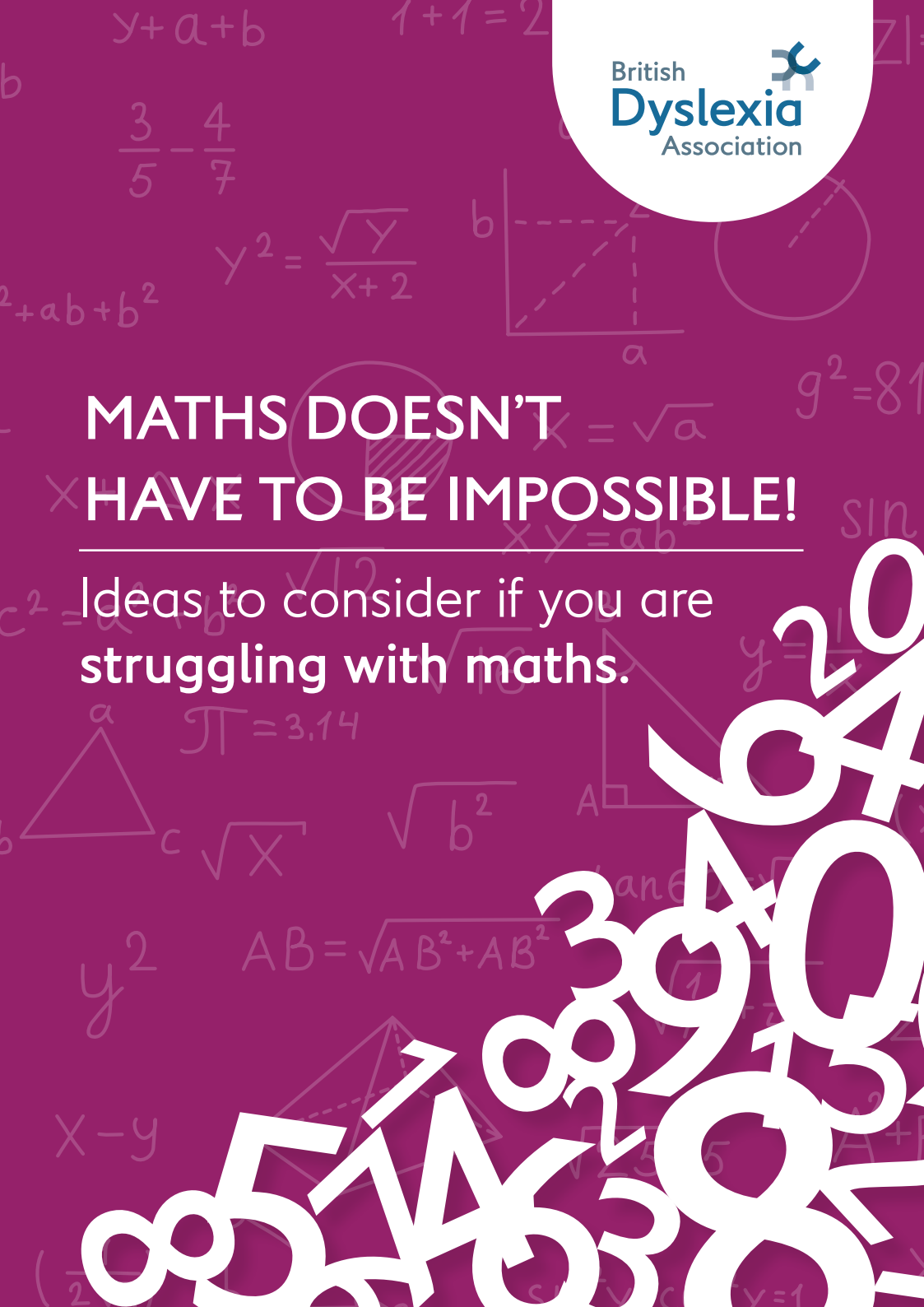
British Dyslexia Association

MATHS DOESN'T HAVE TO BE IMPOSSIBLE!

Ideas to consider if you are **struggling with maths.**



Top tips to support you with maths.

- Be open about how you're feeling. Tell your teacher/TA/parent that you are finding it hard/too hard and need some help to get you started. If the rungs on a ladder are too far apart, you will struggle to get to the top – but if the rungs are closer together you will be able to succeed.

- Making mistakes in Maths is good! It means you are learning something new, your brain is growing more connections.

- You do not have to be quick at doing Maths to be able to do it. Albert Einstein is a famous mathematician who almost gave up because he was made to feel stupid in school because he could not do it fast.

- Playing games will help you practice maths skills in a fun way. Games, dice games, darts, dominoes and games using playing cards can help you get better at remembering facts.

  Sometimes we all need someone to help put that extra rung in place.

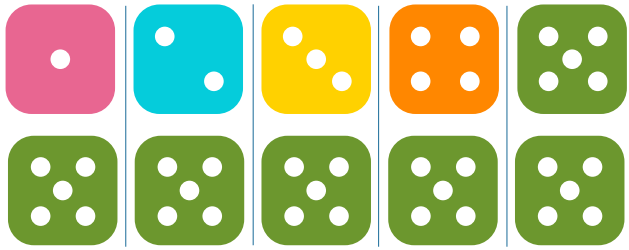
- Try talking through a problem with someone else. By explaining what you are learning to do and how you are doing it you will be helping them and yourself!

- Although it can be frustrating when you feel you have to work much harder than everyone else to learn maths, learning to persevere and overcome obstacles will help you develop stronger problem-solving skills.

