

Year 8	Big Questions	Small Questions
Autumn 1	Number	<ul style="list-style-type: none"> <li>• Retrieval practice to revise Year 7 small questions spend time revisiting directed number work</li> <li>• Round numbers to powers of 10, 1 and 2 significant figures and decimal places</li> <li>• Estimate the answer to a calculation</li> <li>• Understand error interval notation</li> <li>• Calculate using the order of operations</li> <li>• Calculate with money</li> <li>• Recognise triangular numbers</li> <li>• Work with squares and square roots</li> <li>• Work with cubes and cube roots</li> <li>• Revision of factors and multiples</li> <li>• Calculating HCF and LCM</li> <li>• Use prime factor decompositions to find HCF and LCM</li> </ul>
	Directed Number	<ul style="list-style-type: none"> <li>• Add and subtract direct numbers</li> <li>• Multiply and divide directed numbers</li> <li>• Use a calculator for directed number calculations</li> <li>•</li> </ul>
	<b>MINI TEST</b>	
	FDP	<ul style="list-style-type: none"> <li>• Retrieval practice to revise Year 7 small questions</li> <li>• Convert fluently between fractions, decimals and percentage</li> <li>• Calculate key fractions, decimals and percentages without a calculator</li> <li>• Calculate fractions, decimals and percentages with a calculator</li> <li>• Calculate percentage increases and decreases</li> <li>• <b>Calculate percentage increases and decreases using multipliers</b></li> <li>• Express one number as a fraction or percentage of another without a calculator</li> <li>• Express one number as a fraction or percentage of another with a calculator</li> </ul>
	<b>MINI TEST</b>	
	Revision One Week	Preparation for half term assessment
<b>HALF TERM ASSESSMENT</b>		

Year 8	Big Questions	Small Questions	
Autumn 2	Algebra	<ul style="list-style-type: none"> <li>• Retrieval practice to revise Year 7 small questions</li> <li>• Revise simplifying expressions</li> <li>• Form algebraic expressions</li> <li>• Multiply out a single bracket</li> <li>• Multiply out and simplify two single brackets (both addition and subtraction)</li> <li>• Factorise into a single bracket</li> <li>• Substitute positive and negative values into expressions and formulae</li> <li>• Solve one and two stage equations</li> <li>• Solve equations including brackets</li> <li>• Form and solve equations with brackets</li> <li>• Solve equations with unknowns on both sides</li> <li>• Draw and read inequalities on a number line</li> <li>• Understand and solve simple inequalities</li> <li>• Form and solve inequalities</li> </ul>	
	<b>MINI TEST</b>		
	Area and Perimeter	<ul style="list-style-type: none"> <li>• Retrieval practice to revise Year 7 small questions</li> <li>• Convert between metric units for area</li> <li>• Calculate the area of triangles and use area to find missing lengths</li> <li>• Calculate the area and perimeter of compound shapes involving rectangles and triangles</li> <li>• Calculate the area of a trapezium</li> <li>• Find missing lengths from area problems</li> <li>• Calculate the circumference and area of a circle</li> <li>• Calculate the area and perimeter of parts of circles (half, quarter, three quarters)</li> </ul>	
	<b>MINI TEST</b>		
	Graphs	<ul style="list-style-type: none"> <li>• Retrieval practice to revise Year 7 small questions</li> <li>• Coordinates in four quadrants</li> <li>• Identify and draw lines that are parallel to the axes</li> <li>• Draw linear graphs</li> <li>• Find the midpoint of a line</li> <li>• Calculate the gradient of a linear graph</li> <li>• Understand the effect of m and c</li> <li>• Calculate the equation of a line from the graph</li> <li>• Investigate parallel lines</li> <li>• Simple quadratic graphs</li> <li>• Distance-time graphs</li> </ul>	
Revision One Week	<ul style="list-style-type: none"> <li>• Preparation for half term assessment</li> </ul>		
<b>HALF TERM ASSESSMENT</b>			

Year 8	Big Questions	Small Questions	
<b>Spring 1</b>	Calculations (Mental and Written)	•	
	<b>MINI TEST</b>		
	Fractions	• Retrieval practice to revise Year 7 small questions	
		• Add and subtract fractions with different denominators	
		• Add and subtract mixed numbers	
		• Represent multiplication of fractions	
• Multiply a fraction by an integer			
• Multiply fractions			
• Divide an integer by a fraction			
• Divide fractions			
• Understand and use the reciprocal			
Revision One Week	• Preparation for half term assessment		
	<b>MINI TEST</b>		
<b>HALF TERM ASSESSMENT</b>			

