

## Year 4 – Medium Term Plan

### Guidance

- The Units below **MUST** be taught in this order.
- Use the **Meridian calculation policy**.
- Complete the summative assessments at the times stated on the assessment calendar.
- Formally assess the children's understanding continuously to inform **instant interventions** and **adapt** lessons to meet their needs.
- There is **additional time** built into the units for teachers to break one lesson into two, add in additional lessons, carry out **intervention or enrichment lessons** or do anything else as needed for their class.
- Any time left at the end of each term should be used for **closing the gap** and giving children the opportunity to **apply** their learnt skills to a real-life context, a shop, an estate agent, a car salesroom, a factory, planning a holiday etc. and open-ended investigations.
- Lesson starters may be used to consolidate previous learning in all areas, including **number, shape** and **measure**. Initially, these will be used to **apply skills learnt from Year 3** until the subject areas are covered in Year 4.

### Subject Knowledge Support

White Rose Schemes of Work - [Maths resources for teachers | White Rose Maths](#)

NCETM Subject Knowledge Audits [Primary Subject Knowledge Audit | NCETM](#)

<b><u>Autumn</u></b>			
<b><u>Place Value (3-4 weeks)</u></b>	<b><u>Addition and Subtraction (3-4 weeks)</u></b>	<b><u>Geometry properties of shapes (2-3 weeks)</u></b>	<b><u>Multiplication and Division (2-3 weeks)</u></b>

**National Curriculum Statements:**

- ✓ count in multiples of 6, 7, 9, 25 and 1000
- ✓ find 1000 more or less than a given number
- ✓ count backwards through zero to include negative numbers
- ✓ recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)
- ✓ order and compare numbers beyond 1000
- ✓ identify, represent and estimate numbers using different representations
- ✓ 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
- ✓ 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

**Lesson Sequence:**

1. L.P: To understand what a number system is.
  2. L.P: To partition and recombine numbers.  
**Standard and flexible up to 3 digits.**
  3. L.P: To represent numbers. **up to 4 digits.**
  4. L.P: To partition and recombine numbers.  
**Standard.**
  5. L.P: To partition and recombine numbers.  
**Standard and flexible up to 4 digits.**
  6. L.P: To compare numbers up to 10,000.
  7. L.P: To order numbers up to 10,000.
- Explore - [Ordering Journeys \(maths.org\)](#)
8. L.P: To interpret a numberline. **up to 3 digits.**
  9. L.P: To interpret a numberline. **up to 4 digits.**
  10. L.P: To add and subtract 10, 100 and 1,000.
- Explore - [What Distance? \(maths.org\)](#)
- DC - [The Deca Tree Poster \(maths.org\)](#)
11. L.P: To round to the nearest 10.
- Explore - [Reasoned Rounding \(maths.org\)](#)

**National Curriculum Statements:**

- ✓ add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate
- ✓ estimate and use inverse operations to check answers to a calculation
- ✓ solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.

**Lesson Sequence:**

1. L.P: To solve an addition problem. [Reach 100 \(maths.org\)](#)
2. L.P: To add using the compact method. (practical lesson in mixed attainment partners on A3 or sugar paper) **up to 3 digits.**
3. L.P: To add using the compact method. **up to 3 digits.**
4. L.P: To add using the compact method. **up to 4 digits with 100s to 1000 exchange only.**
5. L.P: To add using the compact method. (practical lesson in mixed attainment partners on A3 or sugar paper) **up to 4 digits with multiple exchanges.**

**National Curriculum Statements:**

- ✓ compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes
- ✓ identify acute and obtuse angles and compare and order angles up to two right angles by size
- ✓ 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.

**Lesson Sequence:**

1. L.P: To identify, name and order angles.
2. L.P: To identify regular and irregular shapes.
3. L.P: To identify lines of symmetry.  
Explore - [Let Us Reflect \(maths.org\)](#)
4. L.P: To complete a symmetrical figure.

