MATHS

KEY STAGE ONE - YEAR A / YEAR B

	AUTUMN ONE	AUTUMN TWO	SPRING ONE	SPRING TWO	SUMMER ONE	SUMMER TWO
YEAR 1	**Place value (within 10)** • Sorting objects • Counting objects • Representing objects using practical apparatus • Read and write numbers to 10 • Count forwards and backward within 10 • One more/one less than • Comparing and ordering amounts of objects • Use a number line • Ordering numbers on a number line • Ordinal numbers • Compare and order numbers using >,< and = **Number: Addition and Subtraction** • Understand parts and wholes • Write number sentences using + and = symbols • Know fact families with addition facts • Find number bonds within 10 • Find number bonds to 10 • Compare number bonds • Add together • Adding more • Find a missing part • Find the difference • Subtract by taking away (crossing out) • Subtract by counting back • Know fact families with subtraction facts • Compare addition and subtraction calculations	**Place Value (within 20)** • Count forwards and backwards to 20 • Represent 10 in different ways • Understand and make all numbers from 10-20 • Write numerals for numbers to 20 • Use tens and ones to make numbers • Count one more and one less up to 20 • Use the number line to 20 • Estimate on a number line to 20 • Compare numbers to 20 • Order numbers to 20 • Solve missing number problems **Place value (within 50)** • Numbers to 50 • Counting forwards and backward to 50 • Count by making groups of ten • Tens and ones • Partition into tens and ones • Find one more and one less than a number to 50 • Use a number line to 50 **Place value (within 100)** • Counting to 100 • Counting forwards and backwards within 100 • Comparing and ordering numberings using >, < and = • One more/one less than a number **Addition and Subtraction** • Add by counting on • Add by using known number bonds • Add by making 10 first • Subtract by counting back • Use related facts (fact families) • Compare number sentences using >, <, =	**Multiplication/Division** • Count in 2s • Count in 5s • Count in 10s • Use 2s, 5s and 10s to count money • Recognise, make and add equal groups • Total repeated equal groups • Make arrays to represent 'groups of' • Make doubles • Make equal groups - grouping • Make equal groups - sharing **Fractions** • Recognise half of an object and shape • Find half of an object and shape • Recognise half of a quantity • Recognise a quarter of an object or a shape • Find a quarter of an object or a shape • Recognise a quarter of a quantity • Find a quarter of a quantity	**Measure: Length and Height** • Measure length using objects • Measure length in centimetres • Measure height • Compare lengths and heights **Measure: Weight and Mass** • Measure and compare weights (mass) • Understand heavier and lighter • Solve weight and mass problems **Measure: Capacity and Volume** • Measure capacity and volume • Understand full and empty • Solve capacity and volume problems	**Geometry: Shape** • Recognise and name 2D shapes • Sort 2D shapes • Recognise and name 3D shapes • Sort 3D shapes • Create and recognise patterns with 3-d and 2-d shapes **Geometry: Position and Direction** • Describe turns • Describe position – left and right • Describe position – forwards and backwards • Describe position – above and below	**Measurement: Money** • Recognise coins • Recognise notes • Count in coins • Compare set of coins • Find the total amount by adding coins of different values **Time** • Understand before and after • Days of the week • Months of the year • Know what hours, minutes and seconds are • Telling the time to o'clock • Telling the time to half past **Addition and Subtraction** • Consolidation of strategies taught throughout the year **Multiplication and Division** • Consolidation of arrays, equal groups, sharing and grouping

