Number and Place Value *Red text denotes where a strand starts specific to year groups

	Counting						
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6		
Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.			Count backwards through 0 to include negative numbers.	Interpret negative numbers in context, count forwards and backwards with positive numbers, including through 0.	Use negative numbers in context, and calculate intervals across zero.		
Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens.	Count in steps of 2, 3 and 5 from 0, and in tens from any number, forward or backward.	Count from 0 in multiples of 4, 8, 50 and 100.	Count in multiples of 6, 7, 9, 25 and 1,000.	Count forwards or backwards in steps of powers of 10 for any given number to 1,000,000.			
Given a number; identify one more and one less.		Find 10 or 100 more or less than a given a number.	Find 1,000 more or less than a given number.				
		Comparin	g Numbers				
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 1,000.	Order and compare numbers beyond 1,000. Compare numbers with the same number of decimal places up to two decimal places (copied	Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit (appears also in Reading and Writing Numbers).	Read, write, order and compare numbers to 10,000,000 and determine the value of each digit (appears also in Reading and Writing Numbers).		
			from Fractions)				
			and Estimating Numbers				
	Identify and represent numbers using objects and pictorial 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	Identify, represent and estimate numbers using different representations.			
			s (including Roman Numera				
Read and write numbers from 1 to 20 in numerals and words.	Read and write numbers to at least 100 in numerals and words.	Read and write numbers up to 1,000 in numerals and in words. Tell and write the time from an analogue clock, including using Roman	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, write, order and compare numbers to at least 1, 000 000 and determine the place value of each digit (appears also in Comparing Numbers.) Read Roman numerals to 1,000 (M) and recognise	Read, write, order and compare numbers to 10, 000 000 and determine the value of each digit (appears also in Understanding Place Value.)		

	Numerals from I to XII,		years written in Roman	
	and 12-hour and 24-hour		Numerals.	
	clocks.			
	(Copied from			
	Measurement).			
		g Place Value		
Recognise the place value	Recognise the place value	Recognise the place	Read, write, order and	Read, write, order and
of each digit in a two-digit	of each digit in a three-	value of each digit in a	compare numbers to at	compare numbers up to
number (tens, ones).	digit number (hundreds,	four-digit number	least 1, 000 000 and	10, 000 000 and
	tens, and ones).	(thousands, hundreds,	determine the value of	determine the value of
		tens and ones).	each digit (appears also in	each digit (appears also in
			Reading and Writing	Reading and Writing
			Numbers).	Numbers).
		Find the effect of dividing		Identify the value of each
		a one- or two- digit	Recognise and use	digit to three decimal
		number by 10 and 100,	thousandths and relate	places and multiply and
		identifying the value of the	them to tenths,	divide numbers by 10, 100
		digits in the answer as	hundredths and decimal	and 1,000 were the
		units, tenths and	equivalents.	answers are up to three
		hundredths.	(Copied from Fractions).	decimal places.
		(Copied from Fractions).		(Copied from Fractions).
	Rour			
		Round any number to the	Round any number up to	Solve problems which
		nearest 10, 100 or 1,000.	1, 000 000 to the nearest	require answers to be
			10, 100 and 1,000, 10,000	rounded to specified
			and 100,000.	degrees of accuracy.
		Round decimals with one	Round decimals with two	(Copied from Fractions.)
		decimal place to the	decimal places to the	
		nearest whole number.	nearest whole number	
		(Copied from Fractions.)	and to one decimal place.	
 l			(Copied from Fractions).	
	Problem			
Use place value and	Solve number problems	Solve number and	Solve number problems	Solve number problems
number facts to solve	and practical problems	practical problems that	and practical problems	and practical problems
problems.	involving these ideas.	involve all of the above	that involve all of the	that involve all of the
		and with increasingly	above.	above.
		large positive numbers.		

