Maths End Points

Year 1

Working Towards	
Number and place value (NPV)	• Begin to develop a sense of the number system by verbally counting forward to and beyond 20, pausing at each multiple of 10. • Play games that involve moving along a numbered track and understand that larger numbers are further along the track.
Number facts (NF)	• Begin to experience partitioning and combining numbers within 10. • Distribute items fairly, for example, put 3 marbles in each bag. Recognise when items are distributed unfairly.
Addition and subtraction (AS)	• Understand the cardinal value of number words, for example understanding that 'four' relates to 4 objects. Subitise for up to to 5 items. Automatically show a given number using fingers. • Devise and record number stories, using pictures, numbers and symbols (such as arrows).
Multiplication and division (MD)	
Fractions (F)	
Geometry (G)	• See, explore and discuss models of common 2D and 3D shapes with varied dimensions and presented in different orientations (for example, triangles not always presented on their base). • Select, rotate and manipulate shapes for a particular purpose, for example: • rotating a cylinder so it can be used to build a tower • rotating a puzzle piece to fit in its place

Expected	
Number and place value (NPV)	• 1NPV–1 Count within 100, forwards and backwards, starting with any number. • 1NPV–2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and = •
Number facts (NF)	• 1NF–1 Develop fluency in addition and subtraction facts within 10. • 1NF–2 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.
Addition and subtraction (AS)	• 1AS–1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers. • 1AS–2 Read, write and interpret equations containing addition ( ), subtraction ( ) and equals ( ) symbols, and relate additive expressions and equations to real-life contexts.
Multiplication and division (MD)	
Fractions (F)	
Geometry (G)	• 1G–1 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. • 1G–2 Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations.

Greater Depth	
Number and place value (NPV)	• Count through the number system. Place value within 100. Compare and order numbers. Add and subtract within 100. • Reason about the location of larger numbers within the linear number system. Compare and order numbers. Read scales.
Number facts (NF)	• Add and subtract across 10. All future additive calculation. Add within a column during columnar addition when the column sums to less than 10 (no regrouping). Subtract within a column during columnar subtraction when the minuend of the column is larger than the subtrahend (no exchanging). • Recall the 2, 5 and 10 multiplication tables. Carry out repeated addition and multiplication of 2, 5, and 10, and divide by 2, 5 and 10. Identify multiples of 2, 5 and 10. Unitise in tens. Identify odd and even numbers.
Addition and subtraction (AS)	• Add and subtract within 10. • Represent composition and decomposition of numbers using equations.
Multiplication and division (MD)	
Fractions (F)	
Geometry (G)	• Describe properties of shape. Categorise shapes. Identify similar shapes. • Find the area or volume of a compound shape by decomposing into constituent shapes. Rotate, translate and reflect 2D shapes. Identify congruent shapes.

Year 2

Working Towards

Category	Details
Number and place value (NPV)	• Know that 10 ones are equivalent to 1 ten. Know that multiples of 10 are made up from a number of tens, for example, 50 is 5 tens. • Place the numbers 1 to 9 on a marked, but unlabelled, 0 to 10 number line. Estimate the position of the numbers 1 to 9 on an unmarked 0 to 10 number line. Count forwards and backwards to and from 100.
Number facts (NF)	• Develop fluency in addition and subtraction facts within 10.
Addition and subtraction (AS)	• Learn and use number bonds to 10, • Solve missing addend problems within 10 • Add and subtract within 10 • Know that a multiple of 10 is made up from a number of tens, for example, 50 is 5 tens. • Add and subtract within 10. Know that a multiple of 10 is made up from a number of tens, for example, 50 is 5 tens.
Multiplication and division (MD)	Count in multiples of 2, 5 and 10. Count in multiples of 2, 5 and 10 to find how many groups of 2, 5 or 10 there are in a particular quantity, set in everyday contexts.
Fractions (F)	
Geometry (G)	• Recognise common 2D and 3D shapes presented in different orientations.

