

+Maths (Mathematics Mastery)

Long Term Plan 2023 - 2024

	Autumn		Spi	ing	Summer	
Subject	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Foundation 1	Saying numbers in t	he correct order	Number	rhymes	Mea	sure
	Count	ing	Cou	nting	Cour	nting
	Finger nu	mbers	Subi	tising	Subit	ising
	Sequencing	events	Finger r	umbers	Finger n	umbers
	Size		Matching numer	als and amounts	Matching numer	als and amounts
	Patte	rn	Loca	tions	Locations a	and routes
			Rou	ıtes	Сара	acity
			Ler	Length		hape
			We	eight Mark making symbols		ng symbols
			Sha	ape	Numerals	
DM statements Mathematics	Develop fast recognition of each item in order: 1,2,3,4, ('cardinal principle'). • Shown numeral, up to 5. • Experime to 5. • Compare quantities triangles and cuboids) using alone – for example, "The before the front of and 'behind'. • Material for building, a triangular prepatterns around them. For Extend and create ABAB parevents, real or fictional, using the second se	5. • Know that the last now 'finger numbers' up to nent with their own symbol using language: 'more the grand informal and mathematog is under the table," — ake comparisons betwee ism for a roof, etc. • Comexample: stripes on cloth tterns — stick, leaf, stick,	umber reached when co 5. • Link numerals and a cols and marks as well as nan', 'fewer than'. • Talk tical language: 'sides', 'co with no pointing. • Desc nobjects relating to size, being shapes to make ne nes, designs on rugs and leaf. • Notice and correct then'	unting a small set of object mounts: for example, shoumerals. • Solve real wabout and explore 2D and orners'; 'straight', 'flat', 'straight', 'flat', 'straight', weight and capate wones — an arch, a bigger wallpaper. Use informal at an error in a repeating	ects tells you how many the owing the right number of corld mathematical problem 3D shapes (for example round'. • Understand postiscuss routes and location icity. • Select shapes appler triangle, etc. • Talk about language like 'pointy', 'spepattern. • Begin to descriptions of the correction of the	here are in total of objects to match the ems with numbers up e, circles, rectangles, sition through words ns, using words like 'in ropriately: flat surfaces out and identifies the botty', 'blobs', etc. • ibe a sequence of
Foundation 2	Early Mathematical Experiences Pattern and early number	Numbers within 6 Addition and subtraction within 6 Measures – Length Shape and sorting	Numbers within 10 Calendar and time Addition and subtraction within 10	Grouping and sharing Numbers within 15 Double and Half Shape and pattern	Securing addition and subtraction facts Number patterns with 20 Number patterns beyond 20	Money Measures Exploration of patterns within number



DM statements	Count objects, actions	ELG - Subitise	ELG – Subitise up to 5	Count beyond ten.	ELG - Automatically	Compare length,
	and sounds	(recognise quantities			recall number bonds	weight and capacity
	Continue, copy and	without counting)	Explore the	Understand the 'one	for numbers 0–5 and	
	create repeating		composition of	more than/one less	some to 10, including	Compare numbers
	patterns.	Link the number	numbers to 10	than' relationship	double facts	
		symbol (numeral)		between consecutive		ELG - Compare
		with its cardinal	Link the number	numbers	ELG – Explore and	quantities up to 10 in
		number value	symbol (numeral)		represent patterns	different contexts,
			with its cardinal	ELG - Automatically	within numbers up to	recognising when one
		Understand the 'one	number value	recall (without	10, including evens	quantity is greater
		more than/one less		reference to rhymes,	and odds, double	than, less than or the
		than' relationship	ELG – Have a deep	counting or other	facts and how	same as the other
		between consecutive	understanding of	aids) number bonds	quantities can be	quantity
		numbers	number to 10,	up to 5 (including	distributed equally	
			including the	subtraction facts) and		ELG - Have a deep
		Automatically recall	composition of each	some number bonds		understanding of
		number bonds for	number	to 10, including		number to 10,
		numbers 0–5		double facts		including the
			ELG - Automatically			composition of each
		Compare length	recall number bonds	ELG - Explore and		number.
			for numbers 0–5 and	represent patterns		
		Select, rotate and	some to 10	within numbers up to		ELG - Verbally count
		manipulate shapes in		10, including evens		beyond 20,
		order to develop		and odds, double		recognising the
		spatial reasoning		facts and how		pattern of the
		skills		quantities can be		counting system.
				distributed equally		
		Compose and				
		decompose shapes so		Select, rotate and		
		that children		manipulate shapes in		
		recognise a shape can		order to develop		
		have other shapes		spatial reasoning		
		within it, just as		skills		
		numbers can.				