**National Curriculum Statements:**

- ✓ recall multiplication and division facts for multiplication tables up to  $12 \times 12$
- ✓ 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
- ✓ recognise and use factor pairs and commutativity 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 n objects are connected to m objects.

**Lesson Sequence:**

1. L.P: To explore multiplication.
2. L.P: To understand commutativity.
3. L.P: To use the Distributive Law.
4. L.P: To explore division.
5. L.P: To multiply and divide by 3.
6. L.P: To multiply and divide by 6.
7. L.P: To multiply and divide by 9.
8. L.P: To multiply and divide by 3, 6 and 9.  
Starter - [Multiplication Square Jigsaw \(maths.org\)](#)
9. L.P: To multiply and divide by 7.
10. L.P: To find all possibilities. [Zios and Zepts \(maths.org\)](#)
11. L.P: To multiply and divide by 11.
12. L.P: To multiply and divide by 12.
13. L.P: To use the Associative Law.

12. L.P: To round to the nearest 100.
13. L.P: To round to the nearest 1000.
14. L.P: To apply rounding skills.
15. L.P: To read Roman Numerals.
16. L.P: To understand negative numbers.

Use starters and opportune times to look at patterns and rehearse counting in multiples of 6, 7, 9, 25 and 1000.

6. L.P: To add using the compact method. **up to 4 digits with multiple exchanges.**
7. L.P: To adjust when adding.
8. L.P: To add using the most efficient method.
9. L.P: To solve an addition and subtraction problem. [Maze 100 \(maths.org\)](#).
10. L.P: To subtract using the compact method. (practical lesson in mixed attainment partners on A3 or sugar paper) **up to 3 digits.**
11. L.P: To subtract using the compact method. **up to 3 digits.**
12. L.P: To subtract using the compact method. **up to 4 digits with 1000 to 100s exchange only.**
13. L.P: To subtract using the compact method. (practical lesson in mixed attainment partners on A3 or sugar paper) **up to 4 digits with multiple exchanges.**
14. L.P: To subtract using the compact method. **up to 4 digits with multiple exchanges.**
15. L.P: To subtract using adjusting.
16. L.P: To subtract using the most efficient method.
17. L.P: To use the inverse operation.

5. L.P: To identify types of triangles.
6. L.P: To sort triangles.
7. L.P: To identify types of quadrilaterals.  
Explore - [Stringy Quads \(maths.org\)](#)
8. L.P: To sort quadrilaterals.

Explore - [Quad Match \(maths.org\)](#)

