Year 10	Big Questions	Small Questions Foundation	Small Questions Higher
Autumn 1	Number & Accuracy	• Place value • Add and subtract negative numbers • Multiply and divide negative numbers	• Calculating with negative numbers ($+,-,\times,\div$) • Multiply and divide by powers of ten (0.1, 0.01, 0.001) • Calculate with decimals (add, subtract, multiply and divide)
		• Order of operations, BIDMAS • Add and subtract decimals • Multiply and divide decimals	• Order of operations, BIDMAS • Round to decimal places • Round to significant figures
		• Round to decimal places • Round to significant figures • Use rounding to estimate calculations • Use estimations to solve problems • Effective use of a calculator	• Use rounding to estimate calculations • Solve problems by using rounding • Effective use of a calculator • Solve problems giving answers to an appropriate degree of accuracy
		MINI TEST	
	Measures & Bounds	• Convert between metric units • Upper and lower bounds • Calculating with upper and lower bounds	• Convert between metric units (length, capacity, area and volume) • Upper and lower bounds • Calculating with upper and lower bounds • Solve problems involving bounds
	Expressions	• Simplify expressions by adding and subtracting • Simplify expressions by multiplying and dividing • Substitute positive and negative values into expressions	• Simplify expressions by adding and subtracting • Simplify expressions by multiplying and dividing • Simplify algebraic fractions
		• Expand single brackets • Expand and simplify two sets of single brackets • Expand simple double brackets	• Substitute positive and negative values into expressions and formulae • Expand single brackets • Expand and simplify two sets of single brackets • Expand double brackets • Factorise single brackets
		MINI TEST	
	Equations &	• Solve linear equations with unknowns on one side • Solve linear equations with unknowns on both sides (extension: negative coefficients of x)	• Solve linear equations: unknowns on one and both sides • Solve linear equations involving brackets

Inequalities		• Solve linear equation which involves brackets • Form and solve equations (eg perimeter of a shape, angles in a shape, area of a shape)	• Solve linear equations involving fractions • Solve simple algebraic fractions • Form and solve equations (eg perimeter of a shape, angles in a shape, area of a shape)
		• Factorise into single brackets • Factorise double brackets • Use factorising to solve quadratic equations • Forming quadratic expressions and solving	• Factorise simple quadratics and find solutions • Factorise quadratics of the form ax^2+bx+c and find solutions • Complete the square for quadratics of the form x^2+bx+c and find solutions
	HALF TERM ASSESSMENT		

Year 10	Big Questions	Small Questions Foundation	Small Questions Higher
Autumn 2	Equations & Inequalities	• Solve simultaneous equations with the same coefficients • Solve simultaneous equations with different coefficients • Solve simultaneous equations graphically (prior knowledge of drawing graphs required) • Worded simultaneous equations	• Complete the square for quadratics of the form ax^2+bx+c and find solutions • Use the quadratic formula to find solutions • Forming and solving quadratics
		• Use inequality signs • State integers which satisfy an inequality • Draw and read inequalities on a number line • Solve simple inequalities	• Solve simultaneous equations with the same coefficients • Solve simultaneous equations with different coefficients • Worded simultaneous equations • Quadratic simultaneous equations • State integers which satisfy an inequality • Draw and read inequalities on a number line • Solve inequalities (including quadratic inequalities) • Draw and read graphical inequalities including quadratics
		MINI TEST	
	Area & Perimeter	• Perimeter of regular shapes, including missing sides • Area of regular shapes – rectangle, triangle, parallelogram, trapezium • Area of compound shapes	• Area and perimeter of regular shapes – rectangle, triangle, parallelogram, trapezium • Area and perimeter of compound shapes • Problem solving with compound shapes
	Circles	• Know and use circle definitions: radius, diameter, chord, tangent, etc • Circumference of a circle and parts of a circle: half , quarter etc • Area of a circle and parts of a circle • Compound area involving circles	• Area and circumference of circles • Area and circumference of parts of circles: half, quarter etc • Compound area and perimeter involving circles • Area of a sector • Length of arc and perimeter of a sector

		• Area of a sector • Perimeter of a sector	• Apply and prove circle theorems • Solve problems and given full geometric reasons for missing angles in circles
		MINI TEST	
	Constructions	• Revision of drawing and measuring angles • Construct triangles • Perpendicular bisector • Angle bisector • Solve loci problems • Bearings	• Construct triangles • Perpendicular bisector • Angle bisector • Solve loci problems
		HALF TERM ASSESSMENT	
Year 10	**Big Questions**	**Small Questions Foundation**	**Small Questions Higher**
Spring 1	Fractions, Decimals & Percentages	• Equivalent fractions • Convert between fractions, decimals and percentages • Convert between mixed and improper fractions • Calculate with fractions	• Equivalent fractions • Convert between fractions, decimals and percentages • Convert between mixed and improper fractions • Calculate with fractions
		• Calculate the percentage of an amount • Percentage increase and decrease • Reverse percentages • Compound interest	• Calculate the percentage of an amount • Percentage increase and decrease • Reverse percentages • Percentage change • Compound interest
		MINI TEST	
	Ratio & Proportion	• Express one quantity as a fraction of another • Proportion • Simplifying ratio • Writing ratio in the form 1:n and n:1 • Split an amount in a given ratio • Solve problems involving ratio and proportion	• Express one quantity as a fraction or percentage of another • Proportion • Simplifying ratio • Writing ratio in the form 1:n and n:1 • Split an amount in a given ratio • Solve problems involving ratio and proportion
	Factors & Primes	• Factors and multiples • HCF and LCM • Prime numbers • Prime factor decomposition	• Factors and multiples • HCF and LCM • Prime factor decomposition
		MINI TEST	

