

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Reasoning with Algebra						Constructing in 2 and 3 Dimensions					
	Straight line graphs		Forming and solving equations		Testing conjectures		Three-dimensional shapes			Constructions and congruency		
Spring	Reasoning with Number						Reasoning with Geometry					
	Numbers		Using percentages		Maths and money		Deduction		Rotation and translation		Pythagoras' Theorem	
Summer	Reasoning with Proportion						Representations and Revision					
	Enlargement and similarity		Solving ratio & proportion problems		Rates		Probability		Algebraic representation	Revision		

Autumn Half Term 1 – Reasoning with Algebra		
Block 1 – Weeks 1 and 2	Block 2 – Weeks 3 and 4	Block 3– Weeks 5 and 6
Straight line graphs <ul style="list-style-type: none"> Interpret straight line graphs Find and use the equation of a straight line Reduce equations to the form $y = mx + c$ Compare to linear sequences and finding the rule for the n^{th} term 	Forming and solving equations and inequalities <ul style="list-style-type: none"> Revisit and extend to equations and inequalities with unknowns on both side using all previous contexts: angles, probability, area etc. Change the subject of a formula 	Testing conjectures <ul style="list-style-type: none"> Test conjectures in a wide range of context e.g. <ul style="list-style-type: none"> Sums and products of odd and even numbers Is a given number in a sequence? Is this shape...? Are these lines parallel? What would happen if...?
Notes/Links/Interleaving <ul style="list-style-type: none"> Link equations of graphs to solving equations Revisit key topics through equations Review use of brackets Review geometric properties and rules 		Additional Higher Content <ul style="list-style-type: none"> Solve a pair of simultaneous equations using graphical methods Change the subject of a complex formula Explore the gradients of perpendicular lines

Autumn Half Term 2 – Constructing in 2 and 3 Dimensions	
Block 4 – Weeks 7 to 9	Block 5 – Weeks 10 to 12
Three dimensional shapes <ul style="list-style-type: none"> Understand the language of faces, edges and vertices Know the names of common prisms and non-prisms Identify 2-D shapes within 3-D shapes Work out the volume and surface area of cuboids and cylinders Work out the volume of any prism Work out missing lengths given area and/or volume 	Constructions and congruency <ul style="list-style-type: none"> Construct 3-D shapes from nets, and construct the net of a given 3-D shape Construct and use scale drawings Construct perpendiculars and bisectors Understand congruency Exploring congruency via construction
Notes/Links/Interleaving <ul style="list-style-type: none"> Revisit estimation Revisit rounding to nearest integer, decimal places, significant figures Revisit unit conversions, including area and volume units 	Additional Higher Content <ul style="list-style-type: none"> Explore volume of cones, spheres and complex shapes Work out the surface area of any prism Explore the locus of a path

Spring Half Term 1 – Reasoning with number		
Block 1 – Weeks 1 and 2	Block 2 – Weeks 3 and 4	Block 3– Weeks 5 and 6
Numbers <ul style="list-style-type: none"> Revisit types of number – extend to include rational and real numbers Revisit fraction arithmetic Extend knowledge of HCF and LCM Revisit standard form 	Using percentages <ul style="list-style-type: none"> Revisit percentage increase and decrease Use percentages over 100% Find percentage changes Use multipliers in a variety of contexts Solve “reverse percentage” problems 	Mathematics and money <ul style="list-style-type: none"> Explore financial mathematics including: <ul style="list-style-type: none"> Bills and bank statements Interest Unit pricing (best buys)
Notes/Links/Interleaving <ul style="list-style-type: none"> Add and subtract fractions (lowest common denominator) Working out fractions of amounts FDP equivalence Ratio 		Additional Higher Content <ul style="list-style-type: none"> Work with repeated percentage change

Spring Half Term 2 – Reasoning with geometry		
Block 4 – Weeks 7 and 8	Block 5 – Weeks 9 and 10	Block 6– Weeks 11 and 12
Deduction <ul style="list-style-type: none"> Revisit angles rules, including within special quadrilaterals Find angles using algebraic methods Use chains of reasoning to evaluate angles 	Rotation and translation <ul style="list-style-type: none"> Identify the order of rotational symmetry of a shape Find the result of rotating a shapes Translate points and shapes by a given vector Understand variance and invariance in the context of transformations 	Pythagoras’ theorem <ul style="list-style-type: none"> Identify the hypotenuse of a right-angled triangle Determine whether a triangle is right-angled Calculate missing sides in right-angled triangles
Notes/Links/Interleaving <ul style="list-style-type: none"> Revisit fractions and directed number in the context of rotation Compare and contrast rotational symmetry with line symmetry Identify 2-D and 3-D shapes Link constructions and geometric reasoning 		Additional Higher Content <ul style="list-style-type: none"> Develop more complex geometrical proofs Find the result of a series of transformations Explore proofs of Pythagoras’ theorem Use Pythagoras’ theorem in 3-D shapes

Summer Half Term 1 – Reasoning with proportion		
Block 1 – Weeks 1 and 2	Block 2 – Weeks 3 and 4	Block 3– Weeks 5 and 6
Enlargement and similarity <ul style="list-style-type: none"> Enlarge shapes by a positive scale factor, including from a given point Calculate the lengths of missing sides in similar shapes 	Solving ratio and proportion problems <ul style="list-style-type: none"> Direct proportion problems and graphs Conversion graphs Solve ratio problems given the whole or a part Simple inverse proportion Unit pricing problems ('best buys') 	Rates <ul style="list-style-type: none"> Work with speed, distance, time Solve problems involving density Work with compound units
Notes/Links/Interleaving <ul style="list-style-type: none"> Links to ratio notation Revisit circumference Revisit $y = mx$ Revisit unit pricing 		Additional Higher Content <ul style="list-style-type: none"> Enlarge shapes by a negative scale factor Similar triangles – exploring ratios in right-angled triangles Inverse proportion graphs Converting compound measures

Summer Half Term 2 – Representations		
Block 4 – Weeks 1 and 2	Block 5 – Weeks 3	Block 6– Weeks 4 to 6
Probability <ul style="list-style-type: none"> Relative frequency Expected number of outcomes Independent events 	Algebraic representation <ul style="list-style-type: none"> Drawing and reading from quadratics Interpreting other graphs e.g. reciprocal, piece-wise Representing inequalities 	Revision <ul style="list-style-type: none"> Teachers to chose topics bases on assessment throughout the Key Stage
Notes/Links/Interleaving <ul style="list-style-type: none"> Revisit frequency trees, tables and Venn diagrams Inequalities 		Additional Higher Content <ul style="list-style-type: none"> Tree diagrams Graphical solution of simultaneous equations