

Curriculum Overview



Early Years

	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.

			<ul style="list-style-type: none"> ● 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.
<p>Educational Programme for Mathematics: Developing a strong grounding in number is essential so that all children develop the necessary building blocks to excel mathematically. Children should be able to count confidently, develop a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. By providing frequent and varied opportunities to build and apply this understanding - such as using manipulatives, including small pebbles and tens frames for organising counting - children will develop a secure base of knowledge and vocabulary from which mastery of mathematics is built. In addition, it is important that the curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. It is important that children develop positive attitudes and interests in mathematics, look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes.</p>		<p>Number Early Learning Goal: Have a deep understanding of number to 10, including the composition of each number; Subitise (recognise quantities without counting) up to 5; Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.</p> <p>Numerical Pattern Early Learning Goal: Verbally count beyond 20, recognising the pattern of the counting system; Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity; Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.</p>	

<p>Reception</p>	<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.
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Key Stage 1						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Place Value within 10 Addition and Subtraction Within 10	Place Value Within 20 Shape	Addition and Subtraction Within 20 Place Value Within 50	Place Value Within 50 Multiplication and Division	Measurement Length, Mass, Time and Money Fractions	Place Value to 100 Position and Direction
Year 2	Place Value Addition and Subtraction	Addition and Subtraction Shape	Multiplication and Division Money	Fractions	Measurement Time	Statistics Position and Direction

The focus of mathematics teaching in Key Stage 1 is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. This should involve working with numerals, words and the four operations, including with practical resources [for example, concrete objects and measuring tools]. At this stage, pupils should develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching should also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money. By the end of Year 2, pupils should know the number bonds to 20 and be precise in using and understanding place value. An emphasis on practice at this early stage will aid fluency.

Lower Key Stage 2						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3	Place Value Addition and Subtractions	Multiplications and Division A	Multiplications and Division B Measurement: Length and perimeter	Fractions A Measurement: Mass and Capacity	Fractions B Measurement: Money Time	Shape . Statistics Time
Year 4	Place Value Addition and Subtractions	Multiplication and Division A Measurement: Area	Multiplication and Division B Measurement: Length and Perimeter -	Fractions Decimals A	Decimals B Money Time	Shape Statistics Position and Directions
<p>The principal focus of mathematics teaching in lower key stage 2 is to ensure that pupils become increasingly fluent with whole numbers and the four operations, including number facts and the concept of place value. This should ensure that pupils develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers.</p> <p>At this stage, pupils should develop their ability to solve a range of problems, including with simple fractions and decimal place value. Teaching should also ensure that pupils draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties, and confidently describe the relationships between them. It should ensure that they can use measuring instruments with accuracy and make connections between measure and number.</p> <p>By the end of year 4, pupils should have memorised their multiplication tables up to and including the 12 multiplication table and show precision and fluency in their work.</p> <p>Pupils should read and spell mathematical vocabulary correctly and confidently, using their growing word reading knowledge and their knowledge of spelling.</p>						

Upper Key Stage 2						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 5	Place Value Addition and Subtractions	Multiplication and Division A Fractions A	Multiplication and Division B Fractions Decimals and Percentages	Decimals and Percentages Perimeter and Area Statistics	Shape Position and Direction Decimals	Negative Numbers Converting Units Volume
Year 6	Place Value Addition, Subtractions, Multiplication and Division	Fractions A Fractions B Converting Units	Ratio Algebra Decimals	Fractions, Decimals and Percentages Area, perimeter and Volume Statistics	Shape Position and Direction	Themed Projects, Consolidation and Problem Solving

The principal focus of mathematics teaching in upper key stage 2 is to ensure that pupils extend their understanding of the number system and place value to include larger integers. This should develop the connections that pupils make between multiplication and division with fractions, decimals, percentages and ratio.

At this stage, pupils should develop their ability to solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems demanding efficient written and mental methods of calculation. With this foundation in arithmetic, pupils are introduced to the language of algebra as a means for solving a variety of problems. Teaching in geometry and measures should consolidate and extend knowledge developed in number. Teaching should also ensure that pupils classify shapes with increasingly complex geometric properties and that they learn the vocabulary they need to describe them.

By the end of year 6, pupils should be fluent in written methods for all four operations, including long multiplication and division, and in working with fractions, decimals and percentages.

Pupils should read, spell and pronounce mathematical vocabulary correctly.