



HVPA Maths Sequence of Learning Progressions – Year 2

This overview breaks down each of the Programmes of Study and domains covered by Year 2 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
Number: approx. 7 weeks	Numbers to 100	Read and write numbers to at least 100 in numerals and in words	<ul style="list-style-type: none"> Counting objects to 100 Representing numbers to 100 Tens and ones Representing numbers on a place value grid
		Identify, represent and estimate numbers using different representations, including the number line	
		Recognise the place value of each digit in a two-digit number (tens, ones).	
		Identify, represent and estimate numbers using different representations, including the number line	<ul style="list-style-type: none"> Comparing numbers Ordering numbers
		Compare and order numbers from 0 up to 100; use and = signs	
		Compare and order numbers from 0 up to 100; use and = signs.	
		Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward.	<ul style="list-style-type: none"> Counting in 2s, 5s and 10s Counting in 3s
		Identify, represent and estimate numbers using different representations, including the number line	
	Addition & subtraction	Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.	<ul style="list-style-type: none"> Related facts – addition and subtraction
		Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100	
	Number and place value Addition & subtraction	Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.	<ul style="list-style-type: none"> Using number facts to check calculations Comparing number sentences Finding related facts Making number bonds to 100 Adding and subtracting 1s
		Solve problems with addition and subtraction: - using concrete objects and pictorial representations, including those involving numbers, quantities and measures - applying their increasing knowledge of mental and written methods	
		Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: - a two-digit number and ones - a two-digit number and tens - two two-digit numbers - adding three one-digit numbers	
		Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward.	
		Solve problems with addition and subtraction: - using concrete objects and pictorial representations, including those involving numbers, quantities and measures - applying their increasing knowledge of mental and written methods.	
		<ul style="list-style-type: none"> Finding 10 more and 10 less Adding and subtracting 10s Adding a 2-digit and 1-digit number Subtracting a 1-digit number from a 2-digit number 	

		<p>Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: - a two-digit number and ones - a two-digit number and tens - two two-digit numbers - adding three one-digit numbers.</p>	<ul style="list-style-type: none"> • Adding two 2-digit numbers • Subtracting a 2-digit number from another 2-digit number
		<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"> • Adding three 1-digit numbers • Solving word problems – the bar model
Measurement: approx. 1 ½ weeks	Money	<p>Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value.</p>	<ul style="list-style-type: none"> • Counting money – coins • Counting money – notes • Counting money – coins and notes
		<p>Find different combinations of coins that equal the same amounts of money.</p>	<ul style="list-style-type: none"> • Showing equal amounts of money
		<p>Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change</p>	<ul style="list-style-type: none"> • Comparing amounts of money • Calculating the total amount • Finding change • Solving two-step word problems
Number: approx. 2 weeks	Multiplication and division	<p>Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs.</p>	<ul style="list-style-type: none"> • Multiplication as equal groups • Adding equal groups • Multiplication sentences • Using arrays
		<p>Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts</p>	
		<p>Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.</p>	<ul style="list-style-type: none"> • 2 times-table • 5 times-table • 10 times-table
		<p>Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts</p>	<ul style="list-style-type: none"> • Solving word problems – multiplication

