Calculation methods in Year 5/6.

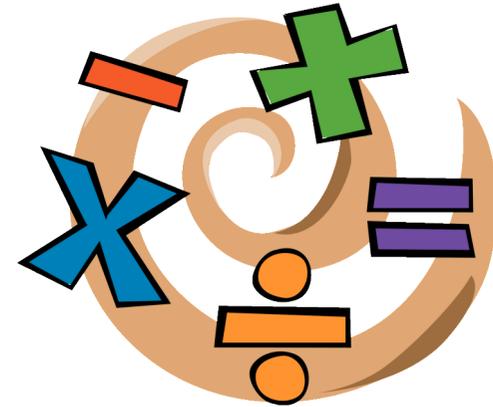## Addition

Keep decimals aligned

$$\begin{array}{r} £\ 6\ 4.5\ 0 \\ +\ £\ 1\ 9.6\ 3 \\ \hline £\ 8\ 4.1\ 3 \end{array}$$

Subtraction

$$\begin{array}{r} {}^{2}\cancel{5}\ {}^{1}\cancel{2}\ {}^{3}\cancel{3}\ {}^{1}\cancel{4}\ 4 \\ -\ \ \ \ 1\ 1\ 8\ 7 \\ \hline 5\ 1\ 1\ 5\ 7 \end{array}$$

Multiplication

	20	6	
10	200	60	= 260
3	60	18	= 78

260 + 78 = 338

$$\begin{array}{r} 2\ 4 \\ \times\ 1\ 6 \\ \hline 1\ {}^{2}4\ 4 \\ +\ 2\ 4\ 0 \\ \hline 3\ 8\ 4 \end{array}$$

Zero as the place holder for the ones column

$$\begin{array}{r} 502 \\ \times\ 336 \\ \hline 3012 \\ 15060 \\ +\ 150600 \\ \hline 168{,}672 \end{array}$$

Zero as the place holder for the ones column

Two zeroes as the place holder for the ones and ten column

Short and long division

79 ÷ 5 = 15.8

$$5\ \overline{\smash{\big)}\ 7^{2}9.^{4}0} \quad = 15.8$$

$$5\ \overline{\smash{\big)}\ 7^{2}9} \quad = 15\ r4 \quad = 15\tfrac{4}{5}$$

$$15\ \overline{\smash{\big)}\ 432} = 28\ r\ 12$$

$$\begin{array}{r} 30\downarrow \\ \hline 132 \\ 120 \\ \hline 12 \end{array}$$

$$\frac{12}{15} = \frac{4}{5} = 0.8$$

Maths in Year 6.
Information for Parents.

Highwoods Community Primary

SUPPORT FOR PARENTS about how maths is taught in schools can be found at

https://www.oxfordowl.co.uk/for-home/maths-site/expert-help--2/maths-in-school

This website has useful booklets on calculation methods as well as helpful videos.

http://www.amathsdictionaryforkids.com/ explains important maths vocabulary in a simple way for children and adults!

This booklet is intended as a guide for parents to the mathematics curriculum taught in year 6. It outlines the key expectations for the year group as well as the important mental number facts and calculation skills that children need to have grasped by the end of the year.

Maths Curriculum.

In Year 6 children will learn to:

- Read, write, order and compare numbers up to 10 000 000
- Simplify fractions.
- Calculate the area of triangles and parallelograms.
- Use a formula to calculate the area and volume of shapes.
- Convert between miles and km.
- Explore the relationship of perimeter between shapes with the same area.
- Recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})
- Work with co-ordinates in all 4 quadrants.
- Recognise and name the radius, diameter and circumference of circles.
- Find unknown angles in any triangles, quadrilaterals, and regular polygons.
- Interpret and construct pie charts and line graphs and use these to solve problems.
- Calculate the mean in a set of data.
- Solve problems involving ratio and proportion.

Algebra

- Express missing number problems algebraically.
- Find pairs of numbers that satisfy number sentences involving two unknowns.

A continued focus in year 6 is quick recall of times tables facts and their related division facts and applying this knowledge

- Have instant recall of **all times tables** up to 12x12
- Identify common factors, common multiples and prime numbers

Children MUST to be able to calculate quickly and accurately using written methods.

- Add and subtract multi-digit whole numbers and numbers up to 2 decimal places.
- Multiply up to a 4 digit number (including decimals) by a 2 digit whole number.
- Divide numbers up to 4 digits by a two-digit whole number using the written methods of short division and long division.
- multiply whole and decimal numbers by powers of 10
- Use knowledge of the order of operations to carry out calculations involving the four operations.

- Add and subtract fractions with different denominators and mixed numbers.
- Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $1/4 \times 1/2 = 1/8$)
- Divide proper fractions by whole numbers (e.g. $1/3 \div 2 = 1/6$)
- Calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. 3/8)

- Calculate % of a whole number eg 45% of 350.
- Recall and use equivalences between simple fractions, decimals and percentages.