Year 1		Number place value	Addition subtraction	Multiplication division	Fractions
Emerging	Working Towards the expected standard	• with increasing confidence count forwards and then backwards within the number sequence orally and with numerals to 20 • *use the language of ordinal numbers- first, second ,third…* • count, read and write numbers to 10 in numerals • begin to sort objects into groups of 2s, 5s, 10. • begin to count forwards in 2s, 5s, 10s • say the numbers that come before and after a given number within 20 • identify and represent numbers using objects and pictorial representations including the number line within 20 • use the language of: equal to, more than, less than (fewer), most, least within 20	• Within 10 recognise and use mathematical language associated with addition and subtraction (+), subtraction (–) and equals (=) signs • represent and use number bonds and related subtraction facts within 10 • begin to add and subtract one-digit numbers to 10, including zero *(using signs)* • solve one-step problems that involve addition and subtraction, using concrete objects	• through grouping and sharing small quantities pupils begin to understand multiplication and division and doubling numbers and quantities with support of the teacher	• find and name a half as one of two equal shapes or parts of an object
Developing	Working Towards the expected standard	• count forwards and backwards within the number sequence orally and with numerals to 50 • count, read and write numbers to 50 in numerals; • sort objects into groups of 2s, 5s, 10s, count forwards in twos, fives or tens with increasing confidence to 50. *Start from both odd and even numbers* • say the numbers that come before and after a given number within 50 • identify and represent numbers using objects and pictorial representations including the number line within 50 • use the language of: equal to, more than, less than (fewer), most, least within 50 • *use the language of ordinal numbers in a range of contexts* • begin to read and write numbers from 1 to 20 in numerals and words.	Within 20 • recognise and use mathematical language associated with addition and subtraction (+), subtraction (–) and equals (=) signs • begin to represent and use number bonds and related subtraction facts within 20 • begin to add and subtract one-digit and two-digit numbers to 20, including zero • begin to solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations	• solve one step problems involving multiplication and division, by calculating the answer using concrete objects and pictorial representations with the support of the teacher	• recognise, find and name a half as one of two equal parts of an object, shape and begin to find halves of quantities • recognise, find and name a quarter as one of four equal parts of an object, shape
Secure	Working at the expected	• **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 twos, fives and tens (*begin to link to 2x,5x,10x tables*)** • **given a number, identify one more and one less** • **identify and represent numbers using objects and pictorial representations including the number line,** • **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.**	• **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.**	• **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**	• **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.**

Working at greater depth within expected levels	Decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. (National Curriculum 2016) https://www.ncetm.org.uk/public/files/23305594/Mastery_Assessment_Y1_Low_Res.pdf

Year 1		Measures	Geometry		Statistics
			Properties of Shape	Position and Direction	
Emerging	Working Towards the expected standard	• compare and use mathematical language to describe: • lengths and heights [for example, long/short, longer/shorter] • mass/weight [for example, heavy/light] • capacity and volume [for example, full/empty, more than, less than,] • time [for example, quicker, slower] • measure and begin to record the following *using non-standard units* • lengths and heights • mass/weight • capacity and volume • recognise and know the value of different denominations of coins • sequence events in chronological order using language (for example, before and after, first, today) • recognise and use language relating to dates, including days of the week • tell the time to the hour	• continue to use mathematical names for "solid" 3D shapes and "flat" 2D shapes, and mathematical terms to describe shapes. • relate everyday objects to 2D and 3D shapes	• with increased confidence use everyday language to talk about position e.g. can describe their relative position such as "behind" or "next to" • be able to give and follow simple directional instructions	
Developing	Working Towards the expected standard	• continue to with increased confidence to describe and solve simple practical problems for: • lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] • mass/weight [for example, heavy/light, heavier than, lighter than] • capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] • time [for example, quicker, slower, earlier, later] • measure (*using a ruler, weighing scales and containers*)and begin to record the following *moving from non-standard units to using manageable common standard units:* • lengths and heights • mass/weight • capacity and volume • time (hours, minutes, seconds) • begin to recognise and know the value of different denominations of coins and notes • begin to 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 and months • tell the time to the hour and half past the hour and *begin* to draw the hands on a clock face to show these times.	• with increased accuracy recognise and name common 2-D and 3-D shapes, including: • 2-D shapes [for example, rectangles (including squares), circles and triangles] • 3-D shapes [for example, cuboids (including cubes) and pyramids] • recognise shapes in different orientations and sizes and begin to know that rectangles, triangles and cuboids are not always similar to each other	• understand, follow and use positional vocabulary such as: position, grid, outside, inside, beside, next to, front, back, between, centre, underneath, above, on top of, below, halfway, near, far • understand, follow and use directional language such as: direction, forwards, backwards, sideways, whole turn, half term, quarter turn, right, left	
Secure	Working at the expected standard	• **compare, describe and solve practical problems for:** • **lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]** • **mass/weight [for example, heavy/light, heavier than, lighter than]** • **capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]** • **time [for example, quicker, slower, earlier, later]** • **measure(***using a ruler, weighing scales and containers***) and begin to record the following:** • **lengths and heights** • **mass/weight** • **capacity and volume** • **time (hours, minutes, seconds)** • **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.**	• **recognise and name common 2-D and 3-D shapes, including:** • **2-D shapes [for example, rectangles (including squares), circles and triangles]** *wider range of examples than developing* • **3-D shapes [for example, cuboids (including cubes, pyramids and spheres)** ***wider range of examples than developing***	• **describe position, direction and movement, including whole, half, quarter and three-quarter turns.**	

