

21/22: Year 7/8 Respite Curriculum and Assessment Map

Year	7 and 8 Respite		Subject			
Intent	<p>Year 7 Mathematics encourages the development of knowledge and understanding in Maths. The curriculum is designed to allow students the opportunity to:</p> <ul style="list-style-type: none"> - Develop mathematical knowledge and conceptual understanding through the disciplines of Number, Algebra, Ratio and Proportion, Statistics and Geometry - Develop an understanding of the nature, processes, and methods of Mathematics, through mathematical enquiries that help them to answer mathematical, computing, and scientific questions about the world around them - Develop and learn to apply logical thinking, enquiry, and problem-solving skills in any field and in other learning environments - Develop their ability to evaluate claims through critical analysis and about the world around them 					
	September - December		January - March		April - July	
Implement	<p>Numbers</p> <p>1.1 Calculations N3 N6 Use priority of operations with positive and negative numbers. Simplify calculations by cancelling. Use inverse operations.</p> <p>1.2 Decimal numbers N2 N13 N15 Round to a given number of decimal place. Multiply and divide decimal numbers.</p> <p>1.3 Place value N14 N15 Write decimal numbers of millions. Round to a given number of significant figures.</p>	<p>2.1-3 Algebraic expressions Use correct algebraic notation. Write and simplify expressions. Use the index laws. Multiply and divide expressions. Substitute numbers into expressions.</p> <p>2.4 Formulae Recognise the difference between a formula and an expression. Substitute numbers into a simple formula.</p> <p>2.5 Expanding brackets Expand brackets. Simplify expressions with brackets.</p>	<p>3.1 Frequency tables Designing tables and data collection sheets. Reading data from tables.</p> <p>3.2 Two-way tables Use data from tables. Design and use two-way tables.</p> <p>3.3 Representing data Draw and interpret comparative and composite bar charts. Interpret and compare data shown in bar charts, line graphs and histograms.</p> <p>3.4 Time series Plot and interpret time</p>	<p>4.1 Working with fractions Compare fractions. Add and subtract fractions. Use fractions to solve problems.</p> <p>4.2 Operations with fractions Find a fraction of a quantity or measurement. Use fractions to solve problems.</p> <p>4.3 Multiplying fractions Multiply whole numbers, fractions and mixed numbers. Simplify calculations by cancelling.</p>	<p>5.1 Solving equations 1 Understand and use inverse equations. Rearrange simple linear equations. Solve simple linear equations.</p> <p>5.2 Solving equations 2 Solve two-step equations.</p> <p>5.3 Solving equations with brackets Solve linear equations with brackets. Solve equations with unknowns on both sides.</p> <p>5.4 Introducing inequalities Use correct notation to show inclusive and exclusive</p>	<p>7.1 Mean and range Calculate the mean from a list and from a frequency table. Compare sets of data using the mean and range. Find the mode, median and range from a stem and leaf diagram. Identify outliers. Estimate the range from a grouped frequency table.</p> <p>7.2 Mode, median and range</p> <p>7.3 Types of average Recognise the advantages and disadvantages of each type of average. Find the modal class.</p>

