

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6		
	Number – number and place value							
Counting	Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number	Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward	Count from 0 in multiples of 4, 8, 50 and 100	Count in multiples of 6, 7, 9, 25 and 1000  Count backwards through zero to include negative numbers	Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000	Count forwards or backwards in steps of integers, decimals or powers of 10 for any number		
	Count in multiples of twos, fives and tens		Count up and down in tenths	Count up and down in hundredths	Count forwards and backwards in decimal steps			
Place Value	Read and write numbers to 100 in numerals	Read and write numbers to at least 100 in numerals and in words	Read and write numbers up to 1000 in numerals and in words	Read and write numbers to at least 10 000	Read and write numbers to at least 1 000 000	Read and write numbers up to 10 000 000		
	Read and write numbers from 1 to 20 in numerals and words		Read and write numbers with one decimal place	Read and write numbers with up to two decimal places	Read and write numbers with up to three decimal places			
	Begin to recognise the place value of numbers beyond 20 (tens and ones)	Recognise the place value of each digit in a two-digit number (tens, ones)	Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)	Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)	Determine the value of each digit in numbers to at least 1 000 000	Determine the value of each digit in numbers up to 10 000 000		
		Partition numbers in different ways	Identify the value of each digit to one decimal place	Identify the value of each digit to two decimal places	Identify the value of each digit to three decimal places	Identify the value of each digit to three decimal places		
		(for example, 23 = 20 + 3 and 23 = 10 + 13)	Partition numbers in different ways (for example, 146 = 100 + 40 + 6 & 146 = 130 + 16)	Partition numbers in different ways (for example, 2.3 = 2 + 0.3 and 2.3 = 1 + 1.3)				
	Identify and represent numbers using objects and pictorial representations including the number line	estimate numbers using different representations, including the number line	Identify, represent and estimate numbers using different representations, including the number line	Identify, represent and estimate numbers using different representations, including the number line	Identify, represent and estimate numbers using the number line	Identify, represent and estimate numbers using the number line		
Comparing and Ordering	Use the language of: equal to, more than, less than (fewer), most. least	Compare and order numbers from 0 up to 100; use <. > and = signs	Compare and order numbers up to 1000	Order and compare numbers beyond 1000	Order and compare numbers to at least 1 000 000	Order and compare numbers up to 10 000 000		
Ordering	·		Compare and order numbers with one decimal place	Order and compare numbers with the same number of decimal places up to two decimal places	Order and compare numbers with up to three decimal places Find 0.01, 0.1, 1, 10, 100,	Order and compare numbers including integers, decimals and negative numbers		
	Given a number, identify one more and one less	Find 1 or 10 more or less than a given number	Find 1, 10 or 100 more or less than a given number	Find 0.1, 1, 10, 100 or 1000 more or less than a given number	1000 and other powers of 10 more or less than a given number	Find 0.001, 0.01, 0.1, 1, 10 and powers of 10 more or less than a given number		
Rounding, approximation and estimation		Round numbers to at least 100 to the nearest 10	Round numbers to at least 1000 to the nearest 10 or 100	Round any number to the nearest 10, 100 or 1000	Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000	Round any whole number to a required degree of accuracy		
estimation				Round decimals with one decimal place to the nearest whole number	Round decimals with two decimal places to the nearest whole number and to one decimal place	Round decimals with three decimal places to the nearest whole number or one or two decimal places		
Multiplying by powers of 10		Understand the connection between the 10 multiplication table and place value	Find the effect of multiplying a one- or two-digit number by 10 and 100, identify the value of the digits in the answer	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	Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	Multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places		
Negative numbers				Count backwards through zero to include negative numbers (see counting)	Interpret negative numbers in context, count forwards and backwards with positive and	Use negative numbers in context, and calculate intervals across zero		



