NUMBER	Number and Place Value	Number - Addition and Subtraction	Number - Multiplication and Division	Number - Fractions (Decimals & Percentages)	Ratio & Proportion	Algebra
Stage 6						
	Reads, writes, orders and compares numbers up to 10,000,000 and determines the value of each digit.	Solves addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	Multiplies multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.	Uses common factors to simplify fractions, uses common multiples to express fractions in the same denomination.	Solves problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.	Uses simple formulae.
	Rounds any whole number to a required degree of accuracy.	Performs mental calculations, including those with mixed operations and large numbers.	Divides numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interprets remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.	Compares and orders fractions, including fractions > 1.	Solves problems involving the calculation of percentages.	Generates and describes linear number sequences.
	Uses negative numbers in context, and calculates intervals across zero.		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.	Adds and subtracts fractions with different denominators and mixed numbers, using the concept of equivalent fractions.	Solves problems involving the use of percentages for comparison.	Expresses missing number problems algebraically.
	Solves number and practical problems that involve all of the above.		Identifies common factors, common multiples and prime numbers.	Multiplies simple pairs of proper fractions, writing the answer in its simplest form.	Solves problems involving similar shapes where the scale factor is known or can be found.	Finds pairs of numbers that satisfy an equation with two unknowns.
			Uses their knowledge of the order of operations to carry out calculations involving the four operations.	Divides proper fractions by whole numbers.	Solves problems involving unequal sharing and grouping using knowledge of fractions and multiples.	Enumerates possibilities of combinations of two variables.
			Solves problems involving addition, subtraction, multiplication and division.	Associates a fraction with division and calculates decimal fraction equivalents.		
			Uses estimation to check answers to calculations and determines, in the context of a problem, an appropriate degree of accuracy.	Identifies the value of each digit in numbers given to three decimal places and multiplies and divides numbers by 10, 100 and 1000 giving answers up to three decimal places.		
				Multiplies one-digit numbers with up to two decimal places by whole numbers.		
				Solves problems which require answers to be rounded to specified degrees of accuracy.		
				Recalls and uses equivalences between simple fractions, decimals and percentages, including those in different contexts.		
NUMBER	Number and Place Value	Number - Addition and Subtraction	Number - Multiplication and Division	Number - Fractions (Decimals & Percentages)		
Stage 5						

	Reads, writes, orders and compares numbers to at least 1,000,000 and determines the value of each digit.	Adds and subtracts whole numbers with more than 4 digits, including using formal written methods.	Identifies multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.	Compares and orders fractions whose denominators are all multiples of the same number.		
	Counts forwards or backwards in steps of powers of 10 for any given number up to 1 000 000.	Adds and subtracts numbers mentally with increasingly large numbers.	Knows and uses the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.	Identifies, names and writes equivalent fractions of a given fraction, represented visually, including tenths and hundredths.		
	Interprets negative numbers in context, counts forwards and backwards with positive and negative whole numbers, including through zero.	Uses rounding to check answers to calculations and determines, in the context of a problem, levels of accuracy.	Establishes whether a number up to 100 is prime and recall prime numbers up to 19.	Recognises mixed numbers and improper fractions and converts from one form to the other and writes mathematical statements > 1 as a mixed number.		
	Rounds any number up to 1 000 000 to the nearest 10, 100, 1000, 10,000 and 100,000.	Solves addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	Multiplies numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.	Adds and subtracts fractions with the same denominator and denominators that are multiples of the same number.		
	Solves number problems and practical problems that involve all of the above.		Multiplies and divides numbers mentally drawing upon known facts.	Multiplies proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.		
	Read Roman numerals to 1000 (M) and recognises years written in Roman numerals.		Divides numbers up to 4 digits by a one-digit number using the formal written method of short division and interprets remainders appropriately for the context.	Reads and writes decimal numbers as fractions.		
			Multiplies and divides whole numbers and those involving decimals by 10, 100 and 1000.	Recognises and uses thousandths and relates them to tenths, hundredths and decimal equivalents.		
			Recognises and uses square numbers and cube numbers, and the notation for squared (2) and cubed (3).	Rounds decimals with two decimal places to the nearest whole number and to one decimal place.		
			Solves problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.	Reads, writes, orders and compares numbers with up to three decimal places.		
			Solves problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.	Solves problems involving number up to three decimal places.		

