

Number progression

Each year group has a manipulatives and resources to aid number understanding. Maths games are sent home with children in Reception and Year 1. Maths homework is set for children in Year 2.

EYFS

DEVELOPMENT MATTERS 3-4 YEAR OLDS WILL BE LEARNING TO...	DEVELOPMENT MATTERS CHILDREN IN RECEPTION WILL BE LEARNING TO...	MATHEMATICS EARLY LEARNING GOAL
<ul style="list-style-type: none"> • Develop fast recognition of up to 3 objects, without having to count them individually ('subitising'). • Recite numbers past 5. • Say one number for each item in order: 1,2,3,4,5. • Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle'). • Show 'finger numbers' up to 5. • Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. • Experiment with their own symbols and marks as well as numerals. • Solve real world mathematical problems with numbers up to 5. • Compare quantities using language: 'more than', 'fewer than'. • Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'. • Understand position through words alone – for example, "The bag is under the table," – with no pointing. 	<ul style="list-style-type: none"> • Count objects, actions and sounds. • Subitise. • Link the number symbol (numeral) with its cardinal number value. • Count beyond ten. • Compare numbers. • Understand the 'one more than/one less than' relationship between consecutive numbers. • Explore the composition of numbers to 10. • Automatically recall number bonds for numbers 0–5 and some to 10. • Select, rotate and manipulate shapes in order to develop spatial reasoning skills. • Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. • Continue, copy and create repeating patterns. • Compare length, weight and capacity. 	<p>Number</p> <ul style="list-style-type: none"> • 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>Numerical Patterns</p> <ul style="list-style-type: none"> • 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.

- | | | |
|--|--|--|
| <ul style="list-style-type: none">• Describe a familiar route.• Discuss routes and locations, using words like 'in front of' and 'behind'.• Make comparisons between objects relating to size, length, weight and capacity.• Select shapes appropriately: flat surfaces for building, a triangular prism for a roof, etc.• Combine shapes to make new ones – an arch, a bigger triangle, etc.• Talk about and identifies the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs', etc.• Extend and create ABAB patterns – stick, leaf, stick, leaf.• Notice and correct an error in a repeating pattern.• Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...' | | |
|--|--|--|

Year 1

NUMBER – NUMBER AND PLACE VALUE Pupils learn how to...	<ul style="list-style-type: none">• count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number• count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s• given a number, identify 1 more and 1 less• 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• read and write numbers from 1 to 20 in numerals and words
NUMBER – ADDITION AND SUBTRACTION Pupils learn how to...	<ul style="list-style-type: none">• read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs• represent and use number bonds and related subtraction facts within 20• add and subtract one-digit and two-digit numbers to 20, including 0• solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = ? - 9$
NUMBER – MULTIPLICATION AND DIVISION Pupils learn how to...	<ul style="list-style-type: none">• solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher
NUMBER – FRACTIONS Pupils learn how to...	<ul style="list-style-type: none">• recognise, find and name a half as 1 of 2 equal parts of an object, shape or quantity• recognise, find and name a quarter as 1 of 4 equal parts of an object, shape or quantity

Year 2

NUMBER – NUMBER AND PLACE VALUE Pupils learn how to...	<ul style="list-style-type: none">• count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward• recognise the place value of each digit in a two-digit number (10s, 1s)• identify, represent and estimate numbers using different representations, including the number line• compare and order numbers from 0 up to 100; use $<$, $>$ and $=$ signs• read and write numbers to at least 100 in numerals and in words• use place value and number facts to solve problems
NUMBER – ADDITION AND SUBTRACTION Pupils learn how to...	<ul style="list-style-type: none">• solve problems with addition and subtraction:• using concrete objects and pictorial representations, including those involving numbers, quantities and measures• applying their increasing knowledge of mental and written methods• recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100• add and subtract numbers using concrete objects, pictorial representations, and mentally, including:<ul style="list-style-type: none">a two-digit number and 1sa two-digit number and 10s2 two-digit numbersadding 3 one-digit numbers

	<ul style="list-style-type: none"> • show that addition of 2 numbers can be done in any order (commutative) and subtraction of 1 number from another cannot • recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems
<p>NUMBER – MULTIPLICATION AND DIVISION Pupils learn how to...</p>	<ul style="list-style-type: none"> • recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers • calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs • show that multiplication of 2 numbers can be done in any order (commutative) and division of 1 number by another cannot • solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts
<p>NUMBER – FRACTIONS Pupils learn how to...</p>	<ul style="list-style-type: none"> • recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity • write simple fractions, for example $\frac{1}{2}$ of $6 = 3$ and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$