					negative whole numbers through	
Sequences and patterns	Recognise and create repeating patterns with numbers, objects and shapes Identify odd and even numbers linked to counting in twos from 0 and 1	Describe and extend simple sequences involving counting on or back in different steps	Describe and extend number sequences involving counting on or back in different steps	Describe and extend number sequences involving counting on or back in different steps, including sequences with multiplication and division steps	zero Describe and extend number sequences including those with multiplication and division steps and those where the steps and those where the step size is a decimal	Describe and extend number sequences including those with multiplication and division steps, inconsistent steps, alternating steps and those where the step size is a decimal
			Number – number	er and place value		
Roman Numerals			Read Roman numerals from I to XII (see time)	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	Read Roman numerals to 1000 (M) and recognise years written in Roman numerals	
Solving number problems	Solve problems and practical problems involving all of the above	Use place value and number facts to solve problems	Solve number problems and practical problems involving these ideas	Solve number and practical problems that involve all of the above and with increasingly large positive numbers	Solve number problems and practical problems that involve all of the above	Solve number and practical problems that involve all of the above
			Number – additio	on and subtraction		
Understanding addition and subtraction	Read, write and interpret mathematical statements involving addition (+), subtraction (-	Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting) Show that addition of two numbers can be done in any order (commutative) and	Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)  Understand and use take away and difference for subtraction, deciding on the	Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)	Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)	Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)
	) and equals (=) signs	subtraction of one number from another cannot Understand subtraction as take away and difference (how many more, how many less/fewer)	most efficient method for the numbers involved, irrespective of context			
Addition and subtraction facts	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 Recall and use number bonds for multiples of 5 totalling 60 (to support telling time to nearest 5 minutes)	Recall and use addition and subtraction facts for 100 (multiples of 5 and 10) Derive and use addition and subtraction facts for 100 Derive and use addition and subtraction facts for multiples of 100 totalling 1000	Recall and use addition and subtraction facts for 100 Recall and use addition and subtraction facts for multiples of 100 totalling 1000 Derive and use addition and subtraction facts for 1 and 10 (with decimal numbers to one decimal place)	Recall and use addition and subtraction facts for 1 and 10 (with decimal numbers to one decimal place)  Derive and use addition and subtraction facts for 1 (with decimal numbers to two decimal places)	Recall and use addition and subtraction facts for 1 (with decimal numbers to two decimal places)
Mental methods	Add and subtract one-digit and two-digit numbers to 20, including zero (using concrete objects and pictorial representations)	Select a mental strategy appropriate for the numbers involved in the calculation Add and subtract numbers using concrete objects, pictoral representations, and mentally, including:  - a two-digit number and ones considered the cons	Select a mental strategy appropriate for the numbers involved in the calculation Add and subtract numbers mentally, including:  - a three-digit number and ones - a three-digit number and tens - a three-digit number and hundreds	Select a mental strategy appropriate for the numbers involved in the calculation Add and subtract mentally combinations of two and three digit numbers and decimals to one decimal place	Select a mental strategy appropriate for the numbers involved in the calculation Add and subtract numbers mentally with increasingly large numbers and decimals to two decimal places	Select a mental strategy appropriate for the numbers involved in the calculation Perform mental calculations, including with mixed operations and large numbers and decimals



Written methods	*Written methods are informal at this stage – see mental methods for expectation of calculations	*Written methods are informal at this stage – see mental methods for expectation of calculations	Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction  Estimate the answer to a	Add and subtract numbers with up to 4 digits and decimals with one decimal place using the formal written methods of columnar addition and subtraction where appropriate Estimate and use inverse	Add and subtract whole numbers with more than 4 digits and decimals with two decimal places, including using formal written methods (columnar addition and subtraction)  Use rounding to check	Add and subtract whole numbers and decimals using formal written methods (columnar addition and subtraction)  Use estimation to check
Estimating and checking calculations		inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems	calculation and use inverse operations to check answers	operations to check answers to a calculation	answers to calculations and determine, in the context of a problem, levels of accuracy	answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy
Order of operations						Use their knowledge of the order of operations to carry out calculations involving the four operations
				n and subtraction		
Solving addition and subtraction problems including those with missing numbers	Solve one-step problems that involve addition and subtraction, using concrete objects and pictoral representations, and missing number problems such as 7 = 9	Solve problems with addition and subtraction including those with missing numbers:  - using concrete objects and pictorial representations, including those involving numbers, quantities and numbers, quantities and continued in the pictorial representation of the pictorial representations of the pictorial representations of the pictorial representation of the pictorial representat	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 problems involving missing numbers	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Solve addition and subtraction problems involving missing numbers	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, including those with missing numbers
			Number – multipli	cation and division		
Understanding multiplication and division		Understand multiplication as repeated addition Understand division as sharing and grouping and that a division calculation can have a remainder Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot	Choose an appropriate strategy to sobe a calculation based upon the numbers involved (recall a known or related fact, calculate mentally, use a jotting, written method)  Understand that division is the inverse of multiplication and vice versa understand how multiplication and division statements can be represented using arrays  Understand division as sharing and use each appropriately	Choose an appropriate strategy to sobe a calculation based upon the numbers involved (recall a known or related fact, calculate mentally, use a jotting, written method)  Recognise and use factor pairs and commutativity in mental calculations	Choose an appropriate strategy to sobe a calculation based upon the numbers involved (recal a known or related fact, calculate mentally, use a jotting, written method) identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers	Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known or related fact, calculate mentally, use a jotting, written method)
Multiplication and division facts		Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers	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	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	Identify common factors, common multiples and prime numbers