			Solves problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.	Recognises the per cent symbol (%) and understands that per cent relates tonumber of parts per hundred, and writes percentages as a fraction with denominator 100, and as a decimal.	
				Solves problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25.	
NUMBER	Number and Place Value	Number - Addition and Subtraction	Number - Multiplication and Division	Number - Fractions (Decimals & Percentages)	
Stage 4					
	Counts in multiples of 6, 7, 9, 25 and 1000.	Adds and subtracts numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.	Recalls multiplication and division facts for multiplication tables up to 12 x 12.	Recognises and shows, using diagrams, families of common equivalent fractions.	
	Finds 1000 more or less than a given number.	Estimates and uses inverse operations to check answers to a calculation.	Uses place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1, dividing by 1, multiplying together three numbers.	Counts up and down in hundredths, recognises that hundredths arise when dividing an object by one hundred and dividing tenths by ten.	
	Counts backwards through zero to include negative numbers.	Solves addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.	Recognises and uses factor pairs and commutativity in mental calculations.	Solves problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.	
	Recognises the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).		Multiplies two-digit and three-digit numbers by a one-digit number using formal written layout.	Add and subtracts fractions with the same denominator.	
	Orders and compares numbers beyond 1000.		Solves 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.	Recognises and writes decimal equivalents of any number of tenths or hundredths.	

	Number and Place Value	Number - Addition and Subtraction	Number - Multiplication and Division	Number - Fractions (Decimals & Percentages)		
	Identifies, represents and estimates numbers using different representations.			Recognises and writes decimal equivalents to 1/4, 1/2, 3/4.		
	Rounds any number to the nearest 10, 100 or 1000.			Finds 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.		
	Read Roman numerals to 100 (I to C) and knows that over time, the numeral system changed to include the concept of zero and place value.			Rounds decimals with one decimal place to the nearest whole number.		
				Compares numbers with the same number of decimal places up to two decimal places.		
				Solves simple measure and money problems involving fractions and decimals to two decimal places.		
NUMBER	Number and Place Value	Number - Addition and Subtraction	Number - Multiplication and Division	Number - Fractions (Decimals & Percentages)		
Stage 3						
	Counts from 0 in multiples of 4, 8, 50 and 100, finds 10 or 100 more or less than a given number.	Adds and subtracts numbers mentally, including a three-digit number and ones.	Recalls and uses multiplication and division facts for the 3, 4 and 8 multiplication tables.	Counts up and down in tenths, recognising that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.		
	Recognises the place value of each digit in a three-digit number (hundreds, tens, ones).	Add and subtracts numbers mentally, including a three-digit number and tens.	Writes and calculates 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.	Recognises, finds and writes fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.		
	Compares and orders numbers up to 1000.	Adds and subtracts numbers mentally, including a three-digit number and hundreds.	Solves 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.	Recognises and uses fractions as numbers: unit fractions and non-unit fractions with small denominators.		

	Identifies, represents and estimates numbers using different representations.	Adds and subtracts numbers with up to three digits, using formal written methods of columnar addition and subtraction.		Recognises and shows, using diagrams, equivalent fractions with small denominators.		
	Reads and writes numbers up to 1000 in numerals and in words.	Estimates the answer to a calculation and uses inverse operations to check answers.		Adds and subtracts fractions with the same denominator within one whole.		
	Solves number problems and practical problems involving these ideas.	Solves problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.		Compare and order unit fractions, and fractions with the same denominators.		
	Solves number and practical problems that involve all of the above and with increasingly large positive numbers.			Solves problems that involve all of the above.		
NUMBER	Number and Place Value	Number - Addition and Subtraction	Number - Multiplication and Division	Number - Fractions (Decimals & Percentages)		
Stage 2						
	Counts in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward.	Solves problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures.	Recalls and uses multiplication and division facts for the 2, 5 and 10 multiplication tables.	Recognises, finds, names and writes fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity.		
	Recognises the place value of each digit in a two-digit number (tens, ones).	Solves problems with addition and subtraction applying their increasing knowledge of mental and written methods.	Calculates mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (/) and equals (=) signs.	Writes simple fractions for example, 1/2 of 6 = 3 and recognises the equivalence of 2/4 and 1/2.		
	Identifies, represents and estimates numbers using different representations, including the number line.	Recalls and uses addition and subtraction facts to 20 fluently, and derives and uses related facts up to 100.	Shows that multiplication of two numbers can be done in any order and division of one number by another cannot.			
	Compares and orders numbers from 0 up to 100, use <, > and = signs.	Adds and subtracts numbers using concrete objects, pictorial representations, and mentally, including a 2-digit number and 1's.	Solves problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.			

