Mathematics in the Early Years

15th March 2017

Aims of the session

- To explain mathematics in the Foundation Stage
- To understand what and how it is taught
- Progression of skills
- Supporting your child at home

It is vital to lay secure foundations in early mathematics.

How can we do this?

- It is vital to lay secure foundations in early mathematics.
- Children need to engage with numbers and to see how to use them in their everyday environment for labelling, quantifying and calculating.
- We want to help them to develop a better understanding of the world in which they live.

The teaching of Mathematics in the Early Years

Foundation Stage (EYFS) is made up of two main areas:

- Numbers
- Shape, Space and Measure

Learning through play

- Throughout the Early Years, children will be continuously developing their mathematical awareness through play opportunities.

The teaching of Mathematics in the Early Years

Early stages of mathematical development

- Develops an awareness of number names through their enjoyment of action rhymes and songs that relate to their experience of numbers.

- Beginning to organise and categorise objects, e.g. putting all the teddy bears together or teddies and cars in separate piles.

- Says some counting words randomly.

- Recites numbers in order to 10.

- Creates and experiments with symbols and marks representing ideas of number.

- Begins to make comparisons between quantities.

- Shows an interest in numerals in the environment .

Numbers

Counting is a significant aspect of children's early understanding of number and is the foundation on which quantifying and calculating are built.

Key themes which ensure that children experience high-quality teaching in mathematics include:

- Count forwards and backwards to 20
- Recognise numbers to 20 and beyond
- Order numbers independently
- Count objects reliably/ estimate
- Find 1 more or less, same
- Calculate
- Solve problems

How can we do this?

- Through short teaching inputs, guided group work and through their independent play
- In purposeful contexts
- Exploiting mathematical potential of the environment
- Effective questioning

Activities

- Singing number songs
- Mathematical games
- Counting on fingers and using different objects (Numicon)
- Number rhymes, recording numbers
- Ordering mixed up numbers on a washing line

‘I want more…!’

- Children understand and begin to use the word ‘more’ from a very young age.

- Children like to demand more sweets, treats, time and toys! They are able to make the connection between this word and its meaning.

Important…

- Children must be secure about the order of numbers before they can be asked to work out what number becomes before or after

How can you check that they are?

Don’t race ahead!

COUNT COUNT COUNT COUNT

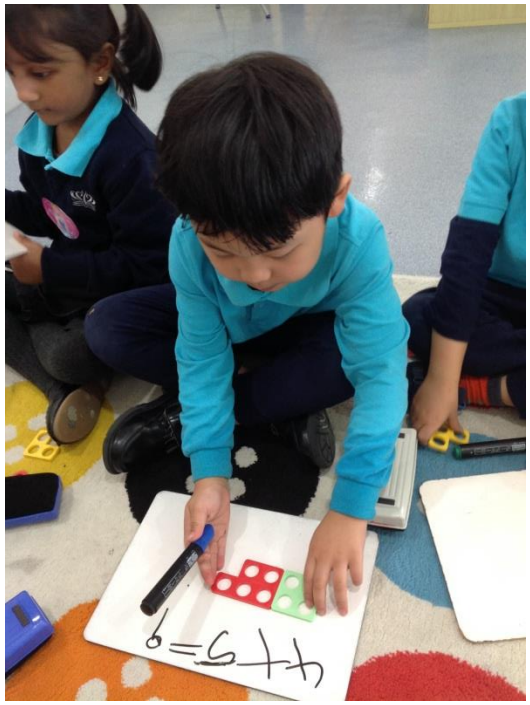
The teaching of Mathematics in the Early Years

