Maths long term overview

Green = nursery objectives Purple = Reception objectives Red= yr 1 objectives Blue = year 2 objectives

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6

Maths Nursery	**Number:** • 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. • 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. **Pattern and shape** • Extend and create ABAB patterns – stick, leaf, stick, leaf. **Shape, space and measure** • Make comparisons to objects relating to size length, weight and capacity.	**Number:** • 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. • 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. • Compare quantities using language: 'more than', 'fewer than'. **Positional language:** • Understand position through words alone – for example, "The bag is under the table," – with no pointing. • Prepositions – on, in, down and up. **Shape, space and measure:** • 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'. • Make comparisons to objects relating to size length, weight and capacity. **Addition:** • Experiment with their own symbols and marks as well as numerals. • Solve real world mathematical problems with numbers up to 5. • Finding the total altogether and identifying the number. **Pattern and shape:** • Talk about and identify 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. **Sharing:** • Sharing out objects.	**Number - subtraction:** • 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'. **Positional language:** • Understand position through words alone – for example, "The bag is under the table," – with no pointing. • Describe a familiar route. • Discuss routes and locations, using words like 'in front of' and 'behind'.. **Shape, space and measure:** • Make comparisons to objects relating to size length, weight and capacity. • 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'. • **Pattern and shape:** • Talk about and identify 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 and error in a repeating pattern. • Begin to describe a sequence of events, real or fictional, using words such as 'first, 'then'….	**Number – addition and subtraction:** I • Compare quantities using language: 'more than', 'fewer than'. • Experiment with their own symbols and marks as well as numerals. • Solve real world mathematical problems with numbers up to 5. • Beginning to compare and recognise changes in numbers of things, using words like more, lots or 'same'. **Shape, space and measure:** • Make comparisons to objects relating to size length, weight and capacity. • 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.	**Shape, space and measure:** • 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'. • Make comparisons to objects relating to size length, weight and capacity. **Number - subtraction:** • 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'. **Positional language:** • Discuss routes and locations, using words like 'in front of' and 'behind'.. **Addition:** • Experiment with their own symbols and marks as well as numerals. • Solve real world mathematical problems with numbers up to 5. • Finding the total altogether and identifying the number. **Number:** • Say one number for each item in order: 1, 2, 3, 4, 5. • 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.	**Shape, space and measure:** • 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'. • Make comparisons to objects relating to size length, weight and capacity. **Number - subtraction:** • 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'. **Positional language:** • Discuss routes and locations, using words like 'in front of' and 'behind'.. **Addition and subtraction:** • Experiment with their own symbols and marks as well as numerals. • Solve real world mathematical problems with numbers up to 5. • Finding the total altogether and identifying the number. **Number:** • Say one number for each item in order: 1, 2, 3, 4, 5. • 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.

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Maths Reception	**Number:** • Count objects, actions or sounds. • Subitise • Link the number symbol (numeral) with its cardinal number value. • Compare numbers • Understand the 'one more than/one less than' relationship between consecutive numbers. • Explore the composition of numbers to 10. **Shape, space and measure:** • 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.	**Number:** • Count objects, actions or sounds. • Subitise • Link the number symbol (numeral) with its cardinal number value. • 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. **Shape, space and measure:** • Select, rotate and manipulate shapes to develop spatial reasoning skills. • Compare length, weight and capacity.	**Number:** • Count objects, actions or sounds. • Link the number symbol (numeral) with its cardinal number value. • 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. **Shape, Space and Measure :** • Compare length, weight and capacity. • Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.	**Number:** • Count objects, actions or sounds. • Link the number symbol (numeral) with its cardinal number value. • Count beyond 10. • Explore the composition of numbers to 10. • Automatically recall number bonds for numbers 0-5 and some to 10. • Compare numbers.	**Number:** • Count objects, actions or sounds. • Link the number symbol (numeral) with its cardinal number value. • Count beyond 10. • Explore the composition of numbers to 10. • Automatically recall number bonds for numbers 0-5 and some to 10. • Compare numbers • Understand the 'one more than/one less than' relationship between consecutive numbers. **Shape, Space and Measure** • Compare length, weight and capacity.	**Number:** • Count objects, actions or sounds. • Link the number symbol (numeral) with its cardinal number value. • Count beyond 10. • Explore the composition of numbers to 10. • Automatically recall number bonds for numbers 0-5 and some to 10.