	AUTUMN ONE	AUTUMN TWO	SPRING ONE	SPRING TWO	SUMMER ONE	SUMMER TWO
YEAR 2	**Place Value** • Count objects to 100 by making 10s • Represent numbers to 100 with dienes • Recognise tens and ones • Reading and write numbers to 100 in numerals and words • • Use a place value chart • Partition numbers into tens and ones • Partition numbers to 100 • Write numbers to 100 in words • Flexibly partition numbers to 100 • Write numbers to 100 in expanded form • Partition numbers into different combinations of tens and ones • Use a number line to represent numbers to 100 • Estimate numbers on a number line • Compare objects • Compare and order numbers to 100 using >, < and = • Count in 2s, 5s and 10s **Number: Addition and Subtraction** • Know all bonds to 10 • Know act families – addition and subtraction bonds to 20 • Know related facts • Know bonds to 100 • Add and subtract 1s • Add by making 10 • Add three 1-digit numbers • Add to the next 10 • Add across a 10 • Subtract across 10 • Subtract from a 10 • Subtract a 1-digit number from a 2-digit number – (across a ten)	**Number: Addition and Subtraction** *Continued from Autumn One* • Know 10 more, 10 less • Add and subtract 10s • Add two 2-digit numbers – not across a ten • Add two 2-digit numbers – across a ten • Subtract two 2-digit numbers (not across a ten) • Subtract two 2-digit numbers (across a ten) • Compare number sentences • Solve missing number problems • **Number: Multiplication and Division** • Recognise equal groups • Make equal groups • Add equal groups • Understand 'x' and '÷' symbols • Solve multiplication sentences • Solve multiplication questions using equal groups • Use arrays to show 'groups of' • Make equal groups – grouping (2MD 2) • Make equal groups – sharing (2MD 2) • The 2 times table • Divide by 2 • Doubling and halving • The 10 times-table • Solve division questions using sharing and grouping • Divide by 10 • The 5 times-table • Divide by 5 • The 5 and 10 times-tables	**Number: Multiplication and Division** *Continued from Autumn Two* **Statistics** • Make tally charts • Read and make tables • Read and make block diagrams • Draw pictograms • Interpret pictograms • Draw pictograms • Interpret pictograms **Fractions** • Make Equal Parts • Recognise a Half • Find a Half • Recognise a quarter • Find a quarter • Recognise a third • Find a Third • Unit Fractions • Non-unit fractions • Equivalence of ½ and 2/4 • Find three quarters • Recognise, find, name and write fractions ½, ¼, 2/4, ¾, ⅓ of a length, shapes, objects and quantity • Write simple fractions • Count in fractions	**Measure: Length and Height** • Measure in centimetres • Measure in metres • Compare lengths and heights • Order lengths and heights • Four operations with lengths and heights **Measure: Mass, Capacity and Temperature** • Compare mass • Measure mass in grams • Measure mass in kilograms • Four operations with mass • Compare volume and capacity • Measure in millilitres • Measure in litres • Four operations with volume and capacity • interpret scales on thermometers to measure temperature	**Geometry: Shape** • Recognise 2-D and 3-D shapes • Count sides on 2-D shapes • Count vertices on 2-D shapes • Draw 2-D shapes • Sort 2-D shapes • Count faces on 3-D shapes • Count edges on 3-D shapes • Count vertices on 3-D shapes • Sort 3-D shapes • Make patterns with 2-D and 3-D shapes **Geometry: Position and Direction** • Use the language of position • Describe movement • Describe turns • Describe movement and turns • Continue shape patterns with turns	**Measurement: Money** • Count Money – pence • Count Money – pounds (notes and coins) • Count money – pounds and pence • Choose notes and coins • Make the same amount • Compare amounts of money • Calculate with money • Make a pound • Find change • Two-step problems **Measurement: Time** • Telling time to the hour • Telling time to the half hour • O'clock and half past • Writing time • Quarter past and quarter to • O'clock and Half Past • Quarter Past and quarter to • • Tell the time past the hour • Tell the time to the hour • Tell the time to 5 minutes • Minutes in an hour • Hours in a day

