Autumn 1	Year 5	Year 6
Number and place value 1 week	read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit • count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 • round any number up to 1 000 000 to the nearest 10, 100 and 1000	read, write, order and compare numbers up to 10 000 000and determine the value of each digit • round any whole number to a required degree of accuracy • solve number and practical problems that involve all of the above use simple formulae • generate and describe linear number sequences • express missing number problems algebraically • fi nd pairs of numbers that satisfy an equation with two unknowns • enumerate possibilities of combinations of two variables
Number – Addition and subtraction 2 week	add and subtract numbers mentally with increasingly large numbers • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why add whole numbers with more than four digits, including using formal written methods (columnar addition) • add numbers mentally with increasingly large numbers • use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	perform mental calculations, including with large numbers • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • solve problems involving addition, subtraction, multiplication and division • use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy practise addition and subtraction for larger numbers, using the formal written methods of columnar addition and subtraction
Number – Multiplication and division 2 weeks	count in multiples of 6 and 9 • recall multiplication and division facts for multiplication tables up to 12 × 12 • recognise and use factor pairs and commutativity in mental calculations identify multiples and factors, including fi nding all factor pairs of a number, and common factors of two numbers • multiply numbers up to four digits by a one-digit number using a formal written method • multiply and divide numbers mentally drawing upon known facts • multiply and divide whole numbers by 10, 100 and 1000 • recognise and use square numbers and cube numbers, and the notation for squared ($_2$) and cubed ($_3$) • solve problems involving multiplication and division, including using their knowledge of squares and cubes • solve problems involving addition, subtraction, multiplication and division, and a combination of these, including understanding the meaning of the equals sign know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers • establish whether a number up to 100 is prime and recall prime numbers up to 19	practise multiplication for larger numbers, using the formal written methods of short and long multiplication * • perform mental calculations, including with large numbers • solve problems involving addition, subtraction, multiplication and division • use estimation to check answers to calculations practise division for larger numbers, using the formal written method of short division • divide numbers up to four digits by a two-digit number using the formal written method of short division where appropriate • perform mental calculations, including with large numbers • identify common factors, common multiples and prime numbers
Measurement – Time 1 week	solve problems involving converting between units of time • use all four operations to solve problems involving measure, including scaling	use, read, write and convert between standard units, converting measurements of time from a smaller unit of measure to a larger unit, and vice versa
	Assess and review	

Autumn 2	Year 5	Year 6
Number – Fractions and decimals 2 weeks	compare and order fractions whose denominators are all multiples of the same number • identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths • develop their understanding of fractions as numbers, measures and operators by fi nding fractions of numbers and quantities * • practise counting forwards and backwards in simple fractions * • recognise and describe linear number sequences, including those involving fractions, and find the term-to-term rule	use common factors to simplify fractions; use common multiples to express fractions in the same denomination • compare and order fractions, including fractions >1 • add and subtract fractions with different denominators and mixed numbers using the concept of equivalent fractions associate a fraction with division and calculate decimal fraction equivalents [for example, 0·375] for a simple fraction and use equivalences between simple fractions, decimals and percentages • solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison
Decimals 1 week	read and write decimal numbers as fractions • round decimals with two decimal places to the nearest whole number and to one decimal place • practise adding decimals, including complements of 1 (for example, 0·83 + 0·17 = 1) • recognise and describe linear number sequences involving decimals and fi nd the term-to-term rule	identify the value of each digit in numbers given to three decimal places, and multiply and divide numbers by 10, 100 and 1000 giving the answers up to three decimal places • multiply decimals by whole numbers, starting with the simplest cases, such as 0·4 × 2 = 0·8, and in practical contexts, such as measures and money • solve problems that require answers to be rounded to specified degrees of accuracy multiply one-digit numbers with up to two decimal places by whole numbers • multiply numbers with up to two decimal places by onedigit whole numbers
Measurement 1 week	convert between different units of metric measure • understand and use approximate equivalences between metric units and common imperial units such as pounds • use all four operations to solve problems involving measure [for example, mass] using decimal notation, including scaling	solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate • use, read, write and convert between standard units of metric measurement • convert between miles and kilometres
Geometry – Properties of shape 1 week	identify, describe and represent the position of a shape following a translation, using the appropriate language, and know that the shape has not changed identify, describe and represent the position of a shape following a refl ection, using the appropriate language, and know that the shape has not changed	recognise, describe and build simple 3-D shapes, including making nets describe positions on the full coordinate grid (all four quadrants) • draw and translate simple shapes on the coordinate plane, and reflect them in the axes draw 2-D shapes using given dimensions and angles • compare and classify geometric shapes based on their properties and sizes, and fi nd unknown angles in any triangles, quadrilaterals and regular polygons • recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and fi nd missing angles
Statistics	solve comparison, sum and difference problems using information presented in a line graph • complete, read and interpret information in tables, including timetables	interpret and construct pie charts and line graphs and use these to solve problems • draw graphs relating two variables * • calculate and interpret the mean as an average
	Assess and review	

