



# Maths Long Term Overview – Year 3



## Curriculum Rationale

*Our maths curriculum has been designed to support a mastery approach to teaching and learning whilst effectively meeting the National Curriculum aims and objectives. This curriculum aims to provide children with time to apply their skills, explore concepts thoroughly and to demonstrate a deeper understanding of mathematical concepts. This curriculum aims to support pupils and teachers in developing a greater confidence within mathematics and strives to provide children with the opportunities to become mathematicians.*

*A mathematician is somebody who: makes connections, shows fluency, can provide a reason for what they are doing, is creative, checks their work in a variety of ways, is resilient, explains, evaluates, models, invents, applies their learning to a range of contexts, is curious, has confidence, uses mistakes to improve, is resourceful and efficient.*

*At Whitemoor, we aim to provide a knowledge-rich curriculum, allowing time for pupils to develop a deeper understanding and make connections between new and prior learning. Therefore, our lessons are created with care and are constantly adapted over time (using input from staff, up-to-date research and observations of pupils) to meet the needs of our pupils and allow them to continue making progress over time. Lessons are designed to provide a variety of representations, which is vital to introduce and explore concepts effectively. All lessons will contain: recall of prior learning, a range of representations, fluency, problem solving and reasoning opportunities.*

## **Key Documents**

[NCETM Calculations Guidance](#)

[NCETM Maths Guidance for KS1 and KS2](#)

[NCETM 5 Big Ideas for Mastery](#)

[NCETM Ready-to-progress criteria](#)

[White Rose Schemes of Learning](#)



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| <i>Yearly Overview</i> |                               |        |        |                          |        |           |               |        |                               |            |                        |         |
|------------------------|-------------------------------|--------|--------|--------------------------|--------|-----------|---------------|--------|-------------------------------|------------|------------------------|---------|
|                        | Week 1                        | Week 2 | Week 3 | Week 4                   | Week 5 | Week 6    | Week 7        | Week 8 | Week 9                        | Week 10    | Week 11                | Week 12 |
| Autumn                 | Place Value                   |        |        | Addition and Subtraction |        |           |               |        | Multiplication and Division A |            |                        |         |
| Spring                 | Multiplication and Division B |        |        | Length and Perimeter     |        | Fractions |               |        |                               | Decimals   |                        |         |
| Summer                 | Decimals                      |        | Money  |                          | Time   |           | Consolidation | Shape  |                               | Statistics | Position and Direction |         |



# Maths Long Term Overview – Year 3



| Autumn Term Coverage and National Curriculum Objectives (13 weeks and 4 days)                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| Week 1 – Week 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Week 4 – Week 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Week 9 – Week 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <p><u>Place Value</u></p> <p><a href="#">NCETM Resources:</a></p> <p><u>Recall: Autumn Block 1 Flashback 4</u></p> <p><u>National Curriculum Objectives:</u><br/>Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number.</p> <p>Recognise the place value of each digit in a 3-digit number (100s, 10s, 1s).</p> <p>Compare and order numbers up to 1,000.</p> <p>Identify, represent and estimate numbers using different representations.</p> <p>Read and write numbers up to 1,000 in numerals and in words.</p> | <p><u>Addition and Subtraction</u></p> <p><a href="#">NCETM Resources:</a></p> <p><u>Recall: Autumn Block 2 Flashback 4</u></p> <p><u>National Curriculum Objectives:</u><br/>Add and subtract numbers mentally, including:</p> <ul style="list-style-type: none"> <li>• a three-digit number and 1s</li> <li>• a three-digit number and 10s</li> <li>• a three-digit number and 100s</li> </ul> <p>Add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction.</p> <p>Estimate the answer to a calculation and use inverse operations to check answers.</p> <p>Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</p> | <p><u>Multiplication and Division</u></p> <p><a href="#">NCETM Resources:</a></p> <p><u>Recall: Autumn Block 3 Flashback 4</u></p> <p><u>National Curriculum Objectives:</u><br/>Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</p> <p>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.</p> <p>Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which <math>n</math> objects are connected to <math>m</math> objects.</p> |