14. L.P: To apply multiplication knowledge.  
[Multiples Grid \(maths.org\)](#)

	18. L.P: To use the inverse operation.		
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<b>Spring</b>		
<b>Multiplication and Division (4-5 weeks)</b>	<b>Measurement - Area and Perimeter (2-3 weeks)</b>	<b>Fractions (3-4 weeks)</b>
<p><b>National Curriculum Statements:</b></p> <ul style="list-style-type: none"> <li>✓ recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></li> <li>✓ 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</li> <li>✓ recognise and use factor pairs and commutativity in mental calculations</li> <li>✓ multiply two-digit and three-digit numbers by a one-digit number using formal written layout</li> <li>✓ 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 n objects are connected to m objects.</li> </ul> <p><a href="http://maths.org">Carrying Cards (maths.org)</a></p> <p><b>Lesson sequences:</b></p> <ol style="list-style-type: none"> <li>1. LP: To identify factor pairs.</li> <li>2. LP: To multiply by 1 and 0.</li> <li>3. LP: To multiply by 10.</li> <li>4. LP: To multiply by 100.</li> <li>5. LP: To multiply by 10 and 100.</li> <li>6. LP: To divide by 10.</li> <li>7. LP: To divide by 100.</li> <li>8. LP: To divide by 10 and 100.</li> <li>9. L.P: To multiply multiples of 10.</li> <li>10. L.P: To multiply multiples of 100.</li> <li>11. LP: To use short multiplication. (2-digit by 1)</li> <li>12. LP: To use short multiplication. (2-digit by 1)</li> </ol>	<p><b>National Curriculum Statements:</b></p> <ul style="list-style-type: none"> <li>✓ measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres</li> <li>✓ find the area of rectilinear shapes by counting squares</li> </ul> <p><b>Lesson sequences:</b></p> <ol style="list-style-type: none"> <li>1. LP: To understand area. (Practical lesson)</li> <li>2. LP: To calculate the area. (Counting squares)</li> <li>3. LP: To make shapes.</li> <li>4. LP: To compare areas.</li> <li>5. LP: To understand perimeter. (Practical lesson)</li> <li>6. LP: To calculate the perimeter on a grid.</li> <li>7. LP: To calculate the perimeter of a rectangle.</li> <li>8. LP: To calculate the perimeter of a rectilinear shape. (Start on grid before moving on)</li> <li>9. LP: To find the missing lengths in rectilinear shapes.</li> <li>10. LP: To calculate the perimeter of regular polygons.</li> </ol>	<p><b>National Curriculum Statements:</b></p> <ul style="list-style-type: none"> <li>✓ recognise and show, using diagrams, families of common equivalent fractions</li> <li>✓ count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.</li> <li>✓ 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</li> <li>✓ add and subtract fractions with the same denominator</li> <li>✓ solve simple measure and money problems involving fractions and decimals to two decimal places.</li> </ul> <p><b>Lesson sequences:</b></p> <ol style="list-style-type: none"> <li>1. LP: To explore fractions. (Practical lesson)</li> <li>2. LP: To recap prior learning. (Understanding equal parts and parts of a fraction)</li> <li>3. LP: To find fractions of an amount.</li> <li>4. LP: To find non-unit fractions of an amount.</li> <li>5. LP: To consolidate finding fractions and non-unit fractions of an amount.</li> <li>6. LP: To recognise equivalent fractions on a number line (and/or fraction wall).</li> <li>7. LP: To recognise equivalent fraction families.</li> <li>8. LP: To simplify fractions.</li> <li>9. LP: To compare and order fractions.</li> <li>10. LP: To count beyond a whole.</li> <li>11. LP: To understand improper fractions.</li> <li>12. LP: To convert improper fractions to mixed numbers.</li> <li>13. LP: To add and subtract fractions within 1.</li> <li>14. LP: To add fractions beyond 1.</li> <li>15. LP: To subtract fraction from a whole.</li> <li>16. LP: To subtract fractions beyond 1.</li> </ol>

13. LP: To use short multiplication. (3-digit by 1)
14. LP: To use short multiplication. (3-digit by 1)
15. L.P: To use short multiplication (intervention lesson).
16. To use the most efficient method to multiply
17. LP: To divide a 2-digit by 1-digit. Short Division no exchange
18. LP: To divide a 3-digit by 1-digit. No exchange – layout focus
19. LP: To divide a 3-digit by 1-digit. Exchange 1 for 10 only.
20. LP: To divide a 3-digit by 1-digit.
21. LP: To divide a 3-digit by 1-digit.
22. LP: To divide a 3-digit by 1-digit. Intervention lesson.
23. L.P: To use the most efficient method to multiply and divide.
24. L.P: To solve multiplication and division word problems.
25. L.P: To solve correspondence problems.

17. LP: To apply knowledge of fractions. (Problem solving-could be an NRICH task)
18. Opportunity to revisit any misconceptions.
19. Opportunity to revisit any misconceptions.
20. Opportunity to revisit any misconceptions.



<b>Summer</b>				
<b><u>Decimals (1 – 2 Weeks)</u></b> Up to 10 lessons	<b><u>Measure – Money, Length Mass and Capacity (2-3 weeks)</u></b> Up to 15 lessons	<b><u>Measure – Time (1-2 weeks)</u></b> Up to 10 lessons	<b><u>Statistics (1 – 2 Weeks)</u></b> Up to 5 lessons	<b><u>Geometry (Position and direction) (1-2 weeks)</u></b> Up to 5 lessons

