Long Division

The method we use in school for long division is a 'repeated subtraction' method.

Long Division is when you divide any number with two digits or more by another number which has two digits or more.

Example: Find 768 ÷ 32



Aim: Find how many 32s are in 768?

- Step 1 We know that there are at least 10 as 10 x 32 = 320
- Step 2 We now take away 320 from our 768 which = 448
- Step 3 note down that we have take away 10 lots of 32
- Step 4 we now ask how many 32s are there in 448. Can we take away another 10? Yes. Subtract another 320 and note down this lot of 10 which gives us 128.
- Step 5 Use existing knowledge of the 32 times table to help them i.e. $32 \ge 32 = 96$
- Step 6 They take the 96 away from the 128. This leaves 32.
- Step 7 There is only 32 remaining. We take note 1 down.
- Step 8 We add our running total on the right hand side.

Therefore $768 \div 32 = 24$





DOs



- Encourage your child to have a go.
- Praise achievements however small.
- Encourage your child to explain how they work things out.
- Remember that asking questions is as important as finding answers.



- Put your child under pressure
- Pass on any negative feelings you may have about maths.
- Worry about mistakes. Children learn from making them.
- Jump in too quickly with the answer.



Long Division & Long Multiplication



Dear Parents/Carers

This leaflet is designed to give you some practical advice to assist your child with **long multiplication and division** at home.

Learning doesn't just take place in the classroom, it can happen anywhere. A child or young person's everyday routine offers many opportunities and experiences to practise and apply their numeracy skills in real and meaningful ways.

The strategies mentioned are taught progressively and consistently throughout the school as part of our numeracy programme.

Being competent with all strategies will enable your child to be more agile with the mental calculation of numbers.

Knowledge of numbers, number patterns and calculation strategies is vital to a child's success in many areas of maths, as well as an important life skill in its own right.

We hope that you will find this leaflet helpful and informative.



Multiplication

A good knowledge of the multiplication tables are essential when moving up into the upper primary school. Therefore we encourage all pupils to practise these regularly. If multiplying larger numbers mentally there are several strategies that can be used.

Mental Strategies

Example: Find 39 x 6

<u>Method 1</u>

30 x 6 = 180 9 x 6 = 54 180 + 54 = <u>234</u>

<u>Method 2</u>

 $40 \times 6 = 240$ 40 is too many so take away 6 x 1 = 6 240 - 6 = 234

Multiplying by multiples of 10

To multiply by 10 move every digit one place to the left.

Example: Find 354 x 10



Long Multiplication

Long Multiplication is when you multiply any number with two digits or more by another number which has two digits or more.

Example: Find 53 x 34

- First multiple 53 by the four = 212
- Next put down a 0 in the units column and multiply 53 by 3 = 1590
- Finally add the two answers together.



Division

Again, a good knowledge of the tables is essential when completing division work.

Example: Find 120 ÷ 4 =

This could be solved by saying 4 goes into 12 three times and add the zero = 30. This could also be solved by saying 4 x ? = 120

Dividing by multiples of 10

To divide by

10 move

the right.

every digit

one place to

Example: Find 3540 ÷ 10

