



Explore, Dream, Discover Maths - End Points

Year	Terms		
	Autumn	Spring	Summer
Nursery	<p>By the end of the Autumn Term Nursery children should be able to:</p> <p>Counting</p> <ul style="list-style-type: none"> ● Uses some number names and number language within play, number rhymes and stories. <p>Cardinality</p> <ul style="list-style-type: none"> ● Beginning to notice significant numerals (number symbols). 	<p>By the end of the Spring Term Nursery children should be able to:</p> <p>Cardinality</p> <ul style="list-style-type: none"> ● Subitises one, two and three objects (without counting). <p>Composition</p> <ul style="list-style-type: none"> ● Through play and exploration, beginning to learn that numbers are made up (composed) of smaller numbers. 	<p>By the end of the Summer Term Nursery children should be able to:</p> <p>Comparison</p> <ul style="list-style-type: none"> ● Compares two small groups of up to five objects, saying when there are the same number of objects in each group, e.g. You've got two, I've got two. Same! <p>Counting</p> <ul style="list-style-type: none"> ● Recites numbers in order to 10. ● Points or touches (tags) each item, saying one number for each item, using the stable order of 1,2,3,4,5. <p>Cardinality</p> <ul style="list-style-type: none"> ● Begins to subitise four objects (without counting) ● Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same. ● Begin to recognise numerals 0 to 10.

			<p>Composition</p> <ul style="list-style-type: none"> ● Explores using a range of their own marks and signs to which they ascribe mathematical meaning. ● Counts up to five items, recognising that the last number said represents the total counted so far (cardinal principle). ● Beginning to use understanding of number to solve practical problems in play and meaningful activities.
Reception	<p>By the end of the Autumn Term Reception children should be able to:</p> <ul style="list-style-type: none"> ● Matches the numeral with a group of items to show how many there are (up to 5). ● In practical activities, adds one and subtracts one with numbers to 10. <p>Cardinality</p> <ul style="list-style-type: none"> ● Engages in subitising numbers to four and maybe five. <p>Composition</p> <ul style="list-style-type: none"> ● Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects. ● Beginning to recognise that each counting number is one more than the one before. 	<p>By the end of the Spring Term Reception children should be able to:</p> <p>Comparisons</p> <ul style="list-style-type: none"> ● Increasingly confident at putting numerals in order 0 to 10 (ordinality). ● Matches the numeral with a group of items to show how many there are (up to 10). ● Estimates of numbers of things, showing understanding of relative size. <p>Cardinality</p> <ul style="list-style-type: none"> ● Counts out up to 10 objects from a larger group <p>Composition</p> <ul style="list-style-type: none"> ● Begins to conceptually subitise larger numbers by subitising smaller groups within the number, e.g. sees six raisins on a plate as three and three 	<p>By the end of the Summer Term Reception children should be able to:</p> <p>Comparison</p> <ul style="list-style-type: none"> ● Uses number names and symbols when comparing numbers, showing interest in large numbers ● Begins to explore and work out mathematical problems including sharing, using signs and strategies of their own choice, including (when appropriate) standard numerals, tallies and “+” or “-“ ● Recall some doubling facts. ● Recall number bonds to 5 including subtraction facts. ● Recall some number bonds to 10. ● Begin to recognise odds and evens.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Place Value – Within 10, given a number, identify one more or one less.	Place Value – Within 20, identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least.	Place Value – Within 50, identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least.	Measurement: L and H - Compare, describe and solve practical problems for: lengths and heights (for example, long/short, longer/shorter, tall/short, double/half).	Multiplication and Division - Recall multiplication and division facts for 2 and 10 and use them to solve simple problems, demonstrating and understanding of the commutativity as necessary.	Place Value – Within 100, Partition two digit numbers into different combinations of tens and ones, explaining their thinking verbally, in pictures or using apparatus.
	Addition and Subtraction – Add and subtract one digit numbers to 10, including zero.	Shape - Recognise and name common 2 D and 3 D shapes.	Addition and Subtraction – Recall all the number bonds to and within 10. and use these to reason with and calculate bonds to and within 20, recognising other associated additive relationships.	Measurement: Weight and Volume - Compare, describe and solve practical problems for mass/weight:[for example, heavy/light, heavier than, lighter than]; capacity and volume [for example, full/empty, more than, less than, half, half full, quarter].	Fractions- Identify $\frac{1}{4}$ of a number or shape and know that all the parts must be equal parts of the whole.	Measurement: Money - Recognise and know the value of different denominations of coins and notes.
					Position and Direction - Describe position, direction and movement, including whole, half, quarter and three quarter turns.	Measurement: time - Read the time on a clock (to half an hour).