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				Compose and		
				decompose shapes so		
				that children		
				recognise a shape can		
				have other shapes		
				within it, just as		
				numbers can.		
Year 1	Numbers within 10	Numbers within 20	Time	Addition and	Numbers 50 to 100	Multiplication and
	Addition and subtraction	Addition and	Exploring calculation	subtraction within 20	and beyond	division
	within 10	subtraction within 20	strategies within 20	Fractions	Addition and	Measures: Capacity
	Shape and pattern	Subtraction within 20	Numbers to 50	Measures: Length	subtraction	and volume
	Shape and pattern		Numbers to 30	and mass	Money	and volume
NC limbe	and the ten feminands and	and to to control	Tell the time to the		,	aalua ana atau
NC links	count to ten, forwards and	count to twenty, forwards and		represent and use number bonds and	count to and across 100, forwards and	solve one-step
	backwards, beginning with		hour and half past the hour and	related subtraction	,	problems involving
	0 or 1, or from any given	backwards, beginning	draw the hands on a		backwards, beginning	multiplication and
	number	with 0 or 1, or from any		facts within 20	with 0 or 1, or from any	division, by
	count, read and write	given number	clock face to show these times.	add and subtract one-	given number; count on and back in twos fives	calculating the
	numbers to 10 in numerals	count, read and write	Recognise and use	digit and two-digit	and tens.	answer using concrete objects,
	and words	numbers from 1 to 20 in	language relating to	numbers to 20,	and tens.	pictorial
	and words	numerals and words	dates,	including zero	count, read and write	representations and
	identify and represent	numerals and words	including days of the	including zero	numbers from 1 to 20 in	arrays with the
	numbers using objects and	identify and represent	week, weeks, months	add and subtract	numerals and words;	support of the
	pictorial representations	numbers using objects	and years.	numbers using concrete	read and write numbers	teacher
	including the number line,	and pictorial	and years.	objects, pictorial	to at least 100 in	tederici
	and use the language of:	representations	Compare, describe and	representations, and	numerals and in words	recognise, find and
	equal to, more than, less	including the number	solve practical problems	mentally, including: a	(Y2)	name a half as one of
	than (fewer), most, least	line, and use the	for	two-digit number and	(/	two equal parts of an
	() () () ()	language of: equal to,	time [for example,	ones; adding three one-	given a number, identify	object, shape or
	given a number, identify	more than, less than	quicker, slower, earlier,	digit numbers (Y2)	one more and one less	quantity
	one more and one less	(fewer), most, least	later] and			, ,
			measure and begin to	read, write and	identify and represent	
	count in multiples of two	count in multiples of	record time (hours,	interpret mathematical	numbers using objects	recognise, find and
		two and five	minutes,	statements involving	and pictorial	name a quarter as
	double and halve numbers		seconds.	addition (+), subtraction	representations	one of four equal
	within 10	double and halve		(–) and equals (=) signs	including the number	parts of an object,
		numbers within 20			line, and use the	shape or quantity



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estimate numbers within 10		Sequence events in	solve one-step	language of: equal to,	
	represent and use	chronological order	problems that involve	more than, less than	
represent and use number	number bonds and	using language [for	addition and	(fewer), most, least	compare, describe
bonds and related	related subtraction	example, before and	subtraction, using		and solve practical
subtraction facts [within 10]	facts within 20	after, next, first,	concrete objects and	recognise the place	problems for: lengths
		today, yesterday,	pictorial	value of each digit in a	and heights [for
add and subtract one-digit	add and subtract one-	tomorrow, morning,	representations, and	two-digit number (tens,	example, long/short,
numbers [to 10], including	digit and two-digit	afternoon and evening].	missing number	ones) (Y2)	longer/shorter,
zero	numbers to 20,		problems such as 7 = 2		tall/short,
	including zero	Describe position,	- 9	identify, represent and	double/half];
read, write and interpret		direction and		estimate* numbers to	mass/weight [for
mathematical statements	read, write and	movement,	Recognise, find and	100 using different	example, heavy/light,
involving addition (+),	interpret mathematical	including whole, half,	name a half as one	representations (Y2)	heavier than, lighter
subtraction (–) and equals	statements involving	quarter and three-	of two equal parts of an		than]; capacity and
(=) signs	addition (+), subtraction	quarter	object, shape or	represent and use	volume [for example,
solve one-step problems	(-) and equals (=) signs	turns, with reference to	quantity.	number bonds and	full/empty, more
that involve addition and		the clock face.		related subtraction	than, less than, half,
subtraction, using concrete	solve one-step		Recognise, find and	facts within 20	half full, quarter]
objects and pictorial	problems that involve	represent and use	name a quarter as		
representations, and	addition and	number bonds and	one of four equal parts	add and subtract one-	
missing number problems	subtraction, using	related subtraction	of an object,	digit and two-digit	measure and begin to
	concrete objects and	facts within 20	shape or quantity.	numbers to 100,	record the following:
Recognise and name	pictorial		Solve problems	including zero	lengths and heights;
common 2-D and	representations, and	add and subtract one-	involving halves and		mass/weight;
3-D shapes, including 2-D	missing number	digit and two-digit	quarters	add and subtract	capacity and volume
shapes [for example,	problems such as 7 = ?	numbers to 20,		numbers using concrete	
rectangles (including	-9	including zero	Describe position,	objects, pictorial	
squares), circles and			direction and	representations, and	
triangles]; 3-D shapes [for		read, write and	movement, including	mentally, including: a	
example, cuboids (including		interpret mathematical	whole, half,	two-digit number and	
cubes), pyramids and		statements involving	quarter and three-	ones; a two-digit	
spheres		addition (+), subtraction	quarter turns, with	number and tens; two	
		(–) and equals (=) signs	reference to the clock	two-digit numbers;	
Describe position, direction			face.	adding three one-digit	
and movement, including		solve one-step		numbers (Y2)	
whole and half turns		problems that involve	compare, describe and		
		addition and	solve practical	read, write and	
		subtraction, using		interpret mathematical	



