Maths Non Negotiable

	Reception	Year One	Year Two
Number and place value	Count orally to 20 forwards & backwards from any number.	Count to 100, forwards & backwards from any number.	Count to & beyond 100, forwards & backwards from any number.
	Say which number is one more and one less than a given number within 20.	Given a number within 100, identify one more and one less.	Given a number within 100, identify ten more and ten less.
	Count in multiples of 2's and 10's.	Count in multiples of 2's, 5's & 10's.	Count in steps of 2's, 3's & 5's & in 10's from any number, forwards and backwards.
	Represent numbers to 10 using pictures, objects, markings and fingers. Choose the correct number to match a set of objects. Recognise numbers can be represented on a ten frame.	Recognise the place value of each digit in number up to 20 using equipment. (tens/ones/cubes/numicon/10p's/1p's)	Recognise the place value of each digit in a two digit number
	Identify, represent and estimate numbers 1-10 using objects and pictorial representations, including the number line. (dice patterns)	Identify, represent and estimate numbers using objects and pictorial representations, including the number line up to 20.	Identify, represent and estimate numbers using different representations (jottings), including the number line.
	Order numbers 1 – 10 and use the language more and fewer to compare two sets of objects. (consecutive and non-consecutive)	Compare & order numbers from 0 up to 100 using the language equal to, more than, less than, fewer, most and least. (consecutive and non-consecutive)	Compare & order numbers from 0 up to 100; use <, >, = signs. (consecutive and non-consecutive)
	Read, write and form numbers from 0-10 in numerals. To form numbers 1-10 correctly.	Read, write and form numbers from 0-20 in numerals and words. To form numbers 1-20 correctly.	Read, write and form all numbers to at least 100 in numerals and words. (independent use of word mats)

	Say which number is one more and one less than a given number within 10.	Given a number within 50, identify one more and one less.	Given a number within 100, identify ten more and ten less.
	To solve more and less problems using objects to prove. Begin to identify their own mathematical problems based on their own interests.	Use place value and number facts to solve problems up to 20 using resources to prove.	Use place value and number facts to solve problems up to 100 using jottings and reasoning.
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+ and -	To begin to know and understand the bonds for each number to 10. To know numbers can be made in different ways.	Know bonds to 10 by heart and related subtraction facts. To know the bonds for numbers within 10. E.g. 8= 5+3, 4+4 etc	Know bonds to 20 by heart and related subtraction facts and derive and use related facts to 100.
	Add & subtract: numbers to 10, including zero.	Add & subtract: 1 digit & 2 digit numbers to 20, including zero.	Add & subtract: • 2-digit number & ones • 2-digit number & tens • Two 2-digit numbers Three 1-digit numbers (pictorially, concrete and mentally)
	Understand amounts can be equal.	Read, write and interpret mathematical statements involving addition (+) and subtraction (-) and equals (=) E.g. 7 = 3+4 or 3+4 =5+?	Show that addition of two numbers can be done in any order commutative and subtraction cannot. Understand the inverse relationship between addition and subtraction and use it to check calculations.
	Solve one step problems that involve addition and subtraction to 10, using concrete objects and pictorial representations and missing number problems. To show their workings using written methods.	Solve one step problems that involve addition and subtraction to 20, using concrete objects and pictorial representations and missing number problems. To show their workings using written methods (numberlines).	Solve problems with addition and subtraction: concrete objects, pictorial representations involving numbers, quantities and measures. To work mentally and using written methods.

	Reception	Year One	Year Two
x and ÷	To recall counting in multiples of 2 and recognise this as sets of two.	Recall and use multiplication and division facts for the 2 and 10 x tables off by heart using the language lots of and groups of.	Recall and use multiplication and division facts for the 2, 5,10 x tables
	To recognise odd and even numbers to 10	To know odd and even numbers to 20.	To say if a number is odd or even distinguishing it by its ending.
	To begin to understand doubling and half within a practical context.	To know that you can double any number but you can only half even numbers.	To reason using doubling and halving. E.g. three odd numbers will always be odd? True or false?
	To reason why a number is odd or even using numicon.	To know that multiples of 2 and 10 are always even and reason why.	To recognise that multiples of 2 and 10 are always even but 5's can be odd or even and to reason why.
	In practical activities and discussion use sharing in context	Solve one step problems involving multiplication and division in 2's, by calculating the answer using concrete objects and pictorial representations.	Solve problems involving multiplication and division, by using materials, arrays, repeated addition/subtraction, mental methods and x and ÷ facts including problems in context.
	Record using marks they can interpret and explain. e.g. 2+2+2	To write repeated addition and subtractions statements for arrays and relate this to x, ÷ and =	Calculate mathematical statements for multiplication and division and write them using x, ÷ and = Understand commutatively

