Staining CE VC Primary School

Mathematics
Progression in Key Learning,
Knowledge and Skills
Year Four

Strand	Unit of Learning	Lesson	NC 1	NC 2	NC 3
Number – number and place value	Place value - 4-digit numbers (1)	Numbers to 1,000	Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)		
Number – number and place value	Place value - 4-digit numbers (1)	Rounding to the nearest 10	Round any number to the nearest 10, 100 or 1,000		
Number – number and place value	Place value - 4-digit numbers (1)	Rounding to the nearest 100	Round any number to the nearest 10, 100 or 1,000		
Number – number and place value	Place value - 4-digit numbers (1)	Counting in 1,000s	Count in multiples of 6, 7, 9, 25 and 1,000	Identify, represent and estimate numbers using different representations	
Number – number and place value	Place value - 4-digit numbers (1)	Representing 4-digit numbers	Identify, represent and estimate numbers using different representations	Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)	
Number – number and place value	Place value - 4-digit numbers (1)	1,000s, 100s, 10s and 1s	Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)	Identify, represent and estimate numbers using different representations	
Number – number and place value	Place value - 4-digit numbers (1)	The number line to 10,000 (1)	Identify, represent and estimate numbers using different representations	Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)	

Number – number and place value	Place value – 4-digit numbers (1)	The number line to 10,000 (2)	Order and compare numbers beyond 1,000	Identify, represent and estimate numbers using different representations	Recognise the place value of each digit in a four- digit number (thousands, hundreds, tens, and ones)
Number – number and place value	Place value – 4-digit numbers (1)	Roman numerals to 100	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		
Number – number and place value	Place value – 4-digit numbers (2)	Finding 1,000 more or less	Find 1,000 more or less than a given number		
Number – number and place value	Place value – 4-digit numbers (2)	Comparing 4-digit numbers (1)	Order and compare numbers beyond 1,000	Identify, represent and estimate numbers using different representations	
Number – number and place value	Place value – 4-digit numbers (2)	Comparing 4-digit numbers (2)	Order and compare numbers beyond 1,000	Identify, represent and estimate numbers using different representations	
Number – number and place value	Place value – 4-digit numbers (2)	Ordering numbers to 10,000	Order and compare numbers beyond 1,000	Identify, represent and estimate numbers using different representations	
Number – number and place value	Place value – 4-digit numbers (2)	Rounding to the nearest 1,000	Round any number to the nearest 10, 100 or 1,000		
Number – number and place value	Place value – 4-digit numbers (2)	Solving problems using rounding	Solve number and practical problems that involve all of the above and with increasingly large positive numbers		
Number – number and place value	Place value – 4-digit numbers (2)	Counting in 25s	Count in multiples of 6, 7, 9, 25 and 1,000		
Number – number and place value	Place value – 4-digit numbers (2)	Negative numbers (1)	Count backwards through zero to include negative numbers	Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero	
Number – number and place value	Place value – 4-digit numbers (2)	Negative numbers (2)	Count backwards through zero to include negative numbers	Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero	
Number – addition and subtraction	Addition and subtraction	Adding and subtracting 1s, 10s, 100s, 1,000s	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate	Solve number and practical problems that involve all of the above and with increasingly large positive numbers	
Number – addition and subtraction	Addition and subtraction	Adding two 4-digit numbers (1)	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate		
Number – addition and subtraction	Addition and subtraction	Adding two 4-digit numbers (2)	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate		

Number - addition and subtraction	Addition and subtraction	Adding two 4-digit numbers (3)	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate		
Number - addition and subtraction	Addition and subtraction	Subtracting two 4-digit numbers (1)	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate		
Number - addition and subtraction	Addition and subtraction	Subtracting two 4-digit numbers (2)	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate		
Number - addition and subtraction	Addition and subtraction	Subtracting two 4-digit numbers (3)	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate		
Number - addition and subtraction	Addition and subtraction	Subtracting two 4-digit numbers (4)	Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate		
Number - addition and subtraction	Addition and subtraction	Equivalent difference	Estimate and use inverse operations to check answers to a calculation	Round any number to the nearest 10, 100 or 1,000	
Number - addition and subtraction	Addition and subtraction	Estimating answers to additions and subtractions	Estimate and use inverse operations to check answers to a calculation	Round any number to the nearest 10, 100 or 1,000	
Number - addition and subtraction	Addition and subtraction	Checking strategies	Estimate and use inverse operations to check answers to a calculation		
Number - addition and subtraction	Addition and subtraction	Problem solving - addition and subtraction (1)	Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why		
Number - addition and subtraction	Addition and subtraction	Problem solving - addition and subtraction (2)	Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why		
Number - addition and subtraction	Addition and subtraction	Problem solving - addition and subtraction (3)	Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why		
Number - addition and subtraction	Addition and subtraction	Problem solving - addition and subtraction (4)	Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why		
Measurement	Measure - perimeter	Kilometres	Convert between different units of measure [for example, kilometre to metre; hour to minute]		
Measurement	Measure - perimeter	Perimeter of a rectangle (1)	Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres		

