Mathematical skills progression in EYFS

Number and PV: Counting	
Pre-requisite skills	**ELG**
Use language associated with counting, such as “more”, “a lot”, “less”. Subitise small amounts of objects arranged in a regular pattern, such as a dice pattern. Subitise small amounts of objects arranged in an irregular pattern. Subitise smaller parts within a whole group of up to five objects Understand the language of ‘parts’ and ‘whole’. Understand that the ‘whole’ is made up of the ‘parts’. Children can use conceptual subitising to say the total of a group. They subitise smaller groups of objects within a larger group and combine. Children can say the ‘hidden number’ when they can see only part of a group of up to five objects. Use visual models to explore different compositions to ten. Children can see the two parts within a whole of up to ten pictures or objects. Children are able to say the missing number from number bonds within ten, using concrete objects or their fingers. Children can use their knowledge of the composition of numbers in practical situations and to solve problems Begin to develop one-to-one correspondence and say one number name for each object. Move or touch objects to count them. Can count things they can’t touch or see, such as pictures on a wall or sounds. This is known as the abstraction principle.	Subitise (recognise quantities without counting) up to 5. Verbally count beyond 20, recognising the pattern of the counting system. Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally. Verbally count beyond 20, recognising the pattern of the counting system;

Know that when objects are moved, spread out or moved closer together that the total remains the same. Know that the last number they say represents the number of objects in a group. This is known as the cardinal principle. Give someone a specified number of objects. Count out a specified number of objects from a larger group. Can count on when part of a set of objects is hidden. Fast recognition of up to three objects and can name the quantity, without having to count them individually Understand cardinality (when counting, the last number said is the number that the group contains), either through subitising or counting. Using concrete objects, children find different combinations of three (for example one and one and one, two and one, or three and zero), recognising that the total is still the same.	
Comparing Numbers	
	ELG
Compare sets of objects, saying when they have the same number. Compare sets of objects, saying which has more objects. Compare sets of objects, saying how many more are in each set Recognise when a group of objects is more than one. Can indicate, for example by pointing, which group of objects has 'more' objects. Can indicate, for example by pointing, which set has more or which set has less. Can indicate, for example by pointing, which group of objects has 'fewer' objects.	Have a deep understanding of number to 10, including the composition of each number. Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.

Recognise groups with one, two or three objects and begin to make comparisons between quantities, using the language of 'more' and 'fewer'. Match groups of objects with the same number. Compare two groups of objects, saying when they have the same number. Know that the quantity of objects stays the same when they are spread out or moved closer together. Understand that objects will appear different if they are spread out or different sizes. Make an estimate, such as choosing the group with more objects in.	
Identifying, representing and estimating numbers	
	ELG
Make an estimate, such as choosing the group with more objects in or choosing the group which has closest to ten objects. Can represent numbers using fingers, marks on paper or pictures. Can order objects, such as towers of bricks or pictures on cards, visually ordering numbers by saying which number is the largest and which is the smallest. Through a meaningful context, such as point scoring games, children can place their scores in order.	Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.
Reading and writing numbers	
	ELG
Can record using marks that they can interpret and explain. Can recognise numerals 0 to 5, then 0 to 10 when they are placed in order, such as reading along a number line. Can read a numeral from 0 to 5, then 0 to 10 and sometimes represent it correctly. Can recognise numerals 0 to 5, then 0 to 10 when placed out of order. Can order numerals 0 to 5. Can place consecutive numerals in order initially with numbers from 0 to 10, then progressing to numbers 0 to 20.	Explore and represent patterns within numbers up to 10

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Number: Addition and subtraction Mental calculation	
	ELG
Know that numbers identify how many objects are in a set. Separate a group of three or four objects in different ways, beginning to recognise that the total is still the same. Know that a group of things changes in quantity when something is added. Find one more than a number from one to ten. Say the number that is one more than a given number Know that numbers are made up of different numbers. For instance, four can be four and zero, one and three or two and two. Represent numbers in different ways, using equipment, five or ten-frames, part-part-whole models, number lines, stories. Understand the effect of adding zero. Find the total number of items in two groups by counting all of them. Select two groups of objects to make a given total of objects. Recognise the number of objects without counting. (0-5) Find out the 'total' or 'how many altogether' after two sets have been combined. Count on to add. Uses vocabulary of equals: makes, balances, same, total. Use vocabulary of addition: how many altogether, plus, more.	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. Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.

Understand addition as an increase.	
Problem solving	
	ELG
Arrange small quantities into pairs and notice that some quantities will have an odd one left over with no partner.	Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally

Number: Multiplication and division **Problem solving**	
	ELG
Arrange small quantities into pairs and notice that some quantities will have an odd one left over with no partner. Children understand fair and unfair when objects or snacks are shared between them. Children can share fairly through practical activities such as putting food on plates or sharing toys equally. Use the vocabulary of sharing such as 'equal groups', 'sharing fairly', 'shared between', 'fair' and 'unfair'. Compare groups of objects, saying when they have the same number. Children understand fair and unfair when objects or snacks are shared between them.	Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally

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Children can count the groups they have made and count how many objects are in each group. Children are aware that the original quantity remains unchanged, but it has been shared equally.	