



**Coddington C of E**  
Primary and Nursery School

# **Maths Progression Document**

Strand	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
NPV	<b>1NPV-1</b> Count within 100, forwards and backwards, starting with any number.		<b>3NPV-1</b> Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10.	<b>4NPV-1</b> Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100.	<b>5NPV-1</b> Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01.	<b>6NPV-1</b> Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000).
		<b>2NPV-1</b> Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning.	<b>3NPV-2</b> Recognise the place value of each digit in <i>three</i> -digit numbers, and compose and decompose <i>three</i> -digit numbers using standard and non-standard partitioning.	<b>4NPV-2</b> Recognise the place value of each digit in <i>four</i> -digit numbers, and compose and decompose <i>four</i> -digit numbers using standard and non-standard partitioning.	<b>5NPV-2</b> Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and non-standard partitioning.	<b>6NPV-2</b> Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and non-standard partitioning.
	<b>1NPV-2</b> Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =	<b>2NPV-2</b> Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10.	<b>3NPV-3</b> Reason about the location of any <i>three</i> -digit number in the linear number system, including identifying the previous and next multiple of 100 and 10.	<b>4NPV-3</b> Reason about the location of any <i>four</i> -digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each.	<b>5NPV-3</b> Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each.	<b>6NPV-3</b> Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts.

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Number and Place Value	<p><b>1NPV-1</b> Count within 100, forwards and backwards, starting with any number.</p>		<p><b>3NPV-1</b> Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10.</p>	<p><b>4NPV-1</b> Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100.</p>	<p><b>5NPV-1</b> Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01.</p>	<p><b>6NPV-1</b> Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000).</p>
		<p><b>2NPV-1</b> Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning.</p>	<p><b>3NPV-2</b> Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning.</p>	<p><b>4NPV-2</b> Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning.</p>	<p><b>5NPV-2</b> Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and non-standard partitioning.</p>	<p><b>6NPV-2</b> Recognise the place value of each digit in numbers up to 2 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and non-standard partitioning.</p>
	<p><b>1NPV-2</b> Reason about the location of numbers to 20 within the linear number system, including comparing using &lt; &gt; and =</p>	<p><b>2NPV-2</b> Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10.</p>	<p><b>3NPV-3</b> Reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10.</p>	<p><b>4NPV-3</b> Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each.</p>	<p><b>5NPV-3</b> Reason about the location of any number with up to 2 decimal places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each.</p>	<p><b>6NPV-3</b> Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts.</p>

NPV			<a href="#">3NPV-4</a> Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts. →	<a href="#">4NPV-4</a> Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts. →	<a href="#">5NPV-4</a> Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts. →	<a href="#">6NPV-4</a> Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.
					<a href="#">5NPV-5</a> Convert between units of measure, including using common decimals and fractions.	
NF	<a href="#">1NF-1</a> Develop fluency in addition and subtraction facts within 10. →	<a href="#">2NF-1</a> Secure fluency in addition and subtraction facts within 10, through continued practice. →	<a href="#">3NF-1</a> Secure fluency in addition and subtraction facts that bridge 10, through continued practice.			
	<a href="#">1NF-2</a> Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers. →		<a href="#">3NF-2</a> Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number. →	<a href="#">4NF-1</a> Recall multiplication and division facts up to $12 \times 12$ , and recognise products in multiplication tables as multiples of the corresponding number. →	<a href="#">5NF-1</a> Secure fluency in multiplication table facts, and corresponding division facts, through continued practice.	
				<a href="#">4NF-2</a> Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context.		
			<a href="#">3NF-3</a> Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10). →	<a href="#">4NF-3</a> Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100). →	<a href="#">5NF-2</a> Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth).	

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Addition and Subtraction	<a href="#">1AS-1</a> Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.	<a href="#">2AS-1</a> Add and subtract across 10.	<a href="#">3AS-1</a> Calculate complements to 100.			<a href="#">6AS/MD-1</a> Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number).
	<a href="#">1AS-2</a> Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts.	<a href="#">2AS-2</a> Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more...?".	<a href="#">3AS-2</a> Add and subtract up to three-digit numbers using columnar methods.			<a href="#">6AS/MD-2</a> Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.
		<a href="#">2AS-3</a> Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two-digit number.	<a href="#">3AS-3</a> Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part-part-whole structure. Understand and use the commutative property of addition, and understand the related property for subtraction.			<a href="#">6AS/MD-3</a> Solve problems involving ratio relationships.
		<a href="#">2AS-4</a> Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.				<a href="#">6AS/MD-4</a> Solve problems with 2 unknowns.

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Multiplication and Division		<a href="#">2MD-1</a> Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables.	<a href="#">3MD-1</a> Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division.	<a href="#">4MD-1</a> Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size. →	<a href="#">5MD-1</a> Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size.	For year 6, MD ready-to-progress criteria are combined with AS ready-to-progress criteria (please see above).
		<a href="#">2MD-2</a> Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).		<a href="#">4MD-2</a> Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.	<a href="#">5MD-2</a> Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors.	
				<a href="#">4MD-3</a> Understand and apply the distributive property of multiplication. →	<a href="#">5MD-3</a> Multiply any whole number with up to 4 digits by any one-digit number using a formal written method.	
					<a href="#">5MD-4</a> Divide a number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately for the context.	

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Fractions			<b>3F-1</b> Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.			<b>6F-1</b> Recognise when fractions can be simplified, and use common factors to simplify fractions.
			<b>3F-2</b> Find unit fractions of quantities using known division facts (multiplication tables fluency). →		<b>5F-1</b> Find non-unit fractions of quantities.	<b>6F-2</b> Express fractions in a common denomination and use this to compare fractions that are similar in value.
			<b>3F-3</b> Reason about the location of any fraction within 1 in the linear number system. →	<b>4F-1</b> Reason about the location of mixed numbers in the linear number system.		<b>6F-3</b> Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy.
				<b>4F-2</b> Convert mixed numbers to improper fractions and vice versa.	<b>5F-2</b> Find equivalent fractions and understand that they have the same value and the same position in the linear number system.	
			<b>3F-4</b> Add and subtract fractions with the same denominator, within 1. →	<b>4F-3</b> Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers.	<b>5F-3</b> Recall decimal fraction equivalents for $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{1}{5}$ and $\frac{1}{10}$ , and for multiples of these proper fractions.	
Geometry	<b>1G-1</b> Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another. →	<b>2G-1</b> Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties. →	<b>3G-1</b> Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations.		<b>5G-1</b> Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size.	

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Ge om etr y					<a href="#">5G-2</a> Compare areas and calculate the area of rectangles (including squares) using standard units.	
	<a href="#">1G-2</a> Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations. →		<a href="#">3G-2</a> Draw polygons by joining marked points, and identify parallel and perpendicular sides. →	<a href="#">4G-1</a> Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant. →		<a href="#">6G-1</a> Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.
				<a href="#">4G-2</a> Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons.		
				<a href="#">4G-3</a> Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry.		