MATHS

LOWER JUNIORS - YEAR A / YEAR B

	AUTUMN ONE	AUTUMN TWO	SPRING ONE	SPRING TWO	SUMMER ONER	SUMMER TWO

YEAR 3	**Number: Place Value**
	• count from 0 in multiples of 50 and 100; find 10 or 100 more or less than a given number
	• recognise the place value of each digit in a 3-digit number (100s, 10s, 1s)
	• partition numbers in a variety of ways
	• compare and order numbers up to 1,000
	• identify, represent and estimate numbers using different representations
	• read and write numbers up to 1,000 in numerals and in words
	• solve number problems and practical problems involving these ideas
	• round numbers
	• read Roman numerals to 10
	
	Number: Addition
	• Add numbers mentally including:
	  ○ a three-digit number and 1s
	  ○ a three-digit number and 10s
	  ○ a three-digit number and 100s
	• Add numbers with up to 3 digits using formal written methods of columnar addition and subtraction
	• Estimate the answer to a calculation
	• Solve problems, including missing number problems using number facts, place value and more complex addition and subtraction
		Number: Subtraction
		• Subtract numbers mentally including:
		  ○ a three-digit number and 1s
		  ○ a three-digit number and 10s
		  ○ a three-digit number and 100s
		• Subtract numbers with up to 3 digits using formal written methods of columnar addition and subtraction
		• Estimate the answer to a calculation
		• Solve problems, including missing number problems using number facts, place value and more complex addition and subtraction.
		
		Number: Multiplication and Division
		• Use multiples of ten to solve problems beyond the 10 timestables
		• Use related multiplication and division facts from known facts
		• Write and calculate mathematical statements for multiplication using the multiplication tables they know,
		• Multiply two-digit numbers by one-digit numbers, using mental and formal written methods
		• Divide a two-digit number by a one-digit number using mental and 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.
			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 + 1/7 = 6/7]
			• compare and order unit fractions, and fractions with the same denominators
			• solve problems that involve all of the above
			
			Measurement
			• Measure, compare, add and subtract lengths (m/cm/mm); mass (kg/g); volume/capacity(l/ml)
			• Measure the perimeter of simple 2D shapes
			
			Continued into Spring Two…
				Measure continued from Spring One…
				
				Measurement: money
				• Add and subtract amounts of money to give change, using both £ and p in practical contexts
				
				Measurement: time
				• Tell and write the time from an analogue clock, including using Roman numerals from 1 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, am/pm, 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
					Geometry: properties of shapes
					• Draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them
					• Recognise angles as a property of shape or a description of a turn
					• Identify right angles, recognise that 2 right angles make a half turn, 3 make three-quarters of a turn and 4 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
						Statistics
						• Interpret and present data using bar charts, pictograms and tables
						• Solve one-step and two-step questions using information presented in scaled bar charts and pictograms and tables.
						
						Four Operations Recap for Mastery
						
						Consolidation

	AUTUMN ONE	AUTUMN TWO	SPRING ONE	SPRING TWO	SUMMER ONER	SUMMER TWO
YEAR 4	**Number: Place Value** • count in multiples of 25 and 1,000 • find 1,000 more or less than a given number • count backwards through 0 to include negative numbers • 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 • identify, represent and estimate numbers using different representations • round any number to the nearest 10, 100 or 1,000 • 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 **Number: Addition** • add numbers with up to 4 digits using the formal written method of columnar addition where appropriate • solve addition and subtraction two-step problems in contexts deciding which operations and methods to use and why.	**Number: Subtraction** • Subtract numbers with up to 4 digits using the formal written method of columnar 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. **Number: Multiplication and Division** • Use multiplication facts for multiplication tables up to 12x12 • Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1 and multiplying together 3 numbers • 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 solve problems involving multiplying, 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.	**Fractions** • Number - fractions (including decimals) • Pupils should be taught to: • 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 **Decimals** • recognise and write decimal equivalents of any number of tenths or hundreds • 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 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 **Measure** • Convert between different units of measure (for example kilometre to metre) • Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres • Find the area of rectilinear shapes by counting squares *Continued into Spring Two…*	*Measure continued from Spring One…* **Measurement: Money** • Estimate, compare and calculate different measures, including money in pounds and pence **Measurement: Time** • 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 and weeks to days.	**Geometry: properties of shapes** • 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 2D shapes presented in different orientations • Complete a simple symmetric figure with respect to a specific line of symmetry **Geometry: position and direction** • Describe positions on a 2D 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.	**Statistics** • 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. **Four Operations Recap for Mastery** **Consolidation**

