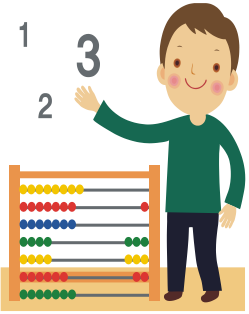




# Reception Mathematics Meeting

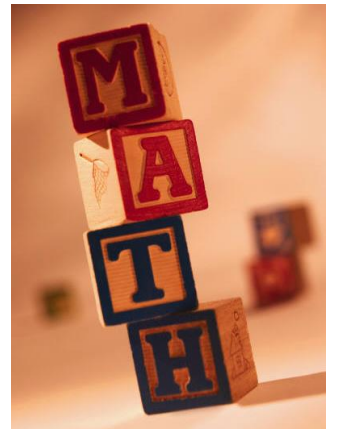




## How can I help my child with maths?

### Aims:

- Understand the curriculum requirements for children in Reception.
- To develop your understanding of the key strategies used.
- Recognise ways to help develop your child's mathematics at home.



# Mathematics

It is vital that your child has secure foundations in early mathematics in order to make good progress.

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.



# Early Years Framework



By the end of reception

## Number:

Have a deep understanding of number to 10, including the composition of each number.

Subitise (recognize quantities without counting) up to 5.

Automatically recall number bonds to 5 and some number bonds to 10, including double facts.

## Numerical Patterns:

Verbally count beyond 20, recognising the pattern of the counting system.

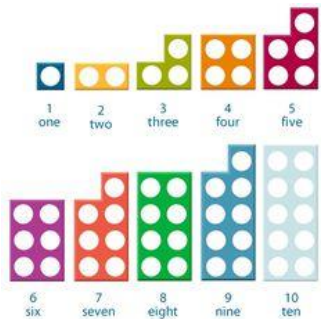
Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.

Explore and represent patterns within numbers to 10, including evens and odds, double facts and how quantities can be distributed equally.

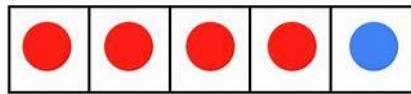
# In School

## Number

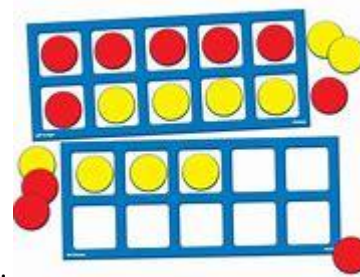
- Every day your child takes part in an oral and mental starter at the beginning of each maths lesson. This is a short activity that enables the children to rehearse counting skills and number facts which are usually part of an ongoing consolidation activity over a week.
- Through out the lesson we provide children with a range of stimulating resources and encourage open ended problem solving.



Numicon - helps children see the relationship between numbers.



Five & Ten frames - Helps children understand, counting, addition and subtraction. Most importantly it allows them to practice mental math and to subitise.



Natural materials



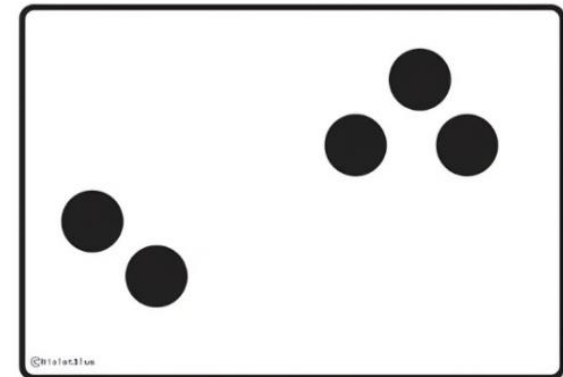
# Subitising

Subitising is the ability to look at a small number of objects/dots and instantly recognise how many there are without needing to count. Subitising is recognised as a really important skill in early maths development in young children, and it's really important to develop and practise subitising even before the skill of counting.

## Why is Subitising Important?

Subitising is important because:

- It develops understanding of what numbers mean or how many 'things' a number refers to;
- It develops pattern recognition;
- It reduces over-reliance on counting.



# Helping Your Child at Home

These activities are easy to do with items you can easily find in your home and surrounding area.