Expected

Category	Details
Number and place value (NPV)	• 2NPV–1 Recognise the place value of each digit in two-digit numbers, and compose and decompose twodigit numbers using standard and nonstandard partitioning. • 2NPV–2 Reason about the location of any twodigit number in the linear number system, including identifying the previous and next multiple of 10.
Number facts (NF)	• 2NF–1 Secure fluency in addition and subtraction facts within 10, through continued practice. • 2AS–1 Add and subtract across 10, for example: 8 + 5 = 13
Addition and subtraction (AS)	• 2AS–2 Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more...?". • 2AS–3 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. 2AS–4 Add and subtract within 100 by applying related onedigit addition and subtraction facts: add and subtract any 2 twodigit numbers.
Multiplication and division (MD)	2MD–1 Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables. 2MD–2 Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).
Fractions (F)	
Geometry (G)	• 2G–1 Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties.

Greater Depth

Category	Details
Number and place value (NPV)	• Compare and order numbers. Add and subtract using mental and formal written methods. • Compare and order numbers. Round whole numbers. Subtract ones from a multiple of 10,
Number facts (NF)	• All future additive calculation. Add within a column during columnar addition when the column sums to less than 10 (no regrouping). Subtract within a column during columnar subtraction when the minuend of the column is larger than the subtrahend (no exchanging).
Addition and subtraction (AS)	• Add and subtract within 100: add and subtract any 2 two digit numbers, where the ones sum to 10 or more. • Use knowledge of unitising to add and subtract across other boundaries, • Add within a column during columnar addition when the column sums to more than 10 (regrouping) • Subtract within a column during columnar subtraction when the minuend of the column is smaller than the subtrahend (exchanging), • Solve contextual subtraction problems for all three subtraction structures (reduction, partitioning and difference) and combining with other operations. • Add and subtract using mental and formal written methods. • Add and subtract numbers greater than 100, recognising unitising
Multiplication and division (MD)	• Use multiplication to represent repeated addition contexts for other group sizes. Memorise multiplication tables. • Division with other divisors.
Fractions (F)	
Geometry (G)	• Identify similar shapes. Describe and compare angles. Draw polygons by joining marked points Identify parallel and perpendicular sides. • Identify regular polygons Find the perimeter of regular and irregular polygons. • Compare areas and calculate the area of rectangles (including squares) using standard units. • Compare areas and calculate the area of rectangles (including squares) using standard units.

Year 3

Working Towards

Category	Content
Number and place value (NPV)	• Know that 10 ones are equivalent to 1 ten, and that 40 (for example) can be composed from 40 ones or 4 tens. Know how many tens there are in multiples of 10 up to 100. • Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning. • Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10. • Count in multiples of 2, 5 and 10.
Number facts (NF)	• Add and subtract across 10 • Calculate products within the 2, 5 and 10 multiplication tables. • Automatically recall addition and subtraction facts within 10, and across 10. Unitise in tens: understand that 10 can be thought of as a single unit of 1 ten.
Addition and subtraction (AS)	• Automatically recall number bonds to 9 and to 10. Know that 10 ones are equivalent to 1 ten, and 10 tens are equivalent to 1 hundred. • Automatically recall addition and subtraction facts within 10 and across 10. Recognise the place value of each digit in two- and three-digit numbers. Know that 10 ones are equivalent to 1 ten, and 10 tens are equivalent to 1 hundred. • Have experience with the commutative property of addition, for example, have recognised that and have the same sum. Be able to write an equation in different ways, for example, and Write equations to represent addition and subtraction contexts.
Multiplication and division (MD)	Recognise repeated addition contexts and represent them with multiplication equations. Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).
Fractions (F)	Reason about the location of whole numbers in the linear number system. Automatically recall addition and subtraction facts within 10. Unitise in tens: understand that 10 can be thought of as a single unit of 1 ten, and that these units can be added and subtracted.
Geometry (G)	• Recognise standard and non-standard examples of 2D shapes presented in different orientations. Identify similar shapes. • Compose 2D shapes from smaller shapes to match an exemplar, rotating and turning over shapes to place them in specific orientations.

