Maths Progression of Skills

Reception		Year 1	Year 2
Cardinality and counting • Counting, saying number words in sequences • Counting, tagging each object • Counting knowing the last number counted is the total so far • Subitising, recognising small quantities without having to recount • Numeral meanings matching numerals with things • Conservation of number, the amount stays the same if rearranged	**Place Value and counting**	• Count to and across100, forwards and backwards, beginning with 0 or 1, or from any given number. • Count numbers to 100 in numerals. Count in multiples of 2s, 5s and 10s.	• Count in steps of 2, 3, 5 from 0 and in 10s from any number forward and backwards.
	Place value representation	• 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.	• Read and write numbers to at least 100 in numerals and words. • Identify, represent and estimate numbers using different representations including the number line.
Comparison • More than less than • Identify groups with the same amount of things • Compare numbers and reasoning • One more/ one less relationship between counting numbers	**Place Value Use and Compare**	• Given a number identify one more and one less. • Reason about the location of numbers to 20. • Compare using < > =	• Recognise the place value of each digit in a two digit number. • Compare and order numbers from 0 up to 100 using inequality and equals signs.
	Place Value problem solving		• Use place value and number facts to solve problems.
Composition • Part whole, identifying smaller numbers within a number • Inverse operations partition and recombining • Partitioning into different pairs of numbers • Partitioning into more than 2 numbers	**Addition and subtraction Recall, represent and use**	• Read, write and interpret mathematical statements involving addition, subtraction and equals signs. • Represent and use number bonds and related subtraction facts within 20.	• Recall and use addition and subtraction facts to 20 fluently and derive and use related facts to 100. • Show that addition of 2 numbers can be done in any order (commutativity) and subtraction of one number from another cannot. • Recognise the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.

• Number bonds which pairs make a given number			
	Addition and subtraction Calculations	• Add and subtract one digit and two digit numbers to 20 including zero.	• Add and subtract numbers using concrete objects, pictorial representation and mentally, including: 1. A two digit number and ones 2. A two digit number and tens 3. Two two digit numbers 4. Adding 3 one digit numbers.
	Addition and subtraction Problem solving	• Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations. • Solve missing number problems such as 7 = ??-9.	• Solve problems with addition and subtraction using concrete objects, pictorial representations, including those involving numbers, quantities and measures. • Solve problems with addition and subtraction applying their increasing knowledge of mental and written methods.
	Multiplication and division Recall, represent and use		• Recall and use multiplication and division facts for the 2,5 and 10 multiplication tables including recognising odd and even numbers. • Show that multiplication can be done in any order (commutative) and division of one number by another cannot.
	Multiplication and division calculations		• Calculate mathematical statements for multiplication and division within the multiplication tables. • Write them using the multiplication, division and equals signs.
	Multiplication and division solve problems	• Solve one step problems involving multiplication and division by calculating answers using concrete objects, pictorial representations and arrays with the support of the teacher.	• Solving problems involving multiplication and division using material, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.

Pattern • Continuing an AB pattern • Copying an AB pattern • Create an AB pattern • Spotting errors in an AB patterns • Continuing an ABC pattern • Continuing a pattern that ends mid unit • Making their own ABB, ABBC patterns • Symbolising the unit structure • Generalising structures to another context or mode • Making a pattern that repeats around a circle Pattern spotting around us	**Fractions Recognise and Write**	• Recognise, find and name a half as 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.	• Recognise, find, name and write fractions ½ 1/4/2/4/3/4 of a length, shape, set of objects or quantity.
	Fractions Compare		• Recognise the equivalence of 2/4 and 1/2
	Fraction s calculations		• Write simple fractions E.G. ½ of 6 = 3
	Algebra	• Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations. • Solve missing number problems such as 7 = ??-9.	• Recognise and use the inverse relationship of addition and subtraction and use this to check calculations and solve missing number problems.
Measures • Recognising attributes • Comparing amounts of continuous quantities • Show awareness of comparison in estimating and predicting • Compare indirectly • Recognising the relationship between size and number of units • Begin to use units to compare things	**Measures**	• Compare, describe and solve practical problems for: length and height (longer? shorter) mass/weight (heavier/lighter capacity/volume (full, more than/less than) time (slower/quicker/ early / late) Measure and begin to record the following length and heights mass?weight capacity and volume time (hours, minutes, seconds)	• Choose and use the appropriate standard units to estimate and measure length (m, cm) Mass (kg/g) temperature (oC) capacity (litres/ml) all to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. • Compare and order lengths, mass, volume/capacity and record the results using <> and =.

