## Key Learning Coverage - Year 3

This table shows where the Key Learning is explicitly taught.
Teachers should take every opportunity to combine the learning from different areas of the mathematics curriculum, for example, using a measurement context when calculating and also to revisit learning on a regular basis through Starter sessions.

| Key Learning: Number and Place Value | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - Count from 0 in multiples of 4, 8, 50 and 100 |  | Wk 1 multiples of 4 | Wk 1 multiples of 50 and 100 <br> Wk 5 multiples of 8 |  | Wk 1 | Wk 1 |
| - Count up and down in tenths | Ongoing in Starters |  |  |  | Wk 5 |  |
| - Read and write numbers up to 1000 in numerals and in words | Wk 1 | Ongoing |  |  |  | Wk 1 |
| - Read and write numbers with one decimal place | Ongoing in Starters |  |  |  | Wk 5 |  |
| - Identify, represent and estimate numbers using different representations (including the number line) | Wk 1 | Ongoing |  |  |  | Wk 1 |
| - Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) | Wk 1 | Ongoing especially when calculating |  |  |  | Wk 1 |
| - Identify the value of each digit to one decimal place | Ongoing in Starters |  |  |  | Wk 5 |  |
| - Partition numbers in different ways (e.g. $146=100+40+6$ and $146=130+16$ ) | Wk 1 | Ongoing especially when calculating |  |  |  |  |
| - Compare and order numbers up to 1000 | Wk 1 | Ongoing in measurement and statistics |  |  |  | Wk 1 |
| - Compare and order numbers with one decimal place | Ongoing in Starters |  |  |  | Wk 5 |  |
| - Find 1,10 or 100 more or less than a given number | Wk 2 |  | Wk 1 | Ongoing in Starters |  |  |
| - Round numbers to at least 1000 to the nearest 10 or 100 | Wk 1 | Ongoing when estimating calculations |  |  |  |  |
| - Find the effect of multiplying a one- or two-digit number by 10 and 100 , identify the value of the digits in the answer | Ongoing when calculating and in Starters |  |  |  |  |  |
| - Describe and extend number sequences involving counting on or back in different steps |  | Wk 1 | Wks 1 and 5 |  | Wk 1 |  |
| - Read Roman numerals from I to XII | Recommend teaching in history topic on Romans |  |  |  |  |  |
| - Solve number problems and practical problems involving these ideas | Wk 1 | Ongoing |  |  |  |  |
| Key Learning: Number - Addition and Subtraction | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| - Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method) | Wks 2, 5 and 6 |  |  | Wk 2 | Wks 2 and 5 | Wk 2 |
| - Select a mental strategy appropriate for the numbers involved in the calculation | Wks 2, 3 and 4 |  | Wk 1 |  | Wks 2 and 5 | Wk 2 |
| - Understand and use take away and difference for subtraction, deciding on the most efficient method for the numbers involved, irrespective of context | Wks 2, 3 and 4 |  | Wk 1 | Wk 2 | Wks 2 and 5 | Wk 2 |


| - Recall/use addition/subtraction facts for 100 (multiples of 5 and 10) | Ongoing in Starters |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - Derive and use addition and subtraction facts for 100 | Wks 3 and 4 |  |  |  |  | Wk 2 |
| - Derive and use addition and subtraction facts for multiples of 100 totalling 1000 | Ongoing in Starters |  |  |  |  |  |
| - Add and subtract numbers mentally, including: <br> - a three-digit number and ones <br> - a three-digit number and tens <br> - a three-digit number and hundreds | Wks 2, 3 and 4 |  | Wk 1 |  | Wk 2 | Wk 2 |
| - Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction | Wk 5 + Wk 6 - |  |  | Wk 2 | Wk 2 |  |
| - Estimate the answer to a calculation and use inverse operations to check answers | Wks 5 and 6 |  | Wk 1 | Wk 2 | Wks 2 and 5 | Wk 2 |
| - Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction | $\begin{gathered} \hline \text { Wks } 5 \text { and } \\ 6 \\ \hline \end{gathered}$ |  |  | Wk 2 | Wk 2 |  |
| Key Learning: Number - Multiplication and Division | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| - Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method) | Ongoing when calculating |  |  |  |  |  |
| - Select a mental strategy appropriate for the numbers involved in the calculation |  | Wk 2 x <br> Wk 3 - | Wk 3 : Wks 5 and $6 x$ |  | Wk 3 |  |
| - Understand that division is the inverse of multiplication and vice versa | Applied when checking the results of a calculation and linked to objective below |  |  |  |  |  |
| - Understand how multiplication and division statements can be represented using arrays |  |  | Wk 3 - |  |  |  |
| - Understand division as sharing and grouping and use each appropriately |  |  | Wk 3 |  |  |  |
| - Recall and use multiplication and division facts for the 3,4 and 8 multiplication tables |  | $\begin{gathered} \text { Wk } 1-3 x \\ \text { and } 4 x \end{gathered}$ | Wk 5-8x |  | Wks 1 and 3 | Wk 2 |
| - Derive and use doubles of all numbers to 100 and corresponding halves | Ongoing in Starters |  |  |  |  |  |
| - Derive and use doubles of all multiples of 50 to 500 | Ongoing in Starters |  |  |  |  |  |
| - Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods |  | Wk 2 x Wk 3 - | Wk 3 Wks 5 and $6 x$ |  | Wk 3 |  |
| - Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy |  | Wk 2 x Wk 3 - | Wk 3 : Wks 5 and $6 x$ |  | Wk 3 |  |