Adding and Subtracting

Counting

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Represent and use	Recall and use addition				
number bonds and related	and subtraction facts to 20				
subtraction facts within	fluently, and derive and				
20.	use related facts up to				
	100.				
			alculation		
Add and subtract one-digit	Add and subtract numbers	Add and subtract		Add and subtract numbers	Perform mental
and two-digit numbers to	using concrete objects,	numbers mentally,		mentally with increasingly	calculations, including
20, including zero.	pictorial representations,	including:		large numbers.	with mixed operations and
	and mentally, including:	* a three-digit number			large numbers.
	* a two-digit number and	and ones			
	ones	* a three-digit number			
	* a two-digit number and	and tens			
	tens	* a three-digit number and			
	* two two-digit numbers	hundreds.			
	* adding three one-digit				
Deed write and interrent	numbers. Show that addition of two				
Read, write and interpret	numbers can be done in				Use their knowledge of
mathematical statements					the order of operations to
involving addition (+), subtraction (-) and equals	any order (commutative) and subtraction of one				carry out calculations involving the four
(=) signs (appears also in	number from another				
Written Methods).	cannot.				operations.
whiten Methods).	cannot.				
			Methods		
Read, write and interpret		Add and subtract numbers	Add and subtract numbers	Add and subtract whole	
mathematical statements		with up to three digits,	with up to 4 digits using	numbers with more than 4	
involving addition (+),		using formal written	the formal written	digits, including using	
subtraction (-) and equals		methods of columnar	methods of columnar	formal written methods	
(=) signs (appears also in		addition and subtraction.	addition and subtraction	(columnar addition and	
Mental			where appropriate.	subtraction).	
Calculation).					
			ting and Checking Answers		
	Recognise and use the	Estimate the answer to a	Estimate and use inverse	Use rounding to check	Use estimation to check
	inverse relationship	calculation and use	operations to check	answers to calculations	answers to calculations
	between addition and	inverse operations to	answers to a calculation.	and determine, in the	and determine, in the
	subtraction and use this to	check answers.		context of a problem,	context of a problem,
	check calculations and			levels of accuracy.	levels of accuracy.
	solve missing number				
	problems.	Ducklass	Solving		
		Problem	Solving		

Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \Box - 9$.	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 simple problems in a practical context involving addition and subtraction of money of the same unit, including	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 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
	0				

Multiplication and Division

	Multiplication and Division Facts					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Count in multiples of twos, fives and tens (copied from Number and Place Value).	Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward (Copied from Number and Place Value).	Count from 0 in multiples of 4, 8, 50 and 100 (Copied from Number and Place Value).	Count in multiples of 6, 7, 9, 25 and 1 000 (Copied from Number and Place Value).	Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 (Copied from Number and Place Value).		
	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 x 12.			
		Mental Ca	alculation			
		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 (appears also in Written 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.	Perform mental calculations, including with mixed operations and large numbers.	
	Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.		Recognise and use factor pairs and commutativity in mental calculations (appears also in Properties of Numbers).	Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.	Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. ³ / ₈). (Copied from Fractions).	
			alculation			
	Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication	Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times	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.	

(x), divis equals (=	=) signs.	one-digit numbers, using mental and progressing to formal written methods (appears also in Mental Methods).		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 whole number using the formal written method of short division where appropriate for the context divide 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. Use written division methods in cases where
					the answer has up to two decimal places (copied from Fractions (including decimals).
	Properties of	I Numbers: Multiples, Fact	ors, Prime, Square and Cub		
			Recognise and use factor pairs and commutativity in mental calculations (repeated).	Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.	Identify common factors, common multiples and prime 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.	Use common factors to simplify fractions; use common multiples to express fractions in the same denomination (Copied from Fractions).
				Recognise and use square numbers and cube	Calculate, estimate and compare volume of cubes

				numbers, and the notation for squared (²) and cubed (³).	and cuboids using standard units, including centimetre cubed (cm ³) and cubic metres (m ³), and extending to other units such as mm ³ and km ³ . (Copied from Measures).
		Order of C	Operations		
					Use their knowledge of the order of operations to carry out calculations involving the four operations.
		Inverse Operations, Estima	ting and Checking Answers	5	
		Estimate the answer to a calculation and use inverse operations to check answers. (Copied from Addition and Subtraction).	Estimate and use inverse operations to check answers to a calculation. (Copied from Addition and Subtraction).		Use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy.
		Problem	Solving		
Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations	Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division	Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and	Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling	Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.	Solve problems involving addition, subtraction, multiplication and division.
and arrays with the support of the teacher.	facts, including problems in contexts.	correspondence problems in which n objects are connected to m objects.	problems and harder correspondence problems such as n objects are connected to m objects.	Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign. Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.	Solve problems involving similar shapes where the scale factor is known or can be found. (Copied from Ratio and Proportion).

