#### Long Term Plan for Maths Nursery

	Autumn 1	Autumn 2		Spring 1	Spring 2	Summer 1	Summer 2
Key	Rote counting	Touch counting	Matc	hing numerals to	Adding 1 more up to 5	Adding 1 more up to 10	Adding amounts together
Learning	Comparing quantities	Recognising numerals 1-5		uantities (1-5)	Writing numerals 5-10	3D shape	up to 10
	Positional language	Writing numerals 1-5	Recogr	nise numerals 5-10	Length and height		Capacity
		Passing of time		2D shape			
EYFS		<u>ibers</u>			<u>ibers</u>		<u>nbers</u>
Statements	22-36 r				nonths:		nonths:
		nber of objects from a group	•		rs identify how many objects	-	ups of objects, saying when
		ample, <i>'please give me one'</i> ,		are in a set.		they have the same	
	ʻplease give me two		•		sent numbers using fingers,	<ul> <li>Shows an interest in</li> </ul>	•
		er names in sequence.		marks on paper or p			of three or four objects in
		riments with symbols and	•		es numeral and quantity		inning to recognise that the
	marks representing			correctly.		total is still the sam	
	<ul> <li>Begins to make</li> </ul>	e comparisons between	Shows curiosity about numbers by offering		Shows an interest in	n representing numbers.	
	quantities.			comments or asking		None	la a un
	• Uses some langua	age of quantities, such as	<ul> <li>Shows an interest in numerals in the environment.</li> </ul>		<u>Numbers</u> 40-60+ months:		
		of this is	Realises not only objects, but anything can be		Recognise some	numerals of personal	
		oup of things changes in mething is added or taken	•	•	steps, claps or jumps.	significance.	numerais of personal
	away.	nething is added of taken		counted, including s	steps, claps of jumps.	Recognises numera	ls 1 to 5
	•	bers		Shane, Space	and Measure	_	or four objects by saying one
		nonths:	30-50 months:		number name for e		
	<ul> <li>Uses some num</li> </ul>		•	Shows awareness o	f similarities of shapes in the		objects which cannot be
	language spontaneo			environment.		moved.	
	• • •	names accurately in play.	•	Uses positional lang	guage.		numeral to represent 1 to 5.
	<ul> <li>Recites numbers in</li> </ul>		•	Shows interest	. •		
					y or by talking about shapes	Shape, Space	and Measure
	Shape, Space	and Measure		or arrangements.		30-50 r	nonths:
	22-36 r	nonths:	•	Shows interest in sh	napes in the environment.	<ul> <li>Uses shapes appropriately</li> </ul>	for tasks.
	<ul> <li>Notices simple shap</li> </ul>	es and patterns in pictures.	•	Uses shapes approp	oriately for tasks.	Beginning to talk about the	shapes of everyday objects,
	<ul> <li>Beginning to category</li> </ul>	gorise objects according to		. ,		e.g. 'round' and 'tall'.	
	properties such as s	hape or size.					

<ul> <li>Begins to use the language of size.</li> <li>Understands some talk about immediate past and future, e.g. 'before', 'later' or 'soon'.</li> <li>Anticipates specific time-based events such as mealtimes or home time.</li> </ul>	Shape, Space and Measure 40-60+ months:  • Beginning to use mathematical names for 'solid' 3D shapes and 'flat' 2D shapes, and mathematical terms to describe shapes.
Shape, Space and Measure 30-50 months:  Shows an interest in shape and space by playing with shapes or making arrangements with objects.	

# Long Term Plan for Maths Reception

	Autumn 1	Autumn 2	Sprir	ng 1	Spring 2	Summer 1	Summer 2
Key	Place Value – numbers to 5		Addition and Subtraction – numbers to 5		Geometry – exploring patterns		
Learning	Addition and Sub	traction – sorting		Place Value – ı			tion – counting on and back
		omparing groups	Additi		ction – addition to 10		e – numbers to 20
		tion – change within 5		Geometry- sha	ape and space		ivision – numerical patterns
	Measurem	nent – time				Measure	ment – measure
EYFS		<u>nbers</u>		<u>Num</u>		<del>-</del>	<u>lumbers</u>
Statements		nonths:		40-60+ ı			earning Goal:
	, , ,	of three or four objects in			nber of items in two groups		eliably with numbers from one
	-	inning to recognise that the		ounting all of th			nem in order and say which
	total is still the same	e.			one less from a group of up		more or one less than a given
				e objects, then	_	_	quantities and objects, they add
		<u>nbers</u>			es and discussion, beginning		wo single-digit numbers and
		months:			lary involved in adding and		k to find the answer. They solve
	-	or four objects by saying one		acting.		•	uding doubling, halving and
	number name for e			_	rks that they can interpret	sharing.	
		objects which cannot be		explain.		Shana Sn	ace and Measure
	moved.	10 and basinging to sount	_	•	own mathematical problems		earning Goal:
		10, and beginning to count	based	d on own inter	ests and fascinations.		eryday language to talk about
	beyond 10.	siv shipsts from a lawson		Chana Casas	and Managemen		pacity, position, distance, time
	·	six objects from a larger		Shape, Space 40-60+1			compare quantities and objects
	group.	numeral to represent 1 to 10	• Ordo		items by length or height.	•	oblems. They recognise, create
	objects.	numeral to represent 1 to 10			weight or capacity.	and describe	, ,
	•	r arrangement of up to ten					of everyday objects and shapes
	objects.	arrangement of up to ten		-	cts and common shapes to patterns and build models.		ematical language to describe
	•	ny objects they can see and			uage related to time.	them.	
	checks by counting				veryday language related to		
	_	e of 'more' and 'fewer' to	mone	•	very uay language related to		
	compare two sets o			•	ces familiar events.		
	·	nat is one more than a given		•	iods of time in simple ways.		
	number.	iac is one more than a given	• ivieds	oures short per	ious of time in simple ways.		
	namber.						

