

Number – number and place value	Number – addition and subtraction	Number – multiplication and division	fractions and decimals	Measurement	Geometry – of shapes	properties	Geometry – position and direction	Statistics
3	4	6	8	5	2	2	2	2
<p>Number size: up to 10,000, 1/2 dp multiples of 6,7,25,1000 find 1000 more/less negative numbers Rounding to nearest 10,100,1000 representations: 1000+200+40+3 = 1243 = 1000 + ... + 4; Part whole models; bar model; numberline; Base Ten; place value counters</p>	<p>Number size: up to 4 digit Mentally: use numbers with 3 digits Formal methods: column addition, column subtraction, Other methods: numberline subtraction, bar model for problem solving (Base Ten as concrete/pictorial) Problems: 2 step</p>	<p>Number size: 3 digits by 1 digit mentally: using derived facts (5 x 700 = 3500 can be derived from 5 x 7 = 35) Formal methods: Multiplication: expanded column Division: short division remainder as R and fraction Other methods: division: numberline Multiplication: empty array bar model for problem solving (Base Ten as concrete/pictorial) Problems: 2 step with remainders</p>	<p>New: Decimals denominators up to 12 plus hundredths emphasise link to division (1/10 = 1 ÷ 10) Representations: bar model, Part-whole mode, numberline, set of objects, division, counting up and down. Add/ subtract same denominators beyond a whole Tenths/ hundredths as fractions and decimals</p>	<p>conversions: use multiplication to convert (x10/100/1000) length:km- m-cm-mm; mass: kg-g capacity: l-cl-ml money: p-p- time: seconds-hours-days- weeks-years; Roman numerals to 100 Connect with tenth and hundredths representations: numberline, scales (horizontal/vertical and circular), decimals Perimeter - measure and calculate (cm/m) express as 2(a+b) Area - by counting squares (relate to arrays/multiplication) Time: convert between analogue and digital</p>	<p>2d: polygons: triangles, square, rectangle, oblong, pentagon, hexagon, heptagon,octagon, 3d: polyhedra: cube, cuboid, tetrahedron, square based pyramid, prisms, sphere, semi-sphere, cylinder,cone Classify triangles and quadrilaterals Compare and order angles lines of symmetry</p>	<p>NEW STRAND 1 quadrant equal scales on both axis</p>	<p>representations: bar chart, line graph, table, pictogram, venn, Carroll use larger units (2,5,10,50,100) record changes over time</p>	
cardinal/ordinal numbers, consecutive, rounding, thousands, tenths, hundredths, decimal, round to nearest ..., negative integer, through zero, roman numeral (I to C)	inverse, efficient	factor, quotient, efficient, inverse, derive, short division (bus stop)	tenths, hundredths, decimal equivalent, elevenths, twelfths, common denominator, simplify	Roman numerals (13-100); convert, area, width, estimate, decimal pounds,	classify, properties, regular, irregular, adjacent, bisect, diagonal, line of symmetry, orientation, quadrilateral (tetragon): kite, parallelogram, perimeter, area, trapezium, rhombus, Triangles (trigons): scalene, equilateral, isosceles.	polygon, plot, coordinates, translation, quadrant, x-axis, y-axis, tessellation, origin, integer labels	continuous data, line graph, Carroll, axis, axes, diagram,	
count in multiples of 6, 7, 9, 25 and 1000	add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate	recall multiplication and division facts for multiplication tables up to 12 x 12	recognise and show, using diagrams, families of common equivalent fractions	measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes	describe positions on a 2-D grid as coordinates in the first quadrant	interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.	
find 1000 more or less than a given number	estimate and use inverse operations to check answers to a calculation	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	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	find the area of rectilinear shapes by counting squares	identify acute and obtuse angles and compare and order angles up to two right angles by size	describe movements between positions as translations of a given unit to the left/right and up/down	solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	
count backwards through zero to include negative numbers	solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.	multiply two-digit and three-digit numbers by a one-digit number using formal written layout	add and subtract fractions with the same denominator	estimate, compare and calculate different measures, including money in pounds and pence	identify lines of symmetry in 2-D shapes presented in different orientations	plot specified points and draw sides to complete a given polygon.		
recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)		recognise and use factor pairs and commutativity in mental calculations	count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.	Convert between different units of measure [for example, kilometre to metre; hour to minute]	complete a simple symmetric figure with respect to a specific line of symmetry.			
identify, represent and estimate numbers using different representations		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.	recognise and write decimal equivalents of any number of tenths or hundredths	read, write and convert time between analogue and digital 12- and 24-hour clocks				
order and compare numbers beyond 1000			recognise and write decimal equivalents to one quarter, one half, three quarters	□ solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.				
round any number to the nearest 10, 100 or 1000			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					
solve number and practical problems that involve all of the above and with increasingly large positive numbers			round decimals with one decimal place to the nearest whole number					
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.			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.					

Links to NRICH maths problems

Number – number and place value	Number – addition and subtraction	Number – multiplication and division	Number – fractions (including decimals)	Measurement	Geometry – properties of shapes	Geometry – position and direction	Statistics
	Roll These Dice **	Zios and Zepts *	Round the Dice Decimals 1 *	Discuss and Choose *	Let Us Reflect *	Coordinate Challenge *	Plants **
	Amy's Dominoes **	Remainders **	Fractional Triangles *	Torn Shapes *	Stringy Quads **	Eight Hidden Squares **	Venn Diagrams (I) *
	Money Bags **	Carrying Cards *	Fractional Wall *	Twice as Big? (I) *	Counters in the Middle *	A Cartesian Puzzle *	More Carroll Diagrams *
	Sealed Solution **	Multiples Grid (I) **	Bryony's Triangle *		Symmetry Challenge ***		
	Fifteen Cards *	Multiplication Square Jigsaw (I) *			Reflector 1 Rotcoffer ***		
		Shape Times Shape *	Chocolate **		School Fair Necklaces **		
		The Remainders Game (G) *	Fractions in a Box **		Four Triangles Puzzle (I) *		
		Times Tables Shifts (I) *	Andy's Marbles **		Cut it Out ***		
		Table Patterns Go Wild! **			Shapes on the Playground **		
		Light the Lights Again (I) **			Nine-pin Triangles (I) *		
		Let Us Divide! *			What Shape? *		
		Satisfying Four Statements *			Quad Match **		
		Four Go (G) **			Sorting Logic Blocks *		
		Multiply Multiples 1 *					
		Multiply Multiples 2 *					
		Multiply Multiples 3 *					