Meadhurst Primary School

Using Lockdown to Boost Maths Fluency

What is fluency in maths and how can I support my child in developing fluency?

Fluency means that learners are able to recall and use facts in a way that is accurate, efficient, reliable, flexible and fluid. It is an aspect of maths that has a huge impact on mathematical understanding and is something you can really support practically at home.

It is important that children become very familiar with number patterns and certain facts, built up over time, so that they can do more and more automatically. This leaves their working mind free to reason through problems. **In effect, developing fluency makes maths easier!**

Revisiting this learning regularly means a child is more likely to retain and recall the learning which leads to its automatic use. Quizzes, games and fun ways of using these facts has been shown to embed the facts in a child's memory. Fluency is NOT just reciting facts by rote.

The four areas below are where parents and carers can really support in developing children's fluency.

Counting

Counting is the starting point for children and there is more to it than you would think! All children need to be counting whether they are in nursery or Year 6 as it builds the patterns and the automatic recall – in Year 6 they can be counting in fractions and decimals!

Addition and Subtraction Facts

These facts build up over the years and can be linked to year groups. However, it is really common for children in older years **not** to have all these facts at their fingertips so they must always be revisited.

Addition and subtraction facts are connected so a child needs to know that if 8 + 3 = 11, then you also know three other facts: 3 + 8 = 11; 11 – 8 = 3; 11 – 3 = 8. Similarly, if you know 9 – 3 = 6, you also know: 9 – 6 = 3; 3 + 6 = 9; 6 + 3 = 9.

Multiplication and Division Facts

In Y1, the children need to count in steps of two, five and 10 but this does not yet mean they are learning multiplication and division facts. Between Y2 and Y4 in stages, the children meet and are expected to recall and use multiplication and division facts up to 12 X 12. Y5 and Y6 also have this continued expectation of recall and use.

Multiplication and division facts are connected so a child needs to know that if 7 x 8 = 56, then you also know three other facts: 8 x 7 = 56; 56 ÷ 7 = 8; 56 ÷ 8 = 56. Similarly, if you know 48 ÷ 12 = 4, then you also know: 48 ÷ 4 = 12; 4 x 12 = 48; 12 x 4 = 48.

Other areas to develop fluency – time, money, measures

There are obvious opportunities to use these aspects of maths in everyday life. The more opportunities that are offered, the more secure and fluent the child becomes.

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Year Five

Things you can do at home:

- Play board games with dice - such as snakes and ladders, Monopoly etc
- From a pack of cards (without the tens, Jacks, Queens and Kings) play a game of pairs where you try to turn over two of the same
- As above but turn over two cards that add up to ten
- As above but add the total of the two cards. Each player has the even numbers 2 through to 20 written down and as they get one of those totals, they strike it out. First to knock out all wins if playing competitively!
- Play games that involve throwing two dice and finding totals
- Try to tell the time to the hour, half hour and quarter hour – to and past, and to 5 minutes on a clock face and digital. Use the 24-hour clock.
- Talk and ask questions about the common fractions, half, quarter, third whenever you are cutting pizza, pies, or any food that lends itself!
- Dice bingo - roll two dice and multiply the answer
- Scrabble – great for both English and Maths because of the scoring
- Chess is a great way for children to learn to strategize - which is a high-level maths skill
- Learning a musical instrument can also help with maths
- Include your child in some decisions around household finances - “which one is best value?”, “how much is the window cleaner per year?”
- Ask them to read the dietary information on various foods and ask “how many grams of fat in 100 grams of . . . ”?
- Give your child responsibility for their own money. Open a bank account for them allowing them to track their savings.
- Get your child involved in any DIY projects you’re doing - you can secretly check their measurements!
- Don’t miss any opportunities to talk and ask about fractions and percentages

This website has links to many online games appropriate for this age group

https://www.topmarks.co.uk/maths-games

Counting:

See above to continue counting activities but also:

- Count forwards and backwards extending into negative numbers
- Count up and down in decimals and fractions

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Addition and Subtraction Facts:

Continue using some of the activities mentioned above concentrate on recalling and using bonds up to and including 20 e.g. throwing a 5 and a 3 on two dice (or one dice twice!) and quickly recalling a total of 8 (rather than counting). If you have 10-sided dice that is brilliant. Using doubling facts and near doubling strategies can be shown e.g. 6 + 7 = 13 can be quickly worked out as double 6 and then one more. Tens frames are helpful for showing bonds, doubles and near doubles – draw a simple frame and place objects on to correspond to the numbers thrown. Use two frames for bonds above 10.

Tens Frame -

Doubling is also easily practised (doubles up to 10) by doubling the number on a dice or a playing card (quickly without counting).

Multiplication and Division Facts:

Using games and arrays (see below) concentrate on recalling multiplication and division facts quickly from all multiplication tables up to 12 x 12. Using TT Rock Stars may help here.

Here is a simply drawn array that shows 5 x 3 or 3 x 5. You could instead represent it with pasta bows or counters.