EYFS Mathematics progression chart

Cardinality Counting	**Counting: Saying number names in sequence**. Initially to five, then ten, and extending to larger numbers, including crossing boundaries 19/20 and 29/30.	**Counting: Tagging each object with one number word** Children need lots of opportunities to count things in irregular arrangements. For example, how many play people are in the sandpit? How many cars have we got in the garage? These opportunities can also include counting things that cannot be seen, touched or moved.	**Counting: knowing the last number counted gives the total so far.** Children need the opportunity to count out or 'give' a number of things from a larger group, not just to count the number that are there. This is to support them in focusing on the 'stopping number' which gives the cardinal value.	**Subitising: recognising small quantities without needing to count them all** Subitising is recognising how many things are in a group without having to count them one by one. Children need opportunities to see regular arrangements of small quantities, e.g. a dice face, structured manipulatives, etc., and be encouraged to say the quantity represented. Children also need opportunities to recognise small amounts (up to five) when they are not in the 'regular' arrangement, e.g. small handfuls of objects. **Note: We are currently taking part in the Mastery number programme.**	**Numeral meanings** Children need to have the opportunity to match a number symbol with a number of things. Look for opportunities to have a range of number symbols available, e.g. wooden numerals, calculators, handwritten (include different examples of a number)	**Conservation: knowing that the number does not change if things are rearranged (as long as none have been added or taken away)** Children need the opportunity to recognise amounts that have been rearranged and to generalise that, if nothing has been added or taken away, then the amount is the same
Comparison	**More than / less than** Children need	**Identifying groups with the same**	**Comparing numbers and reasoning**	**Knowing the 'one more than/one less**		

	progressive experiences where they can compare collections and begin to talk about which group has more things. Initially, the groups need to be very obviously different, with one group having a widely different number of things. Collections should also offer challenges, such as including more small things and fewer large things, to draw attention to the numerosity of the comparison, i.e. the number of things, not the size of them.	**number of things.** Children need the opportunity to see that groups could consist of equal numbers of things. Children can check that groups are equal, by matching objects on a one-to one basis.	Children need Knowing the 'one more than/one less than' relationship between counting numbers opportunities to apply their understanding by comparing actual numbers and explaining which is more. For example, a child is shown two boxes and told one has 5 sweets in and the other has 3 sweets in. Which box would they pick to keep and why? Look for the reasoning in the response they give, i.e. 'I would pick the 5 box because 5 is more than 3 and I want more.' If shown two numerals, children can say which is larger by counting or matching one-to-one. Children can compare numbers that are far apart, near to and next to each other. For example, 8	**than' relationship between counting numbers.** Children need opportunities to see and begin to generalise the 'one more than/one less than' relationship between sequential numbers. They can apply this understanding by recognising when the quantity does not match the number, i.e. if a pack is labelled as 5 but contains only 4, the children can identify that this is not right. Support children in recognising that if they add one, they will get the next number, or if one is taken away, they will have the previous number. For example: 'There are 4 frogs on the log, 1 frog jumps off. How many will be left? How do you know?'		

			is a lot bigger than 2 but 3 is only a little bit bigger than 2.			
Composition	**Part–whole: identifying smaller numbers within a number (conceptual subitising – seeing groups and combining to a total**) Children need opportunities to see small numbers within a larger collection. 'Number talks' allow children to discuss what they see. For instance, with giant ladybirds: 'There are 5 spots altogether. I can see 4 and 1, I can see 3 and 2, and I can see 1 and 1 and 1 and 1 and 1.' Encourage exploration of all the ways that 'five' can be and look. Children are encouraged to look closely at numbers to see what else they can see. This reinforces the concept of conservation.	**Inverse operations** Children need opportunities to partition a number of things into two groups, and to recognise that those groups can be recombined to make the same total. Encourage children to say the whole number that the 'parts' make altogether.	**A number can be partitioned into different pairs of numbers** Children need opportunities to explore a range of ways to partition a whole number. The emphasis here is on identifying the pairs of numbers that make a total. Children can do this in two ways – physically separating a group, or constructing a group from two kinds of things.	**A number can be partitioned into more than two numbers** Children need opportunities to explore the different ways that numbers can be partitioned, i.e. into more than two groups. Situations to promote this include increasing the number of pots to put a given amount into, e.g. planting ten seeds into three or more pots.	**Number bonds: knowing which pairs make a given number** Children need opportunities to say how many are hidden in a known number of things. For example: 'Five toys go into a tent, then two come out. How many are left in the tent?' The child should respond that there are still three toys in the tent	
Pattern	**Continuing an AB**	**Copying an AB pattern**	**Continuing an ABC**	**Spotting an error in an**	**Generalising structures**	**Making a pattern**

	pattern **Copying an AB pattern**	 **Spotting an error in an AB pattern**	**pattern** **Make their own ABB, ABBC patterns**	**ABB pattern** **Symbolising the unit structure**	**to another context or mode** **Making a pattern which repeats around a circle**	**around a border with a fixed number of spaces** **Pattern-spotting around us**
Shape and space	**Developing spatial awareness: experiencing different viewpoints** **Developing spatial vocabulary**	**Shape awareness: developing shape awareness through construction** **Representing spatial relationships**	**Identifying similarities between shapes**	**Showing awareness of properties of shape**	**Describing properties of shape**	**Developing an awareness of relationships between shapes**
Measures	**Recognising attributes**	**Comparing amounts of continuous quantities**	**Showing awareness of comparison in estimating and predicting**	**Comparing indirectly**	**Recognising the relationship between the size and number of units** **Beginning to use units to compare things**	**Beginning to use time to sequence events** **Beginning to experience specific time durations**

NCETM progression chart