



How to help your child with fluency in Maths in Year 1

The National Curriculum

This statutory document aims: **For children to become fluent in the fundamentals of mathematics**, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and are able to recall and apply their knowledge rapidly and accurately.

What is mathematical fluency?

consists of three elements: **Efficiency**, **accuracy** and **flexibility**.

Efficiency is about not struggling with too many steps or losing sight of the logic of the problem. An efficient strategy is one that a student can carry out easily, keeping track of steps and make use of intermediate results to solve the problem.

Accuracy depends on several aspects of the problem-solving process, among them careful recording, knowledge of number facts and other important number relationships and checking results.

Flexibility requires knowledge of more than one approach to solving a particular kind of problem, such as two-digit multiplication. Students need to be flexible in order to choose an appropriate strategy for the numbers involved, and also to be able to use one method to solve a problem and another method to check the results.

Fluency requires more of pupils than memorising a single procedure.

They need to understand what they are doing and why they are doing it.

Why support your child's mathematical fluency?

Helping your child to develop their mathematical fluency will lay the foundations for them becoming confident mathematicians and help to support their financial wellbeing in adult life. No-one is born a good or bad mathematician, all pupils have the ability to develop their mathematical fluency and confidence.



How to support your child's mathematical fluency:

Reading books

Take the opportunity when reading picture books to count objects, or to discuss the position of things. Compare the amount of objects you can see on different pages. You can ask questions such as;

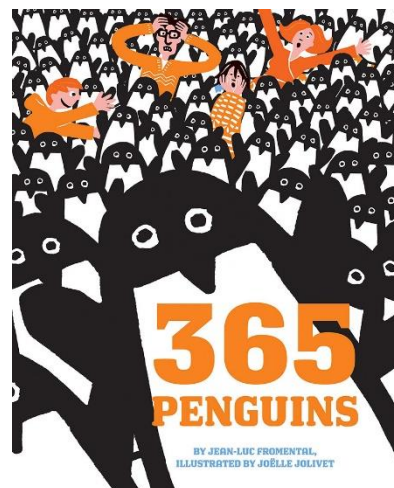
"How many apples can you see?", What if I add one more?, Where is the puppy?,
'What is under the tree?, Which is the biggest? Which is the smallest?"

There are some excellent and enjoyable books which have a mathematical focus such as

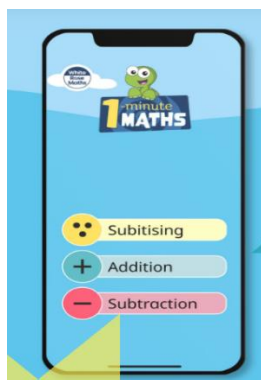
- 'The great pet sale' by Mick Inkpen
- '365 penguins' by Jean-Luc Fromental
- One is a snail, 10 is a crab

Counting

- Count in 1's up to 20 and back again.
- Count in 1's beyond 20.
- Count from 0 in 2's up to 20
- Count from 0 in 5's up to 50
- Count from 0 in 10's up to 100
- Challenge, Can you do this backwards now?



Using games



'1 minute fluency' app by White Rose (free.)

Dominoes – add the dots on the dominoes, can you spot another domino with the same amount of spots?

Adding up spots on a die or pair of dice.

Playing a board game and moving on the correct amount of steps.

Walking to School

On the way to school spot shapes e.g. square windows and oblong doors. See how many cuboids, spheres and cylinders you can spot. Which did you see the most of? Choose a shape for the week e.g. a square. How many of these can your child spot in a day or week? (You could include in the home as well).

Look at door numbers – what does it say? Is it an odd or even number? What is the next number going to be? Find a very small or very large leaf and then compare it to others. Which is the biggest? Which is the smallest? Can you find one which is in between the two?



In the Kitchen

Choose two tins or packets from your cupboard. Ask your child to hold one in each hand and tell you which is heavier and which is lighter. If they are correct, they keep the lighter one. Then choose another item, try to find one that is lighter still. Ask him/her to compare again, and then switch between choosing heavier items and lighter ones. Can they put them in order from the lightest to the heaviest? Can they then put them in order from the heaviest to the lightest?



Fractions – talk about $\frac{1}{2}$ an object (sandwich) when you are cutting food up or $\frac{1}{2}$ of a quantity (eggs in an egg box).

When you make a meal or bake talk about the amounts of the ingredients you are using.

Show the increments on the scales.

Time

Talk about the passing of time – seasons, months of the year, days of the week as well as yesterday, today, and tomorrow, the day before and the day after.

Look at an analogue clock and talk about the two hands and 'O clock'.

Money

Look at the different coins with your child. Count the money in their purse or money box and then sort it. Spend small amounts of pocket money. Say maths problems such as... I have 6p in my pocket. How much more do I need to make 10p? Why? (Because 4p and 6p totals 10p). I have 3 oranges. If I buy 4 more, how many do I have altogether? When in the shop, get your child to buy a small item and help them to hand over the money.

Ask an open question such as "I have two coins in my pocket, how much money could I have?"

Please remember...

that everyone has the potential to be a good mathematician. As adults you will all have very varied experiences of Maths at school and your personal feeling towards the subject. Maths at the federation of Follifoot and Spofforth schools is a positive and life enhancing experience. We really hope you will use these ideas to rekindle an enjoyment of maths in your lives.