# Maths Long Term Overview – Year 3



Solve number problems and practical problems involving these ideas.

| Autumn Small Steps                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| Place Value (3 weeks)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Addition and Subtraction (5 weeks)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Multiplication and Division (4 weeks)                                                                                                                                                                                                                                                                                                                                                                                                      |
| Step 1: Represent numbers to 100<br>Step 2: Partition numbers to 100<br>Step 3: Number line to 100<br>Step 4: Hundreds<br>Step 5: Represent numbers to 1,000<br>Step 6: Partition numbers to 1,000<br>Step 7: Flexible partitioning of numbers to 1,000<br>Step 8: Hundreds, tens and ones<br>Step 9: Find 1, 10 or 100 more or less<br>Step 10: Number line to 1,000<br>Step 11: Estimate on a number line to 1,000<br>Step 12: Compare numbers to 1,000<br>Step 13: Order numbers to 1,000<br>Step 14: Count in 50s | Step 1: Apply number bonds within 10<br>Step 2: Add and subtract 1s<br>Step 3: Add and subtract 10s<br>Step 4: Add and subtract 100s<br>Step 5: Spot the pattern<br>Step 6: Add 1s across 10<br>Step 7: Add 10s across 100<br>Step 8: Subtract 1s across 10<br>Step 9: Subtract 10s across 100<br>Step 10: Make connections<br>Step 11: Add two numbers (no exchange)<br>Step 12: Subtract two numbers (no exchange)<br>Step 13: Add two numbers (across 10)<br>Step 14: Add two numbers (across 100)<br>Step 15: Subtract two numbers (across 10)<br>Step 16: Subtract two numbers (across 100)<br>Step 17: Add 2-digit and 3-digit numbers<br>Step 18: Subtract a 2-digit number from a 3-digit number<br>Step 19: Complements to 100 | Step 1: Multiplication – equal groups<br>Step 2: Use arrays<br>Step 3: Multiples of 2<br>Step 4: Multiples of 5 and 10<br>Step 5: Sharing and grouping<br>Step 6: Multiply by 3<br>Step 7: Divide by 3<br>Step 8: The 3 times-table<br>Step 9: Multiply by 4<br>Step 10: Divide by 4<br>Step 11: The 4 times-table<br>Step 12: Multiply by 8<br>Step 13: Divide by 8<br>Step 14: The 8 times-table<br>Step 15: The 2, 4 and 8 times-tables |



## Maths Long Term Overview – Year 3



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|  | Step 20: Estimate answers<br>Step 21: Inverse operations<br>Step 22: Make decisions |  |
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# Maths Long Term Overview – Year 3



## Spring Term Coverage and National Curriculum Objectives (11 weeks 2 days)

| Week 1 – Week 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Week 4 – Week 5                                                                                                                                                                                                                                                                          | Week 6 – Week 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Week 10 – Week 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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| <p><u>Multiplication and Division</u></p> <p><a href="#">NCETM Resources:</a></p> <p><u>Recall: Spring Block 1 Flashback 4</u></p> <p><u>National Curriculum Objectives:</u><br/>Recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math>.</p> <p>Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers.</p> <p>Recognise and use factor pairs and commutativity in mental calculations.</p> | <p><u>Length and Perimeter</u></p> <p><a href="#">NCETM Resources:</a></p> <p><u>Recall: Spring Block 2 Flashback 4</u></p> <p><u>National Curriculum Objectives:</u><br/>Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.</p> | <p><u>Fractions</u></p> <p><a href="#">NCETM Resources:</a></p> <p><u>Recall: Spring Block 3 Flashback 4</u></p> <p><u>National Curriculum Objectives:</u><br/>Recognise and show, using diagrams, families of common equivalent fractions.</p> <p>Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10.</p> <p>Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.</p> | <p><u>Decimals</u></p> <p><a href="#">NCETM Resources:</a></p> <p><u>Recall: Spring Block 4 Flashback 4</u></p> <p><u>National Curriculum Objectives:</u><br/>Recognise and write decimal equivalents of any number of tenths or hundreds.</p> <p>Recognise and write decimal equivalents to <math>\frac{1}{4}</math>, <math>\frac{1}{2}</math>, <math>\frac{3}{4}</math></p> <p>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.</p> <p>Round decimals with 1 decimal place to the nearest whole number</p> |



