

Mathematics progression grid (Focusing on the basics of number to become a confident and fluent mathematician)

Teachers will ensure that each day they provide a 10 minute recap activity which will focus on one of the following:

	What the children should know, remember and be able to do?	Why? Mathematical links and vocab	How? When? Quick recap activities & resources
LFS	Counting forwards 0 to 10.	To begin to recognise that numbers go forward in an order and get bigger as you count. Children learn to pronounce numbers correctly and can recognise they are 'counting' or recognising when someone else is 'counting', They begin to link to word counting with numbers.	Number rhymes, songs and books which cover 1-10. Count children when undertaking different activities - lining up, coming to the carpet etc. Teacher to model counting abstract concepts like clapping as the children count.
	Count a number of objects to 10.	Children begin by assigning each object a number name as they count (they may not always count in the correct order as they assign each object a number name e.g. 1 - 3 - 2) (the one-to-one principle) Children then begin to learn that when counting objects the numbers should come in the same order every time - this will come when rote counting to 10 is secure. (The stable order principle) Finally children will begin to understand that the last number counted represents how many are in that group (the cardinal principle)	Flash cards, number books, find groups of objects to match a given numeral. Matching numerals to real life objects - e.g. the number five to five fingers. Finger aerobics quick show me to match the number.
	Match the numeral to the correct amount of objects.	To begin to have the understanding that numbers have meaning and can represent groups of objects. They begin to recognise that objects can be counted in any order (the order-irrelevance principle) and that non-physical things can be counted - e.g. jumps and claps.	Number and object picture flash cards (begin with 0-3, 0-6, 0-9) Count real life objects in a variety of contexts, in and out of the maths focused activities. Begin to count pictorial objects - e.g. amount of children on the cover of a book.
UFS	Count forwards and backwards to 20. Counts a number of objects to 20.	To begin to recognise that single digit numbers are made up of an amount of 'ones/units' and that 2 digit numbers are made up of a ten and a unit - the first step into understanding partitioning. To understand that as numbers go forwards they get bigger and smaller as they go backwards.	Squiggle inc rote counting, counting stick with missing numbers, flash cards. Counting concrete objects e.g. cubes, counting bears or real life objects like fruit. Counting pictorial representations e.g. dots on a drawn lady bird, stars on the IWB screen. Counting

			abstract things e.g. movement - how many claps/jumps/syllables.
	Find one more and one less fluently to 20.	To have an understanding that one less means the number, quantity or amount gets smaller and one more means it gets bigger. To begin to have an understanding that 9 is the biggest unit and after 9, numbers are made with 2 digits rather than one.	Counting stick with missing numbers, tens frame adding one more/ taking one away with counters, missing numbers _ 5 _. Giving each child a digit and getting themselves into the right order. Lining up using the number on their peg or their number of the week, human number line. Dienes and showing practically the adding of one more and the taking away of one.
	Begin to know <u>some</u> doubling and halving facts	To begin to double numbers to 5, by recognising that doubling means 2 groups of the same amount. Understanding that doubling a number means it will get bigger. Begin to see the basic links between doubling and halving - to make a double we put the same two numbers together, to make a half we split them again into 2. To begin to recognise that shapes, numbers and quantities can be doubled and halved.	Squiggle making reference to half of 10, 20 and double of 5 and double 5 (make links to inverse), domino flash cards, counting stick to focus on doubles 2, 4, 6, 8, 10. Practical doubling using two hoops with objects and matching number cards to the objects.
Year 1	Count from any given number forwards and backwards (0-100)	Numbers going backwards decrease in size, whereas numbers going forward increase. Understanding that 9 is the largest single unit before crossing over to the tens forward and 1 is smallest single digit before hitting the ten number and crossing backwards into the previous tens.	Hundred square, digit flash cards, flash cards with dienes, missing numbers of a hundred square, squiggle, counting sticks counting on from any number
	Doubling facts fluently to 10.	Same as multiplying by 2 or having two groups of 2. Any number can be doubled but the double will always be an even number. Bigger numbers can be broken down into tens and units and be doubled by doubling the ten, then the ones and adding back together.	Double flash cards, matching the double and the half, finding on the counting stick, using the 2 times table to recognise doubles as even numbers, hundred square.
	Halving facts fluently to 10	To understand that halving means to split something equally into two, whether that be an object, shape, quantity or number. They have an understanding that both halves are the same and that two halves make a whole =	Flash cards, matching the double and the half, finding on the counting stick, using the 2 times table to recognise only even numbers can be halved equally, sharing at fruit time,

	One more and one less than to 100.	To become fluent with numbers to 100, to have an understanding of how numbers increase and decrease in value. To deepen their understanding of partitioning and how 9 is the largest single unit and is always followed by a multiple of 10, similarly knowing the 1 is the smallest unit and follows a multiple of 10.	Flash cards with numerals, flash cards with dienes, multilink
	Recite number bonds to 10 fluently.	To become quicker, more fluent mathematicians. Number bonds allow quicker mental calculations when adding any numbers. Number bonds to 10 link closely to 20 and then to any other multiple of ten and children begin to understand which units add together to create multiples of 10.	Abacus, multilink, 2 sided counters, pairs game, number bond bingo, Numicon matching Number bonds to 30 during register time.
	Can count in 2s, 5s and 10s forwards and backwards.	To become familiar with patterns of number, e.g. that all the 2 times table are even numbers, that with the five time table all numbers end in 0 or 5 and with the 10s, they are all even and always end in a 0. Children begin to learn that numbers can be in more than one multiplication table - e.g. 10 features in the 1s 2s 5s and 10s. To become quicker with multiplication and division, being able to come away from the pictorial or concrete into the abstract.	Counting sticks - reciting, missing numbers, forwards and backwards. Recognising patterns, hundred square, flash cards.
Year 2	Recite number bonds to 20 fluently. Recall the addition and subtraction facts to 20.	Make links between number bonds to 10 and their related facts within 20. Inverse e.g. $13 + 7 = 20$ so $20 - 17 = 3$. Commutativity - $15 + 5 = 20 = 5 + 15$. Addition is commutative but subtraction isn't.	Abacus, multilink, 2 sided counters, pairs game, number bond bingo, pennies, number clothes hanger- peg matching number bond. Number bonds to 30 - class register.
	Recognise the place value of numbers in a 2 digit number.	Recognising the ten comes first in a two digit number, but 2 nd in a 3 digit number. Understanding that units can be referred to as ones. Understanding that into a 2/3 digit number the ten is represented by a single digit.	Dienes, flash cards, flash cards matched to dienes, arrow cards, numicon,
	Count fluently in 2s, 5s, 10s and 3s (from any number).	Needed to recall multiplication and division facts. Needed to make connections and links e.g. counting in 2s are all even and therefore an odd number can't be shared equally between 2 all doubles are in the 2 times table. Numbers in	Use concrete objects such as bead strings, counting sticks, dienes. Hundred square for 10s from any given number.

		the 10 x table end in a 0, can all be shared equally as they're all even. Numbers in the 5 x table end in a 0 or 5, can be odd or even and when doubled make a number from the 10 x times table.	
	Find one or ten more or less than from a given number.	Oral fluency in maths, recognising whether the ten or the unit needs to change. Helps with taking away on a number line when groups of 10 are taken away.	Multilink, abacus, counting stick with missing numbers, hundred squares, tens frames, dienes.