

Helping the dyslexic individual with maths

Ideas by Steve Chinn

Try to use the facts you do know to work out the facts you do not know.

For example, multiply 2 twice to get the four times tables facts:

$$(4 \times 2 = 8) \times 2 = 16 \quad \text{instead of } 4 \times 4 = 16$$

Or halve the ten times tables facts to get the five times tables facts:

So if $6 \times 10 = 60$, then half of that (6×5) is 30.

Do the same with addition and subtraction facts. Use what you do know and build around those facts.

For example, to add 9 to a number, add 10 and then subtract 1:

$$(8 + 10 = 18) - 1 = 17 \quad \text{instead of } 8 + 9 = 17.$$

Or to subtract 9, first take away ten, and then add back 1:

$$\text{For example, } (17 - 10 = 7) + 1 = 18.$$

You could also add 6 as 5 plus one, and 7 as 5 plus 2.

Build up your confidence. Learn to be comfortable with an estimate, which you can then refine or check with a calculator. Take some risks!

Use the easy numbers to help you understand how methods work. For example, if you know that a half plus a quarter makes three quarters, then you have access to the basic procedure for adding fractions.

Learn that much of mathematics is inter-connected and use this to your advantage.

For example, adding and multiplying are closely connected, so you could work out 7×8 by:

$$\text{Adding up seven lots of eight } (8 + 8 = 16) + (8 = 24) + (8 = 32) + (8 = 40) + (8 = 48) + (8) = 56$$

Or you could work out 5×8 by multiplication, $5 \times 8 = 40$, then $2 \times 8 = 16$, then add the answers ($40 + 16$) together to give $7 \times 8 = 56$.

Go back to what you do know and understand. It will almost always be more than you think. Then use this to work at what you don't understand. Build from firm foundations.

The concepts of mathematics start early and transfer onwards. Algebra, for example, uses all the rules of numeracy and is often easier than numbers.

For example, adding up the lengths of three sides of a triangle might involve adding 37, 58 and 86. If it was algebra and the sides were a , b and c , the total is written as $a + b + c$, which is a much easier conclusion than $37 + 58 + 86 = 181$.

Look for the development of an idea in maths .

For example, $3 + 5 = 8$ develops into $30 + 50 = 80$, $300 + 500 = 800$, $0.3 + 0.5 = 0.8$, $3a + 5a = 8a$.

Overview a problem before you start. See if you can get the whole picture and find the familiarity.

For example, when adding a column of numbers, find the combinations which make ten and use these to reduce the adding task. $6 + 5 + 8 + 9 + 4 + 2 + 3 + 2$ could be re-arranged as $(6 + 4) + (5 + 2 + 3) + (8 + 2) + 9 = 10 + 10 + 10 + 9 = 39$.

Try to rephrase word problems or represent the information in a diagram .