	concrete objects and	problems for: lengths	statements involving	
	pictorial	and heights [for	addition (+), subtraction	
	representations, and	example, long/short,	(–) and equals (=) signs	ļ
	missing number	longer/shorter,		
	problems such as 7 = ?	tall/short, double/half];	solve one-step	
	- 9	mass/weight	problems that involve	ļ
		[for example,	addition and	ļ
	count to fifty, forwards	heavy/light, heavier	subtraction, using	ļ
	and backwards,	than, lighter than]	concrete objects and	
	beginning with 0 or 1,		pictorial	
	or from any given	measure and begin to	representations, and	
	number; count in	record the	missing number	
	multiples of two, five	following: lengths and	problems such as 7 = 2	
	and ten.	heights;	- 9	
		mass/weight		ŀ
	count, read and write		recognise and know	ļ
	numbers from 1 to 20 in		the value of different	ļ
	numerals and words		denominations of	ļ
	identify and represent		coins and notes	ļ
	numbers using objects		solve one-step	ļ
	and pictorial		problems that	ļ
	representations		involve addition and	
	including the number		subtraction, using	
	line, and use the		concrete objects and	
	language of: equal to,		pictorial	
	more than, less than		representations, and	
	(fewer), most, least		missing number	
			problems such as 7 =	
	given a number,		o - 9	
	identify one more and			
	one less			
	recognise the place			
	value of each digit in a			
	two-digit number (tens,			
	ones)			



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Year 2	Numbers within 100	Measures: length	Time	Money	Numbers within 1000	Exploring calculation
	Addition and subtraction	Graphs	Fractions	Faces, shapes and	Measures: capacity	strategies
	of 2-digit numbers	Multiplication and	Addition and	patterns: lines and	and volume	Applying
	Addition and subtraction	division 2, 5 and 10	subtraction of 2-digit	turns	Mass	multiplicative thinking
	word problems		numbers			
NC links	Use place value and	Choose and use	Tell the time to five	Recognise and use	Use place value and	Recall and use addition
	number facts to solve	appropriate standard	minutes including	symbols for pounds (£)	number facts to solve	and subtraction facts to
	problems	units to estimate and	quarter past/to the	and pence (p); combine	problems	20 fluently, and derive
		measure length/height	hour and draw the	amounts to make a		and use related facts up
	Recognise the place value	in any direction (m/cm)	hands on a clock face	particular value	Identify, represent and	to 100
	of each digit in a 2-digit	to the nearest	to show these times		estimate numbers to	
	number (tens, ones)	appropriate unit, using		Find different	1000 using different	Show that addition of
		rulers and scales	Know the number of	combinations of coins	representations (Y3)	two numbers can be
	Identify, represent and		minutes in an hour	that equal the same		done in any order
	estimate numbers to 100	Compare and order	and the number of	amounts of money	Compare and order	(commutative) and
	using different	length and record the	hours in a day		numbers up to 1000	subtraction of one
	representations, including	results using >, < and =	_	Solve simple problems	(Y3)	number from another
	the number line		Compare and	in a practical context		cannot
		Apply knowledge of	sequence intervals of	involving addition and	Read and write	
	Compare and order	numbers to 100 to read	time	subtraction of money of	numbers up to 1000 in	Add and subtract
	numbers from 0 up to 100;	scales to the nearest		the same unit, including	numerals and in words	numbers mentally,
	use <, > and = signs	appropriate standard	Recognise, find,	giving change	(Y3)	including: a two-digit
	Read and write numbers to	unit in the context of	name and write	tale cattle can all alexantless	Count from 0 in	number and ones;
	at least 100 in numerals and	length (m/cm)	fractions 1/2, 1/4,	Identify and describe the properties of 3-D	multiples of 10 and 100;	a two-digit number and
	in words	Interpret and construct	2/4 and 3/4 of a length, shape, set of	shapes, including the	find 10 or 100 more or	tens; adding three one- digit numbers
	Count in steps of 2, 3, and 5	simple pictograms, tally	objects or quantity	number of edges,	less than a given	aigit ilullibers
	from 0, and in tens from	charts, block diagrams	objects of quantity	vertices and faces	number (Y3)	Add and subtract
	any number, forward and	and simple tables	Write simple	vertices and races		numbers with up to
	backward	and simple tables	fractions for	Identify and describe	Apply knowledge of	two digits, using written
	backwara	Ask and answer simple	example, 1/2 of 6 = 3	the properties of 2-D	numbers up to 1000 to	methods
	Recall and use addition and	questions by counting	Cxample, 1/2 01 0 0	shapes, including the	read scales	metrous
	subtraction facts to 20	the number of objects	Recognise the	number of sides and	Choose and use	Recall and use
	fluently	in each category and	equivalence of 2/4	line symmetry in a	appropriate standard	multiplication and
	·	sorting the categories	and 1/2	vertical line	units to estimate and	division facts for the 3
	Show that addition of two	by quantity	•		measure capacity	and 4 multiplication
	Show that addition of two	by quartity			measure capacity	and + maniphication



