Mill Lane - Maths Progression Grid – Class 3 / 4

Term	Topic	Objectives
Autumn 1	Number and Place Value	Recognise the place value of each digit in a **3-digit** number Compare and order numbers up to 1000 Read and write **numbers up to 1000** in numerals and in words Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s). Order and compare numbers beyond 1,000. Find 1,000 more or less than a given number.
	Addition and Subtraction	Add and subtract mentally a three-digit number and **ones**, a three digit number and **tens** and a three-digit number and **hundreds** Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. And use the terms **altogether, sum**, **plus**, **total** and **minus** and **subtract.**
	Multiplication and Division	♣ recall and use **multiplication** and **division** facts for the 3, 4 and 8 multiplication tables Recall multiplication and division facts for multiplication tables up to 12 × 12 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 3 numbers
Autumn 2	Fractions	Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators Add and subtract fractions with the same denominator. (know the terms **numerator** and **denominator)** Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$. Recognise and write decimal equivalents of any number of tenths or hundreds.
	Measurement	measure, compare, add and subtract: **length**s (**m/cm/mm**); **mass** (kg/g); volume/capacity (l/ml) Find the **area** of rectilinear shapes by counting squares.and use **cm2** Measure and calculate the **perimeter** of a rectilinear figure (including squares) in centimetres and metres.
	Geometry (property of shape and position and direction) and statistics	recognise angles as a property of shape or a description of a turn ♣ identify **right angles**, and relate it to a **quarter-turn;** recognise that two right angles make a **half-turn**, three make **three quarters** of a turn and four a **complete turn**; identify whether angles are greater than or less than a right angle interpret and present data using **bar charts, pictograms and tables** ♣ solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables. Describe positions on a 2-D grid as coordinates in the first quadrant

		Describe movements between positions as **translations** of a given unit to the left/right and up/down Plot specified points and draw sides to complete a given polygon.
Spring 1	Number and place value	Recognise the place value of each digit in a **3-digit** number Compare and order numbers up to 1000 Read and write **numbers up to 1000** in numerals and in words Find 10 and 100 more or less than a given number Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s). Order and compare numbers beyond 1,000. Find 1,000 more or less than a given number. Count in multiplies of 6,7,9, 25 and 1000. Count backwards through 0 to include negative numbers Round any number to the nearest 10, 100 or 1,000
	Addition and Subtraction	Add and subtract mentally a three-digit number and **ones**, a three digit number and **tens** and a three-digit number and **hundreds** add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. And use the terms **altogether** and **sum and plus and total** and **minus** and **subtract** Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why Estimate and use inverse operations to check answers to a calculation. Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs
	Multiplication and Division	recall and use **multiplication** and **division** facts for the 3, 4 and 8 multiplication tables ♣ write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods ♣ solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects. 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 3 numbers Recognise and use factor pairs and commutativity in mental calculations
Sprin g 2	Fractions	Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators Recognise and use fractions as numbers (understand what the numerator and

		denominator are!!!) unit fractions and non-unit fractions with small denominators Add and subtract fractions with the same denominator. Know the terms **numerator** and **denominator**. Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$. Recognise and write decimal equivalents of any number of tenths or hundreds. Recognise and show, using diagrams, families of common equivalent fractions Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10 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
	Measurement	measure, compare, add and subtract: **lengths (m/cm/mm)**; **mass** (kg/g); volume/capacity (l/ml) ♣ measure the perimeter of simple 2-D shapes ♣ add and subtract amounts of money to give change, using both £ and p in practical contexts ♣ Find the **area** of rectilinear shapes by counting squares.and use **cm2** Measure and calculate the **perimeter** of a rectilinear figure (including squares) in centimetres and metres. Read, write and convert time between analogue and digital 12- and 24-hour clocks Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days.
	Geometry And statistics	draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them ♣ recognise angles as a property of shape or a description of a turn ♣ identify **right angles** and relate that to **a quarter turn**, recognise that two right angles make a **half-turn**, three make **three quarters** of a turn and four a **complete turn**; identify whether angles are greater than or less than a right angle interpret and present data using bar charts, pictograms and tables ♣ solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled **bar charts** and **pictograms** and **tables.** Describe positions on a 2-D grid as coordinates in the first quadrant Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. Identify **acute** and **obtuse** angles and compare and order angles up to 2 right angles by size. Identify lines of **symmetry** in 2-D shapes presented in different orientations. And relate to the term **reflect** Complete a simple symmetric figure with respect to a specific line of symmetry.
Summer 1	Number and Place Value	count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number ♣ recognise the place value of each digit in a **three-digit** number (hundreds, tens, ones) ♣ compare and order numbers up to 1000 ♣ identify, represent and estimate numbers using different representations ♣ read and write **numbers up to 1000** in numerals and in words ♣ solve number problems and practical problems involving these ideas.

		Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s). Order and compare numbers beyond 1,000. Find 1,000 more or less than a given number. Count in multiplies of 6,7,9, 25 and 1000. Count backwards through 0 to include negative numbers Round any number to the nearest 10, 100 or 1,000 Identify, represent and estimate numbers using different representations. Solve number and practical problems that involve all of the above and with increasingly large positive numbers 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.
	Addition and Subtraction	♣ add and subtract numbers mentally, including: ♣ a three-digit number and **ones** ♣ a three-digit number and **tens** ♣ a three-digit number and **hundreds** **(plus, total, minus, subtract)** ♣ add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction ♣ estimate the answer to a **calculation** and use inverse operations to check answers ♣ solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. And use the terms **plus, total, altogether, sum, minus** and **subtract** Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why Estimate and use inverse operations to check answers to a calculation.
	Multiplication and Division	recall and use **multiplication** and **division** facts for the 3, 4 and 8 multiplication tables ♣ write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods ♣ solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects. 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 3 numbers. Recognise and use factor pairs and commutativity in mental calculations. Multiply two-digit and three-digit numbers by a one-digit number using formal written layout. Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.
Summer 2	Fractions	count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 ♣ recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators ♣ recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators ♣ recognise and show, using diagrams, equivalent fractions with small denominators ♣ add and subtract fractions with the same denominator within one whole [for example, 5/7 +1/5 = 6/7] ♣ compare and order unit fractions, and fractions with the same denominators ♣ solve problems that involve all of

		the above. Recognise and show, using diagrams, families of common equivalent fractions Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10 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 Add and subtract fractions with the same denominator. Know the terms **numerator** and **denominator.** Recognise and write decimal equivalents of any number of tenths or hundreds Recognise and write decimal equivalents to $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}$ 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 Round decimals with 1 decimal place to the nearest whole number Compare numbers with the same number of decimal places up to 2 decimal places Solve simple measure and money problems involving fractions and decimals to 2 decimal places.
	Measurement	measure, compare, add and subtract: **lengths (m/cm/mm); mass** (kg/g); volume/capacity (l/ml) ♣ measure the perimeter of simple 2-D shapes ♣ add and subtract amounts of money to give change, using both £ and p in practical contexts ♣ tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks ♣ estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight ♣ know the number of seconds in a minute and the number of days in each month, year and leap year ♣ compare durations of events [for example to calculate the time taken by particular events or tasks]. Measure and calculate the **perimeter** of a rectilinear figure (including squares) in centimetres and metres Find the **area** of rectilinear shapes by counting squares and use **cm2** Read, write and convert time between analogue and digital 12- and 24-hour clocks. Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days. Estimate, compare and calculate different measures, including money in pounds and pence Convert between different units of measure [for example, kilometre to metre; hour to minute **ml to l and kg to g**)]
	Geometry and statistics	draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them ♣ recognise **angles** as a property of shape or a description of a turn ♣ identify right angles (**quarter turn**) , recognise that two right angles make a **half-turn**, three make **three quarters** of a turn and four a complete turn; identify whether angles are greater than or less than a **right angle** ♣ identify horizontal and vertical lines and pairs of perpendicular and parallel lines. interpret and present data using **bar charts**, **pictograms** and **tables** ♣ solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables. Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes

		Identify **acute** and **obtuse** angles and compare and order angles up to 2 right angles by size Identify lines of **symmetry** in 2-D shapes presented in different orientations and use the term '**reflect'.** Complete a simple symmetric figure with respect to a specific line of symmetry Describe positions on a 2-D grid as coordinates in the first quadrant Describe movements between positions as **translations** of a given unit to the left/right and up/down Plot specified points and draw sides to complete a given polygon.

Notes:
All children have an individual target which must be from the number or place value or calculation strands.
At the start of each lesson children will recap the previous week's learning – this will form what is often known as the oral and mental starter.
Objectives highlighted in yellow denote learning which is expected of the vast majority of children by the end of the year. Many children will exceed this.

Orange objectives are from the year 3 curriculum
Black objectives are from the year 4 curriculum