



Maths Coverage

Year 6 2021-2022

AUTUMN Term



	Term 1								Term 2						
	Week 1 (2 days)	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7 (4 days)
NC Focus	Number: Place value		Number: Four Operations						Number: Fractions					Geometry: Position and Direction & assessments	
NC Objectives	<ul style="list-style-type: none"> Read, write, order and compare numbers up to 10.000.000 and determine the value of each digit. Round any whole number to a required degree of accuracy. Use negative numbers in context, and calculate intervals across zero. Solve number and practical problems that involve the above. 		<ul style="list-style-type: none"> Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. Multiply multi-digit number up to 4-digits by a 2-digit number using the formal written method of long multiplication. Divide numbers up to 4-digits by a 2-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding as appropriate for the context. Divide numbers up to 4-digits by a 2-digit number using the formal written method of short division, interpreting remainders according to context. Perform mental calculations, including with mixed operations and large numbers. Identify common factors, common multiples and prime numbers. Use their knowledge of the order of operations to carry out calculations involving the four operations. Solve problems involving addition, subtraction, multiplication and division. Use estimation to check answers to calculations and determine in the context of a problem, an appropriate degree of accuracy. 						<ul style="list-style-type: none"> Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. Compare and order fractions, including fractions > 1. Generate and describe linear number sequences (with fractions). Add and subtract fractions with different denominations and mixed numbers, using the concept of equivalent fractions. Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$] Divide proper fractions by whole numbers. Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction. Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. 					<ul style="list-style-type: none"> Describe positions on the full coordinate grid (all four quadrants). Draw and translate simple shapes on the coordinate plane, and reflect them in the axes. 	
Ready To Progress Criteria	<ul style="list-style-type: none"> 6NPV-2 Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and nonstandard partitioning. 6NPV-3 Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts. 		<ul style="list-style-type: none"> 6NPV-1 Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000). 6NPV-4 Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts. 6AS/MD-1 Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number). 6AS/MD-2 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding. 						<ul style="list-style-type: none"> 6F-1 Recognise when fractions can be simplified, and use common factors to simplify fractions. 6F-2 Express fractions in a common denominator and use this to compare fractions that are similar in value. 6F-3 Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denominator as a comparison strategy. 					<ul style="list-style-type: none"> 	

<p>White Rose Small Steps</p>	<ul style="list-style-type: none"> • Compare and order any number. • Numbers to ten million. • Round any number. • Negative Numbers 	<ul style="list-style-type: none"> • Add and subtract whole numbers. • Multiply up to a 4-digit number by 1-digit numbers. • Short division • Long division • Common factors • Common multiples • Primes • Squares and cubes • Order of operations • Mental calculations and estimation Reasoning from known facts. 	<ul style="list-style-type: none"> • Simplify fractions • Fractions on a number line • Compare and order (denominator) • Compare and order (numerator) • Add and subtract fractions • Adding fractions • Subtraction fractions • Mixed addition and subtraction • Multiply fractions by integers • Multiply fractions by fractions • Divide fractions by integers • Four rules with fractions • Fraction of an amount • Finding the whole 	<ul style="list-style-type: none"> • Coordinates in the first quadrant. • Coordinate in four quadrants. • Translations • Reflections.
<p>Yr 5 Revisit (potential gaps in learning from previous year)</p>	<ul style="list-style-type: none"> • Round to the nearest 1000. • Recalling roman numerals • Adding 10,100,1000 across boundary for numbers with multiple columns e.g. 22,234 + 1000. • Some students with Negative numbers 	<ul style="list-style-type: none"> • Multiplication terms: Multiple, factor, square • 2X4 digit multiplication with place holder – this was regularly revisited with specific intervention. Some children may fall back into old habits. • When to have decimal and Remainder answers for division • SEND timestables for division. 	<ul style="list-style-type: none"> • Adding and subtracting mixed numbers (SEN/LA/MA) struggled to retain this • Multiplying fractions with integers • Fraction of an amount – Constantly recovered with intervention LA still found this difficult to retain, couldn't see links to times tables. • Adding 3 or more fractions • Adding fractions with different denominators was shown to GD 	<ul style="list-style-type: none"> • Co-ordinates in negative quadrants
<p>Consolidation Required (based on End of Block Assessments)</p>	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> •



