



KS3 Maths – Curriculum in detail

Maths	Autumn Term		Spring Term		Summer Term	
Year 7	Analysing and displaying data: <ul style="list-style-type: none"> • Mode, median, range • Displaying data • Grouping data • Averages & comparing data Number skills: <ul style="list-style-type: none"> • Mental maths • The four operations • Money & time • Negative numbers • Factors, multiples, primes • Squares and square roots 	Algebra: <ul style="list-style-type: none"> • Functions • Simplifying expressions • Writing expressions • Substitution • Formulae Decimals & measures: <ul style="list-style-type: none"> • Rounding • Length, mass, capacity • Scales & measures • Decimal calculations • Area & perimeter 	Fractions & Percentages: <ul style="list-style-type: none"> • Comparing fractions • Simplifying fractions • Calculating with fractions • Fractions, decimals, percentages • Percentage of an amount Probability <ul style="list-style-type: none"> • Language of probability • Calculating probability • Experimental probability • Expected outcomes 	Ratio & proportion: <ul style="list-style-type: none"> • Direct proportion • Writing ratios • Using ratios • Ratios, proportions, fractions, percentages Lines & Angles: <ul style="list-style-type: none"> • Measuring and drawing angles • Lines, angles, triangles • Drawing triangles • Calculating angles • Triangles, quadrilaterals 	Lines & angles continued (see detail under Spring Term) Sequences & graphs: <ul style="list-style-type: none"> • Sequences • Pattern sequences • Coordinates & midpoints • Extending sequences • Straight-line graphs • Tern-to-term rules 	Transformations: <ul style="list-style-type: none"> • Congruency & Enlargements • Symmetry • Reflection • Rotation • Translations • Combined transformations Maths Enrichment
Year 8	Number: <ul style="list-style-type: none"> • Calculations • Divisibility & division 	Statistics, graphs & charts: <ul style="list-style-type: none"> • Pie charts • Using tables 	Real-life graphs: <ul style="list-style-type: none"> • Conversion graphs 	Lines & angles: <ul style="list-style-type: none"> • Quadrilaterals • Alternate angles 	Calculating with fractions: <ul style="list-style-type: none"> • Ordering fractions 	Percentages, decimals & fractions:

	<ul style="list-style-type: none"> • Calculating with negative integers • Powers & roots • Multiples & factors <p>Area & volume:</p> <ul style="list-style-type: none"> • Area of a triangle • Area of a parallelogram, trapezium • Volume of cubes, cuboids • 2D representation of 3D solids • Surface area of cubes, cuboids • Measures 	<ul style="list-style-type: none"> • Stem & leaf diagrams • Comparing data • Scatter graphs <p>Expressions & equations:</p> <ul style="list-style-type: none"> • Algebraic powers • Expressions & brackets • Factorising expressions • Solving linear equations using function machines • The balancing method 	<ul style="list-style-type: none"> • Distance-time graphs • Line graphs • Real-life graphs • Curved graphs <p>Decimals & ratio:</p> <ul style="list-style-type: none"> • Ordering decimals and rounding • Place-value calculations • Calculating with decimals • Ratio & proportion with decimals 	<ul style="list-style-type: none"> • Angles in parallel lines • Exterior & interior angles • Solving geometric problems 	<ul style="list-style-type: none"> • Adding & subtracting fractions • Multiplying fractions • Dividing fractions • Calculating with mixed numbers <p>Straight-line graphs:</p> <ul style="list-style-type: none"> • Direct proportion on graphs • Gradients • Equations of a straight line 	<ul style="list-style-type: none"> • Fractions & decimals • Equivalent proportions • Writing percentages • Percentage of an amount <p>Maths Enrichment</p>
Year 9	<p>Indices & standard form:</p> <ul style="list-style-type: none"> • Indices • Calculations and estimates • Standard form <p>Expressions & formulae:</p> <ul style="list-style-type: none"> • Solving equations • Substitution into expressions • Writing & using formulae 	<p>Dealing with data:</p> <ul style="list-style-type: none"> • Planning a survey • Collecting data • Calculating averages • Displaying & analysing data • Comparing data <p>Multiplicative reasoning:</p> <ul style="list-style-type: none"> • Enlargement 	<p>Constructions:</p> <ul style="list-style-type: none"> • Using scales • Basic constructions • Constructing triangles • Using accurate scale diagrams <p>Sequences, inequalities, equations & proportion:</p>	<p>Circles, Pythagoras & Prisms:</p> <ul style="list-style-type: none"> • Area & circumference of a circle • Pythagoras' theorem • Prisms & cylinders • Errors & bounds <p>Graphs:</p> <ul style="list-style-type: none"> • Using $y = mx + c$ 	<p>Probability:</p> <ul style="list-style-type: none"> • Mutually exclusive events • Experimental & theoretical probability • Sample space diagrams • Two-way tables • Venn diagrams 	<p>Comparing shapes:</p> <ul style="list-style-type: none"> • Congruent & similar shapes • Ratios in triangles • Sine ratio • Cosine ratio • Using trigonometry to find angles <p>Maths Enrichment</p>

	<ul style="list-style-type: none"> • Rearranging formulae • Index laws & brackets • Expanding double brackets 	<ul style="list-style-type: none"> • Negative & fractional scale factors • Percentage change • Compound measures • Direct & inverse proportion 	<ul style="list-style-type: none"> • Nth term of an arithmetic sequence • Non-linear sequences • Inequalities • Solving equations • proportion 	<ul style="list-style-type: none"> • More straight-line graphs • Simultaneous equations • Quadratic graphs • More non-linear graphs 		
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