• Begin to use time to sequence events Begin to experience specific time durations			
	Measurement Money	• Recognise and know the value of different denominations of coins and notes	• Recognise and use symbols for £ and pence p combine amounts to make a particular value. • Find different combinations of coins that equal the same amount of money. • Solve simple problems in a practical context involving addition and subtraction of money of the same unit including giving change.
	Measurement Time	• Sequence events in chronological order using language (for example before, after, first, morning) • Recognise and use language relating to dates, including days of the week, months of the year. • Tell the time to the hour and half past. • Draw clock hands to show these times.	• Compare and sequence intervals of time. • Tell and write the time to five minutes including past/to the hour. • Draw the hands to show these times. • Know the number of minutes in an hour and the number of hours in a day.
Shape and space • Developing spatial awareness experiencing different view points • Developing spatial vocabulary • Representing spatial relationships • Shape awareness, developing shape awareness through construction • Identifying similarities between shapes • Showing awareness of properties of shape • Describing properties of shape • Developing an awareness of relationships between shapes	**Geometry 2D shape**	• Recognise and name common 2D shapes • Recognise common 2D shapes in different orientations. • Compose 2D shapes from smaller shapes to match an example	• Identify and describe the properties of 2D shapes including the number of sides and lines of symmetry in a vertical line. • Identify 2D shapes on the surface of 3D shapes • compare and sort common 2D shapes and everyday objects. • Use precise language to describe their properties sides and vertices

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	Geometry position and direction	• Describe position, direction and movement including whole, half, quarter and three quarter turns.	• 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 t as a turn in terms of right angles for quarter, half and ¾ turns. (clockwise and anti clockwise)
	Statistics Present and interpret		• Interpret and construct simple pictograms, tally charts and block diagrams and simple tables
Early Learning Goal 2021 • **Children have a deep understanding of numbers to 10, including composition of each number.** • **Subsitise (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.** • **Verbally count beyond 20, recognising the pattern of the counting system.** • **Compare quantities up to 10 in different con-**			**End of KS1 Expectation** • To be able to read scales in divisions of ones, twos, fives and tens • To be able to partition any two-digit number into different combinations of tens and ones, explaining their thinking verbally, in pictures or using apparatus • To be able to 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) • To be able to 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 (e.g. If 7 + 3 = 10, then 17 + 3 = 20; if 7 – 3 = 4, then 17 – 3 = 14; leading to if 14 + 3 = 17, then 3 + 14 = 17, 17 – 14 = 3 and 17 – 3 = 14) • To be able to recall multiplication and division facts for 2, 5 and 10 and use them to solve simple problems, demonstrating an understanding of commutativity as necessary • To be able to identify 1/4, 1/3, 1/2, 2/4, 3/4, of a number or shape, and know that all parts must be

texts, 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.**			equal parts of the whole • To be able to use different coins to make the same amount • To be able to read the time on a clock to the nearest 15 minutes • To be able to name and describe properties of 2-D and 3-D shapes, including number of sides, vertices, edges, faces and lines of symmetry.

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• recall multiplication and division facts for 2, 5 and 10 and use them to solve simple problems, demonstrating an understanding of commutativity as necessary
• identify 14, 13, 12, 24, 34, of a number or shape, and know that all parts must be equal parts of the whole
• use different coins to make the same amount
• read the time on a clock to the nearest 15 minutes
• name and describe properties of 2-D and 3-D shapes, including number of sides, vertices, edges, faces and lines of symmetry.