



Year 5 Sticky Knowledge

The sticky knowledge is generally the essential elements and 'basics' of Maths that is crucial for children's mathematical learning and progression. Of course, all areas of Maths are important and valuable but a focus on the 'basics' can help to advance and secure their learning across this subject.

Number Facts:

Knowledge of number facts and a fluency in using them is a vital part of Maths for each year group. Rapid recall of number facts can provide the basic knowledge required for most aspects of primary mathematics, including mental and written calculations, fractions, decimals and percentages and problem solving. Number facts learned in Maths can also be transferred to many other subjects across the curriculum and in 'real life' situations.

At Church Vale Primary we **strongly** believe that knowing and using number facts can help support children's understanding and progression in Maths.

The Non negotiables for **Year 5** are as follows:

- Read, write and order numbers (using $<$, $>$ and $=$ symbol) to 100,000 and know the value of each digit.
- Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals.
- Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).
- Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.
- Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context.
- Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)
- Compare and order fractions whose denominators are all multiples of the same number.
- Add and subtract fractions with the same denominator, and denominators that are multiples of the same number,
- Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.

- Identify 3-D shapes, including cubes and other cuboids, from 2-D representations.
- Draw given angles, and measure them in degrees (°)
- Complete, read and interpret information in tables, including timetables



Year 5 Vocabulary

Number – number and place value	
<u>Number</u> Factor pair $\geq$ greater than or equal to $\leq$ less than or equal to Formula Divisibility Square number Prime number Ascending / descending order	<u>Place Value</u> Round to the nearest ten thousand
Number – addition and subtraction	
Ones boundary Tenths boundary	
Number – multiplication and division	
Number – fractions (including decimals)	
Proper / Improper fraction Equivalent / reduced to / cancel Thousandths In every / for every Percentage / per cent / %	
Measurement	

Imperial unit

Square metre (m²) / square millimetre (mm²)

Pint / gallon

Discount

Currency

Geometry – properties of shapes / position and direction

Radius / diameter

Congruent

Axis of symmetry / reflective symmetry

X-axis / y-axis / quadrant

Octahedron

Coordinate

Protractor

Statistics

Database

Bar line chart

Line graph

Maximum / minimum value

Outcome

General

Explain your reasoning