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<ul style="list-style-type: none"> <li>✓ count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.</li> <li>✓ round decimals with one decimal place to the nearest whole number</li> <li>✓ compare numbers with the same number of decimal places up to two decimal place.</li> <li>✓ recognise and write decimal equivalents of any number of tenths or hundredths</li> <li>✓ recognise and write decimal equivalents to <math>\frac{1}{2}, \frac{1}{4}, \frac{3}{4}</math>.</li> </ul> <ol style="list-style-type: none"> <li>1. LP: To understand a whole (tenths)</li> <li>2. LP: To understand a whole (hundredths)</li> <li>3. To recognise and write decimals equivalent to <math>\frac{1}{2}, \frac{1}{4}, \frac{3}{4}</math>.</li> <li>4. LP: To partition (decimals)</li> <li>5. LP: To flexibly partition (decimals)</li> <li>6. LP: To compare decimals</li> <li>7. LP: To order decimals</li> <li>8. LP: To round whole numbers (recap)</li> </ol>	<ul style="list-style-type: none"> <li>✓ estimate, compare and calculate different measures, including money in pounds and pence.</li> <li>✓ Convert between different units of measure [for example, kilometre to metre; hour to minute]</li> <li>✓ estimate, compare and calculate different measures, including money in pounds and pence.</li> </ul> <ol style="list-style-type: none"> <li>1. LP: To explore money (practical)</li> <li>2. LP: To estimate with money</li> <li>3. LP: To convert between pounds and pence</li> <li>4. LP: To compare money (value/ amount)</li> <li>5. LP: To calculate money (1 step problem)</li> <li>6. LP: To solve problems (2 step problems)</li> <li>7. LP: To multiply and divide by 10 and 100 (recap)</li> </ol>	<ul style="list-style-type: none"> <li>✓ read, write and convert time between analogue and digital 12- and 24-hour clocks</li> <li>✓ solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</li> </ul> <ol style="list-style-type: none"> <li>1. LP: To understand years months weeks and days</li> <li>2. LP: To understand days hours minutes and seconds</li> <li>3. LP: To read the time using analogue clocks (minutes past)</li> <li>4. LP To understand am and pm (using 24 hr clock)</li> <li>5. LP: To read the time using</li> </ol>	<ul style="list-style-type: none"> <li>✓ interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.</li> <li>✓ solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.</li> </ul> <ol style="list-style-type: none"> <li>1. LP: To interpret charts (bar, pictograms)</li> <li>2. LP: To draw charts</li> <li>3. LP: To solve problems using data (sum and difference focus)</li> <li>4. LP: To interpret line graphs</li> <li>5. LP: To draw line graphs</li> </ol>	<ul style="list-style-type: none"> <li>✓ describe positions on a 2-D grid as coordinates in the first quadrant</li> <li>✓ describe movements between positions as translations of a given unit to the left/right and up/down</li> <li>✓ plot specified points and draw sides to complete a given polygon.</li> </ul> <ol style="list-style-type: none"> <li>1. LP: To describe position on a grid (optional practical lesson outside / tape on table)</li> <li>2. LP: To describe position using co-ordinates</li> <li>3. LP: To plot co-ordinates</li> <li>4. LP: To draw 2-D shapes on a grid</li> <li>5. LP: To translate points on a grid</li> <li>6. LP: To translate shapes on a grid</li> </ol>

<p>9. LP: To round decimals to the nearest whole number</p> <p>** Include problem solving and reasoning questions with money</p>	<p>8. LP: To convert length (mm to cm)</p> <p>9. LP: To convert length (cm to m)</p> <p>10. LP: to compare lengths (mm, cm, m)</p> <p>11. LP: To understand different units of measure (practical – capacity / weight / length different station)</p> <p>12. LP: To estimate measure (length and weight)</p> <p>13. LP: To convert measures (teacher note: focus on conversions into 1000 units of measure - litre, kg km)</p> <p>14. LP: To calculate measure (teacher note: focus questions on weight and length)</p>	<p>minutes to and minutes past</p> <p>6. LP: To solve word problems</p> <p>** reasoning and problem solving should include opportunities for conversion – see PP folder on time</p>		
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