



### HVPA Maths Sequence of Learning Progression – Year 3

This overview breaks down each of the Programmes of Study and domains covered by Year 3 and shows the approximate amount of weeks expected in the teaching of each area. Time is built in for consolidation and extension (based on the security of pupils' understanding & readiness to move on, challenge through problem solving and reasoning) and assessment within each term.

Autumn Term	Domain	National Curriculum Programmes of Study	Specific Teaching Areas	
<b>Number:</b> approx. 2½ weeks	Place value within 1,000	Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)	<ul style="list-style-type: none"> <li>Counting in 100s</li> <li>Representing numbers to 1,000, 100s, 10s and 1s</li> <li>The number line to 1,000</li> </ul>	
		Identify, represent and estimate numbers using different representations.		
		Read and write numbers up to 1,000 in numerals and in words		
		Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number.	<ul style="list-style-type: none"> <li>Finding 1, 10 and 100 more or less</li> </ul>	
		Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)		
		Identify, represent and estimate numbers using different representations.	<ul style="list-style-type: none"> <li>Comparing numbers to 1,000</li> <li>Ordering numbers to 1,000</li> <li>Counting in 50s</li> </ul>	
		Compare and order numbers up to 1,000.		
		Identify, represent and estimate numbers using different representations.		
		Read and write numbers up to 1,000 in numerals and in words.		
		Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)		
		Solve number problems and practical problems involving these ideas		
Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number.				
<b>Number:</b> approx. 4 weeks	Addition & subtraction	Add and subtract numbers mentally, including: <ul style="list-style-type: none"> <li>- a three-digit number and ones</li> <li>- a three-digit number and tens</li> <li>- a three-digit number and hundreds</li> </ul>	<ul style="list-style-type: none"> <li>Adding and subtracting 100s</li> <li>Adding and subtracting a 3-digit number and 1s</li> <li>Subtracting 1s from a 3-digit number</li> <li>Adding and subtracting a 3-digit number and 10s</li> </ul>	
		Add and subtract numbers mentally, including: <ul style="list-style-type: none"> <li>- a three-digit number and ones</li> <li>- a three-digit number and tens</li> <li>- a three-digit number and hundreds</li> </ul>		
		Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	<ul style="list-style-type: none"> <li>Subtracting 10s from a 3-digit number</li> </ul>	
		Add and subtract numbers mentally, including: <ul style="list-style-type: none"> <li>- a three-digit number and ones</li> <li>- a three-digit number and tens</li> <li>- a three-digit number and hundreds</li> </ul>		<ul style="list-style-type: none"> <li>Adding and subtracting a 3-digit and 2-digit number</li> </ul>
		Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.		
		Add and subtract numbers mentally, including: <ul style="list-style-type: none"> <li>- a three-digit number and ones</li> </ul>		

		<ul style="list-style-type: none"> <li>- a three-digit number and tens</li> <li>- a three-digit number and hundreds</li> </ul>	<ul style="list-style-type: none"> <li>• Adding a 3-digit and 2-digit number</li> <li>• Subtracting a 2-digit number from a 3-digit number</li> <li>• Addition and subtraction patterns</li> <li>• Adding two 3-digit numbers</li> <li>• Subtracting a 3-digit number from a 3-digit number</li> </ul>
		Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.	
		Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	<ul style="list-style-type: none"> <li>• Adding two 3-digit numbers</li> <li>• Subtracting a 3-digit number from a 3-digit number</li> </ul>
		Estimate the answer to a calculation and use inverse operations to check answers.	<ul style="list-style-type: none"> <li>• Estimate the answer to a calculation and use inverse operations to check answers.</li> <li>• Checking strategies</li> </ul>
		Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	<ul style="list-style-type: none"> <li>• Problem solving – addition and subtraction</li> </ul>
<b>Number:</b> approx. 3 weeks	Multiplication and division	<p>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 multiply 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 n objects are connected to m objects.</p>	<ul style="list-style-type: none"> <li>• Multiplication – equal grouping</li> <li>• Multiplying by 3</li> <li>• Dividing by 3</li> <li>• 3 times-table</li> <li>• Multiplying by 4</li> <li>• Dividing by 4</li> <li>• 4 times-table</li> <li>• Multiplying by 8</li> <li>• Dividing by 8</li> <li>• 8 times-table</li> <li>• Problem solving – multiplication &amp; division</li> <li>• Understanding divisibility</li> <li>• Related facts – multiplication &amp; division</li> </ul>