order (commutative) and subtraction of one number from another cannot

Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a two-digit number and tens; two two-digit numbers; adding three one-digit numbers

Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems

Solve problems with addition and subtraction: use concrete objects and pictorial representations, including those involving numbers, quantities and measures; applying their increasing knowledge of mental and written methods

Estimate the answer to a calculation and use inverse operations to check answers

Ask and answer questions about totalling and comparing categorical data

Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs

Solve problems
involving multiplication
and division, using
materials, arrays,
repeated addition,
mental methods, and
multiplication and
division facts, including
problems in contexts

Show that
multiplication of two
numbers can be done in
any order
(commutative) and
division of one number
by another cannot

Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including Recall and use addition and subtraction facts to 20 fluently

Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot

Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a two-digit number and tens; two two-digit numbers; adding three one-digit numbers 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

Compare and sort common 2-D and 3-D shapes and everyday objects

Order and arrange combinations of mathematical objects in patterns and sequences
Use mathematical vocabulary to describe position, direction and movement in a straight line and distinguishing rotation as a turn and in terms of right angles

temperature (°C) to the nearest appropriate unit, using scales, thermometers and measuring vessels

Compare and order volume and capacity and record the results using >, < and =

Apply knowledge of numbers to 1000 to read scales to the nearest appropriate standard unit in the context of capacity (litres/ml) and temperature (°C)

Choose and use appropriate standard units to estimate and measure mass (kg/g) to the nearest appropriate unit, using scales and measuring vessels.

Compare and order mass and record the results using >, < and =

Apply knowledge of numbers to 1000 to read scales to the nearest appropriate standard unit in the context of mass (kg/g) Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs

Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental method, and multiplication and division facts, including problems in contexts

Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot



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		recognising odd and	Estimate the answer to			
		even numbers	a calculation and use			
			inverse operations to			
			check answers (Y3)			
Year 3	Number sense and	Addition and	Multiplication and	Time	Angles and shape	Applying
	exploring calculation	subtraction	division	Fractions	Measures	multiplicative thinking
	strategies	Length and perimeter	Deriving			Exploring calculation
	Place value		multiplication and			strategies and place
	Graphs		division facts			value
NC links	Solve problems, including	Add and subtract	Recall and use	Tell and write the time	Recognise angles as a	Write and calculate
	missing number problems,	numbers mentally,	multiplication and	from an analogue clock,	property of shape or a	mathematical
	using number facts, place	including: a three-digit	division facts for the 3	including using Roman	description of a turn	statements for
	value, and more complex	number and ones; a	and 4 multiplication	numerals from I to XII,		multiplication and
	addition and subtraction	three-digit number and	tables	and 12-hour and 24-	Identify right angles,	division using the
		tens; a three-digit		hour clocks	recognise that two right	multiplication
	Recognise the place value	number and hundreds	Solve problems,		angles make a half-turn,	tables that they know,
	of each digit (tens+		including missing	Estimate and read time	three make three	including for two-digit
	, ones), compare and order	Add and subtract	number problems,	with increasing	quarters of a turn and	numbers times one-digit
	numbers up to 100	numbers with up to	involving multiplication	accuracy to the nearest	four a complete turn;	numbers, using mental
	Find 10 more or less than a	three digits, using formal written methods	and division, including positive integer scaling	minute	identify whether angles are greater than or less	and
		of columnar addition	problems and	Record and compare	than a right angle	progressing to formal written methods
	given number	and subtraction	correspondence	time in terms of	tildii a rigiit aligie	writterrinethous
	Read and write numbers up	and subtraction	problems in which n	seconds, minutes and	Identify horizontal and	Recall and use
	to 100 in numerals and in	Estimate the answer to	objects are connected	hours	vertical lines and pairs	multiplication and
	words	a calculation and use	to m objects	110013	of perpendicular and	division facts for the
		inverse operations to		Use vocabulary such as	parallel lines	8 multiplication tables
	Solve number problems and	check answers	Count from zero in	o'clock, a.m./p.m.,	•	•
	practical problems involving		multiples of 4	morning, afternoon,	Draw 2-D shapes and	Count from zero in
	these ideas	Solve problems,		noon and midnight	make 3-D shapes using	multiples of 8
	Identify, represent and	including missing			modelling materials	
	estimate numbers using	number problems, using	Recall and use	Know the number of		
	different representations,	number facts, place	multiplication and	seconds in a minute and	Recognise 3-D shapes in	Add and subtract
	including the number line	value, and more	division facts for the 3	the number of days in	different orientations	numbers mentally
		complex addition and	and 4 multiplication	each month, year and	and describe them	
		subtraction	tables	leap year		



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Add and subtract amounts				Measure the perimeter	Recognise the place
of money to give change,		Write and calculate	Compare durations of	of simple 2-D shapes	value of each digit in a
using both £ and p in	Measure, compare, add	mathematical	events [for example to		four-digit number
practical contexts	and subtract: lengths	statements for	calculate the time taken	Measure, compare, add	(thousands, hundreds,
	(m/cm/mm)	multiplication and	by particular events or	and subtract: lengths	tens, and ones) (Y4)
Identify, represent and		division using the	tasks	(m/cm/mm); mass	find 1000 more or less
estimate numbers using	Solve problems,	multiplication tables		(kg/g); volume/capacity	than a given number;
different representations	including missing	that they know,	Recognise and use	(I/mI)	(Y4)
	number problems, using	including for two-digit	fractions as numbers:		
Find 10 or 100 more or less	number facts, place	numbers times one-	unit fractions and non-	Solve problems,	Order and compare
than a given number	value, and more	digit numbers, using	unit fractions with small	including missing	numbers beyond 1000
	complex addition and	mental and progressing	denominators	number problems, using	(Y4)
Recognise the place value	subtraction	to formal written		number facts, place	
of each digit in a three-digit		methods	Recognise, find and	value, and more	Round any number to
number (hundreds, tens,	Measure the perimeter		write fractions of a	complex addition and	the nearest 10, 100 or
ones)	of simple 2-D shapes	Solve problems,	discrete set of objects:	subtraction	1000 (Y4)
		including missing	unit fractions and non-		
Compare and order	Continue to measure	number problems,	unit fractions with small	Continue to measure	
numbers up to 1000	using the appropriate	involving multiplication	denominators	using the appropriate	
	tools and units,	and division, including		tools and units,	
Read and write numbers up	progressing to using a	positive integer scaling	Count up and down in	progressing to using a	
to 1000 in numerals and in	wider range of	problems and	tenths	wider range of	
words	measures, including	correspondence	recognise that tenths	measures, including	
	comparing and using	problems in which n	arise from dividing an	comparing and using	
Solve number problems and	mixed and simple	objects are connected	object into 10 equal	mixed units (for	
practical problems involving	equivalents of mixed	to <i>m</i> objects	parts and in dividing	example, 1 kg and 200g)	
these ideas	units (for example, 5m =		one-digit numbers or	and simple equivalents	
	500cm)		quantities by 10	of mixed units (for	
Count from 0 in multiples of				example, 5m = 500cm)	
50 and 100			Recognise and show,		
			using diagrams,		
Interpret and present data			equivalent fractions		
using bar charts,			with small		
pictograms and tables			denominators		
Salva and stan and time			Add and subtract		
Solve one-step and two-			fractions with the same		
step questions [for			denominator within one		
example, 'How many			denominator within one		