Addition and Subtraction

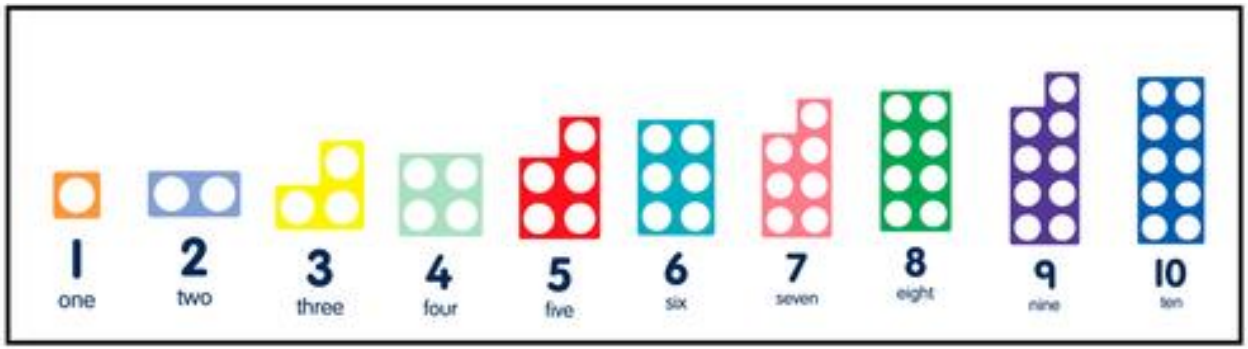
- Vocabulary
- Use of signs and actions
- Link to understanding of concept of more/less
- Make it visual and practical!

‘Two dolls add three bears equals…’

2 + 3 =



Numicon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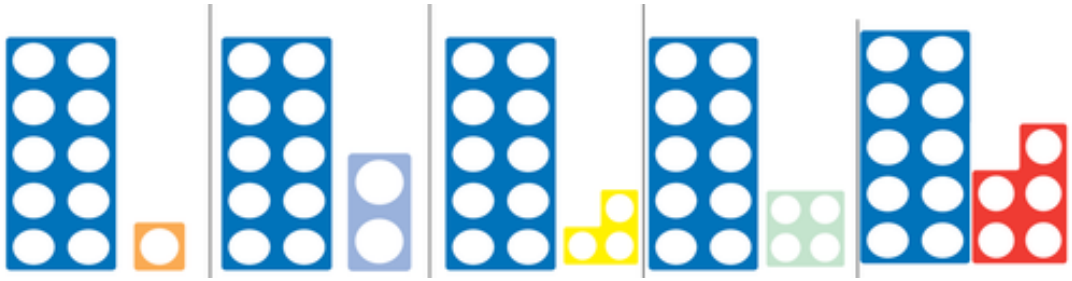
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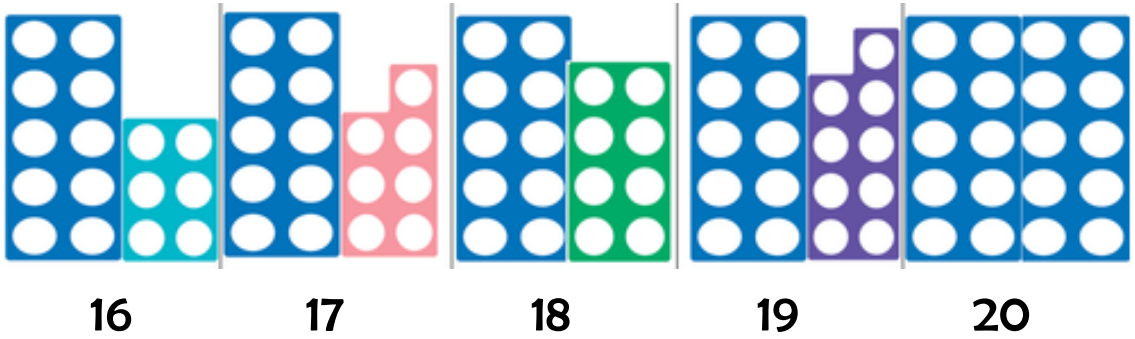
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Numicon

Shape, Space and Measure

Key themes include:

- Name and describe 2D and 3D shapes
- Positional language
- Order objects by length/weight/capacity
- Money
- Time
- Patterns

Shape, Space and Measure through play

Shape, Space and Measure through play

The teaching of Mathematics in the Early Years

Resources to support our teaching

- Number line
- Number square
- Numicon
- Magnetic numbers
- Hand puppets
- Beads
- Roll and Write numbers
- Abacus
- Hoops and everyday objects
- Dominoes, counters, dice

The teaching of Mathematics in the Early Years

Time for questions

Evaluation forms

Thank you.