Spring Term	Domain	National Curriculum Programmes of Study	Specific Teaching Areas
<b>Number:</b> approx. 3 weeks	Multiplication & division	Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.	<ul style="list-style-type: none"> <li>Comparing multiplication &amp; division statements</li> </ul>
		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	<ul style="list-style-type: none"> <li>Related multiplication calculations</li> <li>Related multiplication &amp; division calculations</li> <li>Comparing multiplication &amp; division statements</li> <li>Multiplying a 2-digit number by a 1-digit number</li> <li>Dividing a 2-digit number by a 1-digit number</li> <li>How many ways?</li> </ul>
		Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.	<ul style="list-style-type: none"> <li>Problem solving – mixed problems</li> </ul>
		Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers multiply one-digit numbers, using mental and progressing to formal written methods.	
<b>Measurement:</b> approx. 1 week	Money	Add and subtract amounts of money to give change, using both £ and p in practical contexts.	<ul style="list-style-type: none"> <li>Pounds and pence</li> <li>Converting pounds and pence</li> <li>Adding money</li> <li>Subtracting amounts of money</li> <li>Problem solving – money</li> </ul>
<b>Statistics:</b> approx. 1 week	Statistics	Interpret and present data using bar charts, pictograms and tables	<ul style="list-style-type: none"> <li>Pictograms</li> </ul>
		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	<ul style="list-style-type: none"> <li>Pictograms</li> </ul>
		Interpret and present data using bar charts, pictograms and tables.	<ul style="list-style-type: none"> <li>Bar charts</li> </ul>
		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.	<ul style="list-style-type: none"> <li>Bar charts</li> <li>Tables</li> </ul>
<b>Measurement:</b> approx. 2 ½ weeks	Length	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)	<ul style="list-style-type: none"> <li>Measuring length</li> <li>Equivalent lengths – metres and centimetres</li> <li>Equivalent lengths – centimetres and millimetres</li> <li>Comparing lengths</li> <li>Adding lengths</li> </ul>

			<ul style="list-style-type: none"> <li>Subtracting lengths</li> </ul>
		Measure the perimeter of simple 2D shapes.	<ul style="list-style-type: none"> <li>Measuring the perimeter</li> </ul>
		Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)	<ul style="list-style-type: none"> <li>Problem solving – length</li> </ul>
		Measure the perimeter of simple 2D shapes.	
<b>Number:</b> approx. 2 ½ weeks	Fractions	Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.	<ul style="list-style-type: none"> <li>Unit and non-unit fractions</li> <li>Making the whole</li> </ul>
		Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.	<ul style="list-style-type: none"> <li>Tenths</li> </ul>
		Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.	<ul style="list-style-type: none"> <li>Fractions as numbers</li> </ul>
		Compare and order unit fractions, and fractions with the same denominators.	
		Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.	<ul style="list-style-type: none"> <li>Fractions of a set of objects</li> </ul>
		Solve problems that involve all of the above.	<ul style="list-style-type: none"> <li>Problem solving – fractions</li> </ul>

Summer Term	Domain	National Curriculum Programmes of Study	Specific Teaching Areas
<b>Number:</b> approx. 2 weeks	Fractions	Recognise and show, using diagrams, equivalent fractions with small denominators	<ul style="list-style-type: none"> <li>Equivalent fractions</li> </ul>
		Recognise and show, using diagrams, equivalent fractions with small denominators	<ul style="list-style-type: none"> <li>Equivalent fractions</li> <li></li> </ul>
		Compare and order unit fractions, and fractions with the same denominators	
		Solve problems that involve all of the above.	<ul style="list-style-type: none"> <li>Problem solving – equivalent fractions</li> </ul>
		Recognise and show, using diagrams, equivalent fractions with small denominators	<ul style="list-style-type: none"> <li>Comparing fractions</li> <li>Comparing and ordering fractions</li> </ul>
		Compare and order unit fractions, and fractions with the same denominators	
		Add and subtract fractions with the same denominator within one whole (for example, $5/7 + 1/7 = 6/7$ )	<ul style="list-style-type: none"> <li>Adding fractions</li> <li>Subtracting fractions</li> </ul>
		Solve problems that involve all of the above.	<ul style="list-style-type: none"> <li>Problem solving – adding and subtracting fractions</li> </ul>
		Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.	<ul style="list-style-type: none"> <li>Problem solving – fractions of measures</li> </ul>
		Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.	
Solve problems that involve all of the above.			
<b>Measurement</b> approx. 2 ½ weeks	Time	Know the number of seconds in a minute and the number of days in each month, year and leap year	<ul style="list-style-type: none"> <li>Months and years</li> </ul>
		Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.	<ul style="list-style-type: none"> <li>Hours in a day</li> </ul>
		Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight.	
		Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.	<ul style="list-style-type: none"> <li>Estimating time</li> <li>Telling time to 5 minutes</li> </ul>
		Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight.	<ul style="list-style-type: none"> <li>Telling time to the minute</li> <li>Finding the duration</li> <li>Comparing duration</li> <li>Finding start and end times</li> <li>Measuring time in seconds</li> </ul>
		Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.	
		Compare durations of events (for example to calculate the time taken by particular events or tasks).	
<b>Geometry – properties of shapes</b> approx. 2 weeks	Angles and properties of shapes	Recognise angles as a property of shape or a description of a turn.	<ul style="list-style-type: none"> <li>Turns and angles</li> <li>Right angles in shapes</li> <li>Comparing angles</li> </ul>
		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.	

		Draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them.	<ul style="list-style-type: none"> <li>• Drawing accurately</li> <li>• Types of line</li> </ul>
		Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.	
		Draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them.	<ul style="list-style-type: none"> <li>• Recognising and describing 2D shapes</li> <li>• Recognising and describing 3D shapes</li> <li>• Constructing 3D shapes</li> </ul>
<b>Measurement:</b> approx. 2 ½ weeks	Mass	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)	<ul style="list-style-type: none"> <li>• Measuring mass</li> <li>• Comparing masses</li> <li>• Adding and subtracting masses</li> <li>• Problem solving – mass</li> </ul>
	Capacity	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)	<ul style="list-style-type: none"> <li>• Measuring capacity</li> <li>• Comparing capacities</li> <li>• Adding and subtracting capacities</li> <li>• Problem solving – capacity</li> </ul>