#### **Shape, Space and Measure** 30-50 months: Uses shapes appropriately for tasks. Beginning to talk about the shapes of everyday objects, e.g. 'round' and 'tall'. **Shape, Space and Measure** 40-60+ months: Beginning to use mathematical names for 'solid' 3D shapes and 'flat' 2D shapes, and mathematical terms to describe shapes. Selects a particular named shape. Can describe their relative position such as 'behind' or 'next to'. • Uses familiar objects and common shapes to create and recreate patterns and build models. Uses everyday language related to time.

Measures short periods of time in simple ways.

#### Long Term Plan for Maths Year 1

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key	Place value	Geometry	Place Value	Addition and Subtraction	Fractions	Addition and subtraction
Learning	Addition and Subtraction	Multiplication and Division	Multiplication and Division	Measurement	Multiplication and Division	Geometry
			Fractions		Addition and Subtraction	Time
					Statistics	
National	• Count to and across	<ul> <li>Recognise and name</li> </ul>	<ul> <li>Count to and across</li> </ul>	•	<ul> <li>Recognise, find and</li> </ul>	• Read, write and
Curriculum	100, forwards and	common 2-D and 3-D	100, forwards and	interpret	name a half as one of	interpret
objectives	backwards, beginning	shapes	backwards, beginning	mathematical	two equal parts of an	mathematical
	with 0 or 1, or from	• Describe position,	with 0 or 1, or from	statements involving	object, shape or	statements involving
	any given number	direction and	any given number	addition (+),	quantity	addition (+),
	<ul> <li>Count, read and write</li> </ul>	movement, including	<ul> <li>Count, read and write</li> </ul>	subtraction (–) and	<ul> <li>Recognise, find and</li> </ul>	subtraction (–) and
	numbers to 100 in	whole, half, quarter	numbers to 100 in	equals (=) signs	name a quarter as one	equals (=) signs
	numerals; count in	and three quarter	numerals; count in	·	of four equal parts of	
	multiples of twos,	turns.	multiples of twos,	number bonds and	an object, shape or	number bonds and
	fives and tens	• Solve one-step	fives and tens	related subtraction	quantity.	related subtraction
	<ul> <li>Given a number,</li> </ul>	problems involving	<ul> <li>Given a number,</li> </ul>	facts within 20	• Solve one-step	facts within 20
	identify one more and	multiplication and	identify one more and		problems involving	Add and subtract one-
	one less	division, by calculating	one less	digit and two-digit	multiplication and	digit and two-digit
	<ul> <li>Identify and represent</li> </ul>	the answer using	<ul> <li>Identify and represent</li> </ul>	numbers to 20,	division, by calculating	numbers to 20,
	numbers using objects	concrete objects,	numbers using objects	including zero	the answer using	including zero
	and pictorial	pictorial	and pictorial	'	concrete objects,	• Solve one-step
	representations	representations and	representations	problems that involve	pictorial	problems that involve
	including the number	arrays with the	including the number	addition and	representations and	addition and
	line, and use the	support of the	line, and use the	subtraction, using	arrays with the	subtraction, using
	language of: equal to,	teacher.	language of: equal to,	concrete objects and	support of the	concrete objects and
	more than, less than		more than, less than	pictorial	teacher.	pictorial
	(fewer), most, least		(fewer), most, least	representations, and		representations, and
	• Read and write		Read and write	missing number	100, forwards and	missing number
	numbers from 1 to 20		numbers from 1 to 20	problems such as 7 =	backwards, beginning	problems such as 7 =
	in numerals and		in numerals and	<b>-9</b> .	with 0 or 1, or from	<b>-</b> 9.
	words.		words.		any given numbeR.	
	<ul> <li>Read, write and</li> </ul>		<ul> <li>Solve one-step</li> </ul>	• Compare, describe	Count, read and write	<ul> <li>Recognise and name</li> </ul>

interpret					
mathematical					
statements	invo	lving			
addition		(+),			
subtraction	(-)	and			
equals (=) signs					

- Represent and use number bonds and related subtraction facts within 20
- Add and subtract onedigit and two-digit numbers to 20, including zero
- Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = -9.

