

Mathematics

This area of learning includes developing mathematical understanding through **stories, songs, games, everyday activities and imaginative play** so that children enjoy experimenting with and become confident and curious about numbers, shapes, patterns and measures.



Some common misconceptions by parents....

"I'm not good at maths so neither will my child"

"My child can count"

"My child knows all his numbers"

"My child can't do sums"

"I'm not good at maths so neither will my child"

Most people think they are not good at maths because they have a narrow understanding of what maths is.
Maths makes up a huge part of our day!



Maths is more than numbers and counting.

It is pattern, language, problem solving, estimating, sorting, matching, sequencing

Evidence shows that we are born mathematical, and even in the first few months of life babies can discriminate between one, two, or three objects, actions or sounds.

"My child can count"

- Rote counting only where child has no idea of numerical value and simply lists the numbers (mostly in order)
- The sequence can't be broken and usually always starts at 1.
- Child is unable to count objects and has little understanding that a number name represents an amount.
- Child is unable to accurately count all the objects in a group (1:1 correspondence)

"My child knows all his numbers"

Child has no awareness that a number is a symbol to represent a numerical amount



What about the times when the amount is not always related to quantity?

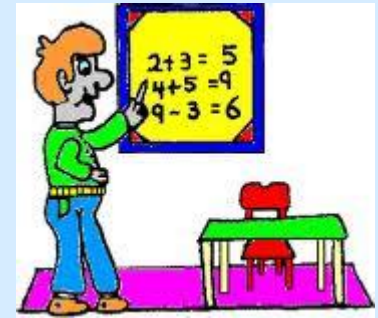


"My child can't do sums."

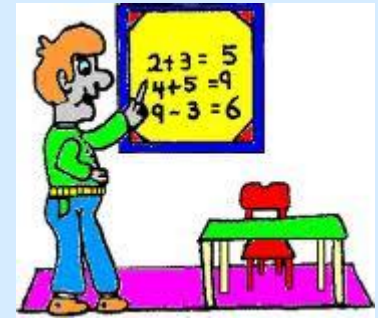
Solving problems

The language of mathematics

How many?
How many more?
How many less?
Too much
Too little
Not enough
Same
Different
Fewer than
Less than,
More than,
Adding,
Subtracting,
Taking away,
Sharing
Longer
Taller
Shorter
Faster
Slower
Heavier
Lighter
Wider
Narrower
Deeper
Shallower
First
Second
Last



"My child can't do sums."



Eg a child has a packet of sweets and eats them all. He asks for more and the parent gives him another 1 or 2 more. What does the child think?

Counting all

Counting on or back (from any number?)

In asking a child to "do sums" (number sentences) we are actually asking a child to recognise a numeral, understand its numerical value, understand a symbol for addition and subtraction, (or division/multiplication) choose a calculation strategy, work it out (!), hold their pencils correctly, (thus using their fine motor skills which are still being developed) "write" this (mainly going clockwise rather than anticlockwise that they have learnt) whilst remembering the above!

How parents and practitioners can help...

- Practice counting at every opportunity! Socks, cars, conkers, sheep in a field, pictures in stories ... Ask questions such as how many altogether? Which number is one more/one less?
- Count out loud with your child saying the names of numbers clearly, stressing TEEN numbers (especially 13 and 15!)
- Show and name numbers to your child at all opportunities, including TV remotes and channels, telephones, car number plates, clocks, page numbers, money (coins and notes),
- Sing songs or rhymes with numbers in them; 10 In The Bed, 5 Little Ducks, 10 Fat Sausages, 5 cheeky monkeys etc.
- Read stories with numbers in them, e.g. The Very Hungry Caterpillar,
- Use mathematical language; add, take away, number names, find the difference
- Count on using fingers (put 3 in my head, add 2 using fingers)
- Encourage children to identify shapes around them; do a circle spotting hunt, square spotting etc.
- Apply mathematics to real life; shape, money, and shopping, amounts of objects, weighing and measuring etc
- Sort objects eg can your child sort out the cutlery and set the table for 3 people?
- Order length eg can your child pair up different shoes then order them in size? Order objects according to weight (which is heavy and light)
- Finding patterns (eg wallpaper) and copying them
- Playing board games like snakes and ladders for counting on
- Sharing objects eg There's 4 apples and 2 of us, how many shall we have each? Or there's 2 apples and 4 of us, how can we share them?

Year 1



- Building on knowledge from Reception.
- Still very practical activities, using counters, dice, number lines etc.
- Begin to record informally (not using the column method).
- Develop their vocabulary.
- Start to apply Maths to real life problems and word problems.

Year 1



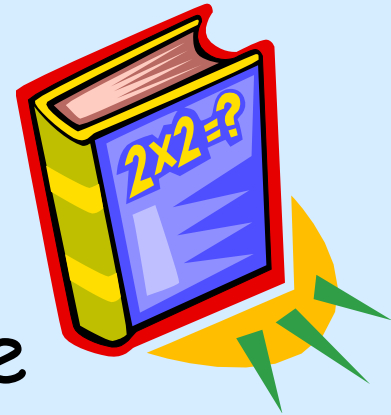
- Start to become less reliant on physical objects and start to develop mental strategies.
- Gain a wider understanding of where and how Maths is used (it's not just adding and takeaway sums).

Maths at Home



- Reading and recognising numbers out and about e.g. house numbers, prices, sign posts etc.
- Counting objects out loud - ask questions e.g. How many are there altogether? If I added/took away 4 how much would there be then?
- Practise writing numbers and forming them correctly.

Year 2



- Begin to record formally using the column method building on work with number lines
- Applying maths to word problems
- Becoming aware of different vocabulary for add, subtract, share, times
- Developing mental strategies
- All of this is preparation for the SATs

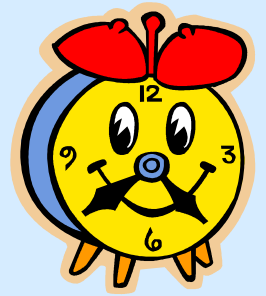
SATs



- Some mental maths questions - not timed
- Informal setting
- The children will be used to the paper style
- Variety of questions - problem solving based



Maths at Home



- Telling the time - key points in the day you do things, how many minutes until tea time/bath time/bedtime?
- Money - asking children how much 2 things will cost, what change will they get?
- Counting objects - is there an odd or even amount? How old are people? What is the difference between people's ages?