Expected

Category	Content
Number and place value (NPV)	• 3NPV–1 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. • 3NPV–2 Recognise the place value of each digit in three-digit numbers and compose and decompose three-digit numbers using standard and non-standard partitioning. • 3NPV–3 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. • 3NPV–4 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.
Number facts (NF)	• 3NF–1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice. • 3NF–2 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. • 3NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10)
Addition and subtraction (AS)	• 3AS–1 Calculate complements to 100 • 3AS–2 Add and subtract up to three-digit numbers using columnar methods. • 3AS–3 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.
Multiplication and division (MD)	3MD–1 Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division.
Fractions (F)	• 3F–1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts. • 3F–2 Find unit fractions of quantities using known division facts (multiplication tables fluency). • 3F–3 Reason about the location of any fraction within 1 in the linear number system. • 3F–4 Add and subtract fractions with the same denominator, within 1.
Geometry (G)	• 3G–1 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. • 3G–2 Draw polygons by joining marked points, and identify parallel and perpendicular sides.

Greater Depth

Category	Content
Number and place value (NPV)	• Solve multiplication problems that that involve a scaling structure, such as 'ten times as long'. • Compare and order numbers. Add and subtract using mental and formal written methods. • Compare and order numbers. Estimate and approximate to the nearest multiple of 1,000, 100 or 10. • Read scales on graphs and measuring instruments.
Number facts (NF)	• Add and subtract mentally where digits sum to more than 10. Add and subtract across other powers of 10, without written methods. Add within a column during columnar addition when the column sums to more than 10 (regrouping), for: Subtract within a column during columnar subtraction when the minuend of the column is smaller than the subtrahend (exchanging) • Use multiplication facts during application of formal written layout. Use division facts during short division and long division. • Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100),
Addition and subtraction (AS)	• Calculate complements to other numbers, particularly powers of 10. Calculate how much change is due when paying for an item. • Add and subtract other numbers, including four digits and above, and decimals, using columnar methods. • All future additive reasoning.
Multiplication and division (MD)	
Fractions (F)	• Use unit fractions as the basis to understand nonunit fractions, improper fractions and mixed numbers • Apply knowledge of unit fractions to non-unit fractions. • Compare and order fractions. • Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers.
Geometry (G)	• Compare angles. Estimate and measure angles in degrees. • Find the area or volume of a compound shape by decomposing into constituent shapes. Find the perimeter of regular and irregular polygons.

Working Towards

Number and place value (NPV)	• Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10. • Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning. • Reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 10 and 100. • 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.
Number facts (NF)	• Recall multiplication and division facts in the 5 and 10, and 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number. • Use known division facts to solve division problems. Calculate small differences • Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10)
Addition and subtraction (AS)	• Understand the cardinal value of number words, for example understanding that 'four' relates to 4 objects. Subitise for up to to 5 items. Automatically show a given number using fingers. • Devise and record number stories, using pictures, numbers and symbols (such as arrows).
Multiplication and division (MD)	• Multiply two-digit numbers by 10, and divide three-digit multiples of 10 by 10. • Understand the inverse relationship between multiplication and division. Write and use multiplication table facts with the factors presented in either order.
Fractions (F)	• Reason about the location of fractions less than 1 in the linear number system. • Identify unit and nonunit fractions. • Add and subtract fractions with the same denominator, within 1 whole
Geometry (G)	• Draw polygons by joining marked points. • Measure lines in centimetres and metres. Add more than 2 addends. Recall multiplication table facts.

Expected

Number and place value (NPV)	• 4NPV–1 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. • 4NPV–2 Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning. • 4NPV–3 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. • 4NPV–4 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.
Number facts (NF)	• 4NF–1 Recall multiplication and division facts up to , and recognise products in multiplication tables as multiples of the corresponding number. • 4NF–2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context. • 4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100),
Addition and subtraction (AS)	
Multiplication and division (MD)	• 4MD–1 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. • 4MD–2 Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication. • 4MD–3 Understand and apply the distributive property of multiplication.
Fractions (F)	• 4F–1 Reason about the location of mixed numbers in the linear number system. • 4F–2 Convert mixed numbers to improper fractions and vice versa. • 4F–3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers,
Geometry (G)	• 4G–1 Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant. • 4G–2 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. • 4G–3 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.

