Year 5 Maths Curriculum

Number and Place Value

• Recognise and use the place value of digits in numbers up to 1 million (1,000,000) as well as order numbers up to 1 million.

• Use negative numbers, including in contexts such as temperature

• Round any number to the nearest 10, 100, 1,000, 10,000 or 100,000

• Read Roman numerals, including years

Calculations

• Carry out addition and subtraction with numbers larger than four digits

• Use rounding to estimate calculations and check answers are of a reasonable size

• Find factors of multiples of numbers, including finding common factors of two numbers

• Know the prime numbers up to 19 by heart, and find primes up to 100

• Use written methods for multiplication and division

• Multiply and divide numbers mentally by 10, 100 or 1,000

• Recognise and use square numbers and cube numbers

-Solve problems using all the above concepts. Pupils should be able to explain and articulate their reasoning.

> NB: *Factors are numbers which multiply to make a product, for example 2 and 9 are factors of 18.Common factors are numbers which are factors of two other numbers, for example 3 is a factor of both 6 and 18.*

Fractions and Decimals

• Put fractions with the same denominator into size order, for example recognising that $\frac{3}{5}$ is larger than $\frac{2}{5}$

• Find equivalents of common fractions ($\frac{2}{4} = \frac{1}{2} = \frac{4}{8}$) as well as solving problems which draw on knowledge of percentage and decimal equivalents of fractions. (e.g $\frac{1}{4}$ of a class are boys. What percentage of the class are girls? A. 75%)

• Convert between improper fractions and mixed numbers, for example recognising that $\frac{5}{4}$ is equal to $1\frac{1}{4}$

• Add and subtract simple fractions with related denominators, for example $\frac{2}{3} + \frac{1}{6} = \frac{5}{6}$

• Convert decimals to fractions, for example converting 0.71 to $\frac{71}{100}$

• Round decimals to the nearest tenth

• Put decimals with up to three decimal places into size order

• Begin to use the % symbol to relate to the 'number of parts per hundred'

> NB: *In a fraction, the numerator is the number on top; the denominator is the number on the bottom.*

Measurements

• Convert between metric units, such as centimetres to metres or grams to kilograms

• Use common approximate equivalences for imperial measures, such as 2.5cm ≈ 1 inch

• Calculate the perimeter of shapes, and calculate the area of rectangles using square centimetres or square metres

• Calculate the area of shapes made up of rectangles

• Estimate volume (in cm_3) and capacity (in ml)

Shape and Position

• Estimate, draw and compare angles, and measure them to the nearest degree.

• Know that angles on a straight line add up to 180°, and angles around a point add up to 360°

• Use reflection and translation to change the position of a shape

-Distinguishes between regular and irregular polygons based on reasoning about equal sides and angles

Graphs and Data

• Read and understand information presented in tables, including timetables

• Solve problems by finding information from a line graph

Parent Tip

Much of the knowledge in Year 5 relies on number facts being easily recalled. For example, to find common factors or to make simple conversions, knowledge of multiplication tables is essential. Any practice at home to keep these skills sharp will certainly be appreciated by your child's class teacher!