Spring Term	Domain	National Curriculum Programmes of Study	Specific Teaching Areas	
Number: approx. 2 weeks	Multiplication and division	Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs.	<ul style="list-style-type: none"> • Making equal groups • Sharing and grouping • Dividing by 2 • Odd and even numbers • Dividing by 5 • Dividing by 10 • Bar modelling – grouping • Bar modelling – sharing • Solving word problems – division 	
		Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.		
		Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers		
Statistics: approx. 1 ½ weeks	Statistics	Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.	<ul style="list-style-type: none"> • Making tally charts • Creating pictograms • Interpreting pictograms • Block diagrams • Solving word problems 	
		Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.		
		Ask and answer questions about totalling and comparing categorical data.		
Measurement: approx. 1 week	Length and height	Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}\text{C}$); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels.	<ul style="list-style-type: none"> • Measuring in centimetres • Measuring in metres 	
		Compare and order lengths, mass, volume/capacity and record the results using $>$, $<$ and $=$		<ul style="list-style-type: none"> • Comparing lengths • Ordering lengths
		Solve problems with addition and subtraction: - using concrete objects and pictorial representations, including those involving numbers, quantities and measures - applying their increasing knowledge of mental and written methods.		<ul style="list-style-type: none"> • Solving word problems – length
Geometry approx. 2 ½ week	Properties of shapes	Compare and sort common 2D and 3D shapes and everyday objects.	<ul style="list-style-type: none"> • Recognising 2D and 3D shapes 	
		Identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line	<ul style="list-style-type: none"> • Drawing 2D shapes • Counting sides on 2D shapes • Counting vertices on 2D shapes 	
		Compare and sort common 2D and 3D shapes and everyday objects.	<ul style="list-style-type: none"> • Finding lines of symmetry 	
		Identify and describe the properties of 3D shapes, including the number of edges, vertices and faces	<ul style="list-style-type: none"> • Sorting 2D shapes • Making patterns with 2D shapes 	
		Order and arrange combinations of mathematical objects in patterns and sequences		
		Identify and describe the properties of 3D shapes, including the number of edges, vertices and faces.	<ul style="list-style-type: none"> • Counting faces on 3D shapes • Counting edges on 3D shapes • Counting vertices on 3D shapes 	
		Identify 2D shapes on the surface of 3D shapes, (for example, a circle on a cylinder and a triangle on a pyramid).		
	Position and direction	Compare and sort common 2D and 3D shapes and everyday objects	<ul style="list-style-type: none"> • Sorting 3D shapes • Making patterns with 3D shapes 	

<p>Number: approx. 3 weeks</p>	<p>Fractions</p>	<p>Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, a set of objects or quantity.</p> <p>Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.</p>	<ul style="list-style-type: none"> • Recognising a quarter ($\frac{1}{4}$) • Finding a quarter • Unit fractions • Understanding other fractions • $\frac{1}{2}$ and $\frac{2}{4}$ • Finding $\frac{3}{4}$ • Understanding a whole • Understanding whole and parts • Counting in halves • Counting in quarters
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Summer Term	Domain	National Curriculum Programmes of Study	Specific Teaching Areas
Geometry: approx. 1 week	Position and direction	Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise).	<ul style="list-style-type: none"> Describing movement Describing turns Describing movement and turns Making patterns with shapes
		Order and arrange combinations of mathematical objects in patterns and sequences.	
Number: approx. 2 ½ weeks	Number and place value Addition and subtraction Problem solving and efficient methods	Use place value and number facts to solve problems	<ul style="list-style-type: none"> My way, your way Using number facts Using number facts and equivalence
		Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	
		Use place value and number facts to solve problems.	
		Solve problems with addition and subtraction: - using concrete objects and pictorial representations, including those involving numbers, quantities and measures - applying their increasing knowledge of mental and written methods	
	Number – multiplication and division	Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	<ul style="list-style-type: none"> Using a 100-square Getting started Missing numbers Mental addition and subtraction Efficient addition and subtraction Solving problems – addition and subtraction
		Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.	
		Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts	
		Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	
Measurement approx. 2 weeks	Time	Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times.	<ul style="list-style-type: none"> Telling time to the quarter hour Telling time to 5 minutes
		Know the number of minutes in an hour and the number of hours in a day	
		Compare and sequence intervals of time	
		Know the number of minutes in an hour and the number of hours in a day.	
	Weight, volume and temperature	Compare and order lengths, mass, volume/capacity and record the results using $>$, $<$ and $=$.	<ul style="list-style-type: none"> Comparing mass
		Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}$ C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels.	

			<ul style="list-style-type: none">• Measuring volume in litres• Measuring temperature using a thermometer• Reading thermometers
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