

Key skills for each 'block' of learning are organised under skill headings. As students progress, these skills are developed cumulatively through problem-solving and meaningful practice to consolidate learning, deepen understanding and forge connections between topics

Our curriculum is designed to foster students' personal development and address key aspects of social, moral, spiritual and cultural education. Please see separate document for full details.

		Year 7			Year 8			Year 9			Year 10		Year 11		Year 12		
		Delta	Theta	Pi	Delta	Theta	Pi	Delta	Theta	Pi	Foundation		Higher		Foundation	higher	
A u t u m	Data	tables and graphs averages and range grouped data pie charts scatter graphs and correlation	averages displaying data grouped data comparing data graphs and charts using spreadsheets	tables and pictograms bar charts grouped bar charts averages and range	prime factor decomposition Laws of indices powers of 10 calculations and estimating	calculations inc. negatives powers and roots BODMAS multiples and factors	Adding and subtracting (large numbers) more calculations powers of 10 using ratios to solve problems multiplicative reasoning	Indices reciprocals standard form fractional indices surds	Manipulating indices Calculations and estimates writing numbers in standard form	the 4 operations calculations with negatives cubes and roots powers calculations with negatives	Graphs, Tables and Charts tables/two way tables stem and leaf/pie charts/scatter graphs scatter graphs interrelated data	Interpreting and representing data stem and leaf/pie charts/frequency polygons time series scatter graphs averages and range	Multiplicative reasoning percentages % growth and decay compound measures	Trigonometry graphs of sine and cosine tangent function area and the sine rule cosine rule problems in 3D transforming the graphs			
	SKILLS	analysis of data, spatial reasoning	analysis of data, spatial reasoning	Analysis of data, spatial reasoning	Magnitude of number, Logical deduction, Quantitative reasoning	Magnitude of number, Logical deduction, Quantitative reasoning	Magnitude of number, Logical deduction, Quantitative reasoning	Magnitude of number, Logical deduction, Quantitative reasoning	Magnitude of number, Logical deduction, Quantitative reasoning	Magnitude of number, Logical deduction, Quantitative reasoning	Pattern recognition, Logical deduction, Spatial reasoning (SMSC)	Pattern recognition, Logical deduction, Spatial reasoning (SMSC)	quantitative reasoning, evaluating, modelling, personal financial	quantitative reasoning, evaluating, modelling, personal financial	social reasoning		
	Number	factors, multiples and primes multiplication and division powers and roots calculations	Number mental maths 4 operations time and money negatives factors, multiples and primes square and triangle numbers	Calculations operations powers of 10 negatives	Indices simplifying expressions expanding and factorising substituting and solving	Area and Volume area of a triangle area of parallelogram and trapezia volumes of cubes and cuboids 3D shapes surface area of cuboid/cuboids measures	Shape 3D solids nets surface area volume working with Measures	Inequalities, Equations and Formulae using index laws solving equations changing the subject algebraic fractions	Expressions and Formulae substitution writing expressions and formulae using formulae rules of indices and brackets expanding double brackets	Equations and Equations algebraic expressions solving equations finding the nth term of an equation	Fractions and Percentages operations with fractions writing with the nth term fractions and percentages calculating percentages	Fractions, Ratio and Percentages simplifying fractions fractions and percentages direct proportion percentages fractions/decimals/percentages	Constructions, loci and bearings 3D solids planes and elevations scale drawing and maps constructions scale drawings loci	Statistics sampling cumulative frequency boxplots histograms comparing and describing populations scatter graphs			
	SKILLS	Magnitude of number, Logical deduction, Quantitative reasoning	Magnitude of number, Logical deduction, Quantitative reasoning	Magnitude of number, Logical deduction, Quantitative reasoning	Logical deduction, clarity of communication	Spatial recognition, Logical deduction, clarity of communication	Spatial recognition, Logical deduction, clarity of communication (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Pattern recognition, Logical deduction, Spatial reasoning	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)
