

Subject Yearly Overview 2022-2023

Subject: Maths Yr 7	TOPIC	COMPONENT		<i>Notes: Why are you delivering this topic at this time of year?</i>
Autumn 1	Place value Addition and subtraction	<u>Year 3</u> <ul style="list-style-type: none"> • negative numbers • Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000. • Count up and back in powers of 10 	<u>Year 5</u> <ul style="list-style-type: none"> ❖ Add and subtract numbers with at least 5 digits using mental and written methods; ❖ Round numbers to the nearest 10, 100, 1000, 10 000; ❖ use inverse operations to check answers to addition and subtraction calculations; ❖ Mentally round numbers to check answers to calculations and determine, in the context of a problem, levels of accuracy; ❖ Choose a sensible way of calculating when solving a problem; ❖ Solve one-step and two-step word problems; 	<p>We start with this topic as pupils need to familiarise themselves with numbers/ the number system/ the value of digits.</p> <p>The pupils begin to use this knowledge to add/subtract. They build on what they have learned last half term to use the value of digits to add and subtract. They then embed this by solving problems using these 2 operations.</p>

			<ul style="list-style-type: none"> ❖ Independently choose appropriate methods for mental calculation; ❖ Practise mental calculation with increasingly large numbers 	
Autumn 2	<p>Addition and subtraction Multiplication and division</p>	<p><u>Year 3</u> Recognise multiples of four Recall multiplication and division facts for the 3x, 4x and 8x tables. Multiply multiples of 10 using known facts up to 12x Pounds and pence Ordering money 9 times table and division facts Multiply and divide by 7 7 times table and division facts</p>	<p><u>Year 5</u></p> <ul style="list-style-type: none"> ❖ Multiply numbers up to 4 digits by a one or two-digit number using a formal written method, ❖ Divide numbers up to 4 digits by a one-digit number using the formal written method. ❖ Recognise and use square numbers ❖ Recognise and use cube numbers 	<p>This half term the pupils will look at the next 2 operations – multiplying and dividing. They will use previous knowledge to use formal written methods.</p>

<p>Spring 1</p>	<p>Fractions</p>	<p><u>Year 3</u> Halves and quarters Perimeter on a grid Formula to perimeter. Measure the distances. Area on a grid Area of a rectangle Area of rectilinear shapes</p>	<p><u>Year 5</u></p> <ul style="list-style-type: none"> ❖ What is a fraction? ❖ Equivalent fractions (1 ❖ Equivalent fractions greater than 1 ❖ Improper fractions to mixed number. ❖ Mixed numbers to improper fractions ❖ Number sequences Compare and order fractions less than 1. ❖ Compare and order fractions greater than 1. ❖ Add and subtract fractions ❖ Decimals up to 2 d.p. ❖ Decimals as fractions (1) ❖ Decimals as fractions (2) ❖ Understand thousandths ❖ Thousandths as decimals ❖ Rounding decimals 	<p>This is a nice unit to do some outside learning- measuring perimeters/area. Easter approaches and therefore we can look at fractions with regards to eggs, ingredients for Easter baking</p>
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<p>Spring 2</p>	<p>Time Percentages, decimals and algebra Perimeter and area</p>	<p><u>Year 3</u></p> <p>Simplify and manipulate algebraic expressions:</p> <p>Collecting like terms</p> <p>Simplifying expressions involving sums, products and powers, including the laws of indices</p>	<p><u>Year 5</u></p> <ul style="list-style-type: none"> ❖ Order and compare decimals ❖ Understand percentages Percentages as fractions and decimals Equivalent F.D.P ❖ Perimeter of composite rectilinear shapes by adding the length of the sides. ❖ Draw different composite rectilinear shapes to a given perimeter. ❖ use reasoning to answer questions about the perimeter of rectilinear shapes. 	<p>As the seasons change we also look at time and how the clock can be split in two quarters, which then leads nicely on from fractions. fractions we can then look at decimals.</p>
<p>Summer 1</p>	<p>Decimals Property of shape Position and direction Property of shapes Stats</p>	<p><u>Year 3</u></p> <p>2D shapes Identify properties of 2D shapes Find Perimeter Find surface area with formulae (rectangle & right angled triangles) Find the surface area of compound/composite shapes 3-D shapes Identify properties of 3D shapes (faces, edges, vertices)</p>	<p><u>Year 5</u></p> <ul style="list-style-type: none"> ❖ Identify angles Compare and order angles ❖ Measure angles in degrees Measuring with a protractor (1) ❖ Measuring with a protractor (2) 	<p>I find that pupils find this topic easier to grasp and there are many physical resources e.g 3D shapes that pupils can see, hold and relate to learning. This is also the first time that I have taught this cohort and the topic allows me to build relationship and access learning styles etc.</p>

		Find volume of a cuboid and other <i>simple</i> prisms (use formulae)	<ul style="list-style-type: none"> ❖ Drawing lines and angles accurately ❖ Calculating angles on a straight line ❖ Calculating angles around a point ❖ Triangles ❖ Quadrilaterals ❖ Calculating lengths and angles in shapes Regular and irregular polygons Reasoning ❖ about 3-D shape. 	
Summer 2	Position and direction Converting units Measure and volume Position and direction	Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. Identify angles at a point and one whole turn. Identify angles at a point on a straight line and 1/2 a turn. Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. Identify, describe and represent the position of a shape following a reflection or translation.	<u>Year 5</u> <ul style="list-style-type: none"> ❖ Describe position ❖ Draw on a grid Position in the first quadrant ❖ Translation Translation with coordinates ❖ Lines of symmetry ❖ Complete a symmetric figure ❖ Reflection 	This is a nice unit to do some outside learning- measuring perimeters/area. Finding lines of symmetry.

			❖ Reflection with coordinates	
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