

Mental Maths Workshop

Monday 27th November 2023

In Year 2, children should be becoming increasingly confident when working with numbers and find it easier to add, subtract, times or divide numbers in their heads or using their fingers to help.

We carry out fluency sessions at the beginning of every lesson.

Maths fluency means that children will be able to use their skills to know the best way to figure out a maths problem.

Mental maths in Year 2 is about using the skills we have been learning and then trying to visualise them in their heads. Or to use number bonds facts to help.

$$8 + 6 = 14 \quad \text{so } 18 + 6 = 24 \text{ or } 8 + 16 = 24$$

$$8 + 2 = 10 \quad \text{so } 18 + \underline{\quad} = 20 \text{ or } 8 + \underline{\quad} = 20$$

$$9 + 4 = 13 \quad \text{so } 19 + 4 = \underline{\quad} \text{ or } 9 + 14 = \underline{\quad}$$

They can also still use their fingers to help!

Let's have a look at some different strategies.

Mental Maths Strategies

$$\begin{array}{r} \textcircled{43} + 21 = 64 \\ \hline \end{array}$$

Hand-drawn base ten blocks representing the addition of 43 and 21. The number 43 is represented by four tens rods and three ones units. The number 21 is represented by two tens rods and one ones unit. The sum 64 is represented by six tens rods and four ones units. A purple circle highlights the 43 in the equation. Below the equation, there are three groups of base ten blocks: a group of four tens rods and three ones units (representing 43), a group of two tens rods and one ones unit (representing 21), and a group of six tens rods and four ones units (representing 64). The 43 and 21 groups are crossed out with diagonal lines, and a purple circle highlights the 43 group. An arrow points from the 43 group to the 64 group.

$$23 + 62 = 85$$

Hand-drawn base ten blocks representing the equation $23 + 62 = 85$. The number 23 is represented by two tens rods and three ones units. The number 62 is represented by six tens rods and two ones units. The sum 85 is represented by eight tens rods and five ones units. The blocks are drawn in purple with black outlines and some are crossed out with black lines.

Strategies

Mental Maths Strategies
Counting On
For adding and subtracting numbers close to each other.

$$\textcircled{23} + 8 = 31$$

Mental Maths Strategies
Counting Back
For subtracting smaller numbers.

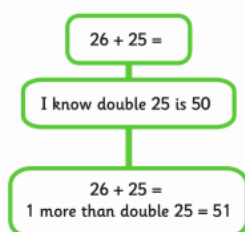
$$17 - 9 = 8$$

Mental Maths Strategies

Near Doubles

For adding similar numbers.

Double one of the numbers and adjust by adding or subtracting the difference.



Have a go.

$$\underline{10} + 11 = 21$$

$$15 + 16 = 31$$

$$32 + 13 = 45$$
$$12 + 29 = 41$$

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Mental Maths Strategies

Using Pairs to Ten

For adding where numbers add to 10, or ends with a 0.

$23 + 67 =$

I know $3 + 7 = 10$

$$\begin{array}{r} 22 + 48 = 70 \\ \hline \end{array}$$
$$\begin{array}{r} 27 + 13 = 40 \\ \hline 10 \end{array}$$

$$20 + 60 = 80$$

$$80 + 10 = 90$$

Fluent in 5 practise.

1	$21 + 8 =$
2	$9 - 7 =$
3	$2 \times 10 =$
4	$30 \div 10 =$
5	$100 - 10 =$

Lets have a go!

2017 national curriculum tests

Key stage 1

Mathematics

Paper 1: arithmetic

First name	
Middle name	
Last name	

Attachments

STA187964e_2018_ks1_mathematics_Paper1_arithmetic.pdf.pdf