# Maths Long Term Overview – Year 3



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| <p>Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.</p> <p>Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as <math>n</math> objects are connected to <math>m</math> objects.</p> |  | <p>Add and subtract fractions with the same denominator.</p> | <p>Compare numbers with the same number of decimal places up to 2 decimal places.</p> <p>Solve simple measure and money problems involving fractions and decimals to 2 decimal places.</p> |
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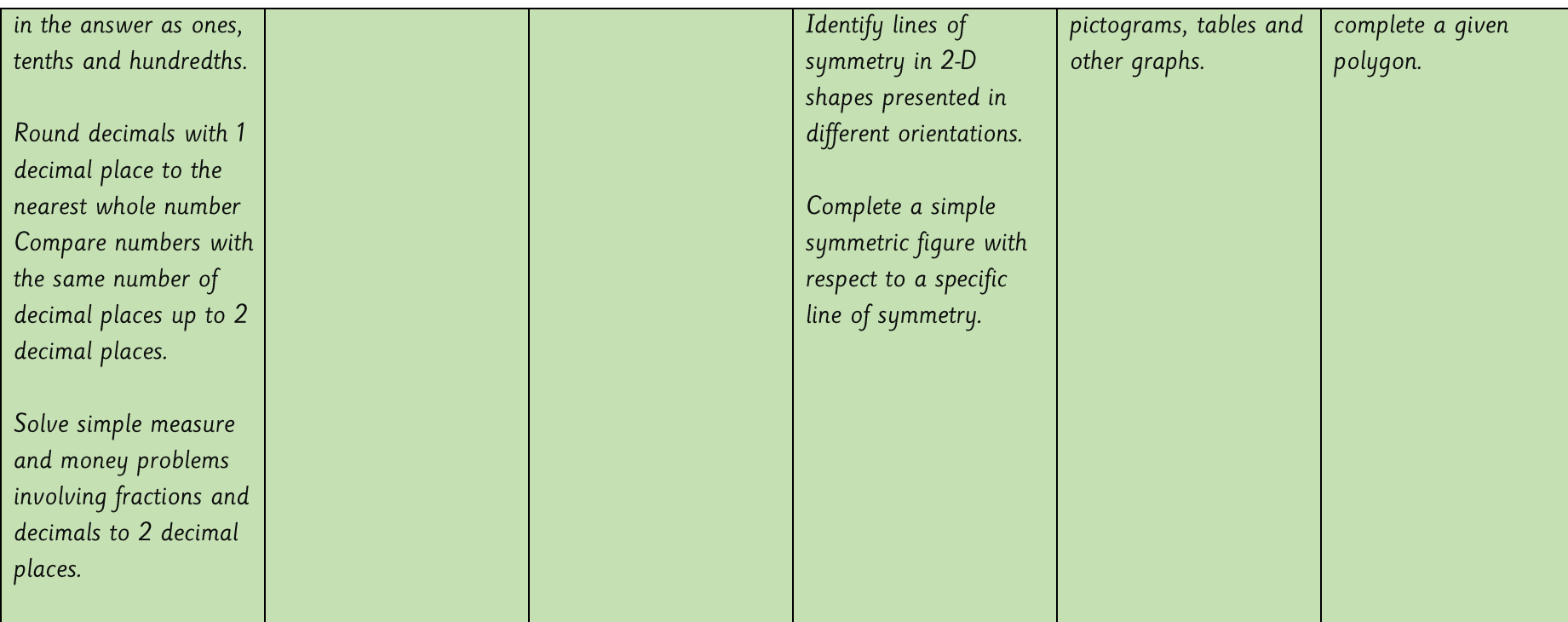
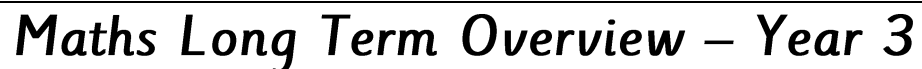
| Spring Small Steps                                  |                                                     |                                                     |                                                     |
|-----------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|
| <b>Multiplication and Division (3 weeks)</b>        | <b>Length and Perimeter (2 weeks)</b>               | <b>Fractions (4 weeks)</b>                          | <b>Decimals (3 weeks)</b>                           |
| Updated when new steps are released (November 2022) | Updated when new steps are released (November 2022) | Updated when new steps are released (November 2022) | Updated when new steps are released (November 2022) |



