

Goldenhill Primary Academy

Curriculum Progression Map - Maths (EYFS)



Progression in Addition

Progression of Skills	Possible Misconceptions	Pedagogical Guidance
Know that numbers identify how many objects are in a set.	Children may not yet have developed the concept of cardinality (that the last number they say is the number of objects in the set).	Model counting objects, emphasising the last number to be said and then follow up with a sentence. For example, 'the last number I said was five so there are five cars'.
Separate a group of three or four objects in different ways, beginning to recognise that the total is still the same.	Children may think that the total number of objects changes once they are moved and will recount them.	Practise practically counting the same number of objects when arranged in lots of different ways. Allow children to discover that the total is always the same despite the arrangement.
Know that a group of things changes in quantity when something is added.	Children may not understand that when more objects are added to a group, the quantity of the group changes.	Encourage children to experience quantity changes by adding more in real-life situations with objects that they can relate to, such as snacks or toys. Using full sentences will deepen understanding. For example, 'we added two more then counted five, that means there are five trains altogether'.
Compare sets of objects, saying when they have the same number.	Children may think that 'same' refers to the appearance of the objects rather than the number in the set.	Begin by using objects that are the same colour before progressing to using objects that differ in appearance somehow, such as size or colour.
Compare sets of objects, saying which has more objects.	Children may think that the set of objects that are larger in size or are more spread out contain more than a set which contains smaller-sized objects or objects that are placed closer together	Begin by comparing groups of objects that are the same size and type, such as building bricks. Compare different layouts before you start to compare objects of different sizes. Provide children with opportunities to compare two groups of objects where the group with the smallest-sized objects have more than the group containing fewer, larger objects. For example, five buttons and three plates.



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Compare sets of objects, saying how many more are in each set.	Children may be able to count each set but may not be able to compare the two numbers.	Use objects, such as two towers made of building bricks or number lines, to demonstrate counting on and exploring how many more in each tower. Line objects up carefully to compare how many more are in one line. Using a meaningful context will enable children to make sense of their learning.
Find one more than a number from one to ten.	Children may not fully understand the term 'more'. They may not understand that 'one more' will always be the next number on a number line or in a counting sequence.	Adding one more in order will reinforce the concept, e.g. 'one more than zero is one, one more than one is two'. Children physically jumping along carpet tiles or using a number line with a puppet/small toy can help to make it clear that one more is the number after a given number. Giving children practical objects to count with, such as grapes, and adding one more each time then allowing them to count them will also reinforce learning.
Say the number that is one more than a given number	The concept of 'one more' may be too abstract. Children may not yet understand that one more will always be the next number on a number line or in a counting sequence.	Children may benefit from plenty of real-life examples to find one more and make links to this on a number line to identify the pattern. Number shapes may also help, as adding one to any shape will make the next shape in a sequence.
Know that numbers are made up of different numbers. For instance, four can be four and zero, one and three or two and two.	Children may not understand that numbers can be made up in many different ways.	Using a practical and fun context, such as fish and two fishbowls or cars and two garages, children can explore different ways to split the objects between them.



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Represent numbers in different ways, using equipment, five or ten-frames, part-part-whole models, number lines, stories.	Children may not understand that a number can be used for cardinal, nominal and ordinal purposes.	Provide opportunities for children to explore numbers in many contexts. For example, as labels, on a number line, the number in a set or as part of a story.
Understand the effect of adding zero.	Children may not understand the concept of zero. Therefore, they may think the answer is zero when zero is added to another number.	Use objects to model adding 'zero objects' on to lots of different numbers, emphasise that the number stays the same as nothing has been added. Adding the spots on dominoes is useful. If children think the answer is zero, you can challenge them by saying 'but I can see some spots here'.
Find the total number of items in two groups by counting all of them.	Children may count one group and then start counting from one again when they begin counting the next group.	Model counting two different groups of objects, carrying on counting the second group instead of starting from one again.
Select two groups of objects to make a given total of objects.	Children may not understand that numbers can be made by combining two groups of numbers.	Allow children plenty of time to explore a number in practical situations, such as five buns separated into two bags or five building bricks and two towers.
Recognise the number of objects without counting. (0-5)	Children may not yet be able to *subitise small numbers of objects. They may think they always have to count each object. *Recognise the number of objects in a set without the need to count them.	Arrange objects in familiar ways, such as the spot patterns on dice or dominoes. Then, arrange small numbers of objects in different ways for the children to see that the total stays the same and begin to develop the skill of subitising. Discuss groups within groups, such as seeing groups of two within a larger group of spots.



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Find out the 'total' or 'how many altogether' after two sets have been combined.	The words 'altogether' or 'total' may be unfamiliar to the children. They may not understand that they need to count both sets of objects.	Provide lots of practical examples for children to explore. Provide two distinct sets of objects for children to count, such as red cars and blue cars, and move them together and demonstrate counting how many there are altogether.
Count on to add.	Children may think they need to count the number they are on when counting on to add.	Play board games to demonstrate counting on, emphasise that children need to count the 'movement', e.g. start counting once they have jumped on to the next number. This can also be demonstrated on a number line.
Uses vocabulary of equals: makes, balances, same, total.	Children may relate certain vocabulary to other meanings, e.g. 'balances', as in 'weight'.	Discuss with the children what they think a word means and model the correct use of vocabulary through adult-led activities and play in continuous provision.
Use vocabulary of addition: how many altogether, plus, more.	Children may have limited or incorrect understanding of the vocabulary of addition.	Model the use of this vocabulary. Scaffold the children's learning by describing what they are doing using the vocabulary of addition. Snack time would be the perfect time for this as the language is being used in a practical context.
Understand addition as an increase.	Children may not have a good understanding of ordinal number and therefore a limited awareness of how numbers increase.	Practical activities where children can experience addition in this context, such as board games and an increase in prices, age or weight. Use of vertical number lines for addition to show that the number is getting higher and therefore bigger.