



# <u>Maths Curriculum - Year 4</u> - Key Skills Areas

# Number and Place Value:

|        | Counting | Writing Numbers   | Representing<br>Numbers  | Place Value  | Comparing and<br>Ordering   | Rounding  | Problems   |
|--------|----------|---|--|--|---|---|--|
| A nooV | _        | • read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value. | identify,     represent and     estimate     numbers using     different     representations | recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) | <ul> <li>find 1000 more or less than a given number</li> <li>order and compare numbers beyond 1000</li> </ul> | • round any number to the nearest 10, 100 or 1000 | solve number and practical problems that involve all of the above and with increasingly large positive numbers |





#### Addition and Subtraction:

|        | Number Statements | Mental Recall | Addition  | Subtraction   | Relationships   | Problems   |
|--------|-------------------|---------------|---|---|---|--|
| Year 4 |                   |               | Add numbers     with up to 4     digits using the     formal written     methods of     columnar     addition where     appropriate | Subtract numbers with up to 4 digits using the formal written methods of columnar subtraction where appropriate | Estimate and use inverse operations to check answers to a calculation | Solve addition and subtraction<br>two-step problems in contexts,<br>deciding which operations and<br>methods to use and why. |

#### Examples:

| Written Methods: |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
|                  | 2 | 4 | 9 | 9 | + | 6 | 3 | 2 | 7 | = | 8 | 8 | 2 | 6 |  |
| ŀ                |   | 2 | 4 | 9 | 9 |   |   |   |   |   |   |   |   |   |  |
|                  | _ | 6 | 3 | 2 | 7 |   |   |   |   |   |   |   |   |   |  |
|                  |   | 8 | 8 | 2 | 6 |   |   |   |   |   |   |   |   |   |  |
|                  |   |   | 1 | 1 |   |   |   |   |   |   |   |   |   |   |  |
|                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

Children should continue to use the Formal Column method, with numbers up to 4 digits. The Expanded Column method can be used alongside if children show less confidence when working with larger numbers. Children should then apply their understanding to problems with decimals (in context of money and measures.)

# Written Methods:

Children move into using Compact Column Subtraction with four digit numbers, using the expanded method first if necessary or alongside the compact method.

| 7 | 5 | 9 | 3 | - | 1 | 8 | 2 | 6 | = | 5 | 7 | 6 | 7  |  |   |   |    |   |        |
|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|---|---|----|---|--------|
|   |   |   |   |   |   |   |   |   |   |   |   |   |    |  |   |   |    |   |        |
|   | D | 0 | a | 0 |   |   |   |   |   | 8 | 0 |   |    |  |   | 6 |    | 8 |        |
|   | I | ф | 0 | O | + | 5 | 0 | 0 | + | 9 | Q | + | 13 |  |   | 7 | 15 | 8 | 3      |
| - | 1 | 0 | 0 | 0 | + | 8 | 0 | 0 | + | 2 | 0 | + | 6  |  | - | 1 | 8  | 2 | 6      |
|   | 5 | 0 | 0 | 0 | + | 7 | 0 | 0 | + | 6 | 0 | + | 7  |  |   | 5 | 7  | 6 | 7      |
|   |   |   |   |   |   |   |   |   |   |   |   |   |    |  |   |   |    |   | $\Box$ |

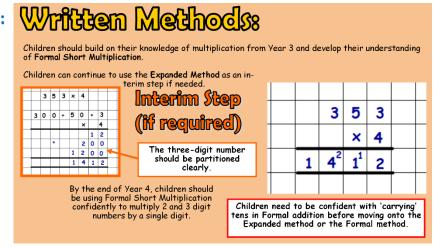


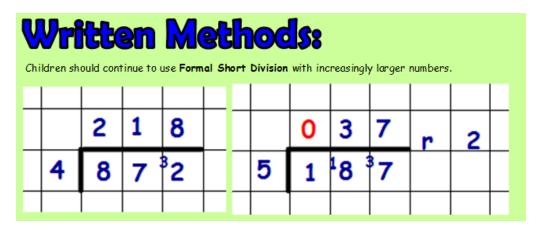


#### Multiplication and Division:

|        | Number Statements  | Mental Recall  | Written Calculations  | Relationships | Numbers   | Problems  |
|--------|--|--|---|---------------|---|---|
| Year 4 | Use place value,     known and derived     facts to multiply and     divide mentally,     including: multiplying     by 0 and 1; dividing     by 1; multiplying     together three     numbers | Recall multiplication and division facts for multiplication tables up to 12 x 12  Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers | Multiply two-digit<br>and three-digit<br>numbers by a one-<br>digit number using<br>formal written layout |               | Recognise and use factor pairs and commutatively in mental calculations | Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as which n objects are connected to m objects. |

#### Examples:









### Fractions:

|        | Recognising   | Decimals  | Finding FDP   | Links to Place  | Comparing and  | Operations  | Problems   |
|--------|---|---|---|---|--|---|--|
|        | Fractions   |   |   | Value   | Ordering FDP   |   |  |
| Year 4 | Recognise and show, using diagrams, families of common equivalent fractions  Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten | Recognise and write decimal equivalents to $\frac{1}{4}$ ; $\frac{1}{2}$ ; $\frac{3}{4}$ Recognise and write decimal equivalents of any number of tenths or hundredths  Round decimals with one decimal place to the nearest whole number | Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten  Solve problems involving increasingly harder fractions to calculate quantities, including non-unit fractions where the answer is a whole number | Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten  Find the effect of dividing a one or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths | Recognise and write decimal equivalents of any number of tenths or hundredths  Compare numbers with the same number of decimal places up to two decimal places | Add and subtract fractions with the same denominator. | Solve problems involving increasingly harder fractions to calculate quantities, including non-unit fractions where the answer is a whole number  Solve simple measures and money problems involving fractions and decimals to two decimal places |





# Non Key Skills Areas:

### Geometry:

|        | 2D Shapes  | 3D Shapes | Symmetry  | Angles   | Coordinates  | Translations  | Problems |
|--------|--|-----------|---|--|--|---|----------|
| Year 4 | Compare and classify<br>geometric shapes,<br>including quadrilaterals<br>and triangles, based n<br>their properties and<br>sizes |           | Identify lines of symmetry in 2-D shapes presented in different orientations  Complete a simple symmetric figure with respect to a specific line of symmetry. | Identify acute and obtuse angles and compare and order angles up to two right angles by size | Describe positions on a 2-D grid as coordinates in the first quadrant  Plot specified points and draw sides to complete a given polygon. | Describe movement<br>between positions as<br>translations of a given<br>unit to the left/right<br>and up/down |          |

#### Measures:

|        | Measuring   | Units   | Money | Area   | Perimeter   | Capacity | Time   | Problems  |
|--------|---|---|-------|--|---|----------|--|---|
| Year 4 | Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres | Convert between different units of measure (e.g. kilometre to metre; hour to minute)  Estimate, compare and calculate different measures, including money in pounds and pence |       | Find the area of<br>rectilinear<br>shapes by<br>counting | Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres |          | Read, write and convert time between<br>analogue and digital 12 and 24-hour clocks | Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days |





#### **Statistics:**

|        | Constructing Graphs  | Interpreting Graphs  | Tables | Averages | Problems  |
|--------|--|--|--------|----------|---|
| Year 4 | Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs | Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs |        |          | Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. |