

Reception Maths Progression (Termly Milestones)

• Key Milestones • White Rose Links

		October Half Term	End of Autumn Term	End of Spring Term	End of Summer Term
Number	Reception Baseline Assessment Sheet' to be completed for all children- Prime areas only	- Counts objects to 5 with accurate 1:1 correspondence - Beginning to count beyond 10 - Can compare objects and amounts using the language of 'same', 'pair', 'match', 'more' and 'fewer' - Match and sort - Compare amounts	- Beginning to count up to 20 - Counts objects to 10 with accurate 1:1 correspondence and cardinality - Says the number that is one more or one less than a given number (up to 5) - Selects the correct numeral to represent 1 to 5 objects - Children can write numbers to 5 - Can order numbers to 5 - Can combine two sets to find a total (up to 3) - Can take some objects away to find an amount (up to 3) - Representing 1,2,3 - Comparing 1,2,3 - Composition of 1,2,3 - Representing numbers to 5 - One more and less	- Can count forwards to 20 accurately - Counts objects up to 20 with accurate 1:1 correspondence and cardinality - Says the number that is one more or one less than a given number (up to 10) - Selects the correct numeral to represent 1 to 10 objects - Children can write numbers to 10 - Can order numbers to 10 - Can combine two sets to find a total (up to 10) - Can take some objects away to find an amount (up to 5) - In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting Addition & Subtraction (numbers to 5) - Introducing zero - Number bonds to 5 Number and place value - Counting to 6,7,8 - Counting to 9 and 10 - Comparing groups up to 10 Addition & Subtraction (addition to 10) - Combining two groups to make a whole - Number bonds to 10: ten frame - Number bonds to 10: part-whole model	- Can count beyond 20 forwards and backwards - Count in multiples of 2 to 10 & 10 to 100. - Can count more than 20 objects - Say the number that is one more than a given number or one less within the range 1-20. - Children are beginning to read and write numbers to 20 - Can order numbers to 20 - Beginning to combine two sets to find a total (up to 20) - Can take some objects away to find an amount (up to 10) - In practical activities and discussion, can use some mathematical vocabulary e.g. more / less / equals/total/altogether Addition and subtraction (count on and back) - Adding by counting on - Take away by counting back Number and place value (numbers to 20) - Counting to 20 Multiplication and division (numerical patterns) - Doubling - Halving and sharing - Odds and evens Maths ELGs Number - 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. Numerical patterns - 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.



Upton Infant School



Be More Brilliant



Reception Maths Progression (Termly Milestones)

• Key Milestones • White Rose Links

		October Half Term	End of Autumn Term	End of Spring Term	End of Summer Term
Shape, Space and Measure	Reception Baseline Assessment Sheet to be completed for all children- Prime areas only	- Can create a simple repeating pattern e.g. stick, leaf, stick, leaf. - Talk about and identifies the patterns around them. - Notice and correct an error in a repeating pattern. - Uses a range of vocabulary to describe the size, mass and capacity of objects e.g. big/small, bigger/smaller, biggest/smallest, most / least	- Begin to describe a sequence of events using words such as 'first', 'then...' - Understand position through words alone e.g. using words like 'in front of' and 'behind'. - Make comparisons between objects relating to size, length, weight and capacity e.g. longest / tallest / shortest / heaviest / lightest - Uses an increasing range of language to describe shapes e.g. straight, round, pointy	- 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'. - 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. - Can recognise and talk about the patterns they observe - From a selection of objects, identify and compare the longest / shortest, tallest/shortest, heaviest/lightest - Can use a widening vocabulary to describe their relative position such as 'in front of', 'opposite', 'on top of' and 'under' - Can use a range of vocabulary related to time to sequence the school day.	- Compare and order three items by length, height, weight and distance - Identify containers holding different amounts of liquids, using language such as 'full', 'half full', 'empty' and 'overflowing' - To use mathematical language to describe 3D shapes - Select, rotate and manipulate shapes in order to develop spatial reasoning skills. - Children can use language of o clock, now, after, before, next, tomorrow, yesterday - Continue, copy and create repeating patterns.
		- Compare size, mass, capacity - Exploring pattern	- Circle and triangles - Positional language - Shapes with 4 sides - Time	- Spatial awareness 3D shapes 2D shapes	- Length, height and distance - Weight - capacity



Upton Infant School



Be More Brilliant



Year One Maths Progression (Termly Milestones)

