

200	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			National cu	ırriculum objectives		
Place Value: Counting	 count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number Count numbers to 100 in numerals; count in multiples of twos, fives and tens Autumn 1 Autumn 4 Spring 2 Summer 4 	count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward Autumn 1	count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number Autumn 1 Autumn 3	count in multiples of 6, 7, 9, 25 and 1000 count backwards through zero to include negative numbers Autumn 1	count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 count forwards and backwards with positive and negative whole numbers, including through zero Autumn 1	
Place Value: Represent	 identify and represent numbers using objects and pictorial representations read and write numbers to 100 in numerals read and write numbers from 1 to 20 in numerals and words. Autumn 1 Autumn 4 Spring 2 Summer 4 	read and write numbers to at least 100 in numerals and in words identify, represent and estimate numbers using different representations, including the number line Autumn 1	identify, represent and estimate numbers using different representations read and write numbers up to 1000 in numerals and in words Autumn 1	identify, represent and estimate numbers using different representations 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 Autumn 1	read, write, (order and compare) numbers to at least 1 000 000 and determine the value of each digit read Roman numerals to 1000 (M) and recognise years written in Roman numerals. Autumn 1	read, write, (order and compare) numbers up to 10 000 000 and determine the value of each digit Autumn 1

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Place Value : Use PV and Compare	given a number, identify one more and one less Autumn 1 Autumn 4 Spring 2 Summer 4	 recognise the place value of each digit in a two-digit number (tens, ones) compare and order numbers from 0 up to 100; use <, > and = signs Autumn 1	recognise the place value of each digit in a three-digit number (hundreds, tens, ones) compare and order numbers up to 1000 Autumn 1	find 1000 more or less than a given number recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) order and compare numbers beyond 1000 Autumn 1	(read, write) order and compare numbers to at least 1 000 000 and determine the value of each digit Autumn 1	• (read. write). order and compare numbers up to 10 000 000 and determine the value of each digit Autumn 1
Place Value: Problems& Rounding		use place value and number facts to solve problems. Autumn 1	solve number problems and practical problems involving these ideas Autumn 1	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 Autumn 1	interpret negative numbers in context round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 solve number problems and practical problems that involve all of the above Autumn 1	round any whole number to a required degree of accuracy in context, and calculate intervals across zero solve number and practical problems that involve all of the above Autumn 1

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition & Subtraction: Recall, Represent, Use	 read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs represent and use number bonds and related subtraction facts within 20 	recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems	estimate the answer to a calculation and use inverse operations to check answers	estimate and use inverse operations to check answers to a calculation	use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	
	Autumn 2 Spring 1	Autumn 2	Autumn 2	Autumn 2	Autumn 2	

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	add and subtract one-	add and subtract	add and subtract	add and subtract	add and subtract	perform mental
ion & Subtraction: Calculations	digit and two-digit numbers to 20	numbers using concrete objects,	numbers mentally, including a three-digit number and ones a three-digit number and tens a three-digit number and hundreds	numbers with up to 4 digits using the	whole numbers with more than 4 digits ,	calculations, including with mixed operations
Addition & Calcu	including zero	pictorial		formal written	including using formal	and large numbers
ditio C		representations, and		methods of columnar	written methods	use their knowledge
Ado		mentally, including:		addition and	(columnar addition	of the order of
		 a two-digit number and ones a two-digit number and tens two two-digit numbers adding three one-digit numbers 		subtraction where	and subtraction)	operations to carry
		numbers		appropriate	add and subtract	out calculations
					numbers mentally	involving the four
			add and subtract		with increasingly large	operations
			numbers with up to		numbers	
			three digits, using			
			formal written methods of columnar			
			addition and			
			subtraction			
	Autumn 2	Autumn 2	Autumn 2	Autumn 2	Autumn 2	Autumn 2
	Spring 1					

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition & Subtraction: Solve Problems	• solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = - 9	 solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods 	solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	*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 and a combination of these, including understanding the meaning of the equals sign	solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
	Autumn 2 Spring 1	Autumn 2	Autumn 2	Autumn 2	Autumn 2	Autumn 2

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Multiplication & Division: Recall, Represent, Use		recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot	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 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	• identify multiples and factors, including finding all factor pairs of a number, and common factors of two 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 • recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)	identify common factors, common multiples and prime numbers use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
		Spring 1	Autumn 3	Autumn 4 Spring 1	Autumn 4	Autumn 4