# Maths Long Term Overview – Year 3



| Summer Term Coverage and National Curriculum Objectives (13 weeks 4 days)                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                            |
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| Week 1 – Week 2                                                                                                                                                                                                                                                                                                                      | Week 3 – Week 4                                                                                                                                                                                                                         | Week 5 – Week 6                                                                                                                                                                                                                                   | Week 8 – Week 9                                                                                                                                                                                                                                                  | Week 10                                                                                                                                                                                                                                                                 | Week 11 – Week 12                                                                                                                                                                                                                                                          |
| Decimals                                                                                                                                                                                                                                                                                                                             | Money                                                                                                                                                                                                                                   | Time                                                                                                                                                                                                                                              | Shape                                                                                                                                                                                                                                                            | Statistics                                                                                                                                                                                                                                                              | Position and Direction                                                                                                                                                                                                                                                     |
| <a href="#">NCETM Resources:</a>                                                                                                                                                                                                                                                                                                     | <a href="#">NCETM Resources:</a>                                                                                                                                                                                                        | <a href="#">NCETM Resources:</a>                                                                                                                                                                                                                  | <a href="#">NCETM Resources:</a>                                                                                                                                                                                                                                 | <a href="#">NCETM Resources:</a>                                                                                                                                                                                                                                        | <a href="#">NCETM Resources:</a>                                                                                                                                                                                                                                           |
| <u>Recall: Summer Block 1 Flashback 4</u>                                                                                                                                                                                                                                                                                            | <u>Recall: Summer Block 2 Flashback 4</u>                                                                                                                                                                                               | <u>Recall: Summer Block 3 Flashback 4</u>                                                                                                                                                                                                         | <u>Recall: Summer Block 4 Flashback 4</u>                                                                                                                                                                                                                        | <u>Recall: Summer Block 5 Flashback 4</u>                                                                                                                                                                                                                               | <u>Recall: Summer Block 6 Flashback 4</u>                                                                                                                                                                                                                                  |
| <u>National Curriculum Objectives:</u><br>Recognise and write decimal equivalents of any number of tenths or hundreds.<br><br>Recognise and write decimal equivalents $\frac{1}{4}$ , $\frac{1}{2}$ , $\frac{3}{4}$<br><br>Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits | <u>National Curriculum Objectives:</u><br>Solve simple measure and money problems involving fractions and decimals to 2 decimal places.<br><br>Estimate, compare and calculate different measures, including money in pounds and pence. | <u>National Curriculum Objectives:</u><br>Read, write and convert time between analogue and digital 12- and 24-hour clocks.<br><br>Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days. | <u>National Curriculum Objectives:</u><br>Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.<br><br>Identify acute and obtuse angles and compare and order angles up to 2 right angles by size. | <u>National Curriculum Objectives:</u><br>Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.<br><br>Solve comparison, sum and difference problems using information presented in bar charts, | <u>National Curriculum Objectives:</u><br>Describe positions on a 2-D grid as coordinates in the first quadrant.<br><br>Describe movements between positions as translations of a given unit to the left/right and up/down.<br><br>Plot specified points and draw sides to |

[illegible]