S p r i ng	Algebra	simplifying expressions writing expressions using and writing formulae brackets and powers factorising	Algebra Functions simplifying expressions writing expressions substituting into formulae writing formulae	Algebra using functions function machines simplifying algebra writing expressions using formulae writing formulae	2D shapes and 3D Solids plans and elevations surface area of prisms volume of prisms circumference of circles area of circles cylinders Pythagoras Theorem	Stats, graphs and charts pie charts table drawing bar charts stem and leaf comparing data pie charts	Statistics data collection sheets drawing bar charts drawing bar charts pie charts	Multiplicative Reasoning direct proportion solving using direct proportion non-linear proportion area and sectors of circles	Multiplicative Reasoning Binomial expansion negative and fractional scale factors percentage change rates of change	Geometry in 2D and 3D angles maps and scales constructions 3D solids Pythagoras Theorem	Angles and Trigonometry angles in triangles/quadrilaterals interior angles of polygons exterior angles of polygons Pythagoras Theorem trigonometry	Quadratics expanding double brackets plotting and reading quadratics factorising quadratics solving quadratics algebraically	Equations, Inequalities and Sequences Solving equations inequalities using formulae generating sequences using the nth term	Angles and Trigonometry angles in triangles/quadrilaterals interior angles of polygons exterior angles of polygons Pythagoras Theorem trigonometry	Quadratics expanding double brackets plotting and reading quadratics factorising quadratics solving quadratics algebraically	Equations and Graphs graphical sm. Equations graphical inequalities graphs of quadratics solving graphs of cubics	
	SKILLS	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Spatial recognition, logical deduction, clarity of communication	Analysis of data, spatial reasoning (SMSC)	Analysis of data, spatial reasoning (SMSC)	Quantitative reasoning, spatial reasoning, clarity of communication	Quantitative reasoning, spatial reasoning, clarity of communication	Spatial recognition, Logical deduction, clarity of communication	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	logical deduction, clarity of communication	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)
	Fractions	adding and subtracting fractions Fractions, Decimals, Percentages multiplication and division mixed numbers	Decimals and Measures Rounding Length, mass and capacity Scales and coordinates mental calculations perimeter area	Graphs real life graphs coordinates graphs of functions scientific graphs	Real life Graphs direct proportion Financial graphs distance-time graphs rates of change misleading graphs	Expressions and Equations algebraic powers expressions and brackets real life graphs solving equations	Non-linear Graphs Graphs of quadratics solving quadratics graphs of cubics graphs of reciprocals	Expressions and Equations simplifying expressions functions real life graphs using brackets	Accuracy and Measures density and pressure upper and lower bounds calculating with bounds error bounds	Circles, Pythagoras and Prisms Circumference of a circle area of a circle Pythagoras theorem prisms and cylinders cones and spheres	Algebraic and real-life graphs reading graphs plotting graphs distance-time graphs midpoints intercepts and gradients	Angles angles in shapes angles in parallel lines real life graphs interior and exterior angles proportion	Graphs linear graphs rates of change real life graphs line segments quadratic graphs cubic and reciprocal graphs	Perimeter, Area and Volume circumference of a circle area of a circle area and volume composite 2D shapes and cylinders pyramids and cones	Circle Theorems radii and chords tangents forming circle theorems		
	SKILLS	place value, magnitude of number (SMSC)	place value, magnitude of number (SMSC)	Modelling, spatial reasoning (SMSC)	Analysis of data, spatial reasoning, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Pattern recognition, Logical deduction, modelling (SMSC)	Pattern recognition, Logical deduction, modelling (SMSC)	Pattern recognition, Logical deduction, modelling (SMSC)	Pattern recognition, Logical deduction, modelling (SMSC)	Pattern recognition, Logical deduction, modelling (SMSC)	Pattern recognition, Logical deduction, modelling (SMSC)	Pattern recognition, Logical deduction, modelling (SMSC)	Pattern recognition, Logical deduction, modelling (SMSC)	Pattern recognition, Logical deduction, modelling (SMSC)	Pattern recognition, Logical deduction, modelling (SMSC)
S p r i ng	Angles and Shapes	parallel lines Similar Figures Quadrilaterals polygons	Fractions Comparing fractions simplifying fractions Fractions and decimals understanding percentages percentages of amounts	Factors and multiples number relationships units and accuracy metric units operations with decimals rounding	Transformations reflection and translation rotation enlargement combining transformations 2D shapes and 3D Solids	Real life Graphs conversion graphs distance-time graphs line graphs graphs of functions real life graphs	Decimal Calculations Adding and subtracting (large numbers) multiplying decimals ordering and rounding decimals	Accuracy and Measures Density and pressure Upper and lower bounds Calculating with bounds Error bounds	Circles, Pythagoras and Prisms Circumference of a circle area of a circle Pythagoras theorem prisms and cylinders cones and spheres	Algebraic and real-life graphs reading graphs plotting graphs distance-time graphs midpoints intercepts and gradients	Angles angles in shapes angles in parallel lines real life graphs interior and exterior angles proportion	Graphs linear graphs rates of change real life graphs line segments quadratic graphs cubic and reciprocal graphs	Perimeter, Area and Volume circumference of a circle area of a circle area and volume composite 2D shapes and cylinders pyramids and cones	Circle Theorems radii and chords tangents forming circle theorems			