	Reads and writes numbers to at least 100 in numerals and in words.	Adds and subtracts numbers using concrete objects, pictorial representations, and mentally, including a 2-digit number and 10's.	Recognises odd and even numbers and explains how you know a particular number is odd or even.			
	Uses reasoning about place value and number facts to solve problems.	Adds and subtracts numbers using concrete objects, pictorial representations, and mentally, including two 2-digit numbers.	Makes connections between multiplication and division by 2 and doubling and halving, using these to reason about problems and calculations.			
		Adds and subtracts numbers using concrete objects, pictorial representations, and mentally, including adding 3 single-digit numbers.				
		Shows that addition of two numbers can be done in any order and subtraction of one number from another cannot.				
		Recognises and uses the inverse relationship between addition and subtraction and use this to check calculations and solves missing number problems.				
NUMBER	Number and Place Value	Number - Addition and Subtraction	Number - Multiplication and Division	Number - Fractions (Decimals & Percentages)		
Stage 1						
	Counts to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.	Reads, writes and interprets mathematical statements involving addition (+), subtraction ( ) and equals (=) signs.	Solves one-step problems involving multiplication and division, by calculating the answer using concrete objects etc with the support of the teacher.	Recognises, finds and names a half as one of two equal parts of an object, shape or quantity.		
	Counts, reads and writes numbers to 100 in numerals, counts in multiples of twos, fives and tens.	Represents and uses number bonds and related subtraction facts within 20.	Recalls multiplication facts for the 10 multiplication table and uses them to derive division facts, counting in steps of 10 to answer questions.	Recognises, finds and names a quarter as one of four equal parts of an object, shape or quantity.		
	Given a number, identifies one more and one less.	Adds and subtracts one-digit and two-digit numbers to 20, including zero.	Recalls and uses doubling and halving facts for numbers up to double 10 and other significant doubles.			

	Identifies and represents numbers using objects and pictorial representations including the number line, and uses the language of: equal to, more than, less than (fewer), most, least.	Solves one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = n 9.	Recognises odd and even numbers to 20.			
	Reads and writes numbers from 1 to 20 in numerals and words.					
	SSM & Statistics	**Measurement**	**Geometry-Properties of shapes**	**Geometry-Position & direction**	**Statistics**	
	Stage 6					
		Solves problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.	Draws 2-D shapes using given dimensions and angles.	Describes positions on the full coordinate grid (all four quadrants).	Interprets and constructs pie charts and line graphs and uses these to solve problems.	
		Uses, reads, writes and converts 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.	Recognises, describes and builds simple 3-D shapes, including making nets.	Draws and translates simple shapes on the coordinate plane, and reflects them in the axes.	Calculates and interprets the mean as an average.	
		Converts between miles and kilometres.	Compares and classifies geometric shapes based on their properties and sizes and finds unknown angles in any triangles, quadrilaterals, and regular polygons.			
		Recognises that shapes with the same areas can have different perimeters and vice versa.	Illustrates and names parts of circles, including radius, diameter and circumference and knows that the diameter is twice the radius.			
		Recognises when it is possible to use formulae for area and volume of shapes.	Recognises angles where they meet at a point, are on a straight line, or are vertically opposite, and finds missing angles.			
		Calculates the area of parallelograms and triangles.				

		Calculates, estimates and compares volume of cubes and cuboids using standard units, including cubic centimetres (cm3) and cubic metres (m3), and extending to other units.				
	SSM & Statistics	Measurement	Geometry-Properties of shapes	Geometry-Position & direction	Statistics	
	Stage 5					
		Converts between different units of metric measure (eg, kilometre and metre, centimetre and metre, centimetre and millimetre, gram and kilogram, litre and millilitre).	Identifies 3-D shapes, including cubes and other cuboids, from 2-D representations.	Identifies, describes and represents the position of a shape following a reflection or translation, using the appropriate language, and knows that the shape has not changed.	Solves comparison, sum and difference problems using information presented in a line graph.	
		Understands and uses approximate equivalences between metric units and common imperial units such as inches, pounds and pints.	Knows angles are measured in degrees: estimates and compares acute, obtuse and reflex angles.		Completes, reads and interprets information in tables, including timetables.	
		Measures and calculates the perimeter of composite rectilinear shapes in centimetres and metres.	Draws given angles, and measure them in degrees (o).			
		Calculates and compares the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimates the area of irregular shapes.	Identifies angles at a point and one whole turn (total 360o).			
		Estimates volume and capacity.	Identifies angles at a point on a straight line and 1/2 a turn (total 180o).			
		Solves problems involving converting between units of time.	Identifies other multiples of 90o.			
		Uses all four operations to solve problems involving measure using decimal notation, including scaling.	Uses the properties of rectangles to deduce related facts and finds missing lengths and angles.			
			Distinguishes between regular and irregular polygons based on reasoning about equal sides and angles.			
	SSM & Statistics	Measurement	Geometry-Properties of shapes	Geometry-Position & direction	Statistics	
	Stage 4					

