Freeman Community Primary School

Calculations- Year 4

Please find a calculations guide for the Year 4 curriculum, demonstrating the methods that we teach the children in school.

For each operation you will find different methods as well as images and written calculation to demonstrate how you can support your child at home.

If you would like to discuss any of the methods further, please speak to your child's class teacher.

Mental Maths

To support your child's learning at home, please practise:

- Counting on and back in multiples of 6, 7, 9, 25 and 100 from 0;
- Finding 1000 more or less than a given number;
- Counting backwards in to negative numbers;
- Addition and subtraction facts (single digits, tens, hundreds and thousands);
- Multiplication and division facts for all times tables up to 12 x 12;
- Converting between units of measure e.g. mm, cm, m, km, or g and kg or ml and l;
- Reading the time to the nearest minute on an analogue clock as well as a digital clock;
- Converting the time between a 12 hour and 24 hour clock.

Useful websites

The websites below include games and activities that you can play with your children to support their learning in Maths.

www.topmarks.co.uk

www.ictgames.com

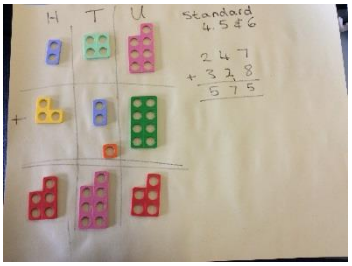
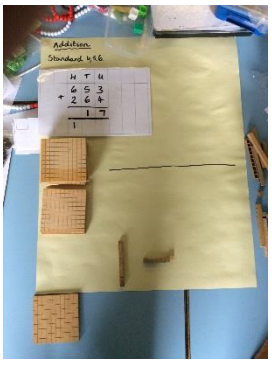
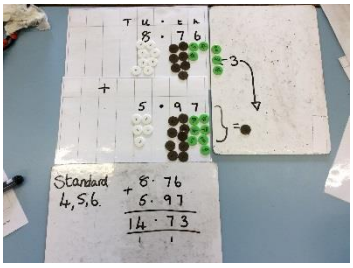
www.primarygames.co.uk

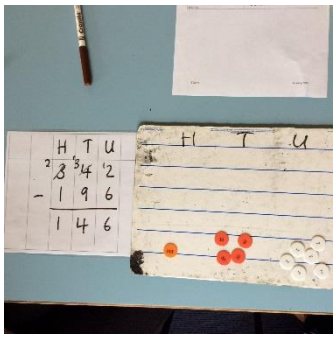
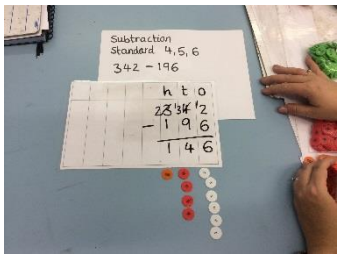
www.mymaths.co.uk

www.primarygames.co.uk/pg3/mwipe/mwipe.html (Good for practising times tables)

www.primarygames.co.uk/pg4/Ghostblasters2006/ghost2006.swf (Good for practising times tables)

Year 4

Addition	**Elaboration and examples**
The shorter method continues to be used.	6814 +2162 8976 
Numbers get carried in to the next column.	247 + 328 575 1   
This method is also used with larger numbers, decimals, and more than 2 numbers. It is also used across different context e.g. measures, money.	£ 8.76 + £ 5.97 £14.73 1 1 267432 + 134098 401530 1 1 1 1 2651 + 1831 + 1096 5578 1 1 

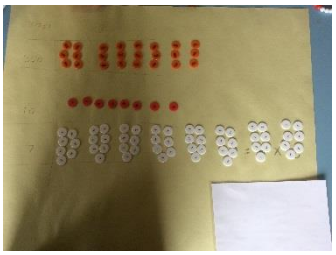
Subtraction	**Elaboration and examples**
This moves to column method where numbers can be borrowed from the column on the left. This is also used with larger numbers, and decimals. It is also used in wider contexts which include measures and money.	$\begin{array}{r} {}^{2}\cancel{3}\,{}^{3}\cancel{4}\,{}^{1}2 \\ -\ 1\ 9\ 6 \\ \hline 1\ 4\ 6 \end{array}$  $\begin{array}{r} {}^{5}\cancel{6}\,{}^{13}\cancel{4}\,{}^{10}\cancel{1}\,{}^{1}0\ 7 \\ -\ 3\ 5\ 2\ 3\ 6 \\ \hline 2\ 8\ 8\ 7\ 1 \end{array}$  $\begin{array}{r} £1\,{}^{5}\cancel{6}\,{}^{13}\cancel{.}\,{}^{1}\cancel{4}2 \\ -\ £1\ 5\ .\ 8\ 8 \\ \hline 0\ 0\ .\ 5\ 4 \end{array}$

Children in year 4 are expected to learn all times tables up to 12 x 12 as well as their associated division facts

For example:

7 x 12 = 84

84 ÷ 7 = 12

<table>
<tr><th><u>Multiplication</u></th><th><u>Elaboration and examples</u></th></tr>
<tr><td>The grid method, working with 3 digit by 1 digit questions.</td><td>317 x 8 =
<table><tr><td>x</td><td>8</td></tr><tr><td>300</td><td>2400</td></tr><tr><td>10</td><td>80</td></tr><tr><td>7</td><td>56</td></tr><tr><td></td><td>2536</td></tr></table>  </td></tr>
<tr><td>Short multiplication, children complete this as they would the grid method but the amount of recording is reduced.

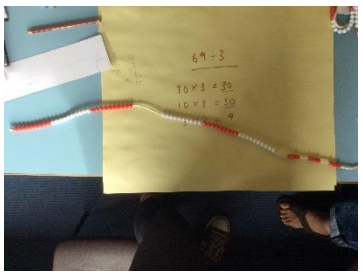
Children should describe what they are doing by saying the actual values in each column e.g. a step in 37x8 would be 30 “thirty multiplied by eight,” not “three times eight.”</td><td>37 x 8 =

37
x 8
240
+ 56
296

317 x 8 =

317
x 8
2400
80
+ 56
2536
1</td></tr>
<tr><td>When appropriate, the amount of recording could be reduced even further,</td><td>37
x 8
296
5

317
x 8
2536
1 5</td></tr>
</table>

Division	**Elaboration and examples**
Using times tables to group and subtract amounts vertically. This can also be completed with remainders.	69 ÷ 3 =23 69 10 x 3 - 30 39 10 x 3 - 30 9 3 x 3 - 9 0 10+10+3=23  47 ÷ 4 = 11 r 3 47 10 x 4 - 40 7 1 x 4 - 4 3 10+1=11