Working at greater depth within expected levels	Decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. (National Curriculum 2016) https://www.ncetm.org.uk/public/files/23305594/Mastery_Assessment_Y1_Low_Res.pdf

Year 2		Number place value	Addition subtraction	Multiplication division	Fractions
Emerging	Working Towards the expected standard	• begin to count in steps of 2 and 5 from 0, and in tens from any number, forward and backward • recognise each digit in a two-digit number up to 20 (tens, ones) • identify, represent and estimate numbers using different representations, including the number line (up to 100) and consolidate the associated language e.g. equal to, more than, less than (fewer), most and least • begin to compare and order numbers from 0 up to 100. Use = sign. • begin to read and write numbers to at least 50 in numerals and 20 in words • begin to use number facts to solve simple problems.	• consolidate 1 step problems with addition and subtraction: ○ using concrete objects and pictorial representations, including those involving numbers, quantities and measures ○ applying their knowledge of mental and written methods • begin to recall and use addition and subtraction facts to 20 and use related facts up to 50 • add and subtract numbers using concrete objects, pictorial representations, and mentally, including: ○ a two-digit number and ones ○ adding three one-digit numbers • begin to show that addition of two numbers can be done in any order and subtraction of one number from another cannot (*using concrete objects, pictorial representations, and mentally*) • begin to recognise and use the inverse relationship between addition and subtraction and use this to solve missing number problems to 50	• begin to recall multiplication and division facts for the 2 and 10 multiplication tables, including recognising odd and even numbers to 50 • begin to calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs (*using concrete objects, pictorial representations and arrays*) • show that multiplication of two numbers can be done in any order (*using concrete objects, pictorial representations and arrays*) • begin to solve problems involving multiplication and division, using materials, arrays, repeated addition including problems in contexts.	• recognise, find, name and write fractions, $\frac{1}{4}$, $\frac{2}{4}$ of a length, shape, set of objects or quantity • recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ using pictorial representations and diagrams
Developing		• count in steps of 2 and 5 from 0, and in tens from any number *to 100*, forward and backward • begin to recognise each digit in a two-digit number (tens, ones) • with increasing confidence identify, represent and estimate numbers using different representations, including the number line (up to 100) • compare and order numbers from 0 up to 100. Use = sign. • read and write numbers to at least 50 in numerals and in words • use number facts to solve problems.	• begin to solve 1 and 2 step problems with addition and subtraction: ○ using concrete objects and pictorial representations, including those involving numbers, quantities and measures ○ applying their knowledge of mental and written methods • recall and use addition and subtraction facts to 20 and use related facts up to 100 • add and subtract numbers using concrete objects, pictorial representations, and mentally, including: ○ a two-digit number and ones ○ a two-digit number and tens ○ adding three one-digit numbers • show that addition of two numbers can be done in any order and subtraction of one number from another cannot • begin to recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	• begin to recall multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers *to at least 100* • with increased fluency calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs • show that multiplication of two numbers can be done in any order (commutative) *and begin* to know that division of one number by another cannot • begin to solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	• recognise, find, name and write fractions, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity • recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ and begin to write simple fractions for example, $\frac{1}{2}$ of 6 = 3
Secure	Working at the expected	• **count in steps of 2, 3, and 5 from 0, and in tens from any number *to 100*, forward and backward** • **recognise the place value of each digit in a two-digit number (tens, ones)** • **identify, represent and estimate numbers using different representations, including the number line**	• **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**	• **recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers *(to at least 100)*** • **calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs**	• **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**

