	Stage 8	
	Topics	
Half Term 1	Number System 1	Recall prime numbers up to 50
		Know the meaning of 'highest common factor' and 'lowest common multiple'
		Write as a product of primesPrime factor Decomposition
		Write large / small number in standard form.
		Round to any significant figures. Use significant figres for estimation
	Algerba 1	Know how to write products algebraically e.g.3 x a x a x b = 3a²b
		Factorise an expression by taking out common factors (single bracket)
		Substitute positive and negative numbers into formulae
		Change the subject of a formula when a two steps are required
	Calculating S8	Add / subt / mult / divide all integers, including positive and negative integers.
		Round numbers to a given degree
		Use the order of operations, including brackets, powers and roots
		Substitute negative numbers into expressions
		efficient use of your calculator from above
	Pythagoras 1	Apply Pythagroas' rule, 2D only
		Solve basic Problems in volving Pythagoras
Half Term 2	Geometry 1 S8	Identify alternate, corresponding angles
		Use the fact that angles in a triangle total 180° to work out the total of the angles in any polygon
		Establish the size of an interior and exterior angle in a regular polygon
	Sequences 1 S8	Generate a sequence from a term-to-term rule
		Understand the meaning of a position-to-term rule
		Use a position-to-term rule to generate a sequence
		Find the position-to-term rule for a given sequence
		Use algebra to describe the position-to-term rule of a linear sequence (the nth term)
		Use the nth term of a sequence to deduce if a given number is in a sequence
	Ratio and proportion S8	simplify ratios; share in a given ration
		Find fractions / percentages from a ratio.
		Use Unitary method for direct proportion and use to solve basic problems
	Constructions 1 S8	Perpendicular bisector of a line; Bisect an angle
		Construct SSS triangle
		Construct SAS and ASA triangles using rule and protractor
		Simple Loci problems
	FDP 1 S8	Write a fraction in its lowest terms by cancelling common factors
		Identify when a fraction can be scaled to tenths or hundredths
		Convert a fraction to a decimal by scaling (when possible)
		Use a calculator to change any fraction to a decimal
		convert between fraction, decimal and percentage
Half term 3	FDP 2 S8	Identify the multiplier for a percentage increase or decrease when the percentage is greater than 100%
		use the mulitpier to calculate percentage change
		Solve problems involving percentage change
	Probability S8	Record systematically outcomes of 2 mutually exc events; including lists, possibility space diagrams
		P(is not) = 1 - P(is).
		Compare theoretical and experimental probabilities
		Analyse possibilities using tables and "Frequency Trees" (Different from Tree diags)
	Area and Volume 1 S8	Calculate area of: Trapeziums, Parallelograms, Triangles, surface area of cuboids,
		area and circumference of circles (including semi circles and quadrants), area of composite shapes.
		Volume of cuboids and prisms.
		Ext: Volume and surface area of cylinders
	Statistics 1 S8	Interpret a grouped frequency table for continuous data
		Construct a grouped frequency table for continuous data
		Interpret histograms for grouped data with equal class intervals

Half Term 4		Plot a scatter diagram of bivariate data; Interpret a scatter diagram using understanding of correlation; Draw and Interpret a Line of best Fit Draw and Interpret Pie Charts Draw and Interpret 2 way tables
	Measures s8	Calculate speed from distance and time. Appreciate units of; - Speed - Distance - Time
	Coordinates and Graphs 1 S8 Term 4	Plot points in all 4 quadrants Plot equations of the form; y = mx + c, ax+by=c Find the gradient and y intercept of a line given m and c; Find the equation of the line give the graph Find the midpoint of any 2 points on a coordinate axis. (Midpoint rule) Find the Distance between any 2 points in the coordinate plane Sketch a simple quadratic graph
Half Term 5	Algebra 2 S8 Term 5	Differentiate between: Formula, Equation, Expression, Identity Solve Linear Equations with; - x on both sides - brackets - solutions which are negatives and/or fractions Use Trial and Improvement to solve simple Quadratics Be able to check solutions by substitution Rearrange simple formulae where the unknown subject appears once.
	FDP3 S8 Term 5	Order Fractions And decimals by converting into a similar form. Understand the equivalence of simple Algebraic Fractions Distinguish between Fractions that have only Prime Factors of 2 and 5 in the denominator (Terminating Decimals)and other Fractions (Recurring Decimals). Solve Problems that require exact calculation with Fractions
Half Term 6	Transformations S8 Term 6	All 2D transformations on a Cartesian grid; translation (with Vector notation), reflection (in a known vertical or horizontal line), rotation about a given centre, enlargement from a centre (given as coordinates) Know that the image of an enlargement of a shape is Similar to the object. Know that the object and image of a relection, rotation or translation are Congruent Understand plans and elevations
	Shape S 8	Know the vocabulary of 3D shapes Know the connection between faces, edges and vertices in 3D shapes Visualise a 3D shape from its net; Draw a net of 3D shapes Be able to find the surface area aof a 3D shape from it's net. Recall the names and shapes of special triangles and quadrilaterals Know the properties of the special quadrilaterals Apply the properties of triangles to solve problems Apply the properties of quadrilaterals to solve problems Construct plans and elevations of 3D shapes.
	Statistics 2 S 8	Find the modal class of set of grouped data Find the class containing the median of a set of data Calculate an estimate of the mean from a grouped frequency table Estimate the range from a grouped frequency table Analyse and compare sets of data Appreciate the limitations of different statistics (mean, median, mode, range) Choose appropriate statistics to describe a set of data