• Teacher Assessment Framework • National Curriculum

October Half Term	End of Autumn Term	End of Spring Term	End of Summer Term
Number & Place Value to 10 • count to and across 10, forwards and backwards, beginning with 0 or 1, or from any given number • count, read and write numbers to 10 in numerals • count in multiples of twos, fives and tens • given a number, identify one more and one 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 10 in numerals and words.	Addition and Subtraction within 10 • read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs • represent and use number bonds and related subtraction facts within 10 • add and subtract one-digit and two-digit numbers to 10, including zero Shape • recognise and name common 2-D shapes [for example, rectangles (including squares), circles and triangles] • recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] Number & Place Value to 20 • write numbers to 20 in numerals and words • identify one more and one less than a given number	Number & Place Value to 50 • count to and across 50, forwards and backwards, beginning with 0 or 1, or from any given number • count, read and write numbers to 50 in numerals Addition and Subtraction within 20 • represent and use number bonds and related subtraction facts within 20 • add and subtract one-digit and two-digit numbers to 20, including zero • solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = ? - 9$. Measure • compare, describe and solve practical problems for lengths and heights e.g. long/short, longer/shorter, tall/short, double/half • compare, describe and solve practical problems for mass and weight e.g. heavy/light, heavier/lighter • compare, describe and solve practical problems for capacity and volume e.g. full/empty, more than/less than, half full, quarter full • measure and begin to record lengths and heights, mass/weight, capacity and volume	Multiplication and Division • 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. Fractions • recognise, find and name a half as one of two equal parts of an object, shape or quantity • recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. Number & Place Value to 100 • 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 Position and Direction • describe position, direction and movement, including whole, half, quarter and three-quarter turns. Money • recognise and know the value of different denominations of coins and notes Time • sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] • compare, describe and solve practical problems for time [for example, quicker, slower, earlier, later] • recognise and use language relating to dates, including days of the week, weeks, months and years • tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. • measure and begin to record time in hours, minutes and seconds



Upton Infant School



Be More Brilliant



Year Two Maths Progression (Termly Milestones)

• Teacher Assessment Framework • National Curriculum

October Half Term	End of Autumn Term	End of Spring Term	End of Summer Term
Number & Place Value - partition any two-digit number into different combinations of tens and ones, explaining their thinking verbally, in pictures or using apparatus - Count in steps of 2,3 and 5 from 0, and in tens from any number, forward and backward - Recognise the place value of each digit in two-digit numbers - Identify, represent and estimate numbers using different representations, including the number line - Compare and order numbers from 0 to 100, use <, > and = signs - Read and write numbers to at least 100 in numerals and words - Use place value and number facts to solve problems Addition and Subtraction - recall and use addition and subtraction facts to 20 fluently - recall all number bonds to and within 10 and use these to reason with and calculate bonds to and within 20, recognising other associated additive relationships	Addition and Subtraction - add and subtract any 2 two-digit numbers using an efficient strategy, explaining their method verbally, in pictures or using apparatus (e.g. $48 + 35$; $72 - 17$) - Solve problems with addition and subtraction: Use concrete objects and pictorial representations, including those involving numbers, quantities and measures, applying their increasing knowledge of mental and written methods - Show addition of two numbers can be done in any order (commutative) and subtraction of one 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 Shape - name and describe properties of 2-D and 3-D shapes, including number of sides, vertices, edges, faces and lines of symmetry - identify 2D shapes on the surface of 3D shapes - compare and sort common 2D and 3D shapes and everyday objects	Money - use different coins to make the same amount - recognise and use symbols for pounds (£) and pence (p), combine amounts to make a particular value - solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change Multiplication and Division - recall multiplication and division facts for 2, 5 and 10 and use them to solve simple problems, demonstrating an understanding of commutativity as necessary - recognise odd and even numbers - calculate mathematical statements for multiplication and division within the multiplication tables and write them using the $\times$ and $=$ signs. - solve problems involving multiplication and division using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts. 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 parts must be equal parts of the whole - write simple fractions, for example $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ Measure – Length and Height - choose and use appropriate standard units to estimate and measure length / height (m/cm) using rulers	Time - read time on a clock to the nearest 15 minutes - tell and write the time to 5 minutes, including drawing hands on a clock face to show these times - compare and sequence intervals of time - know the number of minutes in an hour and the number of hours in a day Measure - choose and use appropriate standard units to estimate and measure mass (kg/g), temperature ($^{\circ}\text{C}$), capacity (l/ml) to the nearest unit, using scales, thermometers and measuring vessels - compare and order lengths, mass, volume / capacity and record the results using <, > and = - read scales in divisions of ones, twos, fives & tens Statistics - interpret and construct simple pictograms, tally charts, block diagrams and simple tables - ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity Position and Direction - order and arrange combinations of mathematical objects in patterns and sequences - 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



Upton Infant School



Be More Brilliant