Greater Depth

Number and place value (NPV)	• Solve multiplication problems that that involve a scaling structure, such as '10 times as long'. • Compare and order numbers. Add and subtract using mental and formal written methods. • Compare and order numbers. Estimate and approximate to the nearest multiple of 1,000, 100 or 10. • Read scales on graphs and measuring instruments.
Number facts (NF)	• Use multiplication facts during application of formal written methods. Use division facts during application of formal written methods. • Correctly represent and interpret remainders when using short and long division. • Apply place-value knowledge to known additive and multiplicative number facts, extending to a whole number of larger powers of ten and powers of ten smaller than one,
Addition and subtraction (AS)	
Multiplication and division (MD)	• Convert between different metric units of measure. Apply multiplication and division by 10 and 100 to calculations involving decimals • Recognise and apply the structures of multiplication and division to a variety of contexts. • Recognise when to use and apply the distributive property of multiplication in a variety of contexts.
Fractions (F)	• Compare and order fractions. • Compare and order fractions. Add and subtract fractions where calculation bridges whole numbers.
Geometry (G)	• Draw polygons, specified by coordinates in the 4 quadrants. • Draw, compose and decompose shapes according to given properties, dimensions, angles or area. • Draw polygons, specified by coordinates in the 4 quadrants: draw shapes following translation or reflection in the axes.

Year 5

Working Towards

Domain	Statements
Number and place value (NPV)	• 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. • Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning. • 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. • 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.
Number facts (NF)	• Recall multiplication and division facts up to , and recognise products in multiplication tables as multiples of the corresponding number. • Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context. • Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100),
Addition and subtraction (AS)	
Multiplication and division (MD)	• 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. • Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication. • Understand and apply the distributive property of multiplication.
Fractions (F)	• Reason about the location of mixed numbers in the linear number system. • Convert mixed numbers to improper fractions and vice versa. • Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers,
Geometry (G)	• Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant. • 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. • 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.

Expected

Domain	Statements
Number and place value (NPV)	• 5NPV–1 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. • 5NPV–2 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 nonstandard partitioning. • 5NPV–3 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. • 5NPV–4 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. • 5NPV–5 Convert between units of measure, including using common decimals and fractions.
Number facts (NF)	• 5NF–1 Secure fluency in multiplication table facts, and corresponding division facts, through continued practice. • 5NF–2 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth)
Addition and subtraction (AS)	
Multiplication and division (MD)	• 5MD–1 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. • 5MD–2 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. • 5MD–3 Multiply any whole number with up to 4 digits by any one-digit number using a formal written method. • 5MD–4 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.
Fractions (F)	• 5F–1 Find non-unit fractions of quantities. • 5F–2 Find equivalent fractions and understand that they have the same value and the same position in the linear number system. • 5F–3 Recall decimal fraction equivalents for 1/2,1/4 ,1/5 and 1/10 and for multiples of these proper fractions.
Geometry (G)	• 5G–1 Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size. • 5G–2 Compare areas and calculate the area of rectangles (including squares) using standard units.

Greater Depth

Domain	Statements
Number and place value (NPV)	• Solve multiplication problems that have the scaling structure, such as 'ten times as long'. Understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal fraction. • Compare and order numbers, including those with up to 2 decimal places. Add and subtract using mental and formal written methods. • Compare and order numbers, including those with up to 2 decimal places. Estimate and approximate to the nearest 1 or 0.1. • Read scales on graphs and measuring instruments. • Read scales on measuring instruments, and on graphs related to measures contexts. Solve measures problems involving different units by converting to a common unit.
Number facts (NF)	• Use multiplication facts during application of formal written layout. Use division facts during short division and long division. • Recognise number relationships within the context of place value to develop fluency and efficiency in calculation.
Addition and subtraction (AS)	
Multiplication and division (MD)	• Convert between different metric units of measure. • Solve contextual division problems. Simplify fractions. Express fractions in the same denomination. • Solve contextual and noncontextual multiplication problems using a formal written method. • Solve contextual and noncontextual division problems using a formal written method.
Fractions (F)	• Solve multiplication problems that have the scaling structure. • Compare and order fractions. • Use common factors to simplify fractions. • Use common multiples to express fractions in the same denomination. • Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. • Read scales on graphs and measuring instruments. Know percentage equivalents of common fractions.
Geometry (G)	• Solve problems involving missing angles. • Calculate the area of compound rectilinear shapes and other 2D shapes, including triangles and parallelograms, using standard units. • Use the relationship between side-length and perimeter, and between side-length and area to calculate unknown values.

