

**Year 4**

**Small Steps Guidance and Examples**

**Block 1: Place Value**

**White Rose Maths**

## Teaching for Mastery

These overviews are designed to support a mastery approach to teaching and learning and have been designed to support the aims and objectives of the new National Curriculum.

The overviews:

- have number at their heart. A large proportion of time is spent reinforcing number to build competency
- ensure teachers stay in the required key stage and support the ideal of depth before breadth.
- ensure students have the opportunity to stay together as they work through the schemes as a whole group
- provide plenty of opportunities to build reasoning and problem solving elements into the curriculum.

For more guidance on teaching for mastery, visit the NCETM website

<https://www.ncetm.org.uk/resources/47230>

## Concrete – Pictorial – Abstract

We believe that all children, when introduced to a new concept, should have the opportunity to build competency by taking this approach.

**Concrete** – children should have the opportunity to use concrete objects and manipulatives to help them understand what they are doing.

**Pictorial** – alongside this children should use pictorial representations. These representations can then be used to help reason and solve problems.

**Abstract** – both concrete and pictorial representations should support children's understanding of abstract methods.

We have produced a CPD unit for teachers in schools;

<https://www.tes.com/teaching-resource/the-importance-of-concrete-professional-development-11476476>

# Year 4 – Yearly Overview

	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	Number – Place Value				Number- Addition and Subtraction			Measurement - Length and Perimeter	Number- Multiplication and Division			Consolidation
Spring	Number- Multiplication and Division			Measurement - Area	Fractions				Decimals			Consolidation
Summer	Decimals		Measurement- Money		Time	Statistics		Geometry- Properties of Shape		Geometry- Position and Direction	Consolidation	

# Year 4 – Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	
<p><u>Number – Place Value</u></p> <p><b><u>Count in multiples of 6, 7, 9, 25 and 1000.</u></b></p> <p>Find 1000 more or less than a given number.</p> <p>Recognise the place value of each digit in a four digit number (thousands, hundreds, tens and ones)</p> <p>Order and compare numbers beyond 1000</p> <p>Identify, represent and estimate numbers using different representations.</p> <p>Round any number to the nearest 10, 100 or 1000</p> <p>Solve number and practical problems that involve all of the above and with increasingly large positive numbers.</p> <p>Count backwards through zero to include negative numbers.</p> <p>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.</p>				<p><u>Number- Addition and Subtraction</u></p> <p>Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.</p> <p>Estimate and use inverse operations to check answers to a calculation.</p> <p>Solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why.</p>			<p><u>Measurement: Length and Perimeter</u></p> <p>Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres</p> <p>Convert between different units of measure [for example, kilometre to metre]</p>	<p><u>Number – Multiplication and Division</u></p> <p>Recall and use multiplication and division facts for multiplication tables up to <math>12 \times 12</math>.</p> <p><b><u>Count in multiples of 6, 7, 9, 25 and 1000</u></b></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 three numbers.</p> <p><b><u>Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit,</u></b> integer scaling problems and harder correspondence problems such as n objects are connected to m objects.</p>				<p>Consolidation</p>

# Year 4 – Spring Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<p><b>Number – multiplication and division</b> Recall and use 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 three numbers.</p> <p>Recognise and use factor pairs and commutativity in mental calculations.</p> <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 one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.</p>			<p><b>Measurement- Area</b> Find the area of rectilinear shapes by counting squares.</p>	<p><b>Fractions</b> 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 one hundred and dividing tenths by ten.</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>Add and subtract fractions with the same denominator.</p>				<p><b>Decimals</b> Recognise and write decimal equivalents of any number of tenths or hundredths.</p> <p>Find the effect of dividing a one or two digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths</p> <p><b><u>Solve simple measure and money problems involving fractions and decimals to two decimal places.</u></b></p> <p>Convert between different units of measure [for example, kilometre to metre]</p>			<p>Consolidation</p>

# Year 4 – Summer Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<p><u>Decimals</u> Compare numbers with the same number of decimal places up to two decimal places.</p> <p>Round decimals with one decimal place to the nearest whole number.</p> <p>Recognise and write decimal equivalents to <math>\frac{1}{4}</math>, <math>\frac{1}{2}</math> and <math>\frac{3}{4}</math></p> <p>Find the effect of dividing a one or two digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths</p>	<p><u>Measurement- Money</u> Estimate, compare and calculate different measures, including money in pounds and pence.</p> <p>Solve simple measure and money problems involving fractions and decimals to two decimal places.</p>	<p><u>Time</u> <b>Convert between different units of measure [for example, kilometre to metre; hour to minute]</b></p> <p>Read, write and convert time between analogue and digital 12- and 24-hour clocks.</p> <p>Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</p>	<p><u>Statistics</u> Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.</p> <p>Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.</p>	<p><u>Geometry: Properties of shape</u> Identify acute and obtuse angles and compare and order angles up to two right angles by size.</p> <p>Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.</p> <p>Identify lines of symmetry in 2-D shapes presented in different orientations.</p> <p>Complete a simple symmetric figure with respect to a specific line of symmetry.</p>	<p><u>Geometry- Position and Direction</u> Describe positions on a 2-D grid as coordinates in the first quadrant.</p> <p>Plot specified points and draw sides to complete a given polygon.</p> <p>Describe movements between positions as translations of a given unit to the left/ right and up/ down.</p>	<p style="text-align: center; font-size: 2em; font-weight: bold;">Consolidation</p>					