Year 8	Big Questions	Small Questions
Autumn 1	Number	• Order positive, negative and decimal numbers • Add and subtract negative numbers • Multiply and divide negative numbers
		• Find factors and multiples • Identify if numbers are factors • Find HCF and LCM • Prime factor decomposition (extension)
		• Prime numbers • Square and square roots • Cube and cube roots • Larger powers and roots (extension)
	MINI TEST	
	Measures, Perimeter and Area	• Choosing the most appropriate unit of metric measurement • Convert between metric units of measure • Calculate the perimeter and area of rectangles
		• Perimeter of compound shapes (including missing measurements) • Area of compound shapes involving rectangles • Calculate the area of a triangle using the formula
		• Compound area involving rectangles and triangles • Area of a parallelogram • Area of a trapezium • Problem solving questions based around compound area
	MINI TEST	
	Expressions and Formulae	• Simplify expressions by collecting like terms • Simplify expressions with two or more variables by adding and subtracting • Simplify expressions by multiplying and dividing • Expand a single bracket • Expand and simplify two single brackets
		• Calculate with indices • Laws of indices (multiplication and division) • Substitute positive and negative values into expressions • Substitute into formula • Write and use formula

	HALF TERM ASSESSMENT	
Year 8	**Big Questions**	**Small Questions**
Autumn 2	Fractions, Decimals and Percentages	• Order decimals • Convert between fractions and decimals • Simplify fractions and find equivalent fractions • Add and subtract fractions with a common denominator • Add and subtract fractions with different denominators
		• Convert between mixed and improper fractions • Add and subtract mixed numbers (extension) • Find a fraction of a quantity • Multiply and divide fractions • Multiply and divide mixed numbers (extension)
		• Find a percentage of an amount (mentally and using a calculator) • Find a percentage increase or decrease (extension) • Convert between fractions, decimals and percentages • Express one amount as a percentage of another
	MINI TEST	
	Angles and 2D Shapes	• Calculate missing angles on a straight line and round a point • Calculate vertically opposite angles • Calculate missing angles in triangle (include isosceles) • Exterior angles in triangles
		• Find angles in parallel lines (alternate, corresponding and allied) • Find missing angles giving geometrical reasoning • Properties of quadrilaterals and polygons • Interior and exterior angles in polygons (extension) • Congruent shapes
	MINI TEST	
	Graphs	• Revision of coordinates in all four quadrants • Draw graphs of the form y = mx + c • Draw graphs which are not in the form y = mx + c • Plot and name lines of the form y = a and x = a (include y = x and y = -x) • Investigate the effect of m and c when plotting graphs of the form y = mx + c

		• Calculate the gradient of a line (extension) • Find the equation of a line(extension) • Graphs of real life situations • Draw and read conversion graphs • Construct graphs from formulae • Time series graphs
	HALF TERM ASSESSMENT	

Year 8	Big Questions	Small Questions
Spring 1	Accuracy	• Round to decimal places • Round to significant figures • Estimation • BIDMAS
	Decimals	• Mental and written methods for addition and subtraction (include decimals) • Mental and written methods for multiplication and division (include decimals) • Addition and subtraction problem solving (worded problems) • Multiplication and division problem solving (worded problems)
	MINI TEST	
	Statistics	• Collecting data • Frequency tables, including grouped frequency tables • Reading and drawing bar charts • Reading a drawing pie charts
		• Calculate the mean, mode, median and range for discrete data • Mean from a frequency table • Mean from a grouped frequency table • Use averages to compare data (extension)
	MINI TEST	
	Statistics (cont)	• Draw and read scatter diagrams • Draw and read stem and leaf diagrams • Use diagrams the compare data (extension)
	HALF TERM ASSESSMENT	

Year 8	Big Questions	Small Questions
Spring 2	Transformations	• Revision of reflections, rotations and translations • Describing transformations • Combining reflections, rotations and translations
		• Identify lines of symmetry • Enlarge shapes by a positive whole scale factor • Enlarge shapes from a centre of enlargement • Enlarge shapes by fractional scale factors (extension)
	MINI TEST	
	Equations	• Solve one stage linear equations • Solve two stage linear equations • Solve linear equations with unknowns on both sides
		• Solve linear equations involving brackets • Solve linear equations with fractional answers • Solve linear equations with negative x terms (extension) • Use rea life equations
	MINI TEST	
	Circles	• Circumference • Area • Area and perimeter of halves and quarters • Area and perimeter of sectors (extension)
	HALF TERM ASSESSMENT	

Year 8	Big Questions	Small Questions
1mer Sum	Construction	• Construct triangles SAS, ASA, SSS and RHS • Construct a perpendicular bisector • Bisect and angle
		• Scale drawings • Loci • Bearings
	MINI TEST	
	Sequences	• Continue sequences from the term to term rule • Find the term to term rule for a sequence • Find the position to term rule
		• Continue sequences from the nth term • Find the nth term of linear sequences • Geometric sequences
	MINI TEST	
	Pythagoras	• Find missing sides using Pythagoras • Basic Trigonometry (extension)
	HALF TERM ASSESSMENT	

Year 8	Big Questions	Small Questions
Summer 2	3D Shapes	• Faces, edges and vertices • Nets • Plans and elevations
		• Surface area and volume of cuboids • Surface area and volume of prisms (including cylinders)
	MINI TEST	
	Ratio and Proportion	• Understand how to write ratio and proportion • Simplify ratio, including different units • Write ratio in the form 1:n and n:1
		• Divide an amount in a given ratio • Direct proportion • Percentage revision • Percentage increase and decrease
	MINI TEST	
	Probability	• Listing outcomes (sample space diagrams) • Probability of an event happening • Experimental probability
		• Theoretical probability • Reading and calculating probabilities from Venn diagrams • Drawing and using simple tree diagrams
	END OF YEAR ASSESSMENT	