	Recall and use doubles of all numbers to 10 and corresponding halves	Derive and use doubles of simple two-digit numbers (numbers in which the ones total less than 10) Derive and use halves of simple two-digit even numbers (numbers in which the tens are	Derive and use doubles of all numbers to 100 and corresponding halves Derive and use doubles of all multiples of 50 to 500	Use partitioning to double or halve any number, including decimals to one decimal place	Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)  Use partitioning to double or halve any number, including decimals to two decimal places	Use partitioning to double or halve any number
Mental methods		even)  Calculate mathematical statements for multiplication (using repeated addition) and division within the multiplication tables and write them using the multiplication (-), division (+) and equals (=) signs	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 methods	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	Multiply and divide numbers mentally drawing upon known facts Solve problems involving multiplication and division including using their knowledge of factors and multiples, quares and cubes	Perform mental calculations, including with mixed operations and large numbers
			Number – multipli	cation and division		
Written methods	*Written methods are informal at this stage – see mental methods for expectation of calculations	*Written methods are informal at this stage – see mental methods for expectation of calculations	Write and calculate mathematical statements for multiplication using the multiplication tables that they know, including for two-digit numbers, progressing to formal written methods	Multiply two-digit and three digit numbers by a one-digit number using formal written layout	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 multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication Multiply one-digit numbers with up to two decimal places by whole numbers
			Write and calculate mathematical statements for division using the multiplication tables that they know, including for two-dight numbers divided by one-digit numbers, progressing to formal written methods	Divide numbers up to 3 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context	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	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  Use written division methods in cases where the answer has up to
Fating ating and			Use estimation to check	Use estimation and inverse	Use estimation and inverse	two decimal places Use estimation and inverse
Estimating and checking calculations			answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy	to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy	to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy	to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy
Order of operations						Use their knowledge of the order of operations to carry out calculations involving the four operations
Solving multiplication	Solve one-step problems involving multiplication and division, by calculating the answer using concrete	Solve problems involving multiplication and division (including those with remainders), using materials,	Solve problems, including missing number problems, involving multiplication and division (and interpreting	Solve problems involving multiplying and adding, including using the distributive law to multiply	Solve problems involving addition, subtraction, multiplication and division and a combination of these,	Solve problems involving addition, subtraction, multiplication and division



