Math curriculum overview

	Aut 1	Aut 2	Spr 1	Spr 2	Sum 1	Sum 2
Year 1	Soft start – Numbers to 10 One more, one less. Tens and ones.	Length and height. Days of the week, Months of the year. Number stories. Sequencing. Time	Two more, two less Doubles. Explore Halves. Explore Quarters 2-d shapes Repeating patterns 3-d shapes 3-d shapes and towers	5 more, 5 less Position, direction and movement Giving and following directions Different turns Programming floor robots Comparing Measuring length and height Measuring mass Measuring capacity and volume	Number Patterns Ordering Adding and subtracting with 20 Adding and subtracting with 11 to 19 Adding and subtracting on a number line Solving addition problems	Solving subtraction problems Coins and notes Ten more, ten less Arrays and grouping Sharing twos and tens Multiplying and dividing Multiplication and division as grouping.
Year 2	Exploring numbers Place Value 10s and 1s Comparing numbers Ordering numbers Apply to measures Partitioning numbers	Working towards the written method for addition and subtraction in Year 3 Correct vocabulary: addend + addend = sum 3D shape: 2D shape: Use drawings on paper. Symmetry	Fractions – Correct vocabulary Problem solving using bar model throughout Focus on halves and quarters. Mental calculation strategies, multiplication facts for 2, 5 and 10 Focus on commutativity:	Linking division and fractions: Sharing between 2, 5 and 10. addition of 2-digit + ones, 2-digit + 10s Link to money Scaling up and scaling down. Link to doubling and fractions. Work within the context	Units of time Digital time for these, e.g. 5:25, 4:45 Place Value as in Term 1 and Term 3 Numbers as words Solving missing number problems and linking to algebra Partitioning to add	Consolidation of mental calculation strategies as Terms 2 and 4 Consolidation of arrays with single digit x singles digit and 2-digit x singles digit Consolidation of grouping using arrays with 2-digit numbers Include remainders

			Doubling and halving, Division Reinforce, rehearse and consolidate	of measure – half as much, 4 times as much, a quarter of the size etc.	and subtract Addition and subtraction problems Consolidation of addition of 2-digit + ones, 2-digit + 10s, 2-digit + 2-digit	Consolidate sharing from term 2, Consolidation of scaling up and scaling down Consolidation of 3D and 2D shape including problem solving Consolidation of position, direction and movement including problem solving
Year 3	Place value Tens and Hundreds Hundreds, Tens and Ones. Comparing and ordering numbers Representing numbers. Mental calculation strategies Developing written methods Adding 3 digit numbers	Subtracting 3 digit numbers Rehearse, reinforce and develop mental calculation strategies for addition and subtraction 2s, 4s and 8s Commutativity Sharing and possibilities. Multiplication tables Multiplying and dividing by 5 and 20	Rehearse, reinforce and develop mental calculations strategies for multiplication and division. Missing number problems and scaling. Showing numbers in different ways. Unit and non-unit fractions Adding and subtracting fractions. Making and describing 3D shapes.	Lines Turning Counting in steps of different sizes. Writing and comparing number. Tenths Reading and writing numbers Using place value	Review Units 1, 5 and 10 to ensure mastery of place value Adding 3 digit numbers Checking methods using subtraction using calculator Subtracting 3 digit numbers Checking using addition using calculator Units 2, 6 and 11 to ensure mastery of addition and subtraction Include mental calculation strategies	Addition and subtraction of fractions with different denominators. (halves, quarters and eighths Thirds, sixths and twelfths using visuals Written method for multiplication. Checking methods using division using calculator Towards the written method for division. Checking methods using multiplication using calculator

