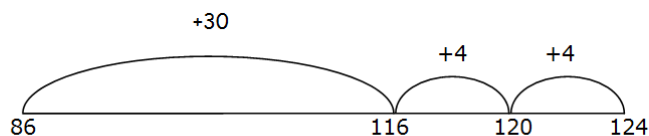


ADDITION

Children start addition with practical equipment and recording simple sums e.g. $5+3=8$ They progress on to using number lines. This is the number line for $86+38=124$



As they move through the school children start to use column methods. It is still fine to use number lines though.

This is an expanded column method:

$$\begin{array}{r} 138 \\ + 56 \\ \hline 14 \\ 80 \\ \hline 100 \\ \hline 194 \end{array}$$

And this is a more compact version with 'carrying':

$$\begin{array}{r} 587 \\ + 485 \\ \hline 1072 \\ \hline 1072 \end{array}$$

Numbers more than 9 are carried over into the next column. Here $7+5$ has made 12, so the 2 goes in the column and the 10 is carried over.

TOP TIPS

Some methods in this leaflet may be familiar to you from when you were at school whereas others will not. Please try to help your child by using the method that they use in school otherwise they can become confused.

Before children try a written method, they should always think whether any calculation would be better done mentally.

They don't have to use a specific method for mental calculation—whatever works best is fine.

Think of real life examples and practice doing calculations with your child. Look for examples of maths when you are out and about. Shopping or visiting places can provide opportunities for working out real-life calculations with money or measures. Bus timetables and TV programme times can be used to discuss problems involving time.

When helping your child to work on calculations involving time, always use a number line - column methods don't work!

Make it fun - your child will learn more if they feel that it is interesting to do maths.

Don't be afraid to go back to an earlier method. If a column method is confusing then use a number line.

Does anyone else do maths work with your child? Why not ask in school for extra copies of this leaflet to give to them?



HELPING YOUR CHILD WITH MATHS

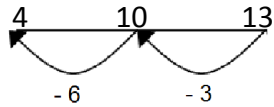
A guide to calculations

SUBTRACTION

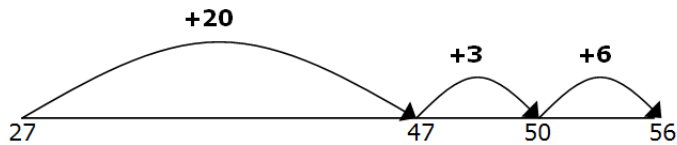
As with addition, number lines are written method children move on to after practical equipment and simple calculations like $7-2+5$.

At first they will use counting back like this:

$$13-9=4$$



Later, children move on to the counting on method. It is also called 'finding the difference'. You get the answer to this calculation by adding the numbers along the top.



This method can sometimes be puzzling at first but it is worth sticking with it.

A column method is used further through the school although some children will stick with number lines.

$$\begin{array}{r} 6 \ 14 \ 1 \\ 754 \\ - 286 \\ \hline 468 \end{array}$$

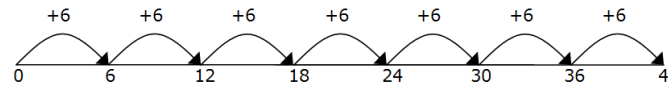
If a number can't be taken away (for example 4-6), then the next digit is split up, putting 14 in the units and 4 in the tens. Now you can do 14-6.

MULTIPLICATION

When children begin multiplication they use practical equipment like blocks.

Number lines are also used when children first learn about multiplication.

$$7 \times 6 = 42$$



Children then progress onto using the 'grid method'. This can be unfamiliar to parents and people at home because it is different from the methods they might have used at school. Stick with it though as it makes sense in the end!

The grid method:

$$72 \times 38 =$$

x	70	2
30	2100	60
8	560	16

Split up the numbers and multiply them separately.

Then add the rows and get a total at the bottom. This is your answer.

$$\begin{array}{r} 2160 \\ 576 \\ \hline = 2736 \end{array}$$

Multiplication by a single digit, using expanded working in a vertical format. The least significant digit is recorded first. The children should be able to link this format with the grid method.

$$\begin{array}{r} 38 \\ \times 7 \\ \hline 56 \ (7 \times 8) \\ 210 \ (7 \times 30) \\ \hline 266 \end{array}$$

Multiplication by a single digit, using vertical format and compact working.

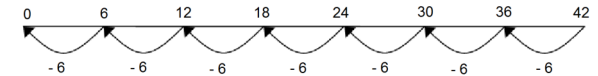
$$\begin{array}{r} 38 \\ \times 7 \\ \hline 266 \\ 5 \end{array}$$

DIVISION

Division is often the hardest calculation method to learn. Children need to understand what they are doing—breaking a larger number up into equal sized parts and saying how many parts they have.

At first children use practical equipment for this, then number lines:

$$42 \div 6 = 7$$



This is similar to multiplication and children need to understand that the two are linked.

They then progress onto a short and long methods of division:

$$\begin{array}{r} 38 \text{ r}1 \\ 4 \overline{) 153} \end{array}$$

This is the calculation for $153 \div 4$. It is a familiar method that has been used in schools for a long time.