

Maths Workshop

November 2017

By the end of Year R, children should achieve the Early Learning Goal (ELG).

Children count reliably with numbers from 1 to 20, place them in order and say which number is one more or one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer. They solve problems, including doubling, halving and sharing.

Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems. They recognise, create and describe patterns. They explore characteristics of everyday objects and shapes and use mathematical language to describe them.

Since we were at school, there is a greater understanding of how children learn maths. Now we know that children learn best when they are involved practically, especially in play, rather than by rote.

Children learn at different speeds, both to each other and also at different times in their lives.

Children with a good understanding of the number system will have a more secure foundation for mathematical learning.

Numicon



In order for children to learn they have to 'do' maths. For it to be internalised, children have to manipulate and control the concrete equipment themselves, otherwise it is visual learning.

Numicon Challenge

Order the Numicon from smallest to largest.
What patterns do you see?

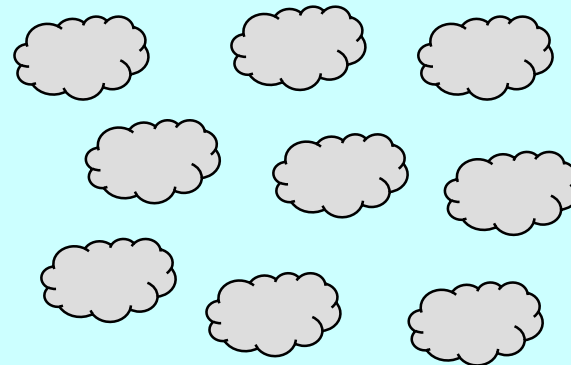
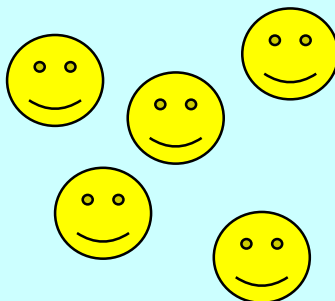


- 1 more/1 less
- Counting in twos
- odds and even numbers

Subitising

Subitising is instantly recognising a number in small groups without having to count it.

This is INCREDIBLY important. Year R children must be able to subitise small number quantities. Research has shown that children that can not do this when leaving Year R have mathematical difficulty.



Numicon is good for Yr R children to know inside out, without having to count it.

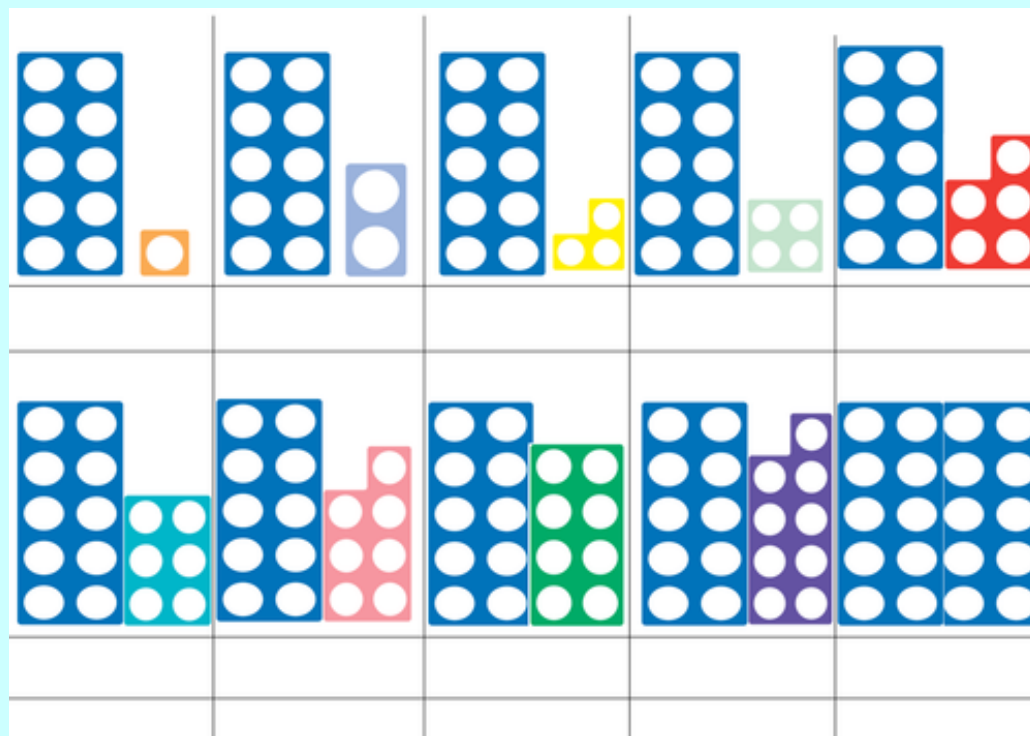
Numbers and representations

Numbers are abstract ideas,
all we can do is *show*
children our number
representations.