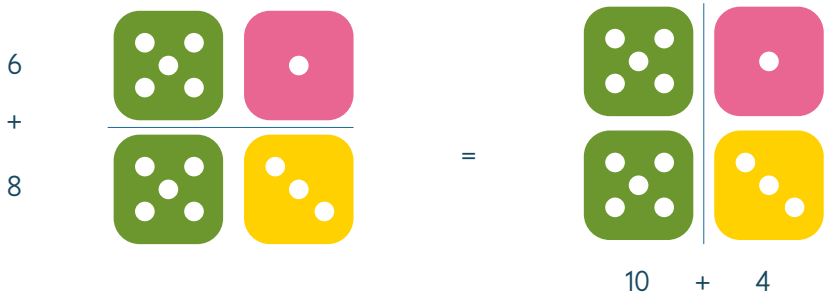
- Some people can never remember maths facts (no matter how hard they try) and may always struggle to remember and recall maths facts such as number bonds and times-tables. Using dot patterns or arrays can help because it uses a different part of your memory and helps you "see" the facts.

- People who are good at maths usually find shortcuts to make numbers work for them. This usually involves breaking up the numbers into smaller bits and not counting forward or back in 1s.

  The numbers 6-9 are really tricky to work with. Seeing them as 5+ can make life easier when adding, subtracting and doubling them.

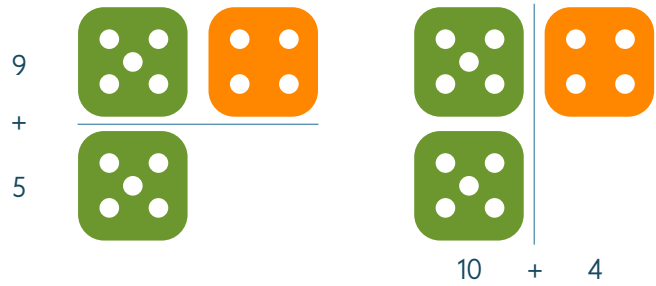


Example 1 - the calculation 6 + 8 can be visualised using the 5+ patterns, see below.



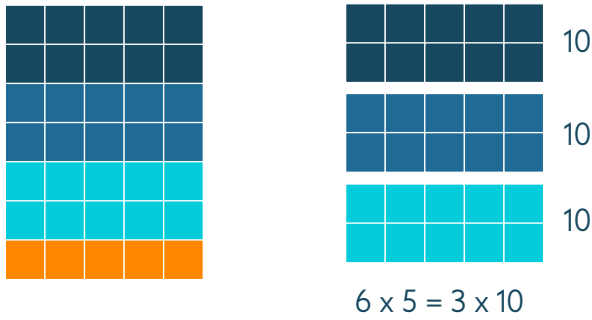
Example 2:
Instead of 9 + 5 they do 10 + 4.

Why this works is easier seen using dot cards or other concrete resources instead of just relying on the numbers.

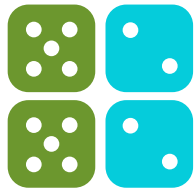


Example 3:
They know that 6 x 5 = 30 so can use this to work out that 7 x 5 must be 5 more, and 30 + 5 is easy, because of the commutativity 5 x 7 is also 35.

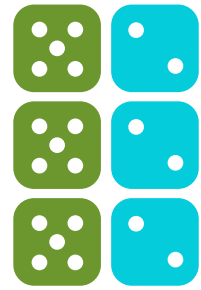
If we look across the rows we can see 7 lots of 5.
If we look down the columns we can see 5 lots of 7.



In fact most of the tricky 7x table can be worked out using key facts. **The key facts are:**



2 x 7 = 14

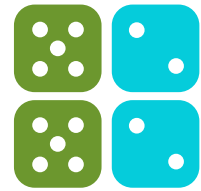


3 x 7 = 21

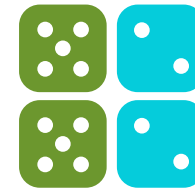
5 x 7 = 35

You can use the key facts to work out the following:
4 x 7 = double 2 x 7

4 x 7 =



2 x 7



2 x 7

6 x 7 = double 3 x 7
7 x 7 = (5 x 7)+(2 x 7)
8 x 7= (5 x 7) + (3 x 7) 9 x 7 = 3 times (3 x 7)
12 x 7 = (10 x 7) + (2 x 7) OR 4 times (3 x 7)

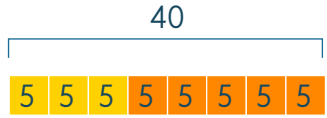
Remember if you are struggling to work out what a word problem is asking, try drawing a picture or diagram...if it's tricky draw a piccie!!

Example:
The ratio of boys to girls in a cycling club is 3:5
If there are 40 people in the club, how many are boys?

Step 1 - Draw a model to understand the problem

The ratio 3:5 tells us that the total number is 8 and 3/8 of the members are boys and 5/8 are girls.

Step 2 - Add the number given in the question to relevant part of the model, and work out the value for each of the equal parts, what is 1/8 of 40 or 40÷8 or 8 x ? = 40



The 40 people are split into 8 equal groups therefore each part represents 5 people.

Step 3 - Go back to the original question and check what is needed for the answer. How many are boys?

We can see that 3 of the 8 groups represent boys and as each part represents 5 people. 3 x 5 is the number of boys.
There are 15 boys.

British Dyslexia Association

bdadyslexia.org.uk

Helpline: 0333 405 4567
National service for people with dyslexia and dyscalculia and those who support them. It offers free and confidential information, support and signposting.

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