Measurement	Measure - perimeter	Perimeter of a rectangle (2)	Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres		
Measurement	Measure - perimeter	Perimeter of rectilinear shapes (1)	Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres		
Measurement	Measure - perimeter	Perimeter of rectilinear shapes (2)	Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres		
Number - multiplication and division	Multiplication and division (1)	Multiplying by multiples of 10 and 100	Recall multiplication and division facts for multiplication tables up to 12 × 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	
Number - multiplication and division	Multiplication and division (1)	Dividing by multiples of 10 and 100	Recall multiplication and division facts for multiplication tables up to 12 × 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	
Number - multiplication and division	Multiplication and division (1)	Multiplying by 0 and 1	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		
Number - multiplication and division	Multiplication and division (1)	Dividing by 1	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		
Number - multiplication and division	Multiplication and division (1)	Multiplying and dividing by 6	Recall multiplication and division facts for multiplication tables up to 12 × 12		
Number - multiplication and division	Multiplication and division (1)	6 times-table	Recall multiplication and division facts for multiplication tables up to 12 × 12		
Number - multiplication and division	Multiplication and division (1)	Multiplying and dividing by 9	Recall multiplication and division facts for multiplication tables up to 12 × 12		
Number - multiplication and division	Multiplication and division (1)	9 times-table	Recall multiplication and division facts for multiplication tables up to 12 × 12		
Number - multiplication and division	Multiplication and division (1)	Multiplying and dividing by 7	Recall multiplication and division facts for multiplication tables up to 12 × 12	Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.	
Number - multiplication and division	Multiplication and division (1)	7 times-table	Recall multiplication and division facts for multiplication tables up to 12 × 12		
Number - multiplication and division	Multiplication and division (1)	11 and 12 times-tables	Recall multiplication and division facts for multiplication tables up to 12 × 12		

Number - multiplication and division	Multiplication and division (2)	Problem solving - addition and multiplication	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	Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign
Number - multiplication and division	Multiplication and division (2)	Problem solving - mixed problems	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	Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign
Number - multiplication and division	Multiplication and division (2)	Using written methods to multiply	Multiply two-digit and three-digit numbers by a one-digit number using formal written layout	
Number - multiplication and division	Multiplication and division (2)	Multiplying a 2-digit number by a 1-digit number	Multiply two-digit and three-digit numbers by a one-digit number using formal written layout	
Number - multiplication and division	Multiplication and division (2)	Multiplying a 3-digit number by a 1-digit number	Multiply two-digit and three-digit numbers by a one-digit number using formal written layout	
Number - multiplication and division	Multiplication and division (2)	Problem solving - multiplication	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	Multiply two-digit and three-digit numbers by a one-digit number using formal written layout

Number - multiplication and division	Multiplication and division (2)	Multiplying more than two numbers (1)	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	
Number - multiplication and division	Multiplication and division (2)	Multiplying more than two numbers (2)	Recognise and use factor pairs and commutativity in mental calculations	
Number - multiplication and division	Multiplication and division (2)	Problem solving - mixed correspondence problems	Recognise and use factor pairs and commutativity in mental calculations	
Number - multiplication and division	Multiplication and division (2)	Dividing a 2-digit number by a 1-digit number (1)	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
Number - multiplication and division	Multiplication and division (2)	Division with remainders	Multiply two-digit and three-digit numbers by a one-digit number using formal written layout	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
Number - multiplication and division	Multiplication and division (2)	Dividing a 2-digit number by a 1-digit number (2)	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	