	SKILLS	spatial reasoning	place value, magnitude of number (SMSC)	magnitude of number, logical deduction (SMSC)	Spatial reasoning (SMSC)	Spatial reasoning, modelling (SMSC)	place value, magnitude of number (SMSC)	logical deduction, modelling, quantitative reasoning (SMSC)	Spatial recognition, logical deduction, clarity of communication	Quantitative reasoning, spatial reasoning (SMSC)	Analysis of data, spatial reasoning	Spatial recognition, Logical deduction, clarity of communication	place value, magnitude of number, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)
	Decimals	ordering decimals rounding decimals operations with decimals	Probability language calculating probability experimental probability expected outcomes	Decimals and Measures estimates and measures decimal numbers metric units operations with decimals rounding calculating with money	Fractions, Decimals and Percentages solving decimals calculating percentages percentage change repeated percentage change	Ordering and rounding percentages calculations with decimals ratio and proportion with decimals using ratios	Angles measuring and drawing vertically opposite angles angles in triangles constructing triangles drawing nets	Graphical solutions Simultaneous equations Using y=mx+c graphs and sim. Equations solving inequalities	General term non-linear sequences graphing rates of change using y=mx+c straight lines simultaneous equations graphs of quadratics non-linear graphs	Comparing Shapes Congruent and similar shapes ratios in triangles the tangent ratio the sine ratio the cosine ratio	Polygons and Transformations Quadrilaterals triangles transformations enlargement congruent shapes	Angles Angles in triangles Angles in parallel lines Real life graphs Interior and exterior angles Proportion	Perimeter, Area and Volume Rectangles, parallelograms and triangles Trapezia and changing units Area of compound shapes Surface areas of 3D solids Volume of prisms	Circle Theorems Angles and Sectors Circles and Arcs Circles and Spheres Pyramids and Cones	Circle Theorems Radii and Chords Tangents Forming Circle Theorems		
	SKILLS	place value, magnitude of number (SMSC)	Modelling (SMSC)	place value, magnitude of number (SMSC)	Financial awareness, quantitative reasoning (SMSC)	magnitude of number, quantitative reasoning (SMSC)	Spatial recognition, Logical deduction, clarity of communication	Pattern recognition, Logical deduction, modelling (SMSC)	Pattern recognition, Logical deduction, modelling (SMSC)	Pattern recognition, Logical deduction, modelling (SMSC)	Modelling, logical deduction, clarity of communication (SMSC)	Spatial recognition, Logical deduction, clarity of communication	Spatial recognition, Logical deduction, clarity of communication	Pattern recognition, Logical deduction, modelling (SMSC)	Spatial recognition	logical deduction, clarity of communication	Spatial reasoning, clarity of communication
S p r i ng	Equations	solving equations	Ratio and proportion direct proportion writing ratios using ratios scales and measures proportions and fractions proportions and percentages	Constructions and loci accurate drawing constructing shapes loci	Lines and angles quadrilaterals alternate angles & proof geometrical problems interior and exterior angles	Number Properties calculating with brackets and indices LCM and HCF prime factor decomposition	Trigonometry Sine Ratio Cosine ratio Tangent ratio finding angles using Trigonometry graphs of tri functions	Comparing Shapes Congruent and similar shapes ratios in triangles the tangent ratio the sine ratio the cosine ratio	Polygons and Transformations Quadrilaterals triangles transformations enlargement congruent shapes	Angles Angles in triangles Angles in parallel lines Real life graphs Interior and exterior angles Proportion	Perimeter, Area and Volume Rectangles, parallelograms and triangles Trapezia and changing units Area of compound shapes Surface areas of 3D solids Volume of prisms	Circle Theorems Angles and Sectors Circles and Arcs Circles and Spheres Pyramids and Cones	Circle Theorems Radii and Chords Tangents Forming Circle Theorems				
	SKILLS	Logical deduction, Modelling	Magnitude of number, quantitative reasoning (SMSC)	Spatial recognition, Logical deduction, clarity of communication	Spatial recognition, clarity of communication	Spatial recognition, Logical deduction, clarity of communication	Magnitude of number, logical deduction (SMSC)	Spatial recognition, Logical deduction, clarity of communication	Spatial recognition, Logical deduction, clarity of communication	Spatial recognition	Pattern recognition, Logical deduction, Spatial reasoning	Spatial recognition	logical deduction, clarity of communication	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)