| - Solve problems, including missing number problems, involving multiplication and division (and interpreting remainders), including positive integer scaling problems and correspondence problems in which $n$ objects are connected to $m$ objects |  | Wk 2 x <br> Wk 3 - | Wk 6 |  | Wk 3 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Key Learning: Number - Fractions | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| - Show practically or pictorially that a fraction is one whole number divided by another (e.g. $\frac{3}{4}$ can be interpreted as $3 \div 4$ ) |  |  | Wk 2 | Wk 3 |  | Wk 3 |
| - Understand that finding a fraction of an amount relates to division |  |  | Wks 2 and 3 | Ongo | hen applied | o division |
| - Recognise that tenths arise from dividing objects into 10 equal parts and in dividing one-digit numbers or quantities by 10 |  |  |  |  | Wk 5 |  |
| - Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators |  |  | Wks 2 and 3 |  |  | Wk 3 |
| - Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators |  |  | Wk 2 |  |  | Wk 3 |
| - Recognise and show, using diagrams, equivalent fractions with small denominators |  |  |  | Wk 3 |  | Wk 3 |
| - Add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7}+\frac{1}{7}=\frac{6}{7}$ ] |  |  |  | Wk 3 |  |  |
| - Compare and order unit fractions, and fractions with the same denominators (including on a number line) | Ongoing in Starters |  |  | Wk 3 |  |  |
| - Count on and back in steps of $\frac{1}{2}, \frac{1}{4}$ and $\frac{1}{3}$ | Ongoing in Starters |  |  |  |  |  |
| - Solve problems that involve all of the above |  |  |  | Wk 3 |  |  |
| Key Learning: Measurement | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| - Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (1/ml) | Wk 3 length |  | Wk 4 volume and capacity and mass |  | Wk 2 | Wk 4 |
| - Continue to estimate and measure temperature to the nearest degree ( ${ }^{\circ} \mathrm{C}$ ) using thermometers | Ongoing in Starters |  |  |  |  |  |
| - Understand perimeter is a measure of distance around the boundary of a shape | Wk 3 |  |  |  | Wk 2 | Wk 4 |
| - Measure the perimeter of simple 2-D shapes | Wk 3 |  |  |  | Wk 2 | Wk 4 |
| - Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12hour and 24 -hour clocks |  | Wk 4 |  | Wk 5 |  |  |
| - Estimate/read time with increasing accuracy to the nearest minute |  | Wk 4 |  | Wk 5 |  |  |
| - Record/compare time in terms of seconds, minutes, hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon, midnight |  | Wk 4 |  | Wk 5 |  |  |
| - Know the number of seconds in a minute and the number of days in each month, year and leap year |  | Wk 4 |  | Wk 5 |  |  |
| - Compare durations of events [for example to calculate the time taken by particular events or tasks] |  |  |  | Wk 5 |  |  |
| - Continue to recognise and use the symbols for pounds $(£)$ and pence (p) and understand that the decimal point separates pounds/pence | Ongoing when solving problems involving money |  |  |  |  |  |


| - Recognise that ten 10 p coins equal $£ 1$ and that each coin is $\frac{1}{10}$ of $£ 1$ | Ongoing when solving problems involving money |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - Add and subtract amounts of money to give change, using both £ and p in practical contexts |  |  |  |  | Wk 5 |  |
| - Solve problems involving money and measures and simple problems involving passage of time |  | Wks 2, 3 and 4 | Wk 4 <br> Wk 6 | Wk 5 | Wks 2, 3 and 5 | Wks 1, 2 and 3 |
| Key Learning: Geometry - Properties of Shape | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| - Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them | Wk 3 - 2-D | Wk 5 - 3-D |  | Wk 1 | Wk 4-2-D <br> Wk 6 - 3-D |  |
| - Recognise angles as a property of shape or a description of a turn | Wk 3 |  |  | Wk 1 | Wk 4 |  |
| - Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle |  |  |  | Wk 1 | Wk 4 |  |
| - Identify horizontal and vertical lines and pairs of perpendicular and parallel lines |  | Wk 5 |  | Wk 1 | Wk 4 |  |
| Key Learning: Geometry - Position and Direction | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| - Describe positions on a square grid labelled with letters and numbers |  |  |  | Wk 4 |  |  |
| Key Learning: Statistics | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| - Use sorting diagrams to compare and sort objects, numbers and common 2-D and 3-D shapes and everyday objects |  | Wks 1 and 5 | Wk 5 | Wk 1 | Wks 4 and 6 |  |
| - Interpret and present data using bar charts, pictograms and tables | Wk 4 |  |  |  | Wk 1 | Wk 5 |
| - Solve one-step and two-step questions [for example, 'How many more?’ and 'How many fewer?’] using information presented in scaled bar charts and pictograms and tables | Wk 4 |  |  | Wk 2 |  | Wk 5 |

