



Supporting Your Child with Maths

Year 4

Booklet 2: February

These booklets have been designed to help you support your child as they build and develop their skills on a **strong foundation** of key mathematical concepts.

The maths curriculum covers a wide range of concepts but is built on **confidence and fluency of key facts**. When a child is fluent with these facts and skills their confidence grows and they are more able to **apply** them to a range of problems.

The booklets include specific guidance for your child's year group on skills and methods used as well as ideas for games to play and ways to practise key ideas.

Wherever we can, we want to make this practice **fun** and **practical**.

Lots of opportunities to **talk** about the maths and to show that we, as adults, **enjoy** it too.

Did you know?

- Parents' maths knowledge has **no** impact on how successful their children will be
- Parents' attitude towards maths has a **pro-found** impact on their children's success

Did you know?

Mathematical understanding has a bigger impact on success in adulthood than reading and writing

If you have any questions or would like to know more, please contact your child's teacher or Mrs Gibbons, the maths leader.



Learn-Its

Year 4 – Phase 2 (Nov-Feb)

I know the multiplication and division facts for the 9 and 11 times tables.

By the end of this phase, children should know the following facts. The aim is for them to recall these facts **instantly**.

$9 \times 1 = 9$	$9 \div 9 = 1$	$11 \times 1 = 11$	$11 \div 11 = 1$
$9 \times 2 = 18$	$18 \div 9 = 2$	$11 \times 2 = 22$	$22 \div 11 = 2$
$9 \times 3 = 27$	$27 \div 9 = 3$	$11 \times 3 = 33$	$33 \div 11 = 3$
$9 \times 4 = 36$	$36 \div 9 = 4$	$11 \times 4 = 44$	$44 \div 11 = 4$
$9 \times 5 = 45$	$45 \div 9 = 5$	$11 \times 5 = 55$	$55 \div 11 = 5$
$9 \times 6 = 54$	$54 \div 9 = 6$	$11 \times 6 = 66$	$66 \div 11 = 6$
$9 \times 7 = 63$	$63 \div 9 = 7$	$11 \times 7 = 77$	$77 \div 11 = 7$
$9 \times 8 = 72$	$72 \div 9 = 8$	$11 \times 8 = 88$	$88 \div 11 = 8$
$9 \times 9 = 81$	$81 \div 9 = 9$	$11 \times 9 = 99$	$99 \div 11 = 9$
$9 \times 10 = 90$	$90 \div 9 = 10$	$11 \times 10 = 110$	$110 \div 11 = 10$
$9 \times 11 = 99$	$99 \div 9 = 11$	$11 \times 11 = 121$	$121 \div 11 = 11$
$9 \times 12 = 108$	$108 \div 9 = 12$	$11 \times 12 = 132$	$132 \div 11 = 12$

Key Vocabulary

What is 11 **multiplied by** 6?

What is 6 **times** 9?

What is 54 **divided by** 9?

They should be able to answer these questions in any order, including missing number questions e.g. $9 \times \bigcirc = 54$ or $\bigcirc \div 9 = 11$.

Top Tips

The secret to success is practising **little** and **often**. Use time wisely. Can you practise these Learn-Its while walking to school or during a car journey? You don't need to practise them all at once: perhaps you could have a fact family of the day.

Look for patterns – These times tables are full of patterns for your child to find. How many can they spot?

Use your ten times table – Multiply a number by 10 and subtract the original number (e.g. $7 \times 10 - 7 = 70 - 7 = 63$). What do you notice? What happens if you add your original number instead? (e.g. $7 \times 10 + 7 = 70 + 7 = 77$)

Use What You Already Know!
10x Table

What do you already know? – Your child will already know many of these facts from the 2, 3, 4, 5, 6, 8 and 10 times tables. It might be worth practising these again!



Practise It

Year 4 – Phase 2 (Nov- Feb)

I can use an efficient written method for subtraction

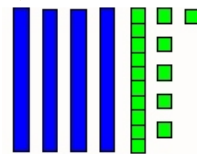
This method builds on children's use of base 10 equipment to subtract larger numbers. They will have had lots of experience of using equipment and this method becomes a way to record their workings.

Build only the biggest number



$$\begin{array}{r} 56 \\ - 29 \\ \hline \end{array}$$

Swap one ten stick for 10 units.



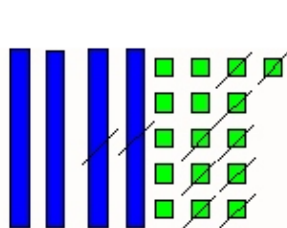
$$\begin{array}{r} 4 \quad 6 \\ \cancel{5} \quad 6 \\ - 29 \\ \hline \end{array}$$

Sometimes written $10 +$

6

5 tens and 6 units becomes 4 tens and 16 units. Still 56 altogether.

Can't take away 29 like this.



$$\begin{array}{r} 4 \quad 6 \\ \cancel{5} \quad 6 \\ - 29 \\ \hline \end{array}$$

Now take away 29 (2 tens and 9 units)

How many left?

$$\begin{array}{r} 4 \quad 6 \\ \cancel{5} \quad 6 \\ - 29 \\ \hline 27 \end{array}$$

16 units – 9 units then 4 tens – 2 tens

As children become more confident, and move through Key Stage 2, they will use this method to subtract decimal numbers. These images are also used to explain what happens when there are 0s in the number, e.g. $1042 - 786$.

Top Tips

- Children must have lots of experience of doing the process practically
- Line the columns up carefully especially when using decimals
- Remember cross off any tens you exchange for units
- Check the numbers wouldn't suit a mental method (e.g. $50 - 30$, $200 - 95$ etc)



Try It

Year 4 - Phase 2 (Nov-Feb)

Try these.

1.	$\begin{array}{r} 4 \square 1 \\ - 23 \square \\ \hline 213 \end{array}$	2.	$\begin{array}{r} 39 \square \\ - 1 \square 7 \\ \hline 243 \end{array}$
3.	$\begin{array}{r} 52 \square \\ - 1 \square 1 \\ \hline 365 \end{array}$	4.	$\begin{array}{r} 41 \square \\ - 2 \square 3 \\ \hline 134 \end{array}$

Write three calculations where you would use mental calculation strategies and three where you apply a column method. Explain the decision you made for each calculation.

Spot the mistake then correct it.

1.)	2.)	3.)	4.)
$\begin{array}{r} 2407 \\ - 2336 \\ \hline 131 \end{array}$	$\begin{array}{r} 5688 \\ - 103 \\ \hline 4658 \end{array}$	$\begin{array}{r} 2738 \\ - 655 \\ \hline 2183 \end{array}$	$\begin{array}{r} 4050 \\ - 3726 \\ \hline 1724 \end{array}$

Design a poster to show how column subtraction works.

It can include diagrams, pictures of Dienes or even photos.

This table shows the heights of three mountains.

Mountain	Height in metres
Mount Everest	8,848
Mount Kilimanjaro	5,895
Ben Nevis	1,344

How much higher is Mount Everest than the combined height of the other two mountains?