Freeman Community Primary School

Calculations- Year 3

Please find a calculations guide for the Year 3 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 3, 4, 8, 50 and 100 from 0;
- Finding 10 more and less than a given number;
- Finding 100 more and less than a given number;
- Reading numbers to 1000 in words and numerals;
- Add and subtract a three digit number and a ones number;
- Add and subtract a three digit number and a tens number;
- Add and subtract a three digit number and a hundreds number;
- Add and subtract a 2 three digit numbers;
- Multiplication and division facts for the 2, 3, 4, 5, 8 and 10 times tables;
- Adding and subtracting amounts of money in pounds and pence;
- Telling the time to the nearest minute;
- Recognising 3d shapes.

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

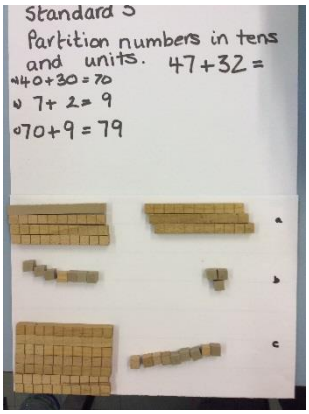
www.primarygames.co.uk

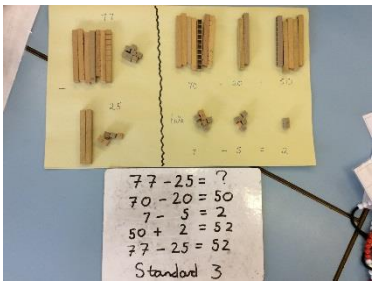
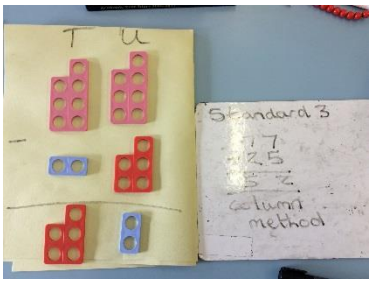
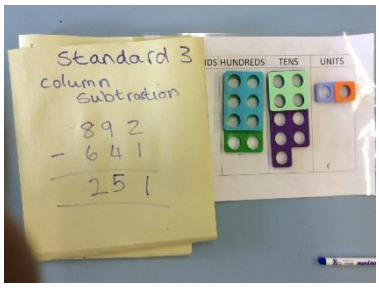
www.mymaths.co.uk

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 3

Addition	**Elaboration and examples**
Partition numbers in to tens and units. Add the tens, then add the units. Add the totals together.	47+32= 40+30=70 7+2=9 70+9=79 
Partitioned numbers are then written under each other.	47 40+7 +32 30+2 70+9=79
Write the numbers in columns. Add the ones first. This is also completed with 3 digit numbers.	47 +32 9 70 79 134 +154 8 80 200 288
This then becomes the shorter method. This is also used with 3 digits.	47 +32 79 681 + 115 796

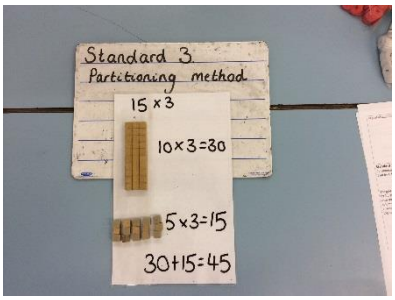
Subtraction	**Elaboration and examples**
Partition the numbers in to tens and units. Take the tens, then take the units. Then add the totals together.	77-25= 70-20=50 7-5=2 50+2=52 
Partitioned numbers are then written under one another (this is an introduction to column subtraction)	77-25 70 + 7 - 20 + 5 50 + 2 = 52
The next step is to use column method where there is no exchanging. This is also used with 3 digits.	77 - 25 52 892 - 641 251  

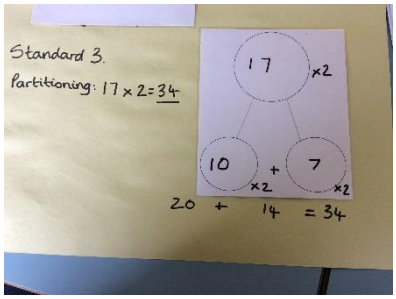
Children in Year 3 are expected to learn the 2, 3, 4, 5, 8 and 10 times table up to 12 x 2, 12 x 3, 12 x 4, 12 x 5, 12 x 8 and 12 x 10 as well as their associated division facts.

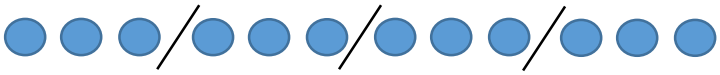
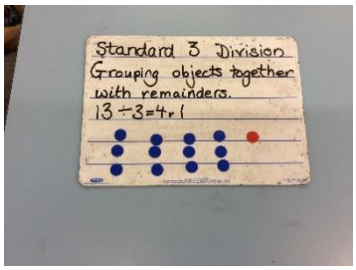
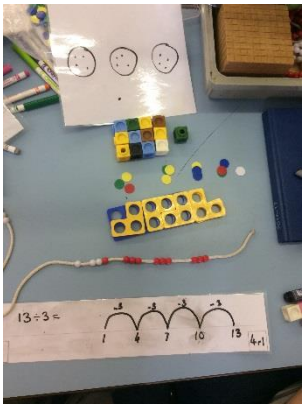
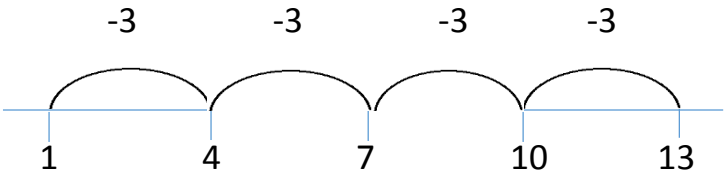
For example:

6 x 10 = 60 4 x 4 = 16 12 x 8 = 96 8 x 5 = 40

60 ÷ 10 = 6 16 ÷ 4 = 4 96 ÷ 8 = 12 40 ÷ 5 = 8

<table>
<tr><th><u>Multiplication</u></th><th><u>Elaboration and examples</u></th></tr>
<tr><td>Partitioning Method, working with 2 digit by 1 digit questions</td><td>15 x 3
10 x 3 30
5 x 3 = 15
30 + 15 = 45
 

 
</td></tr>
<tr><td>The grid method, working with 2 digit by 1 digit questions. Place the number with the most digits in the left hand column so that it is easier to add the answers of each multiplication together</td><td>37 x 8 =
<table><tr><td>x</td><td>8</td></tr><tr><td>30</td><td>240</td></tr><tr><td>7</td><td>56</td></tr><tr><td></td><td>296</td></tr></table></td></tr>
</table>

Division	**Elaboration and examples**
Grouping objects together practically, with remainders.	13 ÷ 3 =4 r 1    
Repeated subtraction on a number line with remainders. This moves on to the second number line, where children begin to apply their understanding of multiplication facts.	 27 ÷ 5 =5 r 2