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	more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables			whole [for example, 5/7 + 1/7 = 6/7] Compare and order unit fractions, and fractions with the same denominators Solve problems that involve all of the above		
Year 4	Reasoning with large numbers Addition and subtraction	Multiplication and division Interpreting and presenting data	Calculating with multiplication and division Fractions Time	Decimals Area and perimeter	Solving measure and money problems Shape and symmetry	Position and direction Reasoning with patterns and sequences 3D Shape
NC links	Find 1000 more or less than a given number Recognise the place value of each digit in a	Recall multiplication and division facts for multiplication tables up to 12 × 12	Recall multiplication and division facts for multiplication tables up to 12 × 12	Recognise and write decimal equivalents of any number of tenths or hundredths	Convert between different units of measure [for example, kilometre to metre; hour to	Describe positions on a 2-D grid as coordinates in the first quadrant
	four-digit number (thousands, hundreds, tens, and ones) Order and compare numbers beyond 1000	Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling	Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying	Recognise and write decimal equivalents to 1/4,1/2 and 3/4. Find the effect of dividing a one- or two-digit number by	minute] Solve simple measure and money problems involving fractions and decimals to two decimal places	Describe movements between positions as translations of a given unit to the left/right and up/down
	Solve number and practical problems that involve all of the above and with increasingly large positive numbers	problems and harder correspondence problems such as n objects are connected to m objects	together three numbers Recognise and use factor pairs and commutativity in mental calculations	10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths	Estimate, compare and calculate different measures, including money in pounds and pence	Plot specified points and draw sides to complete a given polygon Read Roman
						numerals to 100 (I to



Identify, represent and	Recognise and use		Round decimals with	Compare and classify	C) and know that
estimate numbers	factor pairs and	Recognise and show,	one decimal place to	geometric shapes,	over time, the
using different	commutativity in	using diagrams,	the nearest whole	including quadrilaterals	numeral system
representations	mental calculations	families of common	number	and triangles, based on	changed to include
		equivalent fractions		their properties and	the concept of zero
Round any number	Use place value,		Compare numbers	sizes	and place value
to the nearest 10,	known and derived	Recognise mixed	with the same		
100 or 1000	facts to multiply and	numbers and	number of decimal	Identify acute and	Count backwards
	divide mentally,	improper fractions	places up to two	obtuse angles and	through zero to
Count in multiples	including: multiplying	and convert from	decimal places	compare and order	include negative
of 6, 7, 9, 25 and	by 0 and 1; dividing	one form to the		angles up to two right	numbers
1000	by 1; multiplying	other and write		angles by size	
	together three	mathematical	Convert between		Recognise and use
Read Roman numerals	numbers	statements > 1 as a	different units of	Identify lines of	square numbers, and
to 100 (I to C) and		mixed number [for	measure [for example,	symmetry in 2-D shapes	the notation for
know that over time,	Multiply two-digit	example, 2/5 + 4/5 =	kilometre to metre;	presented in different	squared (2) (Y5)
the numeral system	and three-digit	6/5 = 1 1/5] (Y5)	hour to minute]	orientations	
changed to include the	numbers by a one-	Solve problems			Draw 2-D shapes and
concept of zero and	digit number using	involving increasingly	Measure and calculate	Complete a simple	make 3-D shapes using
place value	formal written layout	harder fractions to	the perimeter of a	symmetric figure with	modelling materials (Y3)
Count backwards		calculate quantities,	rectilinear figure	respect to a specific line	
through zero to		and fractions to	(including squares) in	of symmetry	Recognise 3-D shapes in
include negative	Interpret and present	divide quantities,	centimetres and metres		different orientations
numbers	discrete and	including non-unit			and describe them
	continuous data	fractions where the	Find the area of		Measure the perimeter
Add and subtract	using appropriate	answer is a whole	rectilinear shapes by		of simple 2-D shapes
numbers with up to	graphical methods,	number	counting squares		(Y3)
4 digits using the	including bar charts				
formal written	and time graphs.	Add and subtract	Measure and calculate		
methods of		fractions with the	the perimeter of		
columnar addition	Solve comparison,	same denominator	composite rectilinear		
and subtraction	sum and difference		shapes in centimetres		
where appropriate.	problems using	Convert between	and metres (Y5)		
	information	different units of			
Estimate and use	presented in bar	measure [for example,	Calculate and compare		
inverse	charts, pictograms,	kilometre to metre;	the area of rectangles		
operations to	tables and other	hour to minute]	(including squares), and		
	graphs.		including using standard		