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Multiplication & Division: Calculations		• calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (-) and equals (=) signs Spring 1	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 Autumn 3 Spring 1	multiply two-digit and three-digit numbers by a one-digit number using formal written layout Spring 1	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 two two method of short division and interpret remainders appropriately for the context multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 Autumn 4 Spring 1 Summer 1	multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication digits by a two-digit whole 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 two two method of short division where appropriate, interpreting remainders according to the context *perform mental calculations, including with mixed operations and large numbers Autumn 2

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Multiplication & Division: Solve Problems	solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher Summer 1	solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts	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 Spring 1	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 1	solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates Autumn 4	solve problems involving addition, subtraction, multiplication and division Autumn 2
		Spring 1			Spring 1	
Multiplication & Division: Combined Operations					solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign Spring 1	use their knowledge of the order of operations to carry out calculations involving the four operations Autumn 2
Σ					Spring 1	Autonii 2

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Fractions: Recognise and Write	recognise, find and name a half as one of two equal parts of an object, shape or quantity recognise, find and name a quarter as one of four equal parts of an object, shape or quantity Summer 3	• recognise, find, name and write fractions 1 1 2 3 4 4 4 of a length, shape, set of objects or quantity Spring 4	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 Spring 5	count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. Spring 3	 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	
Fractions: Compare		Recognise the equivalence of 2/4 and 1/2	recognise and show, using diagrams, equivalent fractions with small denominators compare and order unit fractions, and fractions with the same denominators	recognise and show, using diagrams, families of common equivalent fractions Spring 3	compare and order fractions whose denominators are all multiples of the same number Spring 2	use common factors to simplify fractions; use common multiples to express fractions in the same denomination compare and order fractions, including >1 Autumn 3

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Fractions: Calculations		• write simple fractions for example, $\frac{1}{2}$ of $6 = 3$	add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$]	add and subtract fractions with the same denominator	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	 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 [for example \frac{1}{4} \times \frac{1}{2} = \frac{1}{8}] divide proper fractions by whole numbers [for example, \frac{1}{2} + 2 = \frac{1}{6}]
		Spring 4	Summer 1	Spring 3	Spring 3	Autumn 3
Fractions: Solve Problems			solve problems that involve all of the above Spring 5 Summer 1	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 Spring 3		

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Decimals: Recognise and Write				decimal equivalents of any number of tenths or hundredths • recognise and write decimal equivalents 1 1 3 4 2 4	 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 	each digit in numbers given to three decimal places
Re				Spring 4 Summer 1	Spring 3	Spring 1
Decimals: Compare				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 Summer 1	round decimals with two decimal places to the nearest whole number and to one decimal place read, write, order and compare numbers with up to three decimal places Spring 3	

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Decimals: Calculations & Problems				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 problems involving number up to three decimal places	multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places multiply one-digit numbers with up to two decimal places by whole numbers use written division methods in cases where the answer has up to two decimal places solve problems which require answers to be rounded to specified degrees of accuracy
				Spring 4	Summer 1	Spring 1

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Fractions, Decimals and Percentages				solve simple measure and money problems involving fractions and decimals to two decimal places	recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal solve problems which require knowing percentage and decimal equivalents 1 1 1 2 4 2 4 5 5 5 and those fractions with a denominator of a multiple of 10 or 25	associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$] recall and use equivalences between simple fractions, decimals and percentages, including in different contexts Spring 1 Spring 2
Fract				Spring 3 Spring 4 Summer 1	Spring 3	

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Ratio and Proportion						solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison 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. Spring 6

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	solve one-step problems that involve	recognise and use the	solve problems,			use simple formulae
	addition and subtraction, using	inverse relationship	including missing			generate and describe
	concrete objects and pictorial	between addition and	number problems			linear number
ora	representations, and missing number	subtraction and use				sequences
Algebra	problems such as 7 = □	this to check				express missing
₹		calculations and solve				number problems
		missing number				algebraically
		problems				find pairs of numbers
						that satisfy an
						equation with two
						unknowns
						enumerate
						possibilities of
						combinations of two
						variables.
						Spring 3

Note – although algebraic notation is not introduced until Y6, algebraic thinking starts much earlier as exemplified by the 'missing number' objectives from Y1/2/3

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement: Using Measures	 compare, describe and solve practical problems for: lengths and heights	 choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels compare and order lengths, mass, volume/capacity and record the results using >, < and = 	•measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) Spring 4	Convert between different units of measure [for example, kilometre to metre; hour to minute] estimate, compare and calculate different measures Autumn 3	convert between different units of metric measure (for example, kilometre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling Summer 1	involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate 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 three decimal places convert between miles and kilometres
	Spring 4 Summer 5	Summer 2 Summer 3 Summer 4	Summer 4	Spring 2 Summer 3	Summer 4 Summer 5	

