

Maths Long Term Plan - Year 5

| Week               | Topic   | Objectives  | Vocabulary   | Things to revisit |
|--------------------|---|---|--|-------------------|
| Week 1 - 4         | Place Value:<br>7-digit numbers<br>Negative numbers<br>Rounding<br>Roman Numerals | Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit<br>Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000<br>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero<br>Solve number problems and practical problems that involve all of the above<br>Read Roman numerals to 1000 (M) and recognise years written in Roman numerals<br>Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000<br>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy   | place holder, place value, ones, tens, hundreds, thousands, ten thousands, hundred thousands, millions, negative number, integer, powers of ten, sequence, digit, number, equal, greater than, less than, inequality signs (< >) numeral, degree of accuracy, columns, round, estimate, calculation. |                   |
| Week 5-7           | Addition & Subtraction  | Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)<br>Add and subtract numbers mentally with increasingly large numbers<br>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why   | add, subtract, addition, subtraction, calculation, total, column, exchange, operation, inverse, equals.  |                   |
| Half Term          |   |   |  |                   |
| Week 8             | Units of Measure  | Convert between different units of metric measure (for example, kilometre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)  | convert, place holder, tenths, hundredths, thousandths, ones, tens, hundreds, thousands, convert, unit, metric, digits.  |                   |
| Week 9-12          | Multiplication & Division   | Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers<br>Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers<br>Establish whether a number up to 100 is prime and recall prime numbers up to 19<br>Multiply and divide numbers mentally drawing upon known facts<br>Recognise and use square numbers and cube numbers, and the notation for squared (²) and cubed (³)<br>Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes<br>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<br>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000<br>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<br>Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign | multiply, divide, multiples, factors product, operation, division, formal method, inverse, equal, calculation, remainder, short division, digit, column, powers of 10, decimals, tenths, hundredths, thousandths, prime numbers, composite numbers, square(d), cube(d), common.                      |                   |
| Week 13            | Assessments   |   |  |                   |
| Week 14            | Consolidation   |   |  |                   |
| Christmas Holidays |   |   |  |                   |
| Week 15-18         | Fractions   | Compare and order fractions whose denominators are all multiples of the same number<br>Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths<br>Add and subtract fractions with the same denominator and denominators that are multiples of the same number<br>Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, 2/5 + 4/5 = 6/5 = 1]<br>Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams   | numerator, denominator, inequality signs, multiple, equivalent, mixed number, improper fraction, convert, inequality signs, whole.   |                   |
| Week 19-20         | Four operations with emphasis on division (see objectives above also)             | 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<br>Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates   | multiply, divide, product, operation, division, formal method, inverse, equal, calculation, remainder, short division, digit, column, decimals, tenths, hundredths, thousandths  |                   |
| Half Term          |   |   |  |                   |
| Week 21-22         | Fractions & Decimals  | Read and write decimal numbers as fractions [for example, 0.71 = 71/100]<br>Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents<br>Round decimals with two decimal places to the nearest whole number and to one decimal place<br>Read, write, order and compare numbers with up to three decimal places<br>Solve problems involving number up to three decimal places  | decimal, fraction, equivalent, tenths, hundredths, thousandths, decimal place, decimal point, place holder, column, numerator, denominator, round, inequality signs.   |                   |
| Week 23-24         | Percentages   | Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal<br>Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 3/4, 1/5, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25   | percent, percentage, hundredths, increase, decrease, equivalent, denominator, numerator, decimal, fraction, multiple.  |                   |
| Week 25            | Assessments   |   |  |                   |
| Week 26            | Consolidation   |   |  |                   |
| Easter Holidays    |   |   |  |                   |
| Week 27 - 29       | Area & Perimeter  | Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres<br>Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes  | area, perimeter, formula, squared (²), length, width, square units, estimate, rectilinear, measure.  |                   |
| Week 30            | Four operations - standard written methods  | Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)<br>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<br>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  | add, plus, sum, subtract, minus, difference, addition, subtraction, calculation, total, column, exchange, operation, inverse, equals, multiply, divide, multiples, factors product, operation, division, formal method, inverse, equal, calculation, remainder, short division                       |                   |
| Week 31-32         | Volume  | Estimate volume [for example, using 1cm³ blocks to build cuboids (including cubes)] and capacity [for example, using water]<br>Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling   | volume, cubic units, estimate, cubed (³), length, mass, money, currency.   |                   |
| Half Term          |   |   |  |                   |

|              |   |   |  |  |
|--------------|---|---|--|--|
| Week 33      | Angles  | Revision:<br>Know angles are measured in degrees<br>Estimate and compare acute, obtuse and reflex angles<br>Draw given angles, and measure them in degrees (°)<br>New learning:<br>Identify:<br>• angles at a point and one whole turn (total 360°)<br>• angles at a point on a straight line and a turn (total 180°)<br>• other multiples of 90° | 3D, 2D, dimension(s), faces, edges, vertices, vertex, angles, right angles, acute, obtuse, reflex, measure of rotation, whole turn, straight line. Degrees, cube, cuboid, prism, protractor. |  |
| Week 34 - 35 | Properties of number - Recap with a focus on vocabulary - multiples, factors, prime, composite, square, cube etc. | Any number objectives above that need recapping or going over, especially linked to vocabulary  | see above  |  |
| Week 36      | Assessments   |   |  |  |
| Week 37      | Consolidation   |   |  |  |
| Week 38      | Sports Week / Consolidation   |   |  |  |
| Week 39      | Transition Week - Statistics  |   |  |  |