

Addition – EYFS

GUIDANCE/MODELS AND IMAGES

Numicon shapes are introduced straight away and can be used to:

- Identify 1 more/less
- Combine pieces to add
- Find number bonds
- Add **without counting**.



Children can record work by printing or drawing around Numicon pieces.

Children begin to combine groups of objects using concrete apparatus:



They set objects out in the same shape as the Numicon plates to support their calculation rather than counting:



Construct number sentences verbally or using cards to go with practical activities.

Children are encouraged to read number sentences aloud in different ways: “3 add 2 equals 5” “5 is equal to 3 and 2.”

Children make a record in pictures, words or symbols of addition activities already carried out.

Solve simple problems using fingers:

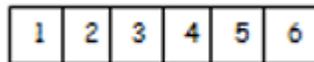


$$5 + 1 = 6$$

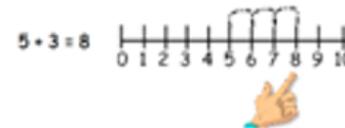
and Numicon



Number tracks can be used to count up on and to find one more: What is 1 more than 4? 1 more than 13?



Number lines can then be used alongside number tracks and practical apparatus to solve addition calculations and word problems:



Children need lots of opportunities to look at and talk about different models and images as they move between representations.

The maths should be meaningful so wherever possible the concepts should be taught in real-life contexts.

KEY VOCABULARY

Games and songs are useful ways to introduce vocabulary e.g. Alice the Camel

add

more

and

make

sum

total

altogether

score

double

one more, two more, ten more...

How many more to make...?

Is the same as

Subtraction – EYFS

GUIDANCE/MODELS AND IMAGES

Children have an understanding of what 'less' means and are able to say one less than a given number.

They use objects, pictures and concrete apparatus to relate subtraction to taking away and counting how many objects are left:



They use fingers and Numicon to solve simple problems (Numicon encourages children to calculate rather than count):



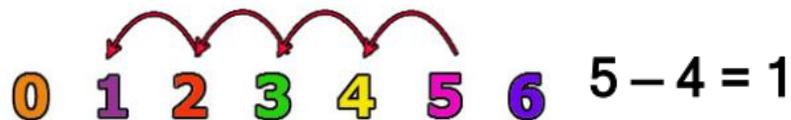
Children make a record in pictures, words, Numicon shapes or symbols of subtraction activities already carried out.

Children are encouraged to read number sentences aloud in different ways:

"5 subtract 1 leaves 4" "Six take away 3 equals 3"

Children construct number sentences verbally or using cards to go with practical activities.

Number lines can then be used alongside number tracks and practical apparatus to solve subtraction calculations and word problems: "jump" back to "count down" the number line.

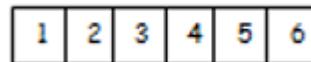


Children need lots of opportunities to look at and talk about different models and images as they move between representations.

The maths should be meaningful so wherever possible the concepts should be taught in real-life contexts.



10 take away 5 leaves 5



KEY VOCABULARY

Games and songs are useful ways to introduce vocabulary

e.g. Five little men in a flying saucer

take (away)

leave

how many are left/left over?

how many have gone?

one less, two less, ten less ...

How many more is ... than ...?

How many fewer is ... than ...?

difference between

is the same as

Multiplication – EYFS

GUIDANCE/MODELS AND IMAGES

The link between addition and multiplication can be introduced and reinforced through repeated addition of the same number.

Children use objects, Numicon and pictorial representations:



Real life contexts and use of practical equipment supports counting in repeated groups of the same size:



Children count in 2s, 5s and 10s, both aloud and with objects such as Numicon or other concrete apparatus

2, 4, 6, 8, 10, 12

Children are encouraged to read number sentences aloud in different ways: e.g. “Five groups of two makes ten” “Three lots of two is the same as six”

Children are given multiplication problems set in a real life context and are encouraged to visualise the problem.
e.g. “How many fingers on two hands?” “How many sides on three triangles?”



“How many legs on 4 ducks?”



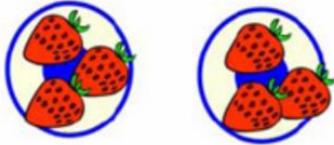
KEY VOCABULARY

- lots of
- groups of
- times
- times as (big, long, wide etc.)
- multiply
- multiplied by
- repeated addition
- double
- combine
- twos, fives, tens

Division – EYFS

GUIDANCE/MODELS AND IMAGES

Division can be introduced through halving or sharing equally into 2 groups.



When moving to pictorial representations, children mostly begin with ones relating to real life contexts:



Grouping Model

Mum has 6 socks. She grouped them into pairs.
How many pairs did she make?

Sharing Model

I have 10 sweets. I want to share them
How many will we have each?



with my friend.

Children need to see and hear representations of division as both grouping and sharing. (The sharing model is also useful for introducing children to fractions in practical contexts e.g. sharing one cake between two people.)

Children have a go at recording the calculation that has been carried out:
e.g. by drawing pictures in groups or by arranging concrete apparatus into groups.



12 shared equally by 3 is 4

KEY VOCABULARY

halve

share

share equally

one each, two each, three each,

group in pairs / threes / tens,

equal groups of

in equal parts

left

left over

half