and division	objects, pictorial representations and arrays	arrays, repeated addition, mental methods, and	remainders), including positive integer scaling	two digit numbers by one digit, division (including	including understanding the meaning of the equals sign	
problems	with the support of the teacher	multiplication and division	problems and	interpreting remainders),	Solve problems involving multiplication and division,	
including those	teacner	facts, including problems in contexts	correspondence problems in which n objects are	integer scaling problems and harder correspondence	including scaling by simple	
with missing			connected to m objects	problems such as n objects	fractions and problems	
Ü				are connected to m objects	involving simple rates	
numbers						
			er – fractions (includin		tages)	1
Understanding	Understand that a fraction can describe part of a whole	Understand and use the terms numerator and denominator	Show practically or pictorially that a fraction is one whole	Understand that a fraction is one whole number divided by		
fractions	•		number divided by another	another		
	Understand that a unit fraction represents one equal	Understand that a fraction can describe part of a set	(for example, % can be	(for example, ¾ can be		
	part of a whole		interpreted as 3 + 4)	interpreted as 3 ÷ 4)		
		Understand that the larger the denominator is, the more	Understand that finding a			
		pieces it is split into and	fraction of an amount relates			
		therefore the smaller each part will be	to division			
Fractions of	Recognise, find and name a	Recognise, find, name and write	Recognise, find and write	Recognise, find and write	Recognise mixed numbers	
	half as one of two equal	fractions 1/3, ¼, 2/4 and ¾ of a	fractions of a discrete set of	fractions of a discrete set of	and improper fractions and	
objects, shapes and	parts of an object, shape or quantity (including measure)	length, shape, set of objects or quantity	objects: unit fractions and non-unit fractions with small	objects including those with a range of numerators and	convert from one form to the other	
quantities			denominators	denominators		
·	Recognise, find and name a quarter as one of four equal		Recognise and use fractions as	Recognise that hundredths		
	parts of an object, shape or quantity (including measure)		numbers: unit fractions and non- unit fractions with small	arise when dividing an object by a hundred and	Read and write decimal	
	quantity (including measure)		denominators	dividing tenths by ten	numbers as fractions (e.g.	
					0.71 = 71/100)	
			Recognise that tenths arise from dividing an object into 10			
			equal parts and in dividing one-digit numbers or quantities by 10			
		Numh	er – fractions (includin	g decimals and nercer	I Itages)	
Counting,		Count on and back in steps of 1/4 and	Count on and back in steps of 1/4, 1/4	Count on and back in steps of unit	Count on and back in mixed number	
O,		%	and 1/3	fractions	steps such as 1 1/4	
comparing and			Compare and order unit	Compare and order unit	Compare and order	Compare and order
ordering fractions			fractions and fractions with the same denominators	fractions and fractions with the same denominators (including	fractions whose denominators are all	fractions, including fractions >1 (including on a number line)
			(including on a number line)	on a number line) (continued	multiples of the same	>1 (including on a number line)
				from Year 3)	number (including on a number line)	
					-	
Equivalence		Write simple fractions for example, ½ of 6 = 3 and recognise the	Recognise and show, using diagrams, equivalent fractions	Recognise and show, using diagrams, families of common	Identify, name and write equivalent fractions of a given	Use common factors to simplify fractions; use
		equivalence of 2/4 and ½	with small denominators	equivalent fractions	fraction, represented visually,	common multiples to express fractions in the same
					including tenths and hundredths	denomination
				Recognise and write decimal	Recognise and use	Recall and use equivalences
				equivalents of any number of	thousandths and relate them	between simple fractions,
				tenths or hundredths  Recognise and write decimal	to tenths, hundredths and decimal equivalents	decimals and percentages, including in different contexts
				equivalents to %, %, and %		_
				Recognise and write decimal equivalents to ¼, ¼, and ¼	decimal equivalents	including in different contexts  Associate a fraction with division and calculate decimal



					fraction equivalents (e.g. 0.375) for a simple fraction (e.g. 3/8)
Calculating with fractions		Add and subtract fractions with the same denominator within one whole (using diagrams) (for example, 5/7 + 1/7 = 6/7)	Add and subtract fractions with the same denominator (using diagrams)	Add and subtract fractions with the same denominator and denominators that are multiples of the same number (using diagrams)	Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions
				Write mathematical statements >1 as a mixed number (e.g. 2/5 + 4/5 = 5/5 = 11/5)  Multiply proper fractions and mixed numbers by whole numbers by whole numbers, supported by materials and diagrams	Multiply simple pairs of proper fractions, writing the answer in its simplest form (using diagrams) (e.g., ½ × ½ = 1/8 )  Divide proper fractions by whole numbers (using diagrams) (e.g. 1/3 + 2 = 1/6 )
Percentages				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	Find simple percentages of amounts
Solving problems involving fractions, decimals and percentages		Solve problems that involve all of the above	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	Solve problems involving fractions	Solve problems involving Fractions
			Solve simple measure and money problems involving fractions and decimals to two decimal places	Solve problems involving number up to three decimal places	Solve problems which require answers to be rounded to specified degrees of accuracy
				Solve problems which require knowing percentage and decimal equivalents of 1/5, 1/5, 2/5, 4/5 and those with a denominator of a multiple of 10 or 25	Solve problems involving the calculation of percentages (for example, of measures, and such as 15% of 360) and the use of percentages for comparison
		Ratio and	Proportion		
Ratio and proportion					Solve problems involving the relative sizes of two quantities where missing values can be found using integer multiplication and division facts
					Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples



						Solve problems involving similar shapes where the scale factor is known or can be found
			Alge	ebra		
Algebra						Express missing number problems algebraically
						Use simple formulae
						Generate and describe linear number sequences
						Find pairs of numbers that satisfy an equation with two unknowns
						Enumerate possibilities of combinations of two variables
			ment (length/height, p			1
Length / height	Measure and begin to record lengths and heights, using non-standard and then manageable standard units (m and cm) within children's range of counting competence	Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm) to the nearest appropriate unit using rulers	Measure, add and subtract lengths (m/cm/mm)	Estimate and calculate lengths	Use, read and write standard units of length to a suitable degree of accuracy	Use, read and write standard units of length using decimal notation to three decimal places
	Compare and describe lengths and heights (for example, long/short, longer/shorter, tail/short, double/haif)	Compare and order lengths and record the results using >, < and =	Compare lengths (m/cm/mm)	Compare lengths	Understand and use approximate equivalences between metric and common imperial units such as inches	
Perimeter			Understand that perimeter is a measure of distance around the boundary of a shape  Measure the perimeter of simple 2-D shapes	Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres	Recognise that shapes with the same areas can have different perimeters and vice versa
Area				Understand that area is a measure of surface within a given boundary	Calculate and compare the area of rectangles (including squares), and including using standard units, square	Calculate the area of parallelograms and triangles Recognise when it is
				Find the area of rectilinear shapes by counting squares	centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes	possible to use the formulae for area and volume of shapes
Mass	Measure and begin to record mass/weight, using non-standard and then standard units (kg and g) within children's range of counting competence	Choose and use appropriate standard units to estimate and measure mass (kg/g) to the nearest appropriate unit using scales	Measure, add and subtract mass (kg/g)	Estimate and calculate mass	Use, read and write standard units of mass to a suitable degree of accuracy	Use, read and write standard units of mass using decimal notation to three decimal places
	Compare and describe mass/weight (for example, heavy/light, heavier than,	Compare and order mass and record the results using >, < and =	Compare mass (kg/g)	Compare mass	Understand and use approximate equivalences between metric and common imperial units such as pounds	



	lighter than)					
		Measure	ment (capacity, volum	e temperature and co	inversion)	
Capacity / volume	Measure and begin to record capacity and volume using non-standard and then standard units (litres and ml) within children's range of counting competence	Choose and use appropriate standard units to estimate and measure capacity and volume (litres/ml) to the nearest appropriate unit using measuring vessels	Measure, add and subtract volume/capacity (I/mI)	Estimate and calculate volume/capacity	Estimate (and calculate) volume (for example, using 1 cm³ blocks to build cuboids (including cubes)) and capacity (for example, using water)	Use, read and write standard units of volume using decimal notation to three decimal places  Calculate and estimate volume of cubes and cuboids using standard units, including cubic centimetres
	Compare and describe capacity and volume (for example, full/empty, more than, less than, half, half full, quarter)	Compare and order volume/capacity and record the results using 2, < and =	Compare volume/capacity (l/ml)	Compare volume/capacity	Understand the difference between liquid volume, including capacity and solid volume Understand and use approximate equivalences between metric and common imperial units such as pints	(cm³) and cubic metres (m³) and extending to other units (for example, mm³ and km³) Compare volume of cubes and cuboids using standard units, including cubic certimetres (cm²) and cubic metres (m³) and extending to other units (for example, mm³ and km²)
Temperature		Choose and use appropriate standard units to estimate and measure temperature to the nearest degree ("C)	using thermometers Continue to estimate and measure temperature to the nearest degree (°C) using thermometers	Order temperatures including those below 0°C	Continue to order temperatures including those below 0°C	Calculate differences in temperature, including those that involve a positive and negative temperature
Conversion				Convert between different units of measure (e.g. kilometre to metre; hour to minute)	Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)	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 three decimal places  Convert between miles and Kilometres
			Measuren	nent (time)		
Time	Recognise and use language relating to dates, including days of the week, weeks, months and years			ion (unic)		
	Compare and describe time (for example, quicker, slower, earlier, later) Sequence events in chronological order using language (for example, before and after, next, first, today, yesterday, tomorrow, morring, afternoon and evening	Compare and sequence intervals of time	Record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight	Convert between different units of time, e.g. hour to minute	Convert between units of time in a problem solving context	
	Measure and begin to record time (hours,	Know the number of minutes in an hour and the	Know the number of seconds in a minute, and the number of days in each			