- **Finding Groups** This game can be played in the house or when you are out in the garden or having a walk. All you need to do is challenge your child to find groups of objects and tell you what they see - maybe three leaves on a branch, two clouds in the sky, four pebbles on the ground. You can do the same with small bricks, pieces of pasta or counters - scatter some onto the table or the carpet and help your child to notice groups. You could also challenge your child to find groups of a specific number of objects, such as three. Avoid asking the question 'how many?' as this can encourage counting. Instead, say, 'What do you see?' To develop this further you can compare two quantities using the language more/fewer and also ask 1 more or less questions.
- **Show Me** Ask your child to look at a group of objects and show you on their fingers what they can see. You can take this further by asking your child if they can show you the number in different ways. For example, showing three using two fingers on one hand and one on the other, or three fingers on one hand.
- **Beat the Clock** Use flashcards showing different numbers of objects up to five and challenge your child to see how quickly they can tell you what number they see. You could also use dice, dominoes or playing cards - anything with groups of dots or other images. Alternatively, scatter up to five small items, such as counters, pasta shapes or plastic bricks onto the table or carpet and see how quickly your child can tell you what number they see.



# Composition

- When a child understands the composition of number, they understand that numbers are made up of other numbers. They 'see the numbers inside' other numbers: first, that all numbers are made up of ones, and then that they can be made up of pairs of bigger numbers.

So for example, 5 is made of 'five ones', or of '1 and 4', or of '2 and 3'.

- The *CBeebies' Numberblocks* characters demonstrate this with their ability to split into other characters.



- The concept of composition allows children to build fluency with number bonds, e.g. number bonds of 5 are: 0 and 5, 1 and 4, 2 and 3. It is also crucial in starting to understand addition and subtraction and their inverse relationship.



# Helping Your Child at Home

- Composition to 5 (or any other number) - Ask your child to collect 5 soft toys and provide two large circles for sorting. How many teddies do you have? Can you sort them into two groups? How many teddies are in each group? (they should be able to subitise) How many altogether? Can you sort them a different way?



- Dropping game - Give your child 5 1p coins or 5 pieces of Lego. Ask them to drop them all on to a tray. Ask them to subitise - What can they see? Which parts make up the whole five? Encourage your child to say; 'I can see a two, a two and a one and that make a whole five.' Repeat. How many different ways can they find?



# Other ideas - How can you help?

- Sing a range of counting songs with your child.
- Start counting from different points within 20 e.g. start at 4 or 8 and count on up to 20.
- Give your child some number cards to 10/20 and ask them to order them.
- Say the number names using active maths strategies e.g. ski down a slope counting to twenty, play 1 more/less tennis!
- Say the numbers in the wrong order - can your child spot the error.
- Play number games - bingo, number snap.
- Draw numbers in chalk/sand/water/paint .
- Make tally marks and charts.
- Talk about special numbers (house number, age, birth date etc.)



# Early Calculation

We teach addition and subtraction practically using objects alongside 5/10 frames. As the year progresses we show the children the number sentence so that they become familiar with the +, - and = signs.

We use a range of language

+ addition, add, more, plus, make, total, altogether

- subtraction, subtract, minus, less, take away

= equals, makes, totals

# Shape, Space and Measures



- Although this not an early learning goal. Shape and measure is an important aspect of **mathematical development**. Children need to learn about shapes in their environment and the concept of measure in order to gain spatial awareness and mathematical understanding.



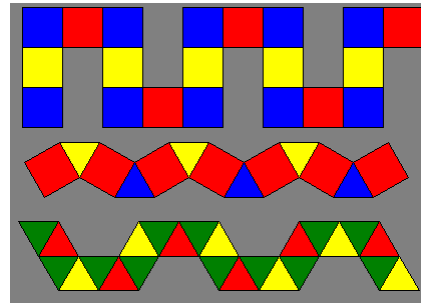
# How can you help?

- Point out the maths in everyday life, and include your child in everyday activities where you use maths - handling money, shopping, cooking, and travelling by car or bus.
- Talk about time - for example, how long does it take to walk to school/the park? What time do you need to leave the house so that you're at school on time? Explain that you are doing maths.
- Put things in order - of weight, height, size. Ask your child to help you organise things at home.

- Talk about the shape and size of objects, e.g. big car, little car, round ball, square table, rectangular book, and ask them questions like 'pass me the biggest box', or 'which one is the smallest shoe'.
- Go on a shape hunt - how many circles, squares, rectangles, triangles can you and your child find? Are they 2D or 3D? You can look for patterns and symmetry too.



- Create patterns - make up short dances, or rhythms using your body (e.g. clap, clap, stomp, clap, clap, stomp)
- Make patterns with objects, colouring pencils, paint or play-dough.



- Play with containers - how many socks can you fit in the box? Which container holds the most sand/water etc. How many sweets are in the jar? Ask your child to predict an answer and then do the activity to see if they were right/how close they were.



*Any questions?*

