Helping your child with fluency in mathematics

Aims of the National Curriculum

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 fluency in mathematics?

Fluency means that children can:

Be Efficient

Choose the most efficient strategy rather than getting bogged down with too many steps.

Be Accurate

That they know some things about number facts such as: two numbers that make 5; two numbers that make 8; two numbers that make 10.

Be Flexible

They know how to solve a problem and gradually realise that there are lots of ways to solve the same problem.

So fluency in mathematics demands more of pupils than memorising a single procedure – they need to understand why they are doing what they are doing and know when it is appropriate to use different methods. (*Russell 2000*)

How can you support your child in becoming fluent in mathematics?

Maths in Stories

When reading with your child look for opportunities to practise maths.



BIG by Tim Hop Good

The questions and activities below are related to the book 'BIG' by Tim Hop Good.

Compare things around the home that are big, bigger, and biggest; small, smaller and smallest.

Give your child a piece of string that is 1 metre long – get them to go round the house and measure with it.

How many popcorn tall are you?

Who are you sitting next to?

Who is shorter than you?

Who in the house is taller than you?



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Songs and Rhymes

Sing or say songs with your child that will help them in both literacy and maths.

- The Three Bears
- Five Bananas
- When I Was One
- Ten Fat Sausages
- The Animals Went in Two by Two
- Five Little Froggies
- Two Little Dickie Birds

Games

Play games which relate to number order, addition and subtraction, such as hopscotch, skittles and target games. Also play games like snap, lotto and dice games.

Walking to School

On the way to school, you could support your child's developing understanding of abstraction by counting things that are not objects, such as hops, jumps, clicks or claps. Also look at the environment around you and spot shapes e.g. windows, pavements. See how many squares, rectangles, round shapes 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 on the way to school or setting? (You could include in the home as well).

Count the leaves, cracks in the pavements. Look at door numbers of your friends, relatives and where you live – what does it say? Can they spot their favourite number or their age number?

In the Kitchen

Use number language, e.g. 'one', 'two', 'three', 'lots',' fewer', 'hundreds', 'how many?' and 'count' objects. Demonstrate the language for shape, position and measures in discussions, e.g. 'sphere', 'shape', 'box', 'in', 'on', 'inside', 'under', 'long, longer', 'longest', 'short', shorter', 'shortest', 'heavy', 'light', 'full' and 'empty'. Play 'Spot the shape' with your children, naming the shapes of the tins and packets and where they are.

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. Get them to compare again, and then switch between choosing heavier items and lighter ones.

In the bath

Experiment with the sizes of containers by encouraging them to pour from one to another e.g. a small one to a large one or a large one to a small one. (This will help your child to understand things they will learn later in maths such as division and multiplication).

What's the time?

Talk about the passing of time – seasons, months of the year, days of the week as well as recurring significant events and celebrations within their lives. Look at an analogue clock and make a point of showing them o'clock and significant times of the day e.g. 'We are going to school at half past eight and this is what half past eight looks like'.

Going Shopping

Choose 5 carrots, 6 apples from the basket. Can you spot one red fruit? Find two yellow bananas. How many rolls are in this pack?

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