	SSM & Statistics	Measurement	Geometry-Properties of shapes	Geometry-Position & direction	Statistics	
		Converts between different units of measure.	Compares and classifies geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.	Describes positions on a 2-D grid as coordinates in the first quadrant.	Interprets and presents discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.	
		Measures and calculates the perimeter of a rectilinear figure (including squares) in centimetres and metres.	Identifies acute and obtuse angles and compares and orders angles up to two right angles by size.	Describes movements between positions as translations of a given unit to the left/right and up/down.	Solves comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	
		Finds the area of rectilinear shapes by counting squares.	Identifies lines of symmetry in 2-D shapes presented in different orientations.	Plots specified points and draws sides to complete a given polygon.		
		Estimates, compares and calculates different measures, including money in pounds and pence.	Completes a simple symmetric figure with respect to a specific line of symmetry.			
		Reads, writes and converts time between analogue and digital 12- and 24-hour clocks.				
		Solves problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days.				
	SSM & Statistics	Measurement	Geometry-Properties of shapes	Geometry-Position & direction	Statistics	
	Stage 3					
		Measures, compares, adds and subtracts: lengths (m/cm/mm), mass (kg/g), volume/capacity (l/ml).	Draws 2-D shapes and make 3-D shapes using modelling materials.		Interprets and presents data using bar charts, pictograms and tables.	
		Measures the perimeter of simple 2-D shapes.	Recognises 3-D shapes in different orientations and describes them.		Solves one-step and two-step questions (eg,How many more? andHow many fewer?) using information presented in scaled bar charts and pictograms and tables.	
		Adds and subtracts amounts of money to give change, using both £ and p in practical contexts.	Recognises angles as a property of shape or a description of a turn.			
		Tells and writes the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.	Identifies right angles, recognises that two right angles make a half- turn, three make three quarters of a turn and four a complete turn.			
		Estimates and reads time with increasing accuracy to the nearest minute.	Identifies whether angles are greater than or less than a right angle.			

		Records and compares time in terms of seconds, minutes and hours.	Identifies horizontal and vertical lines and pairs of perpendicular and parallel lines.		
		Uses vocabulary such as oclock, a.m./p.m., morning, afternoon, noon and midnight.			
		Knows the number of seconds in a minute and the number of days in each month, year and leap year.			
		Compares durations of e vents.			
	SSM & Statistics	Measurement	Geometry-Properties of shapes	Geometry-Position & direction	Statistics
	Stage 2				
		Chooses and uses 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.	Identifies and describes the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line.	Orders and arranges combinations of mathematical objects in patterns and sequences.	Interprets and constructs simple pictograms, tally charts, block diagrams and simple tables.
		Compares and orders lengths, mass, volume/capacity and record the results using >, < and =	Identifies and describes the properties of 3-D shapes, including the number of edges, vertices and faces.	Uses 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 anti-clockwise).	Asks and answers simple questions by counting the number of objects in each category and sorting the categories by quantity.
		Recognises and uses symbols for pounds (Â £) and pence (p) combines amounts to make a particular value.	Identifies 2-D shapes on the surface of 3-D shapes.		Ask and answers questions about totalling and comparing categorical data.
		Finds different combinations of coins that equal the same amounts of money.	Compares and sorts common 2-D and 3-D shapes and everyday objects.		
		Solves simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.			
		Compares and sequences intervals of time.			
		Tells and writes the time to five minutes, including quarter past/to the hour and draws the hands on a clock face to show these times.			

		Knows the number of minutes in an hour and the number of hours in a day.				
	SSM & Statistics	Measurement	Geometry-Properties of shapes	Geometry-Position & direction	Statistics	
	Stage 1					
		Compares, describes and solves practical problems for lengths and heights.	Recognises and names common 2-D shapes including, eg, rectangles (including squares), circles and triangles.	Describes position, direction and movement, including whole, half, quarter and three-quarter turns.	Begins to group objects into sets according to simple properties.	
		Compares, describes and solves practical problems for mass/weight.	Recognises and names common 3-D shapes, eg, cuboids (including cubes), pyramids and spheres.		Answers simple questions by counting the number of objects in a category.	
		Compares, describes and solves practical problems for capacity and volume.	Sorts shapes based on simple properties.			
		Compares, describes and solves practical problems for time .				
		Measures and begins to record lengths and heights.				
		Measures and begins to record mass/weight.				
		Measures and begins to record capacity and volume.				
		Measures and begins to record time (hours, minutes, seconds).				
		Recognises and knows the value of different denominations of coins and notes.				
		Sequences events in chronological order using language.				
		Recognises and uses language relating to dates, including days of the week, weeks, months and years.				
		Tells the time to the hour and half past the hour and draws the hands on a clock face to show these times.				