	check answers to		Read, write and convert	units, square		
	a calculation.		time between analogue	centimetres (cm2) and		
			and digital 12- and 24-	square metres (m2) (Y5)		
	Solve addition		hour clocks			
	and subtraction					
	two-step		Solve problems			
	problems in		involving converting			
	contexts,		from hours to minutes;			
	deciding which		minutes to seconds;			
	operations and		years to months; weeks			
	methods to use		to days.			
	and why.					
Year 5	Reasoning with large	Multiplication and	Fractions and	Fractions and	Converting units of	2D and 3D Shape
	whole numbers	division	decimals	percentages	measure	Volume
	Problem solving with	Perimeter and area	Angles	Transformations	Calculating with	Problem solving
	integer addition and				whole numbers and	
	subtraction				decimals	
	Line graphs and					
	timetables					
NC links	Read, write, order and	identify multiples and	Compare and order	Add and subtract	Solve problems	Compare and classify
	compare numbers to at	factors, including	fractions whose	fractions with the same	involving converting	geometric shapes,
	least 1 000 000 and	finding all factor pairs of	denominators are all	denominator and	between units of time	including
	determine the value of	a number, and common	multiples of the same	denominators that are		quadrilaterals and
	each digit	factors of two numbers	number	multiples of the same	Convert between	triangles, based on
	Count forwards or			number	different units of metric	the properties (Y4)
	backwards in steps of	Recognise and use	Identify, name and		measure (for example,	
	powers of 10 for any	square numbers and	write equivalent	Multiply proper	kilometre and metre;	Know angles are
	given number up to	the notation for	fractions of a given	fractions and mixed	centimetre and metre;	measured in degrees:
	1 000 000	squared (2)	fraction, represented	numbers by whole	centimetre and	estimate and
			visually, including	numbers, supported by	millimetre; gram and	compare acute,
	Round any number up	Know and use the	tenths and hundredths	materials and diagrams	kilogram; litre and	obtuse and reflex
	to 1 000 000 to the	vocabulary of prime			millilitre)	angles
	nearest 10, 100, 1000,	numbers, prime factors	Read and write decimal	Solve problems		
	10 000 and 100 000	and composite (non-	numbers as fractions	involving multiplication	Understand and use	
		prime) numbers		and division, including	approximate	



Solve number problems and practical problems that involve all of the above

Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.

Add and subtract numbers mentally with increasingly large numbers

Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)

Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why

Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy Establish whether a number up to 100 is prime and recall prime numbers up to 19

Multiply and divide whole numbers by 10, 100 and 1000

Multiply and divide numbers mentally drawing upon known facts

Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes

Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for twodigit numbers

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

[for example, 0.71 = 71/100]

Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents

Read, write, order and compare numbers with up to three decimal places

Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, 2/5 + 4/5 = 6/5 = 1 1/5]

Round decimals with two decimal places to the nearest whole number and to one decimal place

Solve problems involving number up to three decimal places

Know angles are measured in degrees: estimate and compare

scaling by simple fractions and problems involving simple rates

Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal

Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 and decimal and fraction equivalents of percentages that are multiples of 10 and 25.

Use all four operations to solve problems involving measure (for example length, mass, volume, money) using decimal notation, including scaling

Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical equivalences between metric units and common imperial units such as inches, pounds and pints

Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres

Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000

Solve problems involving number up to three decimal places

Solve problems involving measure (for example length, mass, volume, money) using decimal notation, including scaling

Solve addition and subtraction multistep problems in contexts, deciding which operations and Draw given angles, and measure them in degrees (o)

Distinguish
between regular
and irregular
polygons based on
reasoning about
equal sides and
angles

Identify 3-D shapes, including cubes and other cuboids, from 2-D representations

Recognise, describe and build simple 3-D shapes, including making nets (Y6)

Illustrate and name parts of circles, including radius, diameter and circumference and know that diameter is twice the radius. (Y6)

Estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity



						Δ
	Solve comparison, sum and difference problems using	Solve problems involving addition,	acute, obtuse and reflex angles	statements > 1 as a mixed number [for example, 2/5 + 4/5 =	methods to use and why	[for example, using water]
	information presented in a line graph	subtraction, multiplication and division and a	Identify: angles at a point and one whole turn (total 360o); angles	6/5 = 1 1/5]	Use rounding to check answers to calculations and	Recognise and use square numbers and cube numbers, and
	Complete, read and interpret information in tables, including timetables	combination of these, including understanding the meaning of the equals sign	at a point on a straight line and 12 a turn (total 1800); other multiples of 900	Identify, describe and represent the position of a shape following a reflection	determine, in the context of a problem, levels of accuracy	the notation for squared (2) and cubed (3)
	Solve problems involving converting between units of time	Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres	Draw given angles, and measure them in degrees (o)	or translation, using the appropriate language, and know that the shape has not changed	Solve problems involving addition, subtraction, multiplication and a combination of these, including	Convert between different units of metric measure (for example, litre and millilitre)
		Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of non-rectilinear shapes		Describe positions on the full coordinate grid (all four quadrants) (Y6)	understanding the meaning of the equals sign 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	Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
Year 6	Integers and Decimals Multiplication and division	Calculation problems Fractions Missing angles and length	Coordinates and shape Fractions Decimals and measures	Percentages and statistics Proportion problems	Consolidation and application of previous learnt topics	Consolidation and application of previous learnt topics
NC links	Read, write, order and compare numbers up to	Find pairs of numbers that satisfy an equation with two unknowns.	Describe positions on a full coordinates grid	Recall and use equivalences between simple fractions, decimals		