Fractions (Including Decimals and Percentages)

		Counting in Fr	actional Steps		
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Pupils should count in fractions up to 10, starting from any number and using the1/2 and 2/4 equivalence on the number line (Non Statutory Guidance).	Count up and down in tenths.	Count up and down in hundredths.		
	Statutory Guidance).	Recognisin	g Fractions		
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.	Recognise, find, name and write fractions $1/3$, $1/4$, 2/4 and $3/4$ of a length, shape, and a set of objects or quantity.	Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one – digit numbers or quantities by 10. Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.	Recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.	Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents (appears also in Equivalence).	
		Comparing	Fractions		
		Compare and order unit fractions, and fractions with the same denominators.		Compare and order fractions whose denominators are all multiples of the same number.	Compare and order fractions, including fractions >1.
		Comparing	g Decimals		
			Compare numbers with the same number of decimal places up to two decimal places.	Read, write, order and compare numbers with up to three decimal places.	Identify the value of each digit in numbers given to three decimal places.
		Rounding Inclu	uding Decimals		

	Equivalence (including Fractio	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. ges)	Solve problems which require answers to be rounded to specified degrees of accuracy.
Write simple fraction $\frac{1}{2}$ of 6 = 3 and reco the equivalence of $\frac{2}{1}$ $\frac{1}{2}$.	gnise using diagrams, equivalent fractions with	Recognise and show, using diagrams, families of common equivalent fractions.	Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.	Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.
	Addition and Subt	raction of Fractions		
	Add and subtract fractions with the same denominator within one whole (e.g. $\frac{5}{7}$, $+\frac{1}{7}$, $=\frac{6}{7}$)	Add and subtract fractions with the same denominator.	Add and subtract fractions with the same denominator and multiples of the same number.	Add and subtract fractions with different denominators and mixed numbers, using the
			Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. $\frac{2}{5} + \frac{4}{5} = \frac{6}{5}$	concept of equivalent fractions.
			$=1^{1}/_{5}$).	
	Multiplication and I	Division of Fractions	5	
			Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.	Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $1/4 \times 1/2 = 1/8$). Multiply one-digit numbers
				with up to two decimal places by whole numbers.
				Divide proper fractions by whole numbers (e.g. $1/3 \div 2 = 1/6$).
				Multiply one-digit numbers with up to two decimal places by whole numbers.
		Find the effect of dividing a one- or two-digit number		Multiply and divide numbers by 10, 100 and

		by 10 and 100, identifying		1000 where the answers
		the value of the digits in		are up to three decimal
		the answer as ones,		places.
		tenths and hundredths.		piaces.
				Identify the value of each
				digit to three decimal
				places and multiply and
				divide numbers by 10, 100
				and 1000 where the
				answers are up to three
 				decimal places.
				Associate a fraction with
				division and calculate
				decimal fraction
				equivalents (e.g. 0.375)
				for a simple fraction (e.g.
				³ / ₈).
				Use written division
				methods in cases where
				the answer has up to two
				decimal places.
	Problem			
	Solve problems that	Solve problems involving	Solve problems involving	
	involve all of the above.	increasingly harder	numbers up to three	
		fractions to calculate	decimal places.	
		quantities, and fractions to		
		divide quantities, including		
		non-unit fractions where		
		the answer is a whole		
		number.		
		Solve simple measure	Solve problems which	
		and money problems	require knowing	
		involving fractions and	percentage and decimal	
		decimals to two decimal	equivalents of $1/2, 1/4, 1/5$,	
		places.		
			$^{2}/_{5}$, $^{4}/_{5}$ and those with a	
			denominator of a multiple	
			of 10 or 25.	

Ratio and Proportion

Statements	Statements only appear in Year 6 but should be connected to previous learning, particularly fractions and multiplication and division						
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6		
					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.		

