

EYFS Maths Calculation Policy

Early Learning Goals:

- children count reliably with numbers from one to 20
- children place numbers in order up to 20
- children can say which number is one more or one less than a given number
- using quantities and objects, children add and subtract two single digit numbers and count on or back to find the answer
- children solve problems, including doubling, halving and sharing



EYFS
Numbers

BY THE END OF EYFS

Children will be using the language of 'more' and 'fewer' to compare two sets of objects; finding the total number of items in two groups by counting all of them; saying the number that is one more than a given number; finding one more or one less from a group of up to ten objects; beginning to use the vocabulary involved in adding and subtracting in practical activities and discussion; recording using marks that he/she can interpret and explain.

Using Numicom Firm Foundations Kit to aid the understanding of number.

Numicom is freely available for children to explore in their play. Children are encouraged to look for Numicom shapes in the sand tray and fish for them in water play.



The matching of shapes to baseboards is offered as an independent activity.

Visualising the properties of the shapes in a feely bag, helps children develop their own mental imagery of number.



'Concept images' help children to 'visualise' the number and practically compare numbers through play as well as direct teaching. These include: Numicom shapes; a position on a number line; a numeral; a word; images using random arrangements for the number; counting experiences; 'everyday life' interpretations.



five



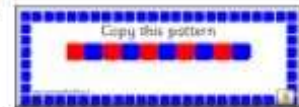
Developing an understanding of number

Children are given a strong understanding of number by engaging in a variety of practical activities during continuous provision as well as daily, quality first teaching sessions.

Direct teaching is based around number recognition, ordering of number, 1:1 correspondence, addition and subtraction through the use of practical activities and mathematical vocabulary. Through play and questioning, during continuous provision both inside and outside the classroom, children can develop their use of a variety of technical language to support their learning.

Recognising patterns, Ordering numbers, Comparing numbers and Counting

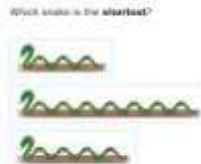
Children are encouraged to recognise, make and predict patterns.



The most important regularity in numbers is their order.



The idea of comparison is the basis of all forms of measurement.



Children should be encouraged to count collections at every opportunity, noticing that the final number they arrive at describes how many objects there are in the collection.



Moving beyond counting

It is through counting activities that children begin to develop their early understanding of numbers. When calculating, however, numbers must be conceived as a 'whole', i.e. 'four' is not the chain 'one-two-three-four', it is a 'whole' itself.

Children use Numicon shape patterns to see that 'four' looks like 'one less than five', 'one more than three', and 'two twos'. Seeing these relationships are the foundations for calculation.



When asking children 'how many?', children should be taught to count in ones and group in tens; this introduces the idea of place value. Therefore 'seventeen' is expressed as 'one ten and seven (ones)'.



Addition of numbers

There are two types of addition situations:

Here quantities are added together:



Here 'something more' is added:



Subtraction of numbers

Subtraction involves four different kinds of situation.

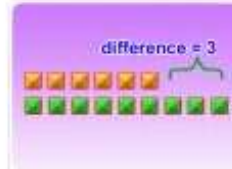
Taking away (a loss):



Taking away ('decrease'):



Comparison (finding the difference):



Keep adding to reach a target:
How many jumps from 5 to reach 8?



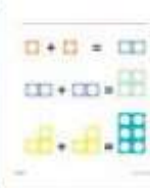
How many more to get to 7 from 4?



Multiplying & Dividing numbers

Children need to solve problems involving doubling, halving and sharing.

Doubling:



Halving:



Sharing:

