

YEAR 5 MATHS

During Year 5 a child will perform the following:

Number and place value

- Reads, writes, orders and compares numbers to at least 1,000,000 and determines the value of each digit.
- Interprets negative numbers in context, counts forwards and backwards with positive and negative whole numbers including through zero.

Addition and subtraction

- Adds and subtracts whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction).
- Numbers mentally with increasingly large numbers (e.g. $12,462 - 2,300 = 10,162$).

Multiplication and division

- Identifies multiples and factors including finding all factor pairs of a number and common factors of two numbers.
- Solves problems involving multiplication and division including using a knowledge of factors and multiples, squares and cubes.
- Solves problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.

Fractions (including decimals)

- Compares and orders fractions whose denominators are all multiples of the same number.
- Reads and writes decimal numbers as fractions e.g. $0.71 = 71/100$.
- Reads, writes, orders and compares numbers with up to three decimal places.
- Solves problems which require knowing percentage and decimal equivalents of $1/2$, $1/4$, $1/5$, $2/5$, $4/5$ and those fractions with a denominator of a multiple of 10 or 25.

Measurement

- Converts between different units of metric measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre).
- Measures and calculates the perimeter of composite rectilinear shapes in centimetres and metres.
- Calculates and compares the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²).

Geometry: Properties of shape

- Draws given angles and measures them in degrees (°).
- Distinguishes between regular and irregular polygons based on reasoning about equal sides and angles.

Geometry: position and direction

- Covered in Y6.

Statistics

- Completes, reads and interprets information in tables, including timetables.

By the end of Year 5 they will:

With reference to the KPIs

- By the end of Y5, a child should be fluent in formal written methods for addition and subtraction. Using a developing knowledge of formal methods of multiplication and division, a child should be able to solve problems including properties of numbers and arithmetic.
- A child can:
 - make connections between fractions, decimals and percentages;
 - classify shapes with geometric properties and use the vocabulary needed to describe them; and
 - read, spell and pronounce mathematical vocabulary correctly.