Supporting Your Child with Maths at Home

Years 5 and 6

Introduction

This guide has been designed to explain how your child is taught to solve mathematical problems in school and ways you can support them at home. These skills are taught alongside many other ideas including mental strategies, counting, singing, group activities, practical methods and maths in the outdoors.

Why do you need to know?

When looking through this guide, you may find that the children are taught to solve mathematical problems in ways that look different from the ways you may remember! Often children encounter frustration and difficulty when receiving mixed methods from home and school, and for this reason, we have produced a guide to help you fully support your child in a way that will match the methods their teachers are using in school.

What should you do?

Before any mental or written calculation is undertaken, children are encouraged to discuss which method of solving the problem would be best. And proceed through a number of steps whenever possible. In school the children will be asked to Read the question, identify the maths involved, estimate an answer, calculate and finally check work is correct.
At home…

Talk it through
How would *they* solve this and get your child to explain her thinking.

1. READ
Read the question carefully.

2. Identify
What is the maths? What is needed? + - x or ÷? Should I do it in my head or will I need a written strategy?

3. Estimate
Read the question carefully.

4. Calculate
Use their methods

5. Check
Ask, "Is it a sensible answer?"

Addition

Children are encouraged to use a wide variety of mental calculation strategies and also to select when they think a written strategy, as is detailed here, is appropriate.

Year 5

```
  1225
+ 4769
------
    14
    80
   900
  5000
------
  5994
```

Sarah adds the attendance at two local football matches. On Saturday 4th the attendance was 1225 while on Saturday 11th it was 4769. How many supporters in total attended the two games?

*Here children record the addition of the units, tens, hundreds and thousands column in turn, **beginning at the right hand side**, with the units (or decimal places!)*

A common mistake is not putting the answers in their correct columns. In the example to the left, the children must be careful to record each answer in it's correct column or when they add up the final answer, it may be incorrect!

Year 6

After Easter in Year 5, and throughout Year 6, children will be using the following methods.

Mike has one hundred and twenty pounds and sixty pence saved. For his birthday, he receives a further ninety-five pounds thirty. How much money does he have now?

*As before, begin the addition process from the **right**, ensuring your child knows that when they add the 9 and 2, they are in fact adding ninety and twenty.*

```
  124.60
+  95.30
--------
  219.90
--------
    1
```

A common mistake is to forget to add the number they carried over and recorded below.

In solving problems such as the one above, it is important for the children to have a grasp of estimation in order that they might recognise any mistakes that they may make.

The answer to the above problems should be in the region of 230 because 120 + 100 is 230. In this way, children should be encouraged to estimate and think about whether or not their answer is sensible!

Subtraction

Children are encouraged to use a variety of mental calculation strategies and also to select when they think a written strategy, as is detailed here, is appropriate.

Year 5

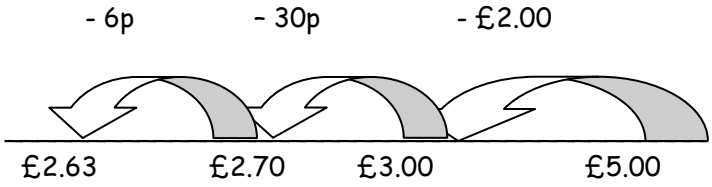
Paula gets £5 pocket money and she spends £2.36 on fruit and stickers. How much money does she have left?

When dealing with money, or time, children may be asked to use a number line. This allows them to count up from the lower amount to the higher and find the difference between two numbers. This is how they have been learning in earlier years.

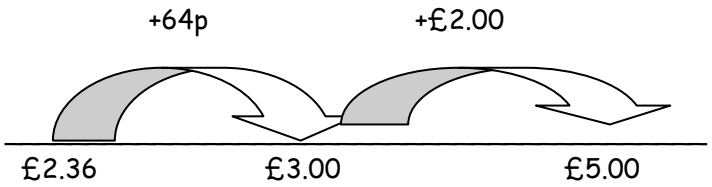
As in the examples below, the children will have been taught to count up from the smaller number to find the difference, and top count back from the larger number when subtracting.

When choosing a calculation strategy, they can use whichever they feel most comfortable with.

£5.00 - £2.36 = **£2.64**



Or… £5.00 - £2.36 = **£2.64**



In addition to the number line the children in Year 5 will work towards using the standard written method of subtraction that you will remember from your own school days.

Tickets sold for the 1975 St. Hilda's School Ball were 563 in total. The following year sales fell to 241. How many tickets fewer were sold in 1976?

	500	60	3
-	200	40	1
	300	**20**	**2**

The numbers 563 and 241 are partitioned into their HUNDREDS, TENS and UNITS before vertical subtraction begins from the right hand side.

The final stage in vertical subtraction is intended to be reached by the end of year 5 and used tghroughout Year 6.

563 - 278

$$\begin{array}{rccc} & {}^{4}\cancel{5} & {}^{15}\cancel{6} & {}^{1}3 \\ - & 2 & 7 & 8 \\ \hline & 2 & 8 & 5 \end{array}$$

On the first Saturday after Christmas, the attendance at Rigby Rovers AFC was 563. On the following Saturday, only 278 fans watched as the rain fell. How many spectators fewer came on the second Saturday?

Children must understand that when exchanging numbers from one column into another, that the value of the 5 (in 563) is 5 hundred.

Multiplication

The children will of course use their knowledge of times tables to help with division and while you will have used standard method or *long multiplication* the school has agreed in partnership with other local Primary Schools and Honley High School, to use the grid method for multiplication.

Claire scores 238 points on her favourite Xbox game on six consecutive days. How many points did she score in total?

238 x 6

x	200	30	8
6	1200	180	48

1428

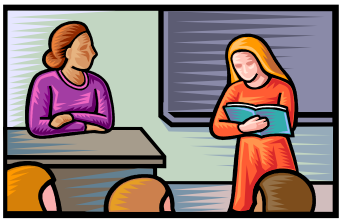
The children will need to partition the numbers and use their mental multiplication skills to calculate the answers before recombining the totals at the end.

Division

Division is a repeated subtraction problem. Seeing how many lots can be taken from a given amount. You may remember long-division, but currently the school uses chunking to solve these problems.

A school parents evening had 256 parents visit over 7 nights. How many parents visited each night?

It is important that the children record how many chunks have been subtracted from the original so they can add them up at the end.



Times tables are a real help when solving division with chunking. Without a good knowledge of them, it can be a barrier to success and make the method slow and difficult.

3 6 r 4

7 | 2 5 6

\- 2 1 0 (30x7)

4 6

\- 4 2 (6x7)

4

In the example here, you will notice that the method subtracts first 30 lots of 7.

Children should understand by Year 5 and 6 that if 3 x 7 is 21, then 30 x 7 is 210. Without knowledge of these related times table facts, there can be issues when solving such problems quickly and efficiently.