Number - multiplication and division	Multiplication and division (2)	Dividing a 2-digit number by a 1-digit number (3)	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	Multiply two-digit and three-digit numbers by a one-digit number using formal written layout
Number - multiplication and division	Multiplication and division (2)	Dividing a 3-digit number by a 1-digit number	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	
Number - multiplication and division	Multiplication and division (2)	Problem solving - division	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	
Measurement	Measure - area	What is area?	Find the area of rectilinear shapes by counting squares	Estimate, compare and calculate different measures, including money in pounds and pence
Measurement	Measure - area	Counting squares (1)	Find the area of rectilinear shapes by counting squares	
Measurement	Measure - area	Counting squares (2)	Find the area of rectilinear shapes by counting squares	
Measurement	Measure - area	Making shapes	Find the area of rectilinear shapes by counting squares	
Measurement	Measure - area	Comparing area	Estimate, compare and calculate different measures, including money in pounds and pence	
Number - fractions (including decimals)	Fractions (1)	Tenths and hundredths (1)	Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten	
Number - fractions (including decimals)	Fractions (1)	Tenths and hundredths (2)	Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten	

Number - fractions (including decimals)	Fractions (1)	Equivalent fractions (1)	Recognise and show, using diagrams, families of common equivalent fractions	
Number - fractions (including decimals)	Fractions (1)	Equivalent fractions (2)	Recognise and show, using diagrams, families of common equivalent fractions	
Number - fractions (including decimals)	Fractions (1)	Simplifying fractions	Recognise and show, using diagrams, families of common equivalent fractions	
Number - fractions (including decimals)	Fractions (1)	Fractions greater than 1 (1)	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	
Number - fractions (including decimals)	Fractions (1)	Fractions greater than 1 (2)	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	
Number - fractions (including decimals)	Fractions (2)	Adding fractions	Add and subtract fractions with the same denominator	

Number - fractions (including decimals)	Fractions (2)	Subtracting fractions (1)	Add and subtract fractions with the same denominator	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
Number - fractions (including decimals)	Fractions (2)	Subtracting fractions (2)	Add and subtract fractions with the same denominator	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
Number - fractions (including decimals)	Fractions (2)	Problem solving - adding and subtracting fractions (1)	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	
Number - fractions (including decimals)	Fractions (2)	Problem solving - adding and subtracting fractions (2)	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	
Number - fractions (including decimals)	Fractions (2)	Calculating fractions of a quantity	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	
Number - fractions (including decimals)	Fractions (2)	Problem solving - fraction of a quantity (1)	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	
Number - fractions (including decimals)	Fractions (2)	Problem solving - fraction of a quantity (2)	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	
Number - fractions (including decimals)	Decimals (1)	Tenths (1)	Recognise and write decimal equivalents of any number of tenths or hundredths	
Number - fractions (including decimals)	Decimals (1)	Tenths (2)	Recognise and write decimal equivalents of any number of tenths or hundredths	
Number - fractions (including decimals)	Decimals (1)	Tenths (3)	Recognise and write decimal equivalents of any number of tenths or hundredths	Solve simple measure and money problems involving fractions and decimals to two decimal places
Number - fractions (including decimals)	Decimals (1)	Dividing by 10 (1)	Find the effect of dividing a one- or two- digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths	
Number - fractions (including decimals)	Decimals (1)	Dividing by 10 (2)	Find the effect of dividing a one- or two- digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and	

			hundredths	
Number - fractions (including decimals)	Decimals (1)	Hundredths (1)	Recognise and write decimal equivalents of any number of tenths or hundredths	Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten
Number - fractions (including decimals)	Decimals (1)	Hundredths (2)	Recognise and write decimal equivalents of any number of tenths or hundredths	Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten
Number - fractions (including decimals)	Decimals (1)	Hundredths (3)	Find the effect of dividing a one- or two- digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths	Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten
Number - fractions (including decimals)	Decimals (1)	Dividing by 100	Find the effect of dividing a one- or two- digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths	
Number - fractions (including decimals)	Decimals (1)	Dividing by 10 and 100	Find the effect of dividing a one- or two- digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths	

Number - fractions (including decimals)	Decimals (2)	Making a whole	Recognise and write decimal equivalents of any number of tenths or hundredths	Add and subtract fractions with the same denominator	
Number - fractions (including decimals)	Decimals (2)	Writing decimals	Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths		
Number - fractions (including decimals)	Decimals (2)	Comparing decimals	Compare numbers with the same number of decimal places up to two decimal places		
Number - fractions (including decimals)	Decimals (2)	Ordering decimals	Compare numbers with the same number of decimal places up to two decimal places		
Number - fractions (including decimals)	Decimals (2)	Rounding decimals	Round decimals with one decimal place to the nearest whole number		
Number - fractions (including decimals)	Decimals (2)	Halves and quarters	Recognise and write decimal equivalents to $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$		