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement: Money	recognise and know the value of different denominations of coins and notes	 recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value find different combinations of coins that equal the same amounts of money solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change 	add and subtract amounts of money to give change, using both £ and p in practical contexts	estimate, compare and calculate different measures, including money in pounds and pence	use all four operations to solve problems involving measure [for example, money]	
	Summer 2	Autumn 3	Spring 2	Summer 2	Summer 1	

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	sequence events in	compare and	tell and write the time	• read, write and	solve problems	use, read, write and
	chronological order	sequence intervals of	from an analogue	convert time between	involving converting	convert between
	using language [for	time	clock, including using	analogue and digital	between units of time	standard units,
	example, before and	tell and write the time	Roman numerals	12- and 24-hour		converting
	after, next, first, today,	to five minutes,	from I to XII, and 12-			measurements of
	yesterday, tomorrow,	including quarter	hour and 24-hour	solve problems		time from a smaller
	morning, afternoon	past/to the hour and	clocks	involving converting		unit of measure to a
ند	and evening]	draw the hands on a	estimate and read	from hours to		larger unit, and vice
Measurement: Time	recognise and use	clock face to show	time with increasing	minutes; minutes to		versa
e e	language relating to	these times	accuracy to the	seconds; years to		
urem Time	dates, including days	know the number of	nearest minute;	months; weeks to		
ası	of the week, weeks,	minutes in an hour	record and compare	days		
<u> </u>	months and years	and the number of	time in terms of			
_	tell the time to the	hours in a day	seconds, minutes and			
	hour and half past the		hours; use vocabulary			
	hour and draw the		such as o'clock,			
	hands on a clock face		a.m./p.m., morning,			
	to show these times		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]			
	Spring 3	Summer 1	Summer 2	Summer 3	Summer 4	Year 5 Summer 4

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Measurement: Perimeter, Area, Volume	Year 1	Year 2	Year 3 • measure the perimeter of simple 2-D shapes	• measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres • find the area of rectilinear shapes by counting squares	• measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres • calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm²) (m²) and estimate the shapes • estimate volume [for	• 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 and triangles • calculate, estimate and compare colume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units (for
					cubes)] and capacity water]	example, mm ³ and km³
			Spring 4	Autumn 3 Spring 2	Autumn 5 Summer 5	Spring 5

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Geometry: 2-D Shapes	recognise and name common 2-D shapes [for example, rectangles (including squares), circles and triangles] Autumn 3	• identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line •identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] • compare and sort common 2-D shapes and everyday objects Spring 3	• draw 2-D shapes Summer 3	compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes identify lines of symmetry in 2-D shapes presented in different orientations Summer 5	distinguish between regular and irregular polygons based on reasoning about equal sides and angles. use the properties of rectangles to deduce related facts and find missing lengths and angles Summer 2	draw 2-D shapes using given dimensions and angles using given dimensions and angles compare and classify geometric shapes based on their properties and sizes illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius Summer 1
Geometry: 3-D Shapes	recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] Autumn 7	 recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]. compare and sort common 3-D shapes and everyday objects 	make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them		identify 3-D shapes including cubes and other cuboids, from 2-D representations	recognise, describe and build simple 3-D shapes, including making nets
	Autumn 3	Spring 3	Summer 3		Summer 2	Summer 1

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Geometry: Angles & Lines			recognise angles as a property of shape or a description of a turn identify right 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 acute and obtuse angles and compare and order angles up to two right angles by size 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	 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 one whole turn (total 360°) angles at a point on a straight line and ½ a turn (total 180°) other multiples of 90° 	in any triangles, quadrilaterals, and regular polygons recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
			Summer 3	Summer 5	Summer 2	Summer 1

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Geometry: Position & Direction	describe position, direction and movement, including whole, half, quarter and three-quarter turns Summer 6	order and arrange combinations of mathematical objects in patterns and sequences use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise)		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	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	describe positions on the full coordinate grid (all four quadrants) draw and translate simple shapes on the coordinate plane, and reflect them in the axes
	Summer O	Spring 3 Summer 5		Summer 6	Summer 3	Autumn 4

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Statistics: Present and Interpret		interpret and construct simple pictograms, tally charts, block diagrams and simple tables Spring 2	interpret and present data using bar charts, pictograms and tables Spring 3	interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs Summer 4	complete, read and interpret information in tables, including timetables Autumn 3	interpret and construct pie charts and line graphs and use these to solve problems Summer 3
Statistics: Solve Problems		ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity ask and answer questions about totalling and comparing categorical data Spring 2	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 Spring 3	solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs Summer 4	solve comparison, sum and difference problems using information presented in a line graph Autumn 3	calculate and interpret the mean as an average Summer 3