Years 3 & 4				
	Strand/concept	**Small Steps**	**NC Objective Year 3**	**NC Objective Year 4**
Autumn Term	**Number and Place Value** (4 weeks)	• Represent, partition and use number lines with numbers up to 1000 (extending to 10000 for year 4) • Compare and order numbers to 1000 (extending to 10000 for year 4) • FInd 1, 10 or 100 more or less (extending to 1000 for year 4) Year 4 • Round to the nearest 10, 100 and 1000 • Roman numerals	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.	find 1000 more or less than a given number count backwards through zero to include negative numbers recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) order and compare numbers beyond 1000 identify, represent and estimate numbers using different representations round any number to the nearest 10, 100 or 1000 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 zero and place value.
	Addition and Subtraction (5 weeks)	• To add and subtract 1's, 10's and 100's moving to across 10s(extended to 1000's for year 4) • add and subtract two numbers (with and without exchange) up to 3 digit add a 2 digit and 3 digit subtract 2 digit (extended to up to 4 digits for year 4) • complements to 100 and efficient subtraction • estimating answers • inverse operations • checking strategies	add and subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds 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 estimate and use inverse operations to check answers to a calculation solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.

	Multiplication and Division (5 weeks)	Year 3 - 2s, 5s, 10s, 3s, 4s, 8s Year 4 - 3s, 6s, 9s, 7s, 11s, 12s ● equal groups ● use arrays ● multiplying by ● dividing by ● link multiplication to division ● multiplying three 1 digit numbers ● Multiples of 10 (multiply and divide by 10 and 100 for year 4) ● Factor pairs ● Multiply a 2 digit by 1 digit with and without exchange (extend to 3 digit by 1 digit for year 4) ● Divide a 2 digit by 1 digit with and without exchange (extend to 3 digit by 1 digit) ● Division with remainders ● integer scaling (extending to correspondence problems for year 4) ● efficient ways to multiply	count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number 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.	count in multiples of 6, 7, 9, 25 and 1000 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 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 one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.
Spring Term	**Fractions** (4 weeks)	● Understanding the denominator and numerator of unit and non-unit fractions ● Compare and order unit and non-unit fractions ● Understand the whole (Year 4 to also cover counting beyond 1 and partitioning mixed numbers)	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, families of common equivalent fractions count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. 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 recognise and write decimal equivalents of any number of tenths or hundredths

		● Fractions on a number line (extended to mixed numbers for year 4) ● Counting up in fractions including in tenths (and hundredths for year 4) (Year 4 to also cover comparing and ordering mixed numbers, understanding improper fractions and converting between the two) ● Equivalent fractions on a number line, as bar models, families of equivalent fractions ● add fractions (including more than 2 fractions and mixed numbers for year 4) ● subtract fractions (including from whole numbers and mixed numbers for year 4) ● Non-unit and unit fractions of a set of objects or of an amount	recognise and show, using diagrams, equivalent fractions with small denominators add and subtract fractions with the same denominator within one whole [for example, 7 5 + 7 1 = 7 6] compare and order unit fractions, and fractions with the same denominators solve problems that involve all of the above.	solve simple measure and money problems involving fractions and decimals to two decimal places.
	Decimals and money (2 weeks)	● Understanding pounds and pence ● Converting between pounds and pence (extend to writing amounts using decimals for year 4) ● Calculate with money ● Find change ● Problem solve with money Year 4	add and subtract amounts of money to give change, using both £ and p in practical contexts	recognise and write decimal equivalents to 1/4, 1/2, 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 one decimal place to the nearest whole number compare numbers with the same number of decimal places up to two decimal places solve simple measure and money problems involving fractions and decimals to two decimal places.

		• Make a whole with tenths and hundredths • partition, order and compare decimals • Round decimals to the nearest whole • halves, quarters, tenths and hundredths as decimals and fractions • tenths and hundredths on a place value chart and tenths on a number line • Dividing a 1 or 2 digit number by 10 and 100		estimate, compare and calculate different measures, including money in pounds and pence
	Measures (4 weeks)	• Measure in m, cm and mm (including km for year 4) • Equivalent lengths (including km for year 4) • order, compare, add and subtract lengths • Perimeter on a grid • Perimeter of a rectangle (extended to rectilinear shapes and polygons for year 4) Year 4 • calculate area by counting squares, including rectilinear shapes, and comparing areas Year 3 • Use scales to measure in grams and kilograms • measure capacity and volume using millilitres and litres • Add and subtract measures, compare them and find equivalents e.g. between kg and g	measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) measure the perimeter of simple 2-D shapes	Convert between different units of measure [for example, kilometre to metre; hour to minute] measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres find the area of rectilinear shapes by counting squares 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.

Summer Term	**Time** (2 weeks)	• Roman numerals to 12 • Tell the time to the minute using an analogue clock • Read time on a digital clock using am and pm and 24 hour (extended to convert between analogue and digital times and convert times to and from the 24 hour clock for year 4) • Understand years, months, weeks days, hours, minutes and seconds and know how many are x are in y (extended to converting between units of time for year 4) • Compare durations of time • Solve problems relating to time	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].	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.
	Statistics (2 weeks)	• Interpret and draw pictograms and bar charts (extending to other charts e.g. line graphs for year 4) • Collect data and represent in an appropriate way • Explore two-way tables • Solve questions relating to data including comparison of data, sem and difference	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.	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.
	Shape (3 weeks)	• Understand angles as turns • Identify angles, using mathematical terminology, and compare and order them	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	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 two right angles by size

		● Measure and draw lines accurately - draw polygons ● Identify horizontal, vertical, parallel and perpendicular lines on a shape ● Recognise and describe 2D shapes (extended to classifying them in year 4) Year 3 ● Recognise, describe and make 3D shapes Year 4 ● Lines of symmetry in 2D shapes ● Completing a symmetric figure	angles, 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.	identify lines of symmetry in 2-D shapes presented in different orientations complete a simple symmetric figure with respect to a specific line of symmetry.
	Position and direction (2 weeks)	Year 4 ● Describe positions using coordinates ● plot coordinates ● Draw 2D shapes on a grid ● translate points and shapes on a grid and describe the translation		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.
	3 weeks for consolidation, recapping etc.			