	Powers & Roots	• Squares, cubes and roots • Indices • Laws of indices	• Laws of Indices inc Negative and fractional indices • Surds • Simplify surds • Rationalise surds • Calculate with surds
	HALF TERM ASSESSMENT		

Year 10	Big Questions	Small Questions Foundation	Small Questions Higher
Spring 2	Graphs	• Drawing linear graphs • Calculating the gradient of a line • Equation of a line	• Drawing linear graphs • Calculating the gradient of a line • Equation of a line, from coordinates and form the graph • Perpendicular and parallel lines
		• Drawing quadratic graphs • DST graphs, reading and drawing	• Drawing quadratic graphs • Features of quadratic graphs • Solving equations using quadratic graphs • DST graphs
	MINI TEST		
	Angles	• Angles on straight lines and round a point • Angles in triangles • Angles in parallel lines	• Angles on straight lines and round a point • Angles in triangles • Angles in parallel lines
		• Angles in polygons • Solve problems using geometric reasoning • Form and solve equations using angle facts	• Angles in polygons • Solve problems using geometric reasoning • Form and solve equations using angle facts
	MINI TEST		
	Working in 3D	• Properties of 3D shapes • Volume and surface area of a cuboid • Volume and surface area of a triangular prism	• Properties of 3D shapes • Volume and surface area of a cuboid • Volume and surface area of prisms including a cylinder

		Recap of area and circumference of a circle	Volume and surface area of a cone
		• Recap of area and circumference of a circle • Volume and surface area of a cylinder • Problem solving with 3D shapes	• Volume and surface area of a cone • Volume and surface area of a sphere • Volume of a frustum • Volume and surface area of compound shapes
		HALF TERM ASSESSMENT	

Year 10	Big Questions	Small Questions Foundation	Small Questions Higher
Summer 1	Pythagoras	• Calculate the hypotenuse using Pythagoras • Calculate any side using Pythagoras • Worded problem solving questions	• Calculate missing sides using Pythagoras • 3D Pythagoras • Calculate missing sides and angles in right angled triangles using trigonometry • Multi stage problems involving Pythagoras and trig
	Handling Data	• Draw and read bar charts: discrete and continuous data • Draw and read pictograms • Recap mean, median, mode and range of discrete data	• Draw and interpret frequency polygons • Recap mean, median, mode and range of discrete data • Mean from a frequency table • Mean from a grouped frequency table
	MINI TEST		
	Handling Data	• Mean from a frequency table • Mean from a grouped frequency table • Use averages to compare data	• Calculate the median from a frequency table • Combined mean • Mean problems • Drawing and interpreting scatter diagrams
		• Draw scatter graphs • Interpret scatter graphs • Drawing and interpreting frequency polygons	• Drawing and interpreting cumulative frequency charts • Drawing and interpreting box and whisker plots • Drawing and interpreting histograms
	HALF TERM ASSESSMENT		

Year 10	Big Questions	Small Questions Foundation	Small Questions Higher
Summer 2	Transformations	• Identify lines of symmetry • Identify rotational symmetry • Reflect shapes in horizontal, vertical and diagonal lines • Fully describe reflections • Rotate shapes around a centre of rotation • Describe rotations	• Reflect shapes in horizontal, vertical and diagonal lines • Fully describe reflections • Rotate shapes around a centre of rotation • Describe rotations • Translate a shape • Describe translations
		• Translate a shape • Describe translations • Enlarge shapes: positive and fractional scale factors • Enlarge shapes from a centre of enlargement • Describe fully enlargements • Combine transformations	• Enlarge shapes from a centre of enlargement: positive, fractional and negative scale factors • Describe fully enlargements • Combine transformations
	MINI TEST		
	Calculations	• Calculate with powers and roots • Laws of indices • Exact calculations	• Calculate with powers and roots • Problem solving with powers and roots • Exact calculations

		- Understand and use standard form - Multiply and divide standard form - Add and subtract standard form - Calculate standard form on a calculator	- Understand and use standard form - Multiply and divide standard form - Add and subtract standard form - Calculate standard form on a calculator
		MINI TEST	
	Revision/Catch Up	Chance to catch up or revise any topics missed or rushed.	