Subject Progression

Mathematics – Year 4

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
All times tables with particular focus on 12,11,9, 8 x tables	All times tables with particular focus on 7, 6, 5, 4, 3 x tables	All times tables with particular focus on 12,11,9, 8 x tables	All times tables with particular focus on 7, 6, 5, 4, 3 x tables	All times tables with particular focus on 12,11,9, 8 x tables	All times tables with particular focus on 7, 6, 5, 4, 3 x tables
Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100)	Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100)	Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100)	Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100)	Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100)	Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100)
Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and nonstandard 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*	*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*	*Reason about the location of mixed numbers in the linear number system*	*Reason about the location of mixed numbers in the linear number system*	*Reason about the location of mixed numbers in the linear number system*
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.	*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*	*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*	*Convert mixed numbers to improper fractions and vice versa.*	*Convert mixed numbers to improper fractions and vice versa.*	*Convert mixed numbers to improper fractions and vice versa.*
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	*Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.*	*Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.*	*Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers.* *Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.*	*Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers.* *Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.*	*Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers.* *Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.*
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	*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.*	*Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal.*	*Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal.*	*Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal.*	*Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal.*
Addition and subtraction written strategies	Addition and subtraction written strategies	Addition and subtraction written strategies	Addition and subtraction written strategies	Addition and subtraction written strategies	Addition and subtraction written strategies
Addition and subtraction of fractions with same denominator	Addition and subtraction of fractions with same denominator	Addition and subtraction of fractions with same denominator	Addition and subtraction of fractions with same denominator	Addition and subtraction of fractions with same denominator	Addition and subtraction of fractions with same denominator
	Multiplication and division strategies	Multiplication and division strategies	Multiplication and division strategies	Multiplication and division strategies	Multiplication and division strategies
			Multiplying and dividing by 10 and 100	Multiplying and dividing by 10 and 100	Multiplying and dividing by 10 and 100

	Multiplying and dividing by 10 and 100	Multiplying and dividing by 10 and 100	Fractions of quantities (Unit and non-unit)	Fractions of quantities (Unit and non-unit)	Fractions of quantities (Unit and non-unit)
Place Value (3 weeks) To count in multiples of 25 and 1,000 To find 1,000 more or less than a given number To count backwards through 0 to include negative numbers *Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and nonstandard partitioning* *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.* To order and compare numbers beyond 1,000 To identify, represent and estimate numbers using different representations *Reason about the location of any fourdigit 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* To read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value.	**Multiplication and Division (4 weeks)** To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers *Understand and apply the distributive property of multiplication* To recognise and use factor pairs and commutativity in mental calculations To multiply two-digit and three-digit numbers by a one-digit number using formal written layout To divide two-digit and three-digit numbers by a one-digit number using formal written layout *Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.* *Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context* *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.* To solve missing number problems including positive integer scaling problems and correspondence problems.	**Multiplication and Division (2 weeks)** To multiply two-digit and three-digit numbers by a one-digit number using formal written layout To divide two-digit and three-digit numbers by a one-digit number using formal written layout To divide two-digit and three-digit numbers by a one-digit number using formal written layout *Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.* *Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context* To solve missing number problems including positive integer scaling problems and correspondence problems. To estimate, compare and calculate different measures, including money in pounds and pence **Shape (3 weeks)** *Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal.* To compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes	**Fractions (4 weeks)** To recognise and show, using diagrams, families of common equivalent fractions *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.* To count up and down in hundredths; recognise that hundredths arise when dividing an object by a 100 and dividing tenths by 10. To 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 **Length and Perimeter (2 weeks)** To convert between different units of measure To measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	**Fractions (4 weeks)** To recognise and show, using diagrams, families of common equivalent fractions To count up and down in hundredths; recognise that hundredths arise when dividing an object by a 100 and dividing tenths by 10. To 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 To add and subtract fractions with the same denominator **Decimals and Percentages (4 weeks)** To recognise and write decimal equivalents of any number of tenths or hundredths To recognise and write decimal equivalents to ¼; ½; ¾ To 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 To round decimals with 1 decimal place to the nearest whole number To compare numbers with the same number of decimal places up to 2 decimal places To solve simple measure and money problems involving fractions and decimals to 2 decimal places.	**Position and Direction (2 weeks)** To describe positions on a 2-D grid as coordinates in the first quadrant *Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant.* To describe movements between positions as translations of a given unit to the left/right and up/down To plot specified points and draw sides to complete a given polygon. **Statistics (1 week)** To interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs To solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. **Time (3 weeks)** To read, write and convert time between analogue and digital 12 and 24-hour clocks To solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days

Addition and Subtraction, (3 weeks) To add and subtract numbers with up to 4 digits using the formal written methods of column addition and subtraction where appropriate To estimate and use inverse operations to check answers to a calculation To estimate, compare and calculate different measures, including money in pounds and pence **Perimeter (1 week)** *Find the perimeter of regular and irregular polygons.* To find the area of rectilinear shapes by counting squares	To estimate, compare and calculate different measures, including money in pounds and pence **Perimeter (1 weeks)** *Find the perimeter of regular and irregular polygons.* To find the area of rectilinear shapes by counting squares	To identify acute and obtuse angles and compare and order angles up to 2 right angles by size *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* **Area (1 week)** To find the area of rectilinear shapes by counting squares			

RTPC Key Concept Focus Ongoing Fluency Focus Calculation Focus