		• **compare and order numbers from 0 up to 100 (using place value); 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.**	• **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 one-digit numbers** • **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.**	• **show that multiplication of two numbers can be done in any order (commutative) and division of one 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.**	**recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$**
Working at greater depth within expected levels	Decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. (National Curriculum 2016) https://www.ncetm.org.uk/public/files/23305594/Mastery_Assessment_Y1_Low_Res.pdf https://www.ncetm.org.uk/public/files/23305578/Mastery_Assessment_Y2_High_Res.pdf				

Year 2		Measures	Geometry		Statistics
			Properties of Shape	Position and Direction	
Emerging	Working Towards the expected standard	• choose and use appropriate standard units to measure length/height in any direction (m/cm); mass (kg/g); capacity (litres/ml) using rulers, scales and measuring vessels and *continue to use associated vocabulary e.g. longer/shorter, double/half etc.* • compare and order lengths, mass, volume/capacity and record the results • begin to recognise and use symbols for pounds (£) and pence (p) • begin to find a combination of coins that equal the same amount of money • solve simple problems in a practical context involving addition of money of the same unit • begin to sequence intervals of time • begin to tell and write the time to quarter past/to the hour and draw the hands on a clock face to show these times • begin to understand the number of minutes in an hour and the number of hours in a day and *continue to recognise and use language relating to dates, including days of the week, weeks, months and years*	• begin to identify and describe the properties of 2-D shapes, including the number of sides • begin to identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces *(cube, cuboid, pyramid)* • begin to identify 2-D shapes on the surface of 3-D shapes [for example, a circle on a cylinder and a triangle on a pyramid] • begin to compare and sort common 2-D and 3-D shapes and everyday objects.	• begin to order simple combinations of mathematical objects in patterns and sequences • begin to use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn for quarter, half and three-quarter turns • *(consolidate language of position and direction from year 1 non statutory guidance e.g. forwards and backwards, up and down)*	• begin to interpret and construct simple pictograms, tally charts and block diagrams (*where the symbols show one to one correspondence)* • ask and answer simple questions by counting the number of objects in each category *(limited)* and sorting the categories by quantity *(up to 10 objects in each category)* • ask and answer questions about totalling objects
Developing	Working Towards the expected standard	• choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales and measuring vessels and *continue to use associated vocabulary e.g. longer/shorter, double/half etc and begin to use thermometers and recognise* (°C) • compare and order lengths, mass, volume/capacity and record the results and begin to use >, < to record results • recognise and use symbols for pounds (£) and pence (p) and *begin to solve simple problems* • begin to 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 and begin to find change • sequence intervals of time • tell and write the time to quarter past/to the hour and draw the hands on a clock face to show these times. Begin to tell the time to 5 minutes. • begin to know the number of minutes in an hour and the number of hours in a day.	• identify and describe the properties of 2-D shapes, including the number of sides • identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces *(cube, cuboid, pyramid, sphere, cone)* • identify 2-D shapes on the surface of 3-D shapes (*for example, a circle on a cylinder, triangle on a pyramid, a square on a cube and rectangle on a cuboid*) • compare and sort common 2-D and 3-D shapes and everyday objects (*begin to do this according to their geometric properties, edges, faces and vertices)*	• order and arrange combinations of mathematical objects in patterns and sequences with increased fluency • use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn for quarter, half and three-quarter turns	• continue to interpret and construct simple pictograms (*where the symbols start to show many to one correspondence)*, tally charts, block diagrams and begin to interpret and construct simple tables • ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity *(increasing the categories and quantity)* • ask and answer questions about totalling and *begin* to compare categorical data.
Secure	Working at the expected	• **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 results using >, < and =**	• **identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line** • **identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces** – *wide range of shapes*	• **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,**	• **interpret and construct simple pictograms, (***where the symbols show many to one correspondence***) tally charts, block diagrams (***where the scale is divided into 2s and 5s***)and simple tables** *and more complex tables*

		• **reason about simple multiplicative relationships such as twice as long, 10 times as high** • **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** • **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**	• **identify 2-D shapes on the surface of 3-D shapes [for example, a circle on a cylinder and a triangle on a pyramid]** *use a wider range of shapes* • **compare and sort common 2-D and 3-D shapes and everyday objects** *(on the basis of their geometric properties including vertices, sides, edges, face)*	**half and three-quarter turns (clockwise and anti-clockwise).**	• **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.**
Working at greater depth within expected levels	Decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. (National Curriculum 2016) https://www.ncetm.org.uk/public/files/23305594/Mastery_Assessment_Y1_Low_Res.pdf https://www.ncetm.org.uk/public/files/23305578/Mastery_Assessment_Y2_High_Res.pdf				