Spring 1	Year 5	Year 6
Number – Number and place value 1 week	read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit • count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 • interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero • round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 • solve number problems and practical problems that involve all of the above	Use negative numbers in context, and calculate intervals across zero perform mental calculations, including with mixed operations and large numbers read, write, order and compare numbers up to 10 000 000and determine the value of each digit • round any whole number to a required degree of accuracy • solve number and practical problems that involve all of the above use simple formulae • generate and describe linear number sequences • express missing number problems algebraically • find pairs of numbers that satisfy an equation with two unknowns • enumerate possibilities of combinations of two variables
Number – Addition and Subtraction 2 weeks	subtract whole numbers with more than four digits, including using formal written methods (columnar subtraction) • subtract numbers mentally with increasingly large numbers • use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy • practise adding and subtracting decimals, including a mix of whole numbers and decimals *	perform mental calculations, including with large numbers • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy practise addition and subtraction for larger numbers, using the formal written methods of columnar addition and subtraction • use their knowledge of the order of operations to carry out calculations involving the four operations • practise addition and subtraction for larger numbers, using the formal written methods of columnar addition and subtraction
Number – Multiplication and Division 2 weeks	multiply numbers up to four digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers divide numbers up to four digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context • solve problems involving addition, subtraction, multiplication and division, and a combination of these, including understanding the meaning of the equals sign	Perform mental calculations practise multiplication for larger numbers, using the formal written method of long multiplication * • multiply multi-digit numbers up to four digits by a two-digit whole number using the formal written method of long multiplication practise division for larger numbers, using the formal written method of long division • perform mental calculations, including large numbers and decimals • use estimation to check answers to calculations multiply decimals by whole numbers, starting with the simplest cases, such as 0·4 × 2 = 0·8, and in practical contexts, such as measures and money *
Measurement – Length, volume and capacity 1 week Y6 Shape	convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre) • understand and use approximate equivalences between metric units and common imperial units such as inches • use all four operations to solve problems involving measure [for example, length] using decimal notation, including scaling	draw shapes accurately, using measuring tools and conventional markings and labels for lines and angles * • illustrate and name parts of circles, including radius, diameter and circumference, and know that the diameter is twice the radius
	Assess and review	

Spring 2	Year 5	Year 6
Number – Number and place value 1 week	read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit • count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 • round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 • solve number problems and practical problems that involve all of the above • read Roman numerals to 1000 (M) and recognise years written in Roman numerals	recognise proportionality in contexts when the relations between quantities are in the same ratio [for example, similar shapes and recipes] • solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts • consolidate understanding of ratio when comparing quantities, sizes and scale drawings by solving a variety of problems * • solve problems involving similar shapes where the scale factor is known or can be found • solve problems involving unequal sharing and grouping using knowledge of fractions and multiples
Number – Addition and subtraction 1 week	mentally add and subtract tenths, and one-digit whole numbers and tenths * • practise adding and subtracting decimals, including a mix of whole numbers and decimals, decimals with different numbers of decimal places, and complements of 1 [for example, 0·83 + 0·17 = 1]	perform mental calculations, including large numbers • practise addition and subtraction for larger numbers, using the formal written methods of columnar addition and subtraction * • use knowledge of the order of operations to carry out calculations involving the four operations • solve problems involving addition, subtraction, multiplication and division • use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy
Number – Fractions 1 week	compare and order fractions whose denominators are all multiples of the same number • add and subtract fractions with the same denominator and denominators that are multiples of the same number • recognise and use thousandths and relate them to tenths and hundredths	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 • multiply simple pairs of proper fractions, writing the answer in its simplest form • divide proper fractions by whole numbers
Measurement – Perimeter 1 week	measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres • calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm_2) and square metres (m_2), and estimate the area of irregular shapes	recognise that shapes with the same areas can have different perimeters and vice versa • recognise when it is possible to use formulae for area of shapes • calculate the area of parallelograms and triangles Revision of geometry: properties of shapes, position and direction
FDPRP 1 week	read and write decimal numbers as fractions • round decimals with two decimal places to the nearest whole number and to one decimal place • practise adding decimals, including complements of 1 (for example, 0·83 + 0·17 = 1) • recognise and describe linear number sequences involving decimals and fi nd the term-to-term rule compare and order fractions whose denominators are all multiples of the same number • add and subtract fractions with the same denominator and denominators that are multiples of the same number • recognise and use thousandths and relate them to tenths and hundredths	use written division methods in cases where the answer has up to two decimal places • divide numbers with up to two decimal places by one-digit and two-digit whole numbers fraction equivalents [for example, 0·375] for a simple fraction and use equivalences between simple fractions, decimals and percentages • solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison
Statistics 1 week	solve comparison, sum and difference problems using information presented in a line graph • complete, read and interpret information in tables	interpret and construct pie charts and line graphs and use these to solve problems • draw graphs relating two variables * • calculate and interpret the mean as an average
	Assess and review	