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<p>Estimate answers to calculations. Use one calculation to find the answer to another.</p> <p>1.4 Factors and multiples N4 N5 Recognise 2-digit prime numbers. Find factors and multiples of numbers. Find common factors and common multiples of two numbers. Find the HCF and LCM of two numbers by listing.</p> <p>1.5 Squares, cubes and roots N4 N5 Find square roots and cube roots. Recognise powers of 2, 3, 4 and 5. Understand surd notation on a calculator.</p> <p>1.6 Index notation 1.7 N7 Find square roots and cube roots. Recognise powers of 2, 3, 4 and 5. Understand surd notation on a calculator.</p> <p>1.8 Prime factors N4 Write a number as the product of its prime</p>	<p>Substitute numbers into expressions with brackets and powers.</p> <p>2.6 Factorising Recognise factors of algebraic terms. Factorise algebraic expressions. Use the identity symbol \equiv and the not equals symbol \neq</p> <p>2.7 Using expressions and formulae Write expressions and simple formulae to solve problems.</p>	<p>series graphs. Use trends to predict what might happen in the future.</p> <p>3.5 Stem and leaf diagrams Construct and interpret stem and leaf and back-to-back stem and leaf diagrams.</p> <p>3.6 Pie charts Draw and interpret pie charts.</p> <p>3.7 Scatter graphs Plot and interpret scatter graphs. Determine whether or not there is a relationship between sets of data.</p> <p>3.8 Line of best fit Draw a line of best fit on a scatter graph. Use the line of best fit to predict values.</p>	<p>4.4 Dividing fractions Divide a whole number by a fraction. Divide a fraction by a whole number or a fraction.</p> <p>4.5 Fractions and decimals Convert fractions to decimals and vice versa. Use decimals to find quantities. Write one number as a fraction of another.</p> <p>4.6 Fractions and percentages Convert percentages to fractions and vice versa. Write one number as a percentage of another.</p> <p>4.7 Calculating percentages 1 Convert percentages to decimals and vice versa. Find a percentage of a quantity. Use percentages to solve problems. Calculate simple interest.</p> <p>4.8 Calculating percentages 2 Calculate percentage increases and decreases.</p>	<p>inequalities. Solve simple linear inequalities. Write down whole numbers which satisfy an inequality. Represent inequalities on a number line.</p> <p>5.5 More inequalities Solve two-sided inequalities.</p> <p>5.6 More formulae Substitute values into formulae and solve equations. Change the subject of a formula. Know the difference between an expression, an equation, a formula and an identity. 5.7 Generating sequences Recognise and extend sequences. 5.8 Using the nth term of a sequence Use the nth term to generate terms of a sequence. Find the nth term of an arithmetic sequence.</p>	<p>Find the median from a frequency table. 7.4 Estimating the mean Estimate the mean of grouped data.</p> <p>7.5 Sampling Understand the need for sampling. Understand how to avoid bias.</p> <p>8.1 Rectangles, parallelograms and triangles Calculate the perimeter and area of rectangles, parallelograms and triangles. Estimate lengths, areas and costs. Calculate a missing length, given the area. 8.2 Trapezia and changing units Calculate the area and perimeter of trapezia. Find the height of a trapezium given its area. Convert between area measures. 8.3 Area of compound shapes Calculate the perimeter and area of shapes made from triangles and rectangles. Calculate areas in hectares, and convert between ha and m². 8.4 Surface area of 3D solids Calculate the surface area of a cuboid.</p>
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<p>factors. Use prime factor decomposition and Venn diagrams to find the HCF and LCM.</p>			<p>Use percentages in real-life situations.</p> <p>Calculate VAT (value added tax)</p>	<p>6.1 Properties of shapes Solve geometric problems using side and angle properties of quadrilaterals.</p> <p>Identify congruent shapes.</p> <p>6.2 Angles in parallel lines Understand and use the angle properties of parallel lines.</p> <p>Find missing angles using corresponding and alternate angles.</p> <p>6.3 Angles in triangles Solve angle problems in triangles.</p> <p>Understand angle proofs about triangles.</p> <p>6.4 Exterior and interior angles Calculate the interior and exterior angles of regular polygons.</p> <p>6.5 More exterior and interior angles Calculate the interior and exterior angles of polygons.</p> <p>Explain why some polygons fit together and some others do not</p>	<p>Calculate the surface area of a prism.</p> <p>8.5 Volume of prisms Calculate the volume of a cuboid.</p> <p>Calculate the volume of a prism.</p> <p>8.6 More volume and surface area Solve problems involving surface area and volume.</p> <p>Convert between measures of volume.</p>
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				6.6 Geometrical patterns Solve angle problems using equations.
Impact	AP1 <i>End Aut 2 Diagnostic Assessment</i>	AP2 <i>End Spring 1 Diagnostic Assessment</i>	AP3 <i>End Summer 1 Diagnostic Assessment</i>	