			Autumn 2							
ar 7	Transition	Integers, Roo	ots and Powers	Lines and Angles	Expressions, Formulae and Identities	Sequences		Place Value and Integers		
	To consolidate prior KS2 learning of: initial algebra and number concepts, simple shape calculations, proportional reasoning. Baseline Test	iolidate prior KS2 learning al algebra and number s, simple shape ions, proportional ng. Baseline Test		Angles at a point; angles on a straight line; vertically opposite angles; alternate, corresponding and co-interior angles; derive and use the sum of angles in a triangle.	Algebraic notation and operations; simplify expressions; substitute into and use a formula.	Generate seque using term to t to term rules.	ences; describe erm or position	Multiply & divide with powers of 10; order decimals; negative numbers.		
		Spr	ing 1		Spring 2					
	Analysing Data F		Frac	tions and Decimals	<b>Transformations</b> Reflection, rotations, translations and enlargements; symmetry in shapes.		Equations and Functions			
	Averages (mean, mode, median) (range); tables, charts and diagra ungrouped and grouped numerica	rages (mean, mode, median) and spread The four operation decimals and the rouped and grouped numerical data.		ons with fractions; terminating ir corresponding fractions.			Algebraic methods to solve linear equations; understanding and using functions.			
		Sum	mer 1		Summer 2					
	Shapes and Constructions	hapes and Constructions Perimeter, Area and Volume		Linear Graphs	Probability		Percentages and Ratio			
	Visualise 2D and 3D shapes; properties of shapes; simple constructions.	ise 2D and 3D shapes; rties of shapes; simple ructions. Perimeter and area of rectangles, triangles, parallelograms and trapeziums; volume and surface area of a cuboid; metric and imperial units.		Co-ordinates; drawing and understanding straight line graphs.	The 0-1 probability scale; calculat probabilities; probabilities of all p outcomes sum to 1; simple exper probability	te simple ossible rimental	Express one quantity as a percentage of anothe compare two quantities using percentages; convert between fractions, decimals and percentages; simple percentage change; understand ratio notation and simple direct proportion.			
	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 m to formatively assess progress Common class tests will be issued to test curriculum knowledge.						nt material, questions for mastery			

			Autumn 2							
r Seque	ences and functions	nctionsCalculationsnon-linear ple nth agrams;BiDMAS in more complex calculations; further arithmetic with negative numbers; efficient use of a calculator.		Shape	Fractions, Decimals and Percentages	Sampling and I	Discrete Data	Expressions, formulae		
Generatir sequence term rule inverse fu	ng linear and non-linear es; finding simple nth es; mapping diagrams; unctions. Baseline Test			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.		
		Sp	ring 1		Spring 2					
Plac	Place value, ordering and rounding   Rounding and estimation; standard form   notation and simple calculations.		L	inear Equations	Lines and Angles	Graphs		Continuous and Bivariate Data		
Rounding notation a			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 e space and relative fre	ually exclusive events; sample ce and Venn diagrams; tive 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 calculations with ratios; comparir	e proportion; ng ratios.	Scale drawing; constructions;	further ruler and compass simple loci.			
Pre unit	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.

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		Aut		Autumn 2							
ear 9	Graphs 1	Pythag Trigo	joras and nometry	Fra	actions/Decimals/ Percentages	Equations	Indices Transform		nations	Simultaneous Equations	
	Further linear graphs, intersections, mid points. Baseline Test	Further use of theorem. Use of find angles and	urther use of Pythagoras' heorem. Use of trigonometry to ind angles and sides.		r calculations with ns and decimals, ng decimals, reciprocals, calculator and compound tage change	Complex linear equations. Solving inequalities. Regions on a graph.	Powers and roots, laws of indices, using prime factor decomposition, simple surds and standard	roots, Combinations es, using transformatic congruence a similarity, an tandard length area		Solve pairs of equations with two unknowns.	
		perc			uge change.		form.	volume.			
		Spi	ring 1		Spring 2						
	Data Handling and Analysis		Probability	robability Brackets a		nd Quadratics	Graphs 2		Angles, Construction and Loci		
	Calculating averages, range, IQR, statistical diagrams and comparing data sets. events, independ events and use c diagrams.			y work Expand and factorise exp equations by factorisation f tree		essions. Solving quadratic and simple use of qua and reciprocal graphs trigonometric function		xt. Plotting dratic, cubic Graphs of the s.		le properties, circle constructions and	
		Sum	nmer 1		Summer 2						
	Estimation and Place Value	Sequences and Functions			Formulae	Proportion	Mensura	Mensuration		Further Quadratics	
	Further ratio problems, direct and inverse proportion, upper and lower bounds, and estimation.	r ratio problems, direct verse proportion, upper wer bounds, and tion. Finding the nth term. Fractional sequences, Fibonacci-type sequences, simple quadratic sequences.		Further change of subject and substitution. Function notation.		Further ratio problems, direc 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 to formatively assess progress Common class tests will be issued to test curriculum knowledge.								questions for mastery			