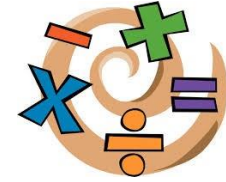# Progression of Skills in Maths

Nursery and Reception Progression Ladders

Yellow indicates Nursery Starting Point / Green is nursery end and reception starting point / Blue is end of Reception

Mathematics

	4 19-24 mths	5 25-30 mths	6 31-36 mths	7 37-42 mths	8 43-48 mths	9 49-54 mths	10 55-60 mths	11 61-66 mths	12 67-72 mths	ELG
Number	Matches one object with another object or picture during play. Participates in number rhymes and action games.	Organises a set of natural or everyday objects in a group. Plays 'hide and seek' with people and objects and knows that they exist even when out of sight.	Uses number names in play and imitates adult actions, rote counting or saying counting words randomly alongside their physical actions. Shows spontaneous 'interest' in numbers in the environment, books, rhymes and in songs.	Uses number names with increasing accuracy in their role play and purposefully uses number songs in play. Counts up to 3 objects. Can count alongside actions in games, rhymes and songs. Explores mathematical resources in the provision in everyday exploration.	Counts up to 4 objects and can recognise 2 objects (moveable and non) without counting. Recognises some numerals of personal significance and talks about numbers in the everyday environment. Begins to recite numbers in order, with some inconsistencies. Attempts to count beyond 4 objects and explores number in play with growing purpose.	Recites numbers accurately to 5 demonstrating 'some' accuracy of numbers to 10. Counts small groups of manipulatives correctly, using 1:1 correspondence, whilst playing a variety of number games. Able to recite numbers forwards and backwards from 5. Counts small groups of fixed objects with accurate 1:1 correspondence. Uses graphic representations to record number explorations in pictures and mark making.	Understands the relationship between a group of objects and the corresponding number. Counts reliably and creates groups of numbers up to at least 5 and is able to place numerals to at least 5 in order. Accurately counts fixed objects to 5 and recognises numerals to at least 5 out of sequence. Recognises up to 3 objects (without counting) in a range of orientations and different sizes. In self-initiated play begins to record numbers and mathematical thinking with own purpose.	Counts reliably and creates groups of numbers to 10 using a range of objects and is able to place numerals to 10 in order. Uses a range of objects to create 5 in different ways and recognises up to 5 objects (without counting) in a range of orientations. Count up to 10 forwards and backwards including from any given number. Accurately counts fixed objects to 10 and recognises numerals to 10 out of sequence. Is able to recall number bonds to 5 and knows some number pairs to 10, including double facts.	Counts reliably and represents numbers beyond 10 using a range of manipulatives. Creates number lines to support their calculations of simple addition and subtraction facts and problem solving. Uses manipulatives to demonstrate some number bonds within 10.	Have a deep understanding of number to 10, including the composition of each number. • Subitise (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.

	4 19-24 mths	5 25-30 mths	6 31-36 mths	7 37-42 mths	8 43-48 mths	9 49-54 mths	10 55-60 mths	11 61-66 mths	12 67-72 mths	ELG
Numerical Pattern	Builds a tower or creates lines with objects. Uses signs or speech to request 'more'.	Plays with a range of block/ solid shapes to construct and position. Fills and empties containers with growing purpose using sand, water or other play materials.	Children explore pattern, using manipulatives and puzzles in their independent play. Engages in lining up, placing, arranging and repositioning materials. Recognises the pattern of everyday familiar routines, begins to notice that there is an order and sequence to familiar events.	In play uses some language to compare quantities and talk about position such as 'on/in/under'. Joins in with number songs which count on - one more, or count down - one less. Independently uses and demonstrates positional language as part of everyday role play scenarios. Acts out exchange of objects, cards, money or goods when in role play, in games or rhymes.	When combining materials knows how to change an amount (size, number) if something is added or taken away. Is able to anticipate which amount will be next in the context of one more/one less number songs/rhymes. With a purpose in mind, recognises and selects simple geometric shapes in their construction and block play. Uses everyday vocabulary to describe and compare measure (size, weight, capacity and time)	Identifies groups of objects that have more or less than and the same. In child-led play, is able to make groups of objects of the same quantity and begins to find the totals by combining groups. Uses everyday language to recreate and describe patterns in nature or urban environments. Uses comparative language to describe and compare measures (size, weight, capacity and time).	Using resources can create quantities which are greater than, less than, the same as a given number and may record these in pictures or numerals. Can use resources and say one more or one less than a given number and to create equal groups. Creates patterns by lining, placing, building and arranging. Orders three or more measures (size, weight and capacity) whilst playing, for example with sand, water or in the mud kitchen.	Verbally counts beyond 20. Uses resources to create parts of a whole, to partition pairs of numbers up to 10, to distribute quantities equally and represent double facts. Will demonstrate thinking through use of verbal number sentences / number stories and may choose to record these. In everyday contexts children are able to demonstrate through talk or when responding to questions an understanding of the number sequence, values, greater and less than, odd and even. Use of measures (size, weight and capacity) when comparing and combining quantities.	Begin to count reliably with numbers from 10 to 20, begin to place them in order and can write numerals with some accuracy. Able to give examples of numbers which are greater than/ less than for numbers beyond 10. Verbally counts to 30 and beyond. Can talk about the properties of shape and patterns, using vocabulary to describe position, direction and movement. Estimates, measures, weighs, and can compare and order objects. Talks about properties, position and the sequence of time.	Verbally count beyond 20, recognising the pattern of the counting system. • Compare quantities up to 10 in different contexts, 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.

The knowledge and skills then feed into the KS1 curriculum shared below