Supporting Your Child with Maths

Year 5

Booklet 4: July

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 **profound** 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 5 – Phase 4 (Apr-Jul)

I can identify prime numbers up to 30.

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

A prime number is a number with no factors other than itself and one.

The following numbers are prime numbers:

2, 3, 5, 7, 11, 13, 17, 19, 23, 29,

Key Vocabulary

prime number

composite number

factor

multiple

A composite number is divisible by a number other than 1 or itself.
(i.e. not a prime number)

The following numbers are composite numbers:

4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 20, 21, 22, 24, 25, 26, 27, 28, 30

Children should be able to explain how they know that a number is composite.

E.g. 15 is composite because it is a multiple of 3 and 5.

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 of the day.

It's really important that your child uses mathematical vocabulary accurately. Choose a number between 2 and 30. How many correct statements can your child make about this number using the vocabulary above?

Make a set of cards for the numbers from 2 to 20. How quickly can your child sort these into prime and composite numbers? How many even prime numbers can they find? How many odd composite numbers?

Practise It

Year 5 – Phase 4 (Apr-Jul)

I can use a long multiplication method to multiply two 2-digit numbers.

Formal long multiplication builds on children's understanding of the grid method and short multiplication.

Grid Method

x	50	6	
20	1000	120	1120
7	350	42	392
			1512

1000 + 120

350 + 42

Short Multiplication

$$\begin{array}{r} 24 \\ \times 3 \\ \hline 72 \\ \hline 1 \end{array}$$

$$\begin{array}{rll} & 56 & \\ \times & 27 & \\ \hline & 42 & (7 \times 6) \\ & 350 & (7 \times 50) \\ & 120 & (20 \times 6) \\ & 1000 & (20 \times 50) \\ \hline & 1512 & \\ & 1 & \end{array}$$

This stage demonstrates how the parts of the grid are laid out to become the new method. It is NOT used as a written method.

$$\begin{array}{rll} & 56 & \\ \times & 27 & \\ \hline & 392 & (7 \times 56) \\ & 1120 & (20 \times 56) \\ \hline & 1512 & \\ & 1 & \end{array}$$

0 is used as a placeholder. This means we can multiply by 2 instead of 20, as the placeholder ensures our answer is in the correct columns.

Top Tips

- Always remember the placeholder
- Remember any carried digits
- Know your times tables

Try It

Year 5 – Phase 4 (Apr-Jul)

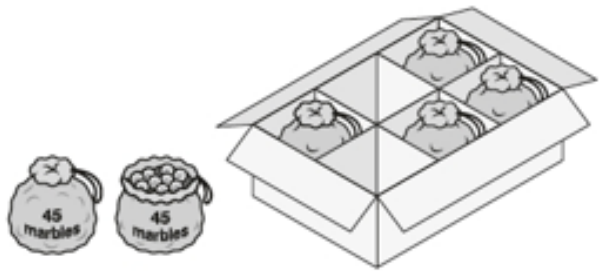
		4	□
×		□	6
	2	4	6
	8	2	0
1	0	6	6

Try These:

A toy shop orders 11 boxes of marbles.

Each box contains 6 bags of marbles.

Each bag contains 45 marbles.



How many **marbles** does the shop order in total?

65 x 42 = 380

Estimate: 70 x 40 = 2,800

65
×42
120
260
380

Using estimation and spotting mistakes

Can you spot what has gone wrong? What advice would you give?

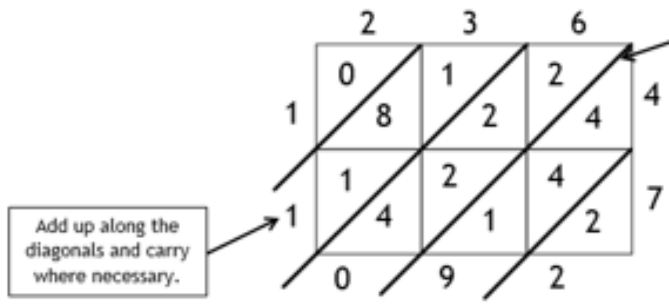
Multiplication - Chinese Method

This is a way of multiplying that is great with large numbers and decimals. You are only multiplying numbers between 0 and 9 and then separating the tens and units.

An example:

Calculate 236 x 47

Draw out a grid like this:



This box is 6×4 and the tens and units are separate.

Add up along the diagonals and carry where necessary.

Answer: 11092

Chinese Method

Have a look at this method. Can you see how it works. Try it out. Can you explain why it works? Think about place value.