MATHS

UPPER JUNIORS - YEAR A / YEAR B

	AUTUMN ONE	AUTUMN TWO	SPRING ONE	SPRING TWO	SUMMER ONE	SUMMER TWO
YEAR 5	**Number: Place Value** • read, write, order and compare numbers to at least 1,000,000 • Determine the value of each digit • Count forward and backwards in steps or powers ot 10 for any given number up to 1,000,000 • round any number to nearest 10, 100, 1,000, 10,000 and 100,000 • interpret negative numbers • Solve problems that involve number • recognise and use Roman numerals **Number: Addition and Subtraction** • add and subtract whole numbers with more than 4 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 **Number: Multiplication and Division** • Identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers • 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 • Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers • Multiply and divide numbers mentally, drawing upon known facts • Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context • multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 • Recognise and use square numbers and cube numbers, and the notation for squared (²) and cubed (³) *Continued into Autumn Two*	**Number: Multiplication and Division** *Continued from Autumn One* • Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes • 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 **Fractions** • 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 • recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, 2/5 + 4/5 = 6/5 = 1 1/5] • add and subtract fractions with the same denominator, and denominators that are multiples of the same number • multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams **Decimals** • read and write decimal numbers as fractions [for example, 0.71 = 71/100] • recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents • round decimals with 2 decimal places to the nearest whole number and to 1 decimal place • read, write, order and compare numbers with up to 3 decimal places • solve problems involving number up to 3 decimal places	**Percentages** • recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per 100', and write percentages as a fraction with denominator 100, and as a decimal fraction • solve problems which require knowing percentage and decimal equivalents of 1/2 , 1/4 , 1/5 , 2/5 , 4/5 and those fractions with a denominator of a multiple of 10 or 25 **Measure: Area and Pertimeter** • measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres • calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm²) and square metres (m²), and estimate the area of irregular shapes **Geometry: Property of Shape** (including angles) • 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 1 whole turn (total 360°);angles at a point on a straight line and half a turn (total 180°);other multiples of 90° • identify 3-D shapes, including cubes and other cuboids, from 2-D representations • use the properties of rectangles to deduce related facts and find missing lengths and angles • distinguish between regular and irregular polygons based on reasoning about equal sides and angles	**Statistics** • solve comparison, sum and difference problems using information presented in a line graph • complete, read and interpret information in tables, including timetables **Conversions** • convert between different units of metric measure • understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints **Time** • solve problems involving converting between units of time • Calculate with timetables **Fractions** *Recapping and reviewing for mastery* • convert mixed numbers and improper fractions and write mathematical statements > 1 as a mixed number [for example, 2/5 + 4/5 = 6/5 = 1 1/5] • add and subtract fractions with the same denominator, and denominators that are multiples of the same number, converting between mixed and improper **Number:** Algebra • use simple formulae • use 1-step function machines • Solve simple one-step equations	**Geometry: Position and direction** • identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed • Pupils recognise and use reflection and translation in a variety of diagrams, including continuing to use a 2-D grid and coordinates in the first quadrant. Reflection should be in lines that are parallel to the axes. **Number:** *Place Value and Four Operations Consolidation and mastery* • multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 • add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers • Multiply and divide numbers mentally, drawing upon known facts • Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context	**Fractions, Decimals and Percentages** • compare and order fractions whose denominators are all multiples • identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths • multiply proper fractions and mixed numbers by whole numbers • read and write decimal numbers as fractions • recognise and use thousandths • round decimals with 2dp to the nearest whole number and to 1dp • read, write, order and compare numbers with up to 3 decimal places • solve problems involving decimals • write percentages as a fraction with denominator 100, and as a decimal fraction • solve problems which require knowing percentage and decimal equivalents **Consolidation** **Reasoning Maths Project**

	AUTUMN ONE	AUTUMN TWO	SPRING ONE	SPRING TWO	SUMMER ONER	SUMMER TWO
YEAR 6	**Number: Place Value** • read, write, order and compare numbers up to 10,000,000 • round any whole number to a required degree of accuracy • recognise and use Roman numerals up to1,000 **Number: Addition and Subtraction** • 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 • Use the inverse relationship to check solutions **Number: Multiplication and Division** • identify common factors, common multiples and prime numbers • multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication • divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context • divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context *Continued into Autumn Two*	**Number: Multiplication and Division** *Continued from Autumn One* • perform mental calculations, including with mixed operations and large numbers • use their knowledge of the order of operations to carry out calculations involving the 4 operations • use their knowledge of the order of operations to carry out calculations (BIDMAS) • 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 • reason from known facts **Fractions** • 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 • multiply simple pairs of proper fractions, writing the answer in its simplest form • divide proper fractions by whole numbers **Decimals** • associate a fraction with division and calculate decimal fraction equivalents • identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places • multiply one-digit numbers with up to 2 dp by whole numbers • use written division methods in cases where the answer has up to 2dp • solve problems which require answers to be rounded to specified degrees of accuracy	**Percentages** • understand that per cent relates to 'number of parts per 100', and write percentages as a fraction with denominator 100, and as a decimal fraction • write percentages as fractions and decimals • recall and use equivalences for FDP • find percentages of amount • find missing amounts from a known percentage of the amount or quantity **Measure: Area and Pertimeter** • recognise that shapes with the same areas can have different perimeters and vice versa • recognise when it is possible to use formulae for area and volume of shapes • calculate the area of parallelograms • calculate the area of triangles • 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 [for example, mm^3 and km^3] **Geometry: Property of Shape** (including angles) • recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles • use a protractor • find unknown angles in any triangles, quadrilaterals, and regular polygons • Understand angle rules, including vertically opposite angles, angles on a straight line and angles around a point • understand the terms circumference, radius and diameter in relation to circles • draw 2-D shapes using given dimensions and angles • recognise, describe and build simple 3-D shapes, including making nets • compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons	**Statistics** • read, interpret and draw line graphs • interpret and construct pie charts and line graphs and use these to solve problems including those involving percentages • calculate and interpret the mean as an average **Conversions** • use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3 decimal places • convert between miles and kilometres **Ratio** • Understand the language of 'for every' in relation to ratio and use the : symbol • Understand the relationship between ratio and fractions • solve problems involving the relative sizes of 2 quantities where missing values can be found by using integer multiplication and division facts • 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 • apply understanding to recipes which involve multiplying and dividing quantities **Algebra** • use simple formulae • generate and describe linear number sequences • express missing number problems algebraically • find pairs of numbers that satisfy an equation with 2 unknowns • enumerate possibilities of combinations of 2 variables	**Geometry: Position and direction** • describe positions on the full coordinate grid (all 4 quadrants) • draw and translate simple shapes on the coordinate plane, and reflect them in the axes • Pupils draw and label a pair of axes in all 4 quadrants with equal scaling. This extends their knowledge of one quadrant to all 4 quadrants, including the use of negative numbers. **Shape** • compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons **Revision of KS2 content for mastery**	**Fractions Recap** • 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 • multiply simple pairs of proper fractions, writing the answer in its simplest form • divide proper fractions by whole numbers • associate a fraction with division and calculate decimal fraction equivalents • identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places • multiply one-digit numbers with up to 2 dp by whole numbers • use written division methods in cases where the answer has up to 2dp • solve problems which require answers to be rounded to specified degrees of accuracy • recall and use equivalences for FDP **Consolidation** **Reasoning Maths Project**