Year 8	Big Questions	Small Questions
<b>Spring 2</b>	<b>Geometric Reasoning</b>	<ul style="list-style-type: none"> <li>• Construct triangles using SSS, SAS and ASA</li> <li>• Understand and use labelling conventions</li> <li>• Calculate missing angles using basic angle facts from year 7</li> <li>• Calculate angles in triangles</li> <li>• Calculate the exterior angle in a triangle</li> <li>• Calculate the angle sum of regular polygons</li> <li>• Calculate interior and exterior angles in regular polygons</li> <li>• Calculate angles in parallel lines</li> </ul>
	<b>MINI TEST</b>	
	<b>Probability</b>	<ul style="list-style-type: none"> <li>• Retrieval practice to revise Year 7 small questions</li> <li>• Calculate the probability of an event happening or not happening</li> <li>• Construct and use sample space diagrams</li> <li>• Construct and use two way tables for probability</li> <li>• Construct and use Venn diagrams for probability</li> <li>• Use the product rule</li> <li>• Find number of arrangements</li> <li>• Construct and read frequency trees</li> </ul>
	<b>MINI TEST</b>	
	<b>Revision One Week</b>	<ul style="list-style-type: none"> <li>• Preparation for half term assessment</li> </ul>
<b>HALF TERM ASSESSMENT</b>		

Year 8	Big Questions	Small Questions
<b>Summer 1</b>	Volume and surface area	<ul style="list-style-type: none"> <li>• Retrieval practice to revise Year 7 small questions</li> <li>• Volume of prisms (including cylinders)</li> <li>• Surface area of triangular prisms</li> <li>• Surface area of a cylinder</li> </ul>
	<b>MINI TEST</b>	
	Statistics	<ul style="list-style-type: none"> <li>• Calculate mean, mode, median and range from a set data</li> <li>• Draw and interpret charts covered in year 7</li> <li>• Interpret pie charts</li> <li>• Calculate angles and draw pie charts (accurately)</li> <li>• Use two-way tables.</li> <li>• Calculate the mean from a frequency table. (not grouped)</li> <li>• Find the modal group of a grouped frequency table</li> <li>• Draw and interpret stem and leaf diagrams with different stem values.</li> <li>• Find mode, median and range from stem and leaf diagrams.</li> <li>• Compare two sets of data using more than one average and range</li> <li>• Compare two sets of data using the shape of a line graph or pie charts.</li> <li>• Draw line graphs to compare two sets of data.</li> <li>• Choose the most appropriate average to use.</li> <li>• Draw scatter graphs.</li> <li>• Describe types of correlation</li> <li>•</li> </ul>
	<b>MINI TEST</b>	
	Transformations	<ul style="list-style-type: none"> <li>• Revisit reflections in horizontal, vertical and diagonal mirror lines</li> <li>• Revisit rotations</li> <li>• Revisit translations</li> <li>• Revisit enlargements</li> <li>• Recognise and carry out reflections in diagonal mirror lines</li> <li>• Rotate a shape about a point on the shape</li> <li>• Rotate a shape about a point not on a shape</li> <li>• Describe rotations</li> <li>• Compare rotations and reflections of shapes</li> <li>• Translate shapes using vectors</li> <li>• Describe translations using vectors</li> <li>• Enlarge shapes using a fractional scale factor (not using a centre of enlargement)</li> <li>• Enlarge shapes using whole number scale factor from a centre of enlargement</li> </ul>
Revision One Week	<ul style="list-style-type: none"> <li>• Preparation for half term assessment</li> </ul>	
<b>HALF TERM ASSESSMENT</b>		

Year 8	Big Questions	Small Questions
<b>Summer 2</b>	Ratio and Proportion	<ul style="list-style-type: none"> <li>• Retrieval practice to revise Year 7 small questions</li> <li>• Understand the meaning and representation of ratio</li> <li>• Understand and use ratio notation</li> <li>• Express ratios in the form 1:n or n:1</li> <li>• Divide a value into a given ratio</li> <li>• Express ratios in their simplest integer form</li> <li>• Compare ratios and related fractions</li> </ul>
	<b>MINI TEST</b>	
	Sequences	<ul style="list-style-type: none"> <li>• Retrieval practice to revise Year 7 small questions</li> <li>• Generate sequences given a rule in words</li> <li>• Generate sequences given a simple algebraic rule (Linear)</li> <li>• Generate sequences given a complex algebraic rule (Quadratic)</li> <li>• Find the rule for the nth term of a linear sequence</li> </ul>
	<b>END OF YEAR ASSESSMENT</b>	
	Pythagoras	<ul style="list-style-type: none"> <li>•</li> </ul>