10 000 000 and		Draw 2-D shapes	and percentages,		
determine the value of	Enumerate	using given	including in different		
each digit.	possibilities of	dimensions and	contexts		
	combinations of two	angles			
Round any whole	variables		Solve problems		
number to a required		Draw and translate	involving the		
degree of accuracy	Use their knowledge	simple shapes on the	calculation of		
	of the order of	coordinate plane,	percentages [for		
Solve problems involving	operations to carry	and reflect them in	example, of		
addition and subtraction	out calculations	the axes	measures, and such		
	involving the four		as 15% of 360] and		
Solve addition and	operations	Recognise, describe	the use of		
subtraction multi-step		and build simple 3-D	percentages for		
problems in context,	Generate and	shapes, including	comparison		
deciding which	describe linear	making nets			
operations and methods	number sequences		Interpret and		
to use and why		Illustrate and name	construct pie charts		
	Express missing	parts of circles,	and line graphs and		
Identify the value of each	number problems	including radius,	use these to solve		
digit in numbers given to	algebraically	diameter and	problems		
three decimal places and		circumference and			
multiply and divide	Solve problems	know that the	Calculate and		
numbers by 10, 100 and	involving addition,	diameter is twice the	interpret the mean		
1000, giving answers up	subtraction,	radius	as an average		
to three decimal places	multiplication and				
	division	Multiply simple pairs of			
Identify common factors,		proper fractions,	Solve problems		
common multiples and	Use common factors	writing the answer in its	involving the relative		
prime numbers	to simplify fractions;	simplest form	sizes of two		
	use common		quantities where		
Perform mental	multiples to express	Divide proper fractions	missing values can be		
calculations, including	fractions in the same	by whole numbers	found by using		
mixed operations and	denomination		integer multiplication		
large numbers		Recall and use	and division facts		
	Compare and order	equivalences between			
Multiply multi-digit	fractions, including	simple fractions and	Solve problems		
numbers up to 4 digits by	fractions > 1	decimals, including in	involving similar		
a two-digit whole		different contexts	shapes where the		



				 Δ	
number using the formal	Associate a fraction		scale factor is known		
written method of long	with division and	Solve problems	or can be found		
multiplication	calculate decimal	involving the			
	fraction equivalents	calculation and	Solve problems		
Multiply one-digit	[for example, 0.375]	conversion of units	involving unequal		
numbers with up to two	for a simple fraction	of measure, using	sharing and		
decimal places by whole	[for example, 38]	decimal notation up	grouping using		
numbers		to three decimal	knowledge of		
	Recall and use	places where	fractions and		
	equivalences	appropriate	multiples		
Divide numbers up to	between simple				
4 digits by a two-digit	fractions and	Use, read, write and			
number using the	decimals, including in	convert between			
formal written method	different contexts	standard units,			
of short division where		converting			
appropriate,	Generate and	measurements of			
interpreting	describe linear	length, mass, volume			
remainders according	number sequences	and time from a			
to the context	(with fractions)	smaller unit of			
		measure to a larger			
Divide numbers up to	Add and subtract	unit, and vice versa,			
4 digits by a two-digit	fractions with	using decimal			
whole number using	different	notation to up to			
the formal written	denominators and	three decimal places			
method of long	mixed numbers,				
division; interpret	using the concept of	Convert between			
remainders as whole	equivalent fractions	miles and			
number remainders,		kilometres			
fractions, or by	Recognise angles				
rounding	where they meet at a	Recognise that			
	point, are on a	shapes with the			
Use written division	straight line, or are	same areas can have			
methods in cases	vertically opposite,	different perimeters			
where the answer has	and find missing	and vice versa			
up to two decimal	angles				
places		Recognise when it is			
		possible to use			
		formulae for area			



Solve problems	Express missing	and volume of		
which require	number problems	shapes		
answers to be	algebraically.			
rounded to		Use simple formulae		
specified degrees of	Compare and classify			
accuracy	geometric shapes	Calculate the area of		
	based on their	parallelograms and		
Use estimation to	properties and sizes	triangles		
check answers to	and find unknown			
calculations and	angles in any	Calculate, estimate		
determine, in the	triangles,	and compare volume		
context of a	quadrilaterals and	of cubes and cuboids		
problem, an	regular polygons.	using standard units,		
appropriate degree		including cubic		
of accuracy		centimetres (cm3)		
		and cubic metres		
		(m3), and extending		
		to other units [for		
		example, mm3 and		
		km3]		
		Generate and		
		describe linear		
		number sequences		
		(with decimals)		