- involving problems multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the of support the teacher.
- 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.

- and solve practical problems for: lengths and heights, mass/weight, capacity and volume, time
- Measure and begin to record the following: lengths and heights; mass/weight; capacity and volume; time (hours, minutes, seconds)
- Recognise and know the value of different denominations of coins and notes

- numbers to 100 in numerals; count in multiples of twos, fives and tens
- Given a number, identify one more and one less
- Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least
- Read and write numbers from 1 to 20 in numerals and words.
- Read, write and interpret mathematical statements involving addition (+),subtraction (–) and equals (=) signs ? represent and number bonds and subtraction related facts within 20
- Add and subtract onedigit and two-digit numbers to 20, including zero
- Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and

- common 2-D and 3-D shapes
- Describe position, direction and movement, including whole, half, quarter and three quarter turns.
- Sequence events in chronological order using language
- Recognise and use language relating to dates, including days of the week, weeks, months and years
- Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.

		missing number problems such as 7 = -9.	
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#### Long Term Plan for Maths Year 2

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key	Place value	Geometry	Place Value	Addition and Subtraction	Fractions	Addition and subtraction
Learning	Addition and Subtraction	Multiplication and Division	Multiplication and Division	Measurement	Multiplication and Division	Geometry
			Fractions		Addition and Subtraction	Time
					Statistics	
National	• Count in steps of 2, 3,	· ·	• Count in steps of 2, 3,	-	Recognise, find, name  1	·
Curriculum objectives	and 5 from 0, and in	the properties of 2-D	and 5 from 0, and in	addition and	and write fractions $\frac{1}{3}$ ,	addition and
objectives	tens from any number, forward and	shapes, including the number of sides and	tens from any number, forward and	subtraction: using concrete objects and	$\frac{1}{4}$ , $\frac{2}{4}$ , $\frac{3}{4}$ of a length,	subtraction: using concrete objects and
	backward	line symmetry in a	backward	pictorial	shape, set of objects	pictorial
	Recognise the place	vertical line	Recognise the place	representations,	or quantity	representations,
	value of each digit in a		value of each digit in a	including those	Write simple fractions	including those
	two-digit number	the properties of 3-D	two-digit number	involving numbers,	for example, $\frac{1}{2}$ of 6 = 3	involving numbers,
	(tens, ones)	shapes, including the	(tens, ones)	quantities and	and recognise the	quantities and
	• Identify, represent	number of edges,	• Identify, represent	measures, applying	equivalence of $\frac{2}{7}$ and $\frac{1}{3}$	measures, applying
	and estimate numbers	vertices and faces	and estimate numbers	their increasing	4 Z	their increasing
	using different	<ul> <li>Identify 2-D shapes on</li> </ul>	using different	knowledge of mental	<ul> <li>Recall and use multiplication and</li> </ul>	knowledge of mental
	representations,	the surface of 3-D	representations,	and written methods	division facts for the 2,	and written methods
	including the number	shapes,	including the number		5 and 10	Recall and use
	line	Compare and sort	line	addition and	multiplication tables,	addition and
	Compare and order	common 2-D and 3-D	Compare and order	subtraction facts to 20 fluently, and derive	including recognising	subtraction facts to 20
	numbers from 0 up to	shapes and everyday	numbers from 0 up to	and use related facts	odd and even	fluently, and derive and use related facts
	100; use <, > and = signs	<ul><li>objects.</li><li>Order and arrange</li></ul>	100; use <, > and = signs	up to 100	numbers	up to 100
	Read and write	<ul> <li>Order and arrange combinations of</li> </ul>	Read and write	Add and subtract	<ul> <li>Calculate</li> </ul>	<ul> <li>Add and subtract</li> </ul>
	numbers to at least	mathematical objects	numbers to at least	numbers using	mathematical	numbers using
	100 in numerals and in	in patterns and	100 in numerals and in	concrete objects,	statements for	concrete objects,
	words	sequences	words	pictorial	multiplication and	pictorial
	Use place value and	· '	Use place value and	representations, and	division within the	representations, and
	number facts to solve	vocabulary to describe	number facts to solve	mentally, including: a	multiplication tables and write them using	mentally, including: a
	problems.	position, direction and	problems.	two-digit number and	the multiplication (×),