	Multiplicative reasoning	metric and imperial units writing ratios sharing by a ratio proportion proportional reasoning unitary method	Lines and Angles lines, angles and triangles estimating and drawing angles constructing triangles calculating angles angles in a triangle quadrilaterals	Measuring and Shapes shapes symmetry in shapes regular polygons perimeter area	Probability comparing probabilities mutually exclusive events estimating probabilities experimental probability probability diagrams tree diagrams	Calculating with Fractions adding and subtracting multiplying fractions decimals fractions and reciprocals dividing fractions calculations with mixed numbers	Sequences generating sequences extending sequences special sequences position to term rules finding the nth term	Number Calculations, checking and rounding Indices, roots, reciprocals and hierarchy of operations Factors, multiples, primes, standard form and surds	Foundations Integers and place value Decimals Indices, powers and roots Factors, multiples and primes	Transformations transformations reflections relations enlargement combining transformations	Equations and Inequalities solving quadratic equations completing the square solving sim. Equations linear and quadratic sm. Equations solving linear inequalities	Probability combined events mutually exclusive events experimental probability frequency trees independent events/tree diagrams conditional probability	Circle Theorems Radii and Chords Tangents Forming Circle Theorems	Circle Theorems Radii and Chords Tangents Forming Circle Theorems			
	SKILLS	Quantitative reasoning (SMSC)	Spatial recognition, Logical deduction, clarity of communication (SMSC)	Spatial recognition (SMSC)	Modelling, logical deduction, clarity of communication (SMSC)	place value, magnitude of number (SMSC)	Pattern recognition, Logical deduction, modelling (SMSC)	Magnitude of number, Logical deduction, Quantitative reasoning	Magnitude of number, Logical deduction, Quantitative reasoning	Pattern recognition, Logical deduction, modelling (SMSC)	Pattern recognition, Logical deduction, modelling (SMSC)	Pattern recognition, Logical deduction, modelling (SMSC)	Pattern recognition, Logical deduction, modelling (SMSC)	Pattern recognition, Logical deduction, modelling (SMSC)	Pattern recognition, Logical deduction, modelling (SMSC)	Pattern recognition, Logical deduction, modelling (SMSC)	Pattern recognition, Logical deduction, modelling (SMSC)
S p r i ng	Sequences and Graphs	general term arithmetic and line segments graphs	Transformations congruence an enlargement symmetry rotation reflection rotation congruency translation combined transformations	Transformations reflection translation rotation congruency	Graphs plotting line graphs the gradient y=mx+c parallel and perpendicular lines inverse functions non-linear graphs	Percentages, Decimals and Fractions Fractions and decimals equivalent percentages calculating percentages percentages of amounts financial problems	Algebra simplifying with algebra rearranging formulae probability calculations experimental probability comparing probabilities	Algebra simplifying expressions writing expressions substitution into formulae	Foundations Integers and place value Decimals Indices, powers and roots Factors, multiples and primes	Transformations transformations reflections relations enlargement combining transformations	Equations and Inequalities solving quadratic equations completing the square solving sim. Equations linear and quadratic sm. Equations solving linear inequalities	Probability combined events mutually exclusive events experimental probability frequency trees independent events/tree diagrams conditional probability	Circle Theorems Radii and Chords Tangents Forming Circle Theorems	Circle Theorems Radii and Chords Tangents Forming Circle Theorems			
	SKILLS	Pattern recognition, Logical deduction, Spatial reasoning	Spatial reasoning (SMSC)	Spatial reasoning (SMSC)	Pattern recognition, Logical deduction, Spatial reasoning	Place value, Magnitude of number, Personal financial understanding (SMSC)	Modelling, logical deduction, clarity of communication (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Spatial recognition, Logical deduction	Quantitative reasoning, modelling (SMSC)	Probability	Similarity and Congruence Calculating probability experimental probability Venn diagrams tree diagrams	Similarity and Congruence geometric proof similarity	Similarity in 3D solids	Spatial reasoning, Logical deduction, clarity of communication
	SKILLS	Pattern recognition, Logical deduction, Spatial reasoning	Spatial reasoning (SMSC)	Spatial reasoning (SMSC)	Pattern recognition, Logical deduction, Spatial reasoning	Place value, Magnitude of number, Personal financial understanding (SMSC)	Modelling, logical deduction, clarity of communication (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Spatial recognition, Logical deduction	Quantitative reasoning, modelling (SMSC)	Probability	Similarity and Congruence Calculating probability experimental probability Venn diagrams tree diagrams	Similarity and Congruence geometric proof similarity	Similarity in 3D solids	Spatial reasoning, Logical deduction, clarity of communication
	SKILLS	Pattern recognition, Logical deduction, Spatial reasoning	Spatial reasoning (SMSC)	Spatial reasoning (SMSC)	Pattern recognition, Logical deduction, Spatial reasoning	Place value, Magnitude of number, Personal financial understanding (SMSC)	Modelling, logical deduction, clarity of communication (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Distilling information, logical deduction, modelling (SMSC)	Spatial recognition, Logical deduction	Quantitative reasoning, modelling (SMSC)	Probability	Similarity and Congruence Calculating probability experimental probability Venn diagrams tree diagrams	Similarity and Congruence geometric proof similarity	Similarity in 3D solids	Spatial reasoning, Logical deduction, clarity of communication