Number - fractions (including decimals)	Decimals (2)	Problem solving - decimals	Solve simple measure and money problems involving fractions and decimals to two decimal places		
Measurement	Money	Pounds and pence	Estimate, compare and calculate different measures, including money in pounds and pence	Solve simple measure and money problems involving fractions and decimals to two decimal places	
Measurement	Money	Pounds, tenths and hundredths	Estimate, compare and calculate different measures, including money in pounds and pence	Solve simple measure and money problems involving fractions and decimals to two decimal places	
Measurement	Money	Ordering amounts of money	Estimate, compare and calculate different measures, including money in pounds and pence	Solve simple measure and money problems involving fractions and decimals to two decimal places	
Measurement	Money	Rounding money	Estimate, compare and calculate different measures, including money in pounds and pence	Solve simple measure and money problems involving fractions and decimals to two decimal places	
Measurement	Money	Using rounding to estimate money	Estimate, compare and calculate different measures, including money in pounds and pence		
Measurement	Money	Problem solving - pounds and pence	Estimate, compare and calculate different measures, including money in pounds and pence		

Measurement	Money	Problem solving - multiplication and division	Estimate, compare and calculate different measures, including money in pounds and pence	Solve simple measure and money problems involving fractions and decimals to two decimal places	
Measurement	Money	Solving two-step problems	Estimate, compare and calculate different measures, including money in pounds and pence	Solve simple measure and money problems involving fractions and decimals to two decimal places	
Measurement	Money	Problem solving - money	Estimate, compare and calculate different measures, including money in pounds and pence	Solve simple measure and money problems involving fractions and decimals to two decimal places	
Measurement	Time	Units of time (1)	Convert between different units of measure [for example, kilometre to metre; hour to minute]		
Measurement	Time	Units of time (2)	Convert between different units of measure [for example, kilometre to metre; hour to minute]		
Measurement	Time	Converting times (1)	Convert between different units of measure [for example, kilometre to metre; hour to minute]		

Measurement	Time	Converting times (2)	Convert between different units of measure [for example, kilometre to metre; hour to minute]		
Measurement	Time	Problem solving - units of time	Convert between different units of measure [for example, kilometre to metre; hour to minute]		
Statistics	Statistics	Charts and tables (1)	Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs		
Statistics	Statistics	Charts and tables (2)	Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs		
Statistics	Statistics	Line graphs (1)	Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs		
Statistics	Statistics	Line graphs (2)	Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs		

Statistics	Statistics	Problem solving - graphs	Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs		
Geometry - properties of shapes	Geometry - angles and 2D shapes	Identifying angles	Identify acute and obtuse angles and compare and order angles up to two right angles by size		
Geometry - properties of shapes	Geometry - angles and 2D shapes	Comparing and ordering angles	Identify acute and obtuse angles and compare and order angles up to two right angles by size		
Geometry - properties of shapes	Geometry - angles and 2D shapes	Identifying regular and irregular shapes	Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes		
Geometry - properties of shapes	Geometry - angles and 2D shapes	Classifying triangles	Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes		

Geometry - properties of shapes	Geometry - angles and 2D shapes	Classifying and comparing quadrilaterals	Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes		
Geometry - properties of shapes	Geometry - angles and 2D shapes	Deducing facts about shapes	Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes		
Geometry - properties of shapes	Geometry - angles and 2D shapes	Lines of symmetry inside a shape	Identify lines of symmetry in 2D shapes presented in different orientations		
Geometry - properties of shapes	Geometry - angles and 2D shapes	Lines of symmetry outside a shape	Identify lines of symmetry in 2D shapes presented in different orientations		
Geometry - properties of shapes	Geometry - angles and 2D shapes	Completing a symmetric figure	Complete a simple symmetric figure with respect to a specific line of symmetry		
Geometry - properties of shapes	Geometry - angles and 2D shapes	Completing a symmetric shape	Complete a simple symmetric figure with respect to a specific line of symmetry		
Geometry - position and direction	Geometry - position and direction	Describing position (1)	Describe positions on a 2D grid as coordinates in the first quadrant		
Geometry - position and direction	Geometry - position and direction	Describing position (2)	Describe positions on a 2D grid as coordinates in the first quadrant		

Geometry – position and direction	Geometry – position and direction	Drawing on a grid	Plot specified points and draw sides to complete a given polygon		
Geometry – position and direction	Geometry – position and direction	Reasoning on a grid	Describe positions on a 2D grid as coordinates in the first quadrant		
Geometry – position and direction	Geometry – position and direction	Moving on a grid	Describe movements between positions as translations of a given unit to the left/right and up/down		
Geometry – position and direction	Geometry – position and direction	Describing a movement on a grid	Describe movements between positions as translations of a given unit to the left/right and up/down		