Working Towards

Category	Content
Number and place value (NPV)	• 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. • 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 nonstandard partitioning. • 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. • 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. • Convert between units of measure, including using common decimals and fractions.
Number facts (NF)	• Secure fluency in multiplication table facts, and corresponding division facts, through continued practice. • Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth)
Addition and subtraction (AS)	
Multiplication and division (MD)	• 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. • 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. • Multiply any whole number with up to 4 digits by any one-digit number using a formal written method. • 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.
Fractions (F)	• Find non-unit fractions of quantities. • Find equivalent fractions and understand that they have the same value and the same position in the linear number system. • Recall decimal fraction equivalents for 1/2, 1/4, 1/5 and 1/10 and for multiples of these proper fractions.
Geometry (G)	• Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size. • Compare areas and calculate the area of rectangles (including squares) using standard units.

Expected

Category	Content
Number and place value (NPV)	• 6NPV–1 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). • 6NPV–2 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 nonstandard partitioning. • 6NPV–3 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. • 6NPV–4 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.
Number facts (NF)	
Addition and subtraction (AS)	• 6AS/MD–1 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). • 6AS/MD–1 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.
Multiplication and division (MD)	• 6AS/MD–3 Solve problems involving ratio relationships. • 6AS/MD–4 Solve problems with 2 unknowns.
Fractions (F)	• 6F–1 Recognise when fractions can be simplified, and use common factors to simplify fractions. • 6F–2 Express fractions in a common denomination and use this to compare fractions that are similar in value. • 6F–3 Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy
Geometry (G)	• 6G–1 Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.

Greater Depth

Category	Content
Number and place value (NPV)	• Understand and use place value for decimals, measures, and integers of any size. Interpret and compare numbers in standard form , where n is a positive or negative integer or zero. • Understand and use place value for decimals, measures, and integers of any size. • Order positive and negative integers, decimals, and fractions. • Use a calculator and other technologies to calculate results accurately and then interpret them appropriately. • Order positive and negative integers, decimals, and fractions; use the number line as a model for ordering of the real numbers; use the symbols =, ≠, , ≤, ≥ • Round numbers and measures to an appropriate degree of accuracy (for example, to a number of decimal places or significant figures). • Use approximation through rounding to estimate answers and calculate possible resulting errors expressed using inequality notation $a < x \leq b$ • Use standard units of mass, length, time, money, and other measures, including with decimal quantities. • Construct and interpret appropriate tables, charts, and diagrams.
Number facts (NF)	
Addition and subtraction (AS)	• Understand that a multiplicative relationship between 2 quantities can be expressed as a ratio or a fraction. • Express 1 quantity as a fraction of another, where the fraction is less than 1 and greater than 1. • Recognise and use relationships between operations including inverse operations. • Use algebra to generalise the structure of arithmetic, including to formulate mathematical relationships. • Understand and use standard mathematical formulae; rearrange formulae to change the subject.
Multiplication and division (MD)	• Use ratio notation, including reduction to simplest form. • Divide a given quantity into 2 parts in a given part:part or part:whole ratio; express the division of a quantity into 2 parts as a ratio. • Use linear and quadratic graphs to estimate values of y for given values of x and vice versa and to find approximate solutions of simultaneous linear equations.
Fractions (F)	• Use the concepts and vocabulary of prime numbers, factors (or divisors), multiples, common factors, common multiples, highest common factor, lowest common multiple, prime factorisation, including using product notation and the unique factorisation property. • Simplify and manipulate algebraic expressions by taking out common factors. • Order positive and negative integers, decimals and fractions. • Use the 4 operations, including formal written methods, applied to integers, decimals, proper and improper fractions, and mixed numbers, all both positive and negative. • Use and interpret algebraic notation, including: a/b in place of coefficients written as fractions rather than as decimals.
Geometry (G)	• Draw shapes and solve more complex geometry problems (see Mathematics programmes of study: key stage 3 - Geometry and measures).