability 2</p> <p>Using the product rule for counting; Construct and use probability trees to list outcomes and calculate probability.</p>	<p>Shape 4</p> <p>Trigonometry in right angled triangles; Area of triangles using sine; Sine and cosine rule; Calculate and draw bearings.</p>	<p>Circles 2</p> <p>Area of circles and sectors; Calculating arc lengths; Area of segments.</p>	<p>Shape 5</p> <p>Volume and surface area of cylinders, cones, pyramids and spheres.</p>	<p>Statistics 2</p> <p>Calculating averages and measures of spread from tables; Plot and interpret cumulative frequency graphs, box plots, scatter graphs and histograms.</p>
<p>Year 11 Key stage 4</p>	<p>Pearson Edexcel GCSE Mathematics</p>	<p>Proportional Reasoning 5</p> <p>Problem solving with fractions, decimals, percentage and ratio; Recurring decimals; Algebraic fractions.</p>	<p>Angles 3</p> <p>Circle Theorems</p>	<p>Shape 6</p> <p>Vector calculations; Geometric proofs with vectors; Similarity and congruence.</p>	<p>Algebraic Manipulation 4</p> <p>Forming and solving in a variety of contexts; Rearranging formulae; Algebraic proof; Functions.</p>	<p>Equations and Inequalities 3</p> <p>Inequalities as regions on graphs; Solving simultaneous equations.</p>	<p>Algebraic Manipulation 5</p> <p>Linear, quadratic and geometric sequences; Iterative processes.</p>	<p>Properties of Number 2</p> <p>Manipulating indices; Standard form calculations; Calculations with surds.</p>		