

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Vocabulary
Place Value							
Nursery	Begin to count small sets accurately, recognise small quantities and compare amounts						
Reception	Understand the composition of 1,2,3 and subitise to 3.	Subitise up to 5 Know one more and one less <i>(recognise that each counting number is one more than the one before)</i>	Find and represent 6, 7 & 8. Know one more and one less	Find, compare numbers 9 & 10 Know one more and one less	Increasingly confident at putting numerals in order 0-10 Begin to build and count numbers beyond 10 Verbally count beyond 20.		amount, backwards, count, fewer (than), forwards, largest, more (than), subitise
Year 1	Count on from any number and count backwards within 10 Compare and order numbers to 10	Count within 20 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =	Count from 20 to 50 Count by making groups of tens		Count from 50 to 100		compare, count on, digit, fewest, greater than, greatest, less than, one(s), order, partition, represent, ten(s)
Year 2	Recognise the place value of each digit in two-digit numbers and partition. Locate two-digit numbers on a number line and identify the previous and next multiple of 10.						exchange, interval, least, multiple, value
Year 3	Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10. Recognise the place value of each digit in three-digit numbers, and partition.			Read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts.			ascending, descending, hundred(s), part, whole

	<p>Locate any three-digit number on a number line and identify the previous and next multiple of 100 and 10</p> <p>Divide 100 into 2, 4, 5 and 10 equal parts.</p>						
Year 4	<p>Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100</p> <p>Recognise the place value of each digit in four-digit numbers, and partition</p>		<p>Work out how many 100s there are in other four-digit multiples of 100</p>				place holder, round, thousands
Year 5	<p>Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000</p>		<p>Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01</p> <p>Recognise the place value of each digit in numbers with up to 2 decimal places and partition.</p>	<p>Locate any number with up to 2 decimal places on a number line and identify the previous and next multiple of 1 and 0.1 and round to the nearest of each.</p> <p>Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts</p>		<p>Convert between units of measure, including using common decimals and fractions</p>	<p>hundred, ten million thousand(s), integer, negative number, millions, power of 10, ten thousand</p>
Year 6	<p>Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1</p>		<p>Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.</p>				ten million

	<p>thousandth times the size</p> <p>Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and non-standard partitioning.</p> <p>Locate any number up to 10 million, including decimal fractions on a number line, and round numbers, as appropriate, including in contexts.</p>					
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NF = Number Facts

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Addition & Subtraction							
Nursery	Begin to combine groups in play, add one more and take away one through stories, songs and rhymes and begin to make comparisons between quantities.						
Reception		Know one more and one less of numbers to 5		To know one more and one less up to 10 Automatically recall number bonds to 10	To start to use language associated with subtraction (identify how many taken away)		1 less, 1 more, add, add more, altogether, first, left, now, part, take away, whole
Year 1	Develop fluency in addition and subtraction facts within 10 (NF) Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.	Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.					addition, subtraction, difference, double, fact family, greater, group, less, minus, number bond, total
Year 2	Secure fluency in addition and subtraction facts within 10, through continued practice. (NF) Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.	Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.	Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more...?". Solve problems with addition and subtraction.				calculation, inverse, exchange, multiple, one(s), partition, related facts, ten(s), value
Year 3	Secure fluency in addition and subtraction facts that bridge 10, through continued practice. (NF) Calculate complements to 100	Understand the inverse relationship between addition and subtraction, and how both relate to the part-part-whole structure. Understand and use the commutative property of addition and understand the related property for	Add and subtract up to three-digit numbers using columnar methods.				column addition, column subtraction, digit, estimate, exchange, hundred(s), inverse

		subtraction.					
Year 4							efficient, inverse, round, thousand(s)
Year 5							accurate, approximate, constant difference, strategy
Year 6	Understand that 2 numbers can be related additively or multiplicatively and quantify additive and multiplicative relationships (whole number). Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding		Solve problems involving ratio relationships. Solve problems with 2 unknowns				order of operations

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Multiplication & Division							
Reception				Understand equal sharing, understand language 'equal' and 'not equal'.			double, equal groups, even, grouping, groups, odd, sharing, unequal groups
Year 1						Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, and count forwards and backwards through the odd numbers. (NF)	array, divide, repeated, addition
Year 2			Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables. Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).				divide, even, half, lots of, multiply, odd, twice, times-table
Year 3		Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the	Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10). (NF)				commutative, inverse, multiple, product, remainder, scaling

		<p>corresponding number. (NF)</p> <p>Apply known multiplication and division facts to solve contextual problems with different structures.</p>					
Year 4		<p>Manipulate multiplication and division equations and understand and apply the commutative property of multiplication.</p>	<p>Multiply and divide whole numbers by 10 and 100: understand this as equivalent to making a number 10 or 100 times the size.</p> <p>Recall multiplication and division facts up to 12×12 and recognise products in multiplication tables as multiples of the corresponding number (NF)</p> <p>Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context (NF)</p> <p>Understand and apply the distributive property of multiplication.</p>	<p>Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100). (NF)</p>			<p>factor, factor pair, inverse, triple, efficient</p>
Year 5	<p>Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth). (NF)</p>	<p>Multiply any whole number with up to 4 digits by any one-digit number using a formal written method.</p> <p>Divide a number with up to 4 digits by</p>		<p>Secure fluency in multiplication table facts, and corresponding division facts, through continued practice. (NF)</p>			<p>common multiple, common factor, cube number, prime number, square number</p>

	<p>Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors.</p>	<p>a one-digit number using a formal written method, and interpret remainders appropriately for the context.</p>		<p>Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size.</p>			
Year 6		<p>Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.</p> <p>Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (whole number).</p>	<p>Solve problems involving ratio relationships.</p> <p>Solve problems with 2 unknowns</p>				<p>composite number, order of operations, powers of</p>

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Shape, Space and Measure							
Nursery	Begin to explore shapes, notice simple patterns and use positional language.						
Reception		Identify and name circles and triangles Identify and name shapes with four sides Begin to describe a sequence of events using words such as 'first' and 'then'		Compare length, weight and capacity (e.g. heavy, light, full, empty)		Understand position through words, 'under', 'in front of' and 'next to' Continue, copy and create repeating patterns. Begin to identify and verbalise pattern rules	first, then, heavy, light, full, empty, under, next to, circle, triangle, square, rectangle
Year 1	Recognise and name common 2-D and 3-D shapes			Compare, describe and solve practical problems for: lengths and heights, mass/weight, capacity and volume & time		Sequence events in chronological order using language	centimetres, capacity, properties, before and after, next, first, today, yesterday, tomorrow, morning, afternoon, evening
Year 2		Use precise language to describe the properties of 2D and 3D shapes and compare shapes by reasoning about similarities and differences in properties.			Compare and sequence intervals of time		Metres, edge, line of symmetry, symmetrical, vertex, vertices, intervals
Year 3						Recognise right angles as a property of shape or a description of a turn and identify right angles in 2D shapes presented in different orientations. Draw polygons by joining marked points and identify parallel and perpendicular sides.	acute, obtuse, angle, vertical, horizontal, parallel, perpendicular, polygon, right angle, convert
Year 4						Draw polygons, specified by	equilateral, regular, irregular, isosceles,

						<p>coordinates in the first quadrant, and translate within the first quadrant.</p> <p>Identify regular polygons as those in which the side-lengths and angles are equal. Find the perimeter of regular and irregular polygons.</p> <p>Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry.</p>	<p>parallelogram, quadrilateral, rhombus, scalene, trapezium, perimeter</p>
Year 5				Compare areas and calculate the area of rectangles (including squares) using standard units.	Compare angles, estimate and measure angles in degrees ($^{\circ}$) and draw angles of a given size.		adjacent, degrees, reflex angle, area
Year 6					Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.		base, net, circumference, diameter, dimensions, interior angles, intersect, opposite, radius