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 2	<p>Place Value - Compare and order numbers from 0 up to 100; use <, > and = signs.</p> <p>Use place value and number facts to solve problems.</p>	<p>Measurement: Money - Use different coins to make the same amount.</p>	<p>Multiplication and Division - Recall multiplication and division facts for 2, 5 and 10 and use them to solve simple problems, demonstrating and understanding of commutativity as necessary.</p>	<p>Fractions - Identify $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$, $\frac{2}{4}$, $\frac{3}{4}$ of a number or shape and know that all the parts must be equal parts of the whole.</p>	<p>Position and Direction - use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).</p>	<p>Measurement: Mass, Capacity and Temperature - Compare and order lengths, mass, volume/capacity and record the results using >, < and =.</p>
	<p>Addition and Subtraction - Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.</p>	<p>Multiplication and Division - Recall multiplication and division facts for 2, 5 and 10.</p>	<p>Statistics - Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.</p>	<p>Measurement: Length and Height - Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass.</p>	<p>Problem Solving – Choose and use efficient methods to solve problems.</p>	<p>Investigations - Choose and use efficient methods to carry out investigations.</p>
			<p>Properties of Shape - Name and describe properties of 2D and 3D shapes, including number of sides, vertices, edges, faces and lines of symmetry.</p>		<p>Measurement: Time - Read the time on a clock to the nearest 15 minutes.</p> <p>Mass, Capacity and Temperature - Compare and order lengths, mass, volume/capacity and record the results using >, < and =.</p>	

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3	Place Value - Recognise the place value of each digit in a three digit number (hundreds, tens, ones). Compare and order numbers up to 1000.	Multiplication and Division - Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.	Multiplication and Division - Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for two digit numbers times one digit numbers, using mental and progressing to formal written methods.	Measurement: Length and Perimeter - Measure the perimeter of simple 2D shapes.	Fractions - Add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7}$ + $\frac{1}{7}$ = $\frac{6}{7}$]	Measurement: Mass and Capacity - Measure, compare, add and subtract: mass (kg/g); volume/capacity (l/ml).
	Addition and Subtraction - Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.		Measurement: Money - Add and subtract amounts of money to give change, using both £ and p in practical contexts.	Fractions - Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one digit numbers or quantities by 10.	Measurement: Time - Estimate and read time with increasing accuracy to the nearest minute.	Properties of Shape - Identify right angles, recognise that two right angles make a half turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle.
			Statistics - Solve one step and two step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.		Properties of Shape - Recognise angles as a property of shape or a description of a turn.	

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 4	Place Value - Round any number to the nearest 10, 100 or 1000.	Measurement: Length and Perimeter - Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.	Multiplication and Division - Recognise and use factor pairs and commutativity in mental calculations. Multiply two digit and three digit numbers by a one digit number using formal written layout.	Fractions - Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.	Decimals - Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$.	Statistics - Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.
	Addition and Subtraction - Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.	Multiplication and Division - Recall and use multiplication and division facts for multiplication tables up to 12×12 .	Measurement: Area - Find the area of rectilinear shapes by counting squares.	Decimals - Recognise and write decimal equivalents of any number of tenths or hundredths.	Measurement: Money - Solve simple measure and money problems involving fractions and decimals to two decimal places.	Properties of Shape - Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.
					Measurement: Time - Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.	Position and Direction - Plot specified points and draw sides to complete a given polygon.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 5	Place Value - Read, write, order and compare numbers to at least 1000000 and determine the value of each digit.	Multiplication and Division - Multiply numbers up to 4 digits by a one or two digit number using a formal written method, including long multiplication for two digit numbers.	Multiplication and Division - Divide numbers up to 4 digits by a one digit number using the formal written method of short division and interpret remainders appropriately for the context.	Decimals and Percentages - Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal.	Decimals - Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.	Measurement: Converting Units - Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.
	Addition and Subtraction - Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).	Measurement: Perimeter and Area - Calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm ²) and square metres (m ²), and estimate the area of irregular shapes.	Fractions - Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.		Properties of Shape - Draw given angles, and measure them in degrees.	Measurement: Volume - Estimate volume [for example using 1cm ³ blocks to build cuboids.
	Statistics - Complete, read and interpret information in tables including timetables.				Position and Direction - Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not	

					changed.	
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 6	Place Value- Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit.	Fractions - Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $1/4 \times 1/2 = 1/8$).	Decimals - Use written division methods in cases where the answer has up to 2 decimal places.	Measuring: Converting Units - 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 3 d.p.	Properties of Shape - Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.	Statistics - Calculate the mean as an average.
	Addition, Subtraction, Multiplication and Division - Use their knowledge of the order of operations to carry out calculations involving the four operations.	Position and Direction - Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.	Percentages - Solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison.	Perimeter, Area and Volume - Recognise when it is possible to use formulae for area and volume of shapes.	Problem Solving - Choose and use efficient methods to solve problems at the appropriate level.	Investigations - Choose and use efficient methods to carry out investigations at the appropriate level.
			Algebra - Express missing number problems algebraically.	Ratio and Proportion - Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.		

To be supported with the use of the National Curriculum and White Rose Maths Small Steps.