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6

Maths Year 1	**Number and Place Value:** • Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. • Count numbers to 100 in numerals; count in multiples of twos, fives and tens. • Identify and represent numbers using objects and pictorial representations • Read and write numbers to 100 in numerals • Read and write numbers from 1 to 20 in numerals and words • Given a number, identify one more and one less. **Addition and subtraction:** • 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 zero. • Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = __ – 9	**Addition and subtraction:** • 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 zero. • Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = __ – 9 **Geometry:** • 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 and Place Value:** • Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. • Count numbers to 100 in numerals; count in multiples of twos, fives and tens. • Identify and represent numbers using objects and pictorial representations • Read and write numbers to 100 in numerals. • Read and write numbers from 1 to 20 in numerals and words. • Given a number, identify one more and one less. **Addition and subtraction:** • 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 zero. • Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = __ – 9	**Number and Place Value:** • Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. • Count numbers to 100 in numerals; count in multiples of twos, fives and tens. • Identify and represent numbers using objects and pictorial representations • Read and write numbers to 100 in numerals • Read and write numbers from 1 to 20 in numerals and words • Given a number, identify one more and one less. **Measure:** • Compare, describe and solve practical problems for: ¬ lengths and heights ¬ mass/weight ¬ capacity and volume ¬ time • Measure and begin to record the following: ¬ lengths and heights ¬ mass/weight ¬ capacity and volume ¬ time (hours, minutes, seconds)	**Multiplication, 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 half as one of two equal parts of an object, shape or quantity • Recognise, find and name quarter as one of four equal parts of an object, shape or quantity **Geometry:** • Describe position, direction and movement (including whole, full, half, quarter and three-quarter turns clockwise and anti-clockwise)	**Number and Place Value**: • Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. • Count numbers to 100 in numerals; count in multiples of twos, fives and tens. • Identify and represent numbers using objects and pictorial representations • Read and write numbers to 100 in numerals • Read and write numbers from 1 to 20 in numerals and words • Given a number, identify one more and one less. **Measure:** • Recognise and know the value of different denominations of coins and notes. • Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]. • 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.

Maths Year 2	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
	Number and Place Value: • Count in steps of 2,3 and 5 from 0 and in tens from any number, forwards and backwards. • Read and write numbers to at least 100 in numerals and in words. • Identify, represent and estimate numbers using different representations, including the number line. • recognise the place value of each digit in a two-digit number (tens, ones). • Compare and order numbers from 0 up to 100; use and = signs. • Use place value and number facts to solve problems **Addition and subtraction**: • Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: ¬ a two-digit number and ones ¬ a two-digit number and tens ¬ two two-digit numbers ¬ adding three onedigit numbers • 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 • Show that 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.	**Addition and subtraction**: • Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: ¬ a two-digit number and ones ¬ a two-digit number and tens ¬ two two-digit numbers ¬ adding three onedigit numbers • 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 • Show that 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. **Geometry (shape):** • Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line. • Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]. • Compare and sort common 2-D shapes and everyday objects. • Recognise and name common 3- D shapes [for example, cuboids (including cubes), pyramids and spheres]. • Compare and sort common 3-D shapes and everyday objects.	**Measure (money):** • Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value • Find different combinations of coins that equal the same amounts of money • Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. **Multiplication and division:** • Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. • Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. • Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs. • Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	**Multiplication and division:** • Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. • Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. • Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs. • Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. **Measures (length, height, weight, capacity and temperature):** • Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. • Compare and order lengths, mass, volume/capacity and record the result using >, < and =.	**Fractions:** • Recognise, find, name and write fractions 1/3 , 1/4/ 2/4 and ¾ of a length, shape, set of objects or quantity. • Recognise the equivalence of 2/4 and 1/2. • Write simple fractions for example, ½ of 6 = 3 **Measures (time):** • Compare and sequence intervals of time. • Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times. • Know the number of minutes in an hour and the number of hours in a day.	**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. • Ask and answer questions about totalling and comparing categorical data. **Geometry (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 (clockwise and anticlockwise).