Perimeter/area/mass

- Recognise that shapes with the same area can have different perimeters (and vice versa)
- Calculate the area of parallelograms and triangles
- Use, read and write units of mass (how heavy something is) e.g. grams/kilograms to 3 decimal places

Time

Use, read, write and convert time (between analogue and digital 12/24 hour clocks) to solve problems

Shape/Angles

- Compare and classify shapes based on their properties
- Draw 2D shapes using given dimensions and angles
- Recognise, describe and build simple 3D shapes
- Illustrate and name parts of circles e.g. radius, diameter, circumference
- Find unknown angles in any triangle, quadrilateral and regular polygon (i.e. all sides same length/all angles the same)

Averages

- Calculate/interpret the mode, median, range and mean

Data

- Interpret and construct pie charts and line graphs and use these to solve problems.

Algebra

- Basic algebra- understand that letters and other symbols can represent missing numbers and learn simple formulae e.g. $7 + A = 10$ …what is A?

e.g. $x + y = 100$ ..

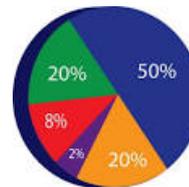What could x and y be?

November 2014

Maths Information
Year 6

Following the introduction of the new curriculum this year we have put together this booklet to give Parents and Carers some information about the kinds of things your child is aiming to be able to do in Maths by the end of Year 6.

The material outlined will be taught by the staff throughout the year but any extra support you can give your child to help them achieve these targets is really valuable and greatly appreciated.

We hope you find this information useful. If you have any questions about this or want support in knowing how you can best help your child to reach these targets then please do talk to your child's teacher (or come and see Ann).
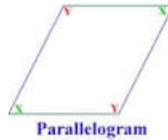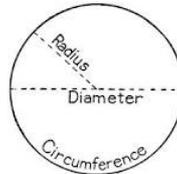
Thank you
Ann (Parental Involvement Worker)
& Jane Brown (Maths leader)

Counting

Count forwards and backwards in steps of whole numbers, decimals or multiples of 10, 100, 1000, 10,000

e.g. 40, 80, 120, 160 (use your times tables to help!)

e.g. 17.5, 14.0, 10.5, 7.0, 3.5, 0

Place value

- Read and write numbers to 10,000,000

- Understand the value of each digit in numbers up to 10,000,000 e.g. what is the value of the 6 in 4,628,302?

Comparing and ordering

- Compare and order numbers up to 10,000,000, numbers with up to 3 decimal places and negative numbers

Rounding

- Round any whole number to the nearest 10, 100, 1000, 10,000, 100,000

- Round decimals with 3 decimal places to the nearest whole number or to one or two decimal places e.g. 3.787 up to 4, 14.45 down to 14 or 1.776 up to 1.7

Addition and subtraction

- Add and subtract whole numbers and decimals using the written column method

- Perform mental calculations, including those with mixed operations (e.g. 17+48-12), large numbers and decimals e.g. 17.26 + 22.31
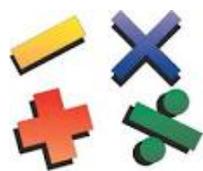
Multiplying

Multiply numbers up to 4 digits by a two digit number e.g. 3506 x 17 using the formal written method of long multiplication

- Multiply numbers with 2 decimal places by whole numbers

Dividing

- Divide numbers up to 4 digits by a two digit number e.g. 8478 ÷ 15 using the written short division method

Common factors and multiples

- Be able to identify common factors (e.g. 5 is a common factor of 15 and 20)

- Be able to identify common multiples (e.g. 6, 12 and 24 are common multiples of 2 and 3)

Prime, square and cube numbers

- Identify prime numbers (a number that can only be divided by 1 or itself e.g. 7, 19, 29, 53)

- Recognise and use square and cube numbers and how they are written e.g. 6^2 (6x6) 6^3 (6x6x6)

Patterns and sequences

- Describe and extend number sequences/patterns e.g. 15, 30, 45 …what comes next? Or 7.2, 7.7, 8.2 … what's the pattern? And be able to do this where the steps are a result of multiplication/division or are inconsistent e.g. 200, 100, 50, 25, 12.5 (diving by 2 each time) or 3, 6, 10, 15, 21, 28, 36 (adding 3, then 4, then 5 etc)

Fractions

- Compare and order fractions e.g. put these in order $1\frac{1}{4}$ $\frac{5}{8}$ $1\frac{3}{8}$ $\frac{3}{4}$ $1\frac{1}{2}$

- Add and subtract fractions e.g. $\frac{1}{4} + 1\frac{1}{2} + 3\frac{3}{4}$

- Multiply simple fractions e.g. $\frac{1}{4} \times \frac{1}{2}$

- Divide simple fractions e.g. $\frac{1}{2} \div 2$

Negative numbers

Count forwards and backwards with positive and negative numbers through zero e.g. -6 + 11 = 5   6 – 10 = -4

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 **0** 1 2 3 4 5 6 7 8 9 10

Percentages

- Find simple percentages of amounts e.g. 50% of 120 = 60   25% of 28 = 7

A percentage is a proportion of 100

A decimal is a proportion of 1