Numbers are arbitrary
symbols.

The Numicon number line is
very effective for showing
teens numbers.

Tens should ALWAYS be in
the left and ones on the
right so children can see it as
10 and some more.



How we teach Maths in Year R

5 x Whole Class carpet sessions (10-15 mins each).

1 x Adult led group session.

Many activities that have been made available in the classroom to enhance children's mathematical learning.

Demonstration Maths session

Numbers to 20
Demonstartion Lesson

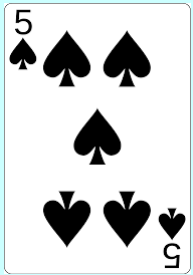
Counting

0 to 20 only, so children can be secure in the number system before they move on to work with bigger numbers.

Lots of practising to make sure children are counting objects accurately with touch counting.

Seeing a number represented in many ways (see next slide).

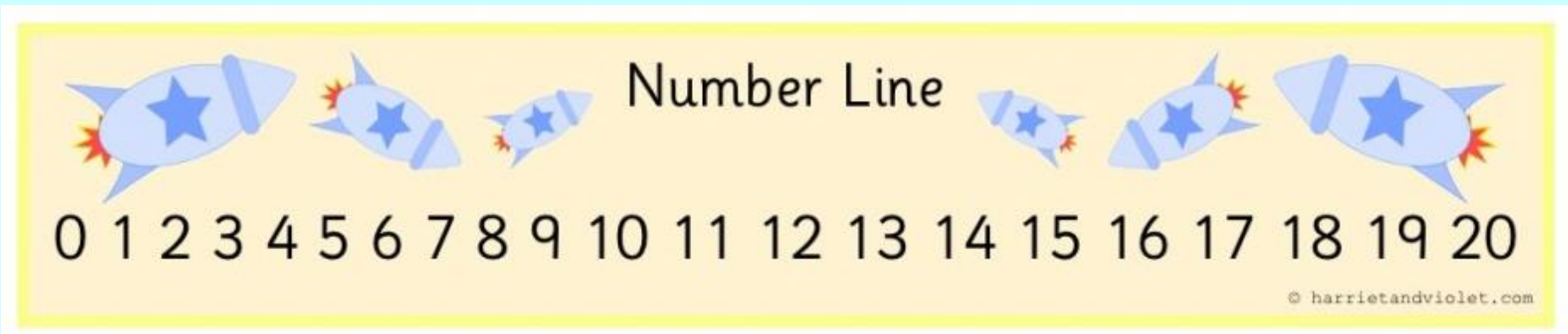
The concept of 5





Calculations

Addition
Subtraction
Division
Multiplication

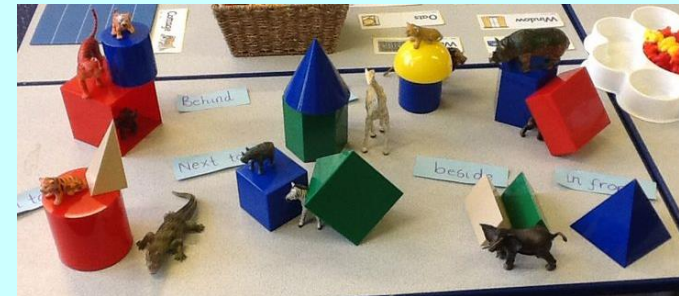


Shape, Space and Measure



Length
Height
Weight
Capacity
Time

Position
2d and 3d shape
Pattern



In Year R, we teach measures by comparing, then ordering, then using Non-Standard Units.

Recording

In Year R, we do not record in the same way as other year groups. The emphasis is on practical activity and deeper understanding.

- Children will make their own choices about how to represent their mathematical understanding.
- Children will use their own graphics to represent this.
- If children use numerals in their recording, they will be supported to use the correct formation.

Resources

There are apps and website available, but the range is not as good as it is for phonics.

www.oxfordowl.co.uk

www.maths4mumsanddads.co.uk

www.bbc.co.uk/bitesize

www.ictgames.com

www.mathszone.co.uk

www.topmarks.co.uk

www.familymathstoolkit.org.uk

www.crickweb.co.uk

www.counton.org

www.pinterest.com

Maths tappers (app)

Amazing coin (GBP£) (app)

Dragon Box (app)

Shape Up! (app)

Maths, age 3-5 (app)

You Tube – Numberjacks, NumTums, Numberblocks (all Cbeebies)

Activities to share

Numicon and gems

What's in the bag? (2D shape)

Number track game

Example of shop bought game

Number recognition/ordering