Summer 1	Year 5	Year 6
Number – Addition and Subtraction 2 weeks	add and subtract whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction) • add and subtract numbers mentally with increasingly large numbers • use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why use all four operations to solve problems involving measure [for example, money] using decimal notation, including scaling	Revision of areas in preparation for NC tests including 4 rules, number and its properties
Number – Fractions and Decimals 2 week Percentages – Y5	recognise mixed numbers and improper fractions and convert from one form to the other, and write mathematical statements >1 as a mixed number • multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams • connect equivalent fractions >1 that simplify to integers with division, and other fractions >1 to division with remainders, using the number line and other models, and hence move from these to improper and mixed fractions read and write decimal numbers as fractions • recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents • round decimals with two decimal places to the nearest whole number and to one decimal place • read, write, order and compare numbers with up to three decimal places • solve problems involving number up to three decimal places recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal • solve problems that require knowing percentage and decimal equivalents of half, quarter, fifth, 2-fifths, 4-fifths and those fractions with a denominator of a multiple of 10 or 25 • make connections between percentages, fractions and decimals	Revision of areas in preparation for NC tests including FDPRP
Shape, space and measures review		Revision of areas including Measurement, geometry: properties of shapes, position and direction
Measurement 1 week	convert between different units of metric measure (for example litre and millilitre) • understand and use approximate equivalences between metric units and common imperial units such as pints • estimate volume [for example, using 1 cm_3 blocks to build cuboids (including cubes)] and capacity [for example, using water] • use all four operations to solve problems involving measure [for example volume] using decimal notation, including scaling	solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate • use, read, write and convert between standard units, converting measurements of volume from a smaller unit of measure to a larger unit, and vice versa, using decimal notation up to three decimal places • recognise when it is possible to use formulae for volume of shapes • calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm_3) and cubic metres (m_3), and extending to other units

Summer 2	Year 5	Year 6
Number – Multiplication and Division 2 weeks	multiply numbers up to four digits by a two-digit number using a formal written method, including long multiplication for two-digit numbers • divide numbers up to four digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context • solve problems involving addition, subtraction, multiplication and division, and a combination of these,including understanding the meaning of the equals sign • solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates multiply and divide numbers mentally drawing upon known facts • multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 • solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates use all four operations to solve problems involving measure [for example, money] using decimal notation,including scaling	perform mental calculations, including with mixed operations and large numbers • use their knowledge of the order of operations to carry out calculations involving the four operations • solve problems involving addition, subtraction, multiplication and division multiply multi-digit numbers up to four digits by a two digit whole number using the formal written method of long multiplication • divide numbers up to four digits by a two-digit whole number using the formal written method of long division • divide numbers up to four digits by a two-digit number using the formal written method of short division where appropriate • perform mental calculations • identify common factors and common multiples • solve problems involving addition, subtraction, multiplication and division • solve problems that require answers to be rounded to specified degrees of accuracy • use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy
Geometry – Properties of shapes 2 weeks	know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles • draw given angles, and measure them in degrees (°) • identify: – angles at a point and one whole turn (total 360°) – angles at a point on a straight line and 12 a turn (total 180°) – other multiples of 90° use the properties of rectangles to deduce related facts and fi nd missing lengths and angles • distinguish between regular and irregular polygons based on reasoning about equal sides and angles • use angle sum facts and other properties to make deductions about missing angles and relate these to missing number problems * • use the term diagonal and make conjectures about the angles formed between sides, and between diagonals and parallel sides, and other properties of quadrilaterals * • use conventional markings for parallel lines and right angles	describe positions on the full coordinate grid (all four quadrants) • draw and translate simple shapes on the coordinate plane, and reflect them in the axes • draw and label rectangles (including squares), parallelograms and rhombuses, specified by coordinates in the four quadrants, predicting missing coordinates using the properties of shapes
	Assess and review	