<u>Algebra</u>

		Egua	tions		
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Year 1 Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \Box - 9$ (Copied from Addition and Subtraction).	Year 2 Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems. (Copied from Addition and Subtraction).	Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. (copied from Addition and Subtraction). Solve problems, including missing number problems, involving multiplication and division, including integer scaling. (Copied from Multiplication and	Year 4	Year 5 Use the properties of rectangles to deduce related facts and find missing lengths and angles . (Copied from Geometry: Properties of Shapes).	Year 6 Express missing number problems algebraically.
	Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. (Copied from Addition and Subtraction).	Division).			Find pairs of numbers that satisfy number sentences involving two unknowns.
Represent and use number bonds and related subtraction facts within 20. (Copied from Addition and Subtraction).					Enumerate all possibilities of combinations of two variables.
		Form	nulae	1	
			Perimeter can be expressed algebraically as 2(a + b) where a and b are the dimensions in the same unit. (Copied from NSG measurement).		Use simple formulae. Recognise when it is possible to use formulae for area and volume of shapes. (Copied from Measurement).
		Sequ	ences		
Sequence events in chronological order using language such as: before and after, next, first, today, yesterday,	Compare and sequence intervals of time. (Copied from Measurement).				Generate and describe linear number sequences

tomorrow, morning, afternoon and evening. (Copied from Measurement). Order and arrange combinations of mathematical objects in patterns. (Copied from Geometry: position and direction).

Measurement

Comparing and Estimating						
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Compare, describe and solve practical problems for: * lengths and heights [e.g. long/short, longer/shorter, tall/short, double/half] * mass/weight [e.g. heavy/light, heavier than, lighter than] * capacity and volume [e.g. full/empty, more than, less than, half, half full, quarter] * time [e.g. quicker, slower, earlier, later].	Compare and order lengths, mass, volume/capacity and record the results using >, < and =		Estimate, compare and calculate different measures, including money in pounds and pence (appears also in Measuring).	Calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm ²) and square metres (m ²) and estimate the area of irregular shapes (appears also in Measuring). Estimate volume (e.g. using 1 cm ³ blocks to build cubes and cuboids) and capacity (e.g. using water).	Calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm ³) and cubic metres (m ³), and extending to other units such as mm ³ and km ³ .	
Sequence events in chronological order using language [e.g. before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening].	Compare and sequence intervals of time.	Compare durations of events, for example to calculate the time taken by particular events or tasks.				
		Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight (appears also in Telling the Time).				
	Measuring and Calculating					

Measure and begin to record the following: * lengths and heights * mass/weight * capacity and volume * time (hours, minutes, seconds).	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.	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).	Estimate, compare and calculate different measures , including money in pounds and pence (appears also in Comparing).	Use all four operations to solve problems involving measure (e.g. length , mass, volume, money) using decimal notation including scaling.	Solve problems involving the calculation and conversion of units of measure , using decimal notation up to three decimal places where appropriate (appears also in Converting).
		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.
		Measuring an	d Calculating		
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.			
			Find the area of rectilinear shapes by counting squares.	Calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm ²) and square metres (m ²) and estimate the area of irregular shapes. Recognise and use square numbers and cube numbers, and the notation	Calculate the area of parallelograms and triangles. Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm ³) and cubic metres (m ³), and extending to other units [e.g. mm ³ and km ³].

				for squared (²) and cubed (³). (Copied from Multiplication and Division).	Recognise when it is possible to use formulae for area and volume of shapes.
		Telling	the Time		
Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.	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.	Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.	Read, write and convert time between analogue and digital 12 and 24-hour clocks (appears also in Converting).		
Recognise and use language relating to dates, including days of the week, weeks, months and years	Know the number of minutes in an hour and the number of hours in a day. (appears also in Converting)	Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight (appears also in Comparing and Estimating).	Solve problems involving	Solve problems involving	
			converting from hours to minutes; minutes to seconds; years to months; weeks to days (appears also in Converting).	converting between units of time.	
		Conv	verting		
	Know the number of minutes in an hour and the number of hours in a day (appears also in Telling the Time).	Know the number of seconds in a minute and the number of days in each month, year and leap year.	Convert between different units of measure (e.g. kilometre to metre; hour to minute).	Convert between different units of metric measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre).	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.