Maths Coverage

Year 6 2021-2022

SPRING Term

	Term 3						Term 4											
	Week 1 (3 days)	Week 2	Week 3	Week 4	Week 5	Week 6	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6						
NC Focus	Number: Decimals and Percentages			Algebra			Measurement: Converting Units	Measurement: Perimeter, Area and Volume.			Number: Ratio		Statistics					
NC Objectives	<ul style="list-style-type: none"> Identify the value of each digit in numbers given to 3 decimal places and multiply numbers by 10, 100 and 1000, giving answers up to 3 decimal places. Multiply one-digit numbers with up to 2 decimal places by whole numbers. Use written division methods in cases where the answer has up to 2 decimal places. Solve problems which require answers to be rounded to specified degrees of accuracy. 			<ul style="list-style-type: none"> Use simple formulae Generate and describe linear number sequences. Express missing number problems algebraically Find pairs of numbers that satisfy an equation with two unknowns. Enumerate possibilities of combinations of two variables. 			<ul style="list-style-type: none"> Solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison. Recall and use equivalences between simple fractions, decimals and percentages including in different contexts. 			<ul style="list-style-type: none"> Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3dp. Convert between 			<ul style="list-style-type: none"> Recognise that shapes with the same areas can have different perimeters and vice versa. Recognise when it is possible to use formulae for area and volume of shapes. Calculate the area of parallelograms and triangles. Calculate, estimate and compare volume of cubes and cuboids using standard units, including cm³, m³ and extending to other units (mm³, km³) 			<ul style="list-style-type: none"> Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. Solve problems involving similar shapes where the scale factor is known or can be found. Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. 		<ul style="list-style-type: none"> Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. Interpret and construct pie charts and line graphs and use these to solve problems. Calculate the mean as an average

			miles and kilometres			
Ready to Progress Criteria	<ul style="list-style-type: none"> 6NPV-1 Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000) 6NPV-2 Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and nonstandard partitioning. 6NPV-3 Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts. 	<ul style="list-style-type: none"> 6AS/MD-4 Solve problems with 2 unknowns. 		<ul style="list-style-type: none"> 6NPV-1 Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000) 6NPV-4 Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts. 	<ul style="list-style-type: none"> 6AS/MD-3 Solve problems involving ratio relationships 	<ul style="list-style-type: none"> 6G-1 Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems
White Rose Small Steps	<ul style="list-style-type: none"> Three decimal places Multiply by 10, 100 and 1000 Divide by 10, 100 and 1000 Multiply decimals by integers Divide decimals by integers Division to solve problems Decimals as fractions Fractions to decimals Fractions to percentages Equivalent FDP Percentage of an amount Percentages – missing values Percentage increase and decrease Order FDP 	<ul style="list-style-type: none"> Find a rule – one step Find a rule – two steps Use an algebraic rule Substitution Formulae Word problems Solve simple one step equations Solve two step equations Find pairs of values Enumerate possibilities. 	<ul style="list-style-type: none"> Metric measures Convert metric measures Calculate with metric measures Miles and kilometres Imperial measures 	<ul style="list-style-type: none"> Shapes – same area Area and perimeter Area of a triangle (1) Area of a triangle (2) Area of a triangle (3) Area of a parallelogram Volume – counting cubes Volume of a cuboid. 	<ul style="list-style-type: none"> Using ratio language Ratio and fractions Introducing the ratio symbol Calculating ratio Using scale factors Calculating scale factors Ratio and proportion problems. 	<ul style="list-style-type: none"> Read and interpret line graphs. Draw line graphs Use line graphs to solve problems Circles. Read and interpret pie charts. Pie charts with percentages. Draw pie charts. The mean.
Yr 5 Revisit (potential gaps in learning from previous year)	<ul style="list-style-type: none"> Partitioning decimal values e.g. 1.36 as 1+0.3 + 0.06. This was covered a lot but bad habits may return. Converting fractions into percentage and decimals 		<ul style="list-style-type: none"> Value of each unit MM – CM – M – KILO Some children 	<ul style="list-style-type: none"> Remembering which is which: Area and perimeter Area of compound shapes This was recovered through arithmetic and after 2 week isolation 		<ul style="list-style-type: none"> Reading from tables can prove difficult for some students.

	<p>Thousands as decimals may need recovering. LA/MA would fall into patterns e.g. $0.65 = 65/100$ $0.55 = 55/100$</p> <ul style="list-style-type: none"> • $0.456 = 456/100$ • Decimal sequences – seeking the pattern 		<p>forget what to multiply or divide by to seek the value (links to place value)</p> <ul style="list-style-type: none"> • Imperial units • Recovered through starters- but SEND/LA struggle with adding minutes over a bracket e.g. $1:50 + 45$ minutes. 	<p>in year 5 but may need refreshers</p> <ul style="list-style-type: none"> • Volume of a cube • Many children would need to revisit this unit 		
<p>Consolidation Required (based on End of Block Assessments)</p>	•	•	•	•	•	•