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Fractions	To begin to understand the word double and recognise this as groups of two and to recognise half in a practical context.	Double any number between 1 and 20 and find all corresponding halves. (mentally to 10 and practically to 20)	Double any number between 1 and 30 and find all corresponding halves
	To practically split or cut objects into halves and quarters. E.g. fruit, pizza, playdough	Recognise, find, name a half of an object, shape or quantity including pictures split into four.	Recognise, name and write fractions 1/3, ¼, 2/4, ¾ of a length, shapes, set of objects of quantity.
	To explore finding half of shapes, quantities and objects practically. To know two halves make the whole.	Recognise, find, name a quarter as one of four equal parts of an object, shape or quantity. To know the four quarters = the whole	Write simple fractions e.g. ½ of 6 = 3 and recognise that half is the same as 2/4. 4/4 = 1 and two halves =1
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Measure	To compare, describe and solve problems practically involving length and height, mass and weigh, capacity (Language: long/short, longer/shorter, heavy/light, heavier than, lighter than, full/empty/half)	To compare, describe and solve problems practically involving length and height, mass and weigh, capacity and time (Language: long/short, longer/shorter, tall/short, double/half, heavy/light, heavier than, lighter than, full/empty, half/quarter, quicker/slower, earlier/later)	To compare and order lengths, mass, volume/capacity and record the results using < > =

	To measure using non standard measures, hand spans, footsteps, cups of water, cubes etc	To measure using non standard measures, hand spans, footsteps, cups of water, cubes etc	To choose and use appropriate standard units m/cm, kg/g, °C, ml/l
	To know basic measuring instruments e.g. rulers, thermometers, scales	To start to use basic measuring instruments e.g. rulers, thermometers, scales	To confidently use rulers, scales, thermometers and measuring vessels.
	To know the value of coins up to 10p.	To know the value of coins and notes.	To recognise and use symbols for £ and p and to combine amounts to make a particular value.
	To begin to solve simple money problems including giving change practically up to 10p	Solve simple money problems including giving change practically up to 20p	Solve simple money problems including giving change.
	Practically find different combinations of coins that make the same amount 10p	Find different combinations of coins that make the same amount. 20p	Find different combinations of coins that make the same amount. £1
	To sequence events in chronological order E.g. their day (before, after, first, next, today, yesterday, tomorrow, morning, afternoon and evening)	To sequence events in chronological order E.g. their day (today, yesterday, tomorrow)	Compare and sequence intervals of time.
	To know the days of the week in order.	To know the days of the week in order and the months of the year.	To know the number of seconds in a minute, minutes in an hour and the number of hours in a day.
	To use o'clock to tell the time practically.	To use o'clock and half past to tell the time.	To tell and write the time using

			quarter to and quarter past.
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Geometry	To recognise and name common 2D shapes including: rectangles (including squares), circles, semi circle, oval and triangle To recognise and name a cube, sphere and cone.	To recognise and name common 2D shapes and 3D shapes including: 2D: rectangles (including squares), circles, semi circle, oval and triangles, pentagon, hexagon. 3D: cuboids including cubes, pyramids, spheres and cone.	To identify and describe the properties of 2D and 3D shapes including number of sides, lines of symmetry in a vertical line, edges, vertices and faces.
	To recognise the above shapes in different orientations and sizes.	To recognise the above shapes in different orientations and sizes.	To identify 2D shapes on the surface of 3D shapes.
	To compare and sort common 2D and 3D shapes practically by a given criteria.	To compare and sort common 2D and 3D shapes practically by a given criteria.	To compare and sort common 2D and 3D shapes using year 2 properties.
	To continue a repeating pattern using colours and shape.	To continue patterns using shapes and colours.	To order and arrange combinations of mathematical objects in patterns and sequences
	To describe their position using preposition such as under, over, around, next to.	To recognise a half turn and a quarter turn. (relate to the clock)	To recognise a half turn, quarter turn and three quarter turn.

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Statistics	To construct simple pictograms and tally charts.	To construct simple pictograms, tally charts, block diagrams and tables with given structure.	To interpret and construct simple pictograms, tally charts, block diagrams and tables.
	To use pictograms to say which is the most and least popular?	To ask and answer simple questions by counting the number of objects in each category.	To ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.
	To answer simple questions such as how many people liked bananas?	To use solve problems using tables and charts. E.g. how many more children liked apples than bananas?	To ask and answer questions about totalling and comparing and finding the difference of categorical data.