Read, write and convert time between analogue and digital 12 and 24-hour clocks (appears also in Converting).	Solve problems involving converting between units of time.	Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate (appears also in Measuring and Calculating).
Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days (appears also in Telling the Time).	Understand and use equivalences between metric units and common imperial units such as inches, pounds and pints.	Convert between miles and kilometres.

Geometry: Properties of Shape

Identifying Shapes and Their Properties					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Recognise and name	Identify and describe the		Identify lines of symmetry	Identify 3-D shapes,	Recognise, describe and
common 2-D and 3-D	properties of 2-D shapes,		in 2-D shapes presented	including cubes and other	build simple 3-D shapes,
shapes, including:	including the number of		in different orientations.	cuboids, from 2-D	including making nets
* 2-D shapes [e.g.	sides and line symmetry			representations.	(appears also in Drawing
rectangles (including	in a vertical line.				and Constructing).
squares), circles and	Identify and describe the				Identify and describe the
triangles]	properties of 3-D shapes,				properties of 3-D shapes,
* 3-D shapes [e.g.	including the number of				including the number of
cuboids (including	edges, vertices and faces.				edges, vertices and faces
cubes), pyramids and	Identify 2-D shapes on the				identify 2-D shapes on the
spheres].	surface of 3-D shapes,				surface of 3-D shapes,
	[for example, a circle on a				[for example, a circle on a
	cylinder and a triangle on				cylinder and a triangle on
	a pyramid].				a pyramid].
			Constructing		
		Draw 2-D shapes and	Complete a simple	Draw given angles, and	Draw 2-D shapes using
		make 3-D shapes using	symmetric figure with	measure them in degrees	given dimensions and
		modelling materials;	respect to a specific line	(°).	angles.
		recognise 3-D shapes in	of symmetry.		Recognise, describe and
		different orientations and			build simple 3-D shapes,
		describe them.			including making nets
					(appears also in
					Identifying Shapes and
					their Properties).
		Comparing a	nd Classifying	•	
	Compare and sort		Compare and classify	Use the properties of	Compare and classify
	common 2-D and 3-D		geometric shapes,	rectangles to deduce	geometric shapes based
	shapes and everyday		including quadrilaterals	related facts and find	on their properties and
	objects.		and triangles, based on	missing lengths and	sizes and find unknown
			their properties and sizes.	angles.	angles in any triangles,
				Distinguish between	quadrilaterals, and regular
				regular and irregular	polygons.
				polygons based on	
				reasoning about equal	
				sides and angles.	
		Δη	ales	-	
Angles					

Recognise angles as a property of shape or a description of a turn.		Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.	
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.	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°.	Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.
Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.			

Geometry: Position and Direction

Position: Direction and Movement						
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Describe position,	Use mathematical		Describe positions on a	Identify, describe and	Describe positions on the	
direction and movement,	vocabulary to describe		2-D grid as coordinates in	represent the position of a	full coordinate grid (all	
including half, quarter and	position, direction and		the first quadrant.	shape following a	four quadrants).	
three-quarter turns.	movement including			reflection or translation,		
	movement in a straight			using the appropriate		
	line and distinguishing			language, and know that		
	between rotation as a turn			the shape has not		
	and in terms of right		Describe movements	changed.	Draw and translate simple	
	angles for quarter, half		between positions as		shapes on the coordinate	
	and three-quarter turns		translations of a given unit		plane, and reflect them in	
	(clockwise and		to the left/right and		the axes.	
	anti-clockwise).		up/down.			
			Plot specified points and			
			draw sides to complete a			
			given polygon.			
	Pattern					
	Order and arrange					
	combinations of					
	mathematical objects in					
	patterns and sequences.					

Statistics

Interpreting, Constructing and Presenting Data						
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
	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.	
	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.					
		Solving I	Problems			
		Solve one-step and two- step questions [e.g. '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 a line graph.	Calculate and interpret the mean as an average.	