			Angles.		Representing whole numbers and tenths Finding and using unit and non - unit fractions Equivalent fractions	Multiplication and division. Include mental calculation strategies All about 2D shapes Measuring perimeter
Year 4	Place Value whole numbers Place Value numbers with up to 2 decimal places Place Value whole numbers and numbers with up to 2 decimal places Fractions- recognise and show, using diagrams, families of common equivalent fractions. Fractions- add and subtract fractions with the same denominator, greater than one whole Fractions- add and	Mental calculation strategies recall multiplication and division facts for multiplication tables up to 12 × 12 Working towards the written methods arrays to grid method to written Written methods division and multiplication as the inverse to check Grouping to written method Rehearse mental and written methods through problem solving within different contexts	Place Value as in term 1 and including 100ths Algebra: finding pairs of numbers that satisfy an equation with two unknowns Solving missing number problems and linking to algebra Negative numbers within the context of temperature on different scales Roman numeral investigation to 100 Fractions, equivalences between ½,1/4, 1/8, counting in fractional steps,	Mental Calculation Common factors and multiples Algebra- finding pairs of numbers that satisfy an equation with two unknowns Written methods for multiplication and division using inverse to check Statistics - pictograms and bar graphs with symbols and divisions with multiples of 3 and 6, 4 and 8. Multiplication and division within problem solving and different contexts. Scaling up and scaling	Place Value including working with 100ths Roman Numerals including with clocks and problem solving Fractions Addition and subtraction Bringing in decimal equivalences through the context of measure Consolidation of mental calculation strategies within different contexts, including time Consolidation of written methods within different contexts	Mental calculation strategies Counting in 25s and 100s Written calculation for multiplication with division as a check within different contexts. Written calculation for division with multiplication as a check within different contexts. Scaling up and scaling down linking to measurement and ratio. Consolidation of 3D and 2D shape including problem solving.

	subtract fractions with denominators within multiples – halves, 4ths and 8ths and 3rds, 6ths and 12ths Mental calculation strategies	Scaling up and scaling down. 3D shape 2D shape	Improper fractions and mixed numbers Problem solving with fractions using the bar model Written methods estimate and use inverse operations to check answers to a calculation	down Factor and multiple investigations Properties of triangles including symmetry: equilateral, isosceles, scalene Properties of quadrilaterals including symmetry: oblong, square, parallelogram, rhombus, kite, trapezium. Symmetry: different orientations for different polygons		Coordinates and translations.
Year 5	Place value Within the context of distance. Converting units and measure. Fraction and decimal equivalences. Reading, writing and ordering decimal numbers.	Exploring multiples, factors, squares and cubes. Mental calculation strategies for multiplication and division. Written methods for multiplication and division.	Rehearse, reinforce and develop mental calculations strategies for multiplication and division. Using scaling for multiplication and division. Comparing and ordering fractions.	Angles Drawing angles. Reflecting and translating shapes. Identifying 3D shapes. Place holders and comparing. Positive and negative	Finding perimeters. Areas and perimeters. Volume and capacity. Negative numbers and millions. All about fractions. All about decimal	Review Units 2, 6 and 11 to ensure mastery of addition and subtraction Include mental calculation strategies Exploring fractions. Working with decimals. Calculating and converting

	Mental calculation strategies Written methods for addition and subtraction. Mental or written methods	Prime, squares and cubes. Using fractions as operators for multiplication and division.	Improper fractions and mixed numbers. Equivalences. Percentages Regular or irregular?	numbers. Solve Problems involving units of Time and read Roman Numerals to 1000	fractions. Applying addition and subtraction. Adding and subtracting fractions.	percentages. All about factors. Mental calculation and scaling. 4-digit and long multiplication TIME
Year 6	Whole and part numbers. Comparing and ordering numbers. Rounding including decimals. Equivalent fractions. Fractions, decimals and percentages.	Fractions, decimals revisited. Applying number Finding the difference Interpret line graphs Mental operations and methods Addition and Subtraction with negative numbers Order of operations- BIDMAS Multi-step problem solving Algebra- using simple formulae/ solving simple equations	Multiplication- Large numbers and long multiplication, decimals Division- Long division, decimals Mental calculations Problem solving Calculating the mean including using decimals Scaling Ratio and proportion Geometry- recognising shapes and angles,	Numbers in everyday life Adding and subtracting minus numbers Co-ordinates, line graphs Decimals in context (using cm to m, ml to l or g to kg) Writing time to 2dp Fractions- Compare and order unit, non-unit and improper fractions, addition and subtraction of fractions, problem solving using fractions, multiply and divide fractions	Circles- radius, circumference, diameter, using a compass. Using scale factors Volume Coordinates and translations.	**Transition**

			perimeter and area, volume and nets	Converting between fractions, decimals and percentages. Algebra- linear number sequences, missing number problems, satisfying equations with more than one unknown.		