	minutes, seconds)  Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times	number of hours in a day Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times	month, year and leap year Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24- hour clocks Estimate and read time with increasing accuracy to the nearest minute Compare durations of events (for example to calculate the time taken by particular events or tasks)	Read, write and convert time between analogue and digital 12 and 24-hour clocks	Continue to read, write and convert time between analogue and digital 12 and 24-hour clocks	Use, read and write standard units of time
			Measurement (money	and solving problems		
Money	Recognise and know the value of different denominations of coins and notes	Recognise and use symbols for pounds (£) and pence (p)	Continue to recognise and use symbols for pounds (£) and pence (p) and understand that the decimal point separates pounds and pence	Write amounts of money using decimal notation		
		Combine amounts to make a particular value Find different combinations of coins that equal the same amounts of money	Recognise that ten 10p coins are equivalent to £1 and that each coin is 1/10 of £1	Recognise that one hundred 1p coins are equivalent to £1 and that each coin is 1/100 of £1		
		Add and subtract 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 money in pounds and pence		
Solving problems involving money and measures	Solve practical problems for: - lengths and heights - mass/weight - capacity and volume - time	Solve simple problems in a practical context involving addition and subtraction of money and measures (including time)	Solve problems involving money and measures and simple problems involving passage of time	Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days and problems involving money and measures	Use all four operations to solve problems involving measure for example, length, mass, volume, money) using decimal notation including scaling Solve problems involving converting between units of time	Solve problems involving the calculation and conversion of units of measure (including money and time), using decimal notation up to three decimal places where appropriate
		l .	Geometry – proj	perties of shapes	II.	l .
Properties of shape	Recognise and name common 2-D shapes, including rectangles (including squares), circles and triangles	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	Draw 2-D shapes and describe them	Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes Identify lines of symmetry in 2-0 shapes presented in different orientations	Distinguish between regular and irregular polygons based on reasoning about equal sides and angles	Compare and classify geometric shapes based on their properties and sizes Draw 2-D shapes using given dimensions and angles



			Identify horizontal and	symmetric figure with respect to a specific line of symmetry Continue to identify horizontal	Use the properties of	Illustrate and name parts of
			vertical lines and pairs of perpendicular and parallel lines	and vertical lines and pairs of perpendicular and parallel lines	rectangles to deduce related facts and find missing lengths and angles	circles, including radius, diameter and circumference and know that the diameter is twice the radius
	Recognise and name common 3-D shapes, including cuboids (including cubes), pyramids and spheres	Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces	Make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them	Compare and classify geometric shapes based on their properties and sizes	Identify 3-D shapes, including cubes and other cuboids, from 2-D representations	Recognise, describe and build simple 3-0 shapes, including making nets
Angles and rotation	Describe movement, including whole, half, quarter and three-quarter turns	Use mathematical vocabulary to describe movement, including rotation as a turn	Recognise angles as a property of shape or a description of a turn			
		Understand the link between rotation and turns in terms of right angles for quarter, half and three quarter turns (lockwise and anti-clockwise)	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 acute and obtuse angles and compare and order angles up to two right angles by size	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 1/2 a turn (total 180')  - other multiples of 90'	Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles Find unknown angles in any triangles, quadrilaterals, and regular polygons
			Geometry – posit	tion and direction		
Patterns	Recognise and create repeating patterns with objects and shapes	Order and arrange combinations of mathematical objects in patterns and sequences				
Position and direction	Describe position and direction	Use mathematical vocabulary to describe position, movement, including movement in a straight line				
Coordinates (including			Describe positions on a square grid labelled with letters and numbers	Describe positions on a 2-D grid as coordinates in the first quadrant	Describe positions on the first quadrant of a coordinate grid	Describe positions on the full coordinate grid (all four quadrants)
reflection and translation)				Plot specified points and draw sides to complete a given polygon	Plot specified points and complete shapes	
				Describe movements between positions as translations of a given unit to the left/right and up/down	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	Draw and translate simple shapes on the coordinate plane, and reflect them in the axes
			Stat	istics		



Sorting and classifying	Sort objects, numbers and shapes to a given criterion and their own	Compare and sort objects, numbers and common 2-D and 3-D shapes and everyday objects	Use sorting diagrams to compare and sort objects, numbers and common 2-D and 3-D shapes and everyday objects	Use a variety of sorting diagrams to compare and classify numbers and geometric shapes, including quadrilaterals and triangles, based on their properties and sizes	Complete and interpret information in a variety of sorting diagrams (including those used to sort properties of numbers and shapes)	Continue to complete and interpret information in a variety of sorting diagrams (including those used to sort properties of numbers and shapes)
Present and interpret data	Present and interpret data in block diagrams using practical equipment	Interpret and construct simple pictograms, tally charts, block diagrams and simple tables	Interpret and present data using bar charts, pictograms and tables	Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs	Complete, read and interpret information in tables, including timetables	Interpret and construct pie charts and line graphs and use these to solve problems
Solve problems using data	Ask and answer simple questions by counting the number of objects in each category Ask and answer questions by comparing categorical data	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 categories!	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	Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs	Solve comparison, sum and difference problems using information presented in all types of graph including a line graph	Solve comparison, sum and difference problems using information presented in all types of graph
Averages					Calculate and interpret the mode, median and range	Calculate and interpret the mean as an average