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## HOW PARENTS CAN HELP WITH MATHS

Parents often want to help their children with maths at home but they feel uncertain of the best way to do it.

Our children's mathematical education started when they were very young, just as their language development did.

Talking to our children as they play, help around the house (eg cooking/baking) or go shopping with us, will develop mathematical ideas in an informal way.

This book contains ideas and suggestions for you to help your child to have a better understanding of maths. It will help them to develop a mathematical vocabulary and concepts. We hope you and your children enjoy trying some of them together.


## MENTAL ARITHMETIC

This can start very simply. You can ask your children questions such as:
You have 5 toes on one foot.
How many on both feet?
What number comes after 6 ?
The answer is 10. What was the question?
(Your child may say $5+5$, or $6+4$, or $20-10$, or $5 \times 2$, etc.
This may be adapted to suit the child's ability.)
You could count the stairs on the way to bed.
In the car you can count to 100, or count back. Count in $2 s, 5$ s or 10 s.
Look at number plates on cars. How many $2 s$ do you see?
Singing and saying number rhymes.

## SORTING

Children can help to put their socks in pairs or put clothes away after washing. They can help to lay the table.


## MEASUREMENT

Children can check their own height and weight and look at sizes when buying clothes. They can help to weigh and measure when cooking and play with different size containers when washing up or playing in the bath.

## MONEY

You can help your children understand money by playing shop, giving them pocket money and helping manage it, or by letting them help when you pay for small items.

Children often have difficulty with the concept of 2 p or 5 p or 10p in one coin, or of receiving change, so the more practice they have at this, the better.

## SHAPE

You can notice squares, rectangles, circles, triangles, cubes, cylinders, etc, everywhere. Find out how things can or cannot be stacked or fitted together, eg tins or packets in the cupboard, and look in the supermarket.

## TIME

You can talk about the order of events in your day-meal times, school time, bedtime, and planning TV viewing. The children will need access to an analogue and digital clock or watch.

Help your child to recognise the pattern of time in days, weeks, months and seasons.


## GAMES TO PLAY

## Fizz Buzz

Count in turns as far as you can, but say FIZZ for every multiple of 2 , and BUZZ for every multiple of 5 .

## Guess my number

The first person thinks of a number. The second person then asks questions, which can only have yes or no answers, to find the number. To begin with children will ask questions like: "Is it 23?". You can encourage them to develop logical thinking by asking questions such as: "Is it more than 10?", "Is it less than 15?". The aim is to find the number with the least number of questions.

## Guess what the computer is doing

One person is the computer and decides what mathematical operation the computer will do, eg $+3, x 2,-5$, etc. The other players then feed numbers into the computer, which gives them the appropriate answers. The players then work out the computer's rule. This can be played at increasingly difficult levels, especially if a calculator is used.

First to 20
A player writes down a number between 1 and 5. The next player adds on a number between 1 and 5. Each player continues to add numbers in turn between 1 and 5 . The winner is the one who reaches 20 first. Older children can play up to 100 or down from 100. They could use bigger jumps.

## Outdoor games

Hopscotch, 5 stone or skipping games

## Take a line for a walk

Without taking your pencil from the paper, draw a wiggly line or draw straight lines with a ruler. Colour in with only 4 colours so that the same colour is never in a neighbouring space.

## Shape pictures

Draw a picture using squares or triangles only etc.

## Numbers noughts and crosses

This is played like noughts and crosses, but instead of using ' $O$ s' and ' $X$ s', the numbers 1 to 9 are used. Player 1 can use each of the odd numbers once, and player 2 can use each of the even numbers once. The object of the game is for 1 player to make a row, column or diagonal of 15 .

## Commercial games

Many commercial games help to develop number skills or logical thought. You could try Connect 4, snakes \& ladders, ludo, draughts, dominoes, othello, solitaire. Or card games like rummy, beat jack out of town, patience.

Playing cards are a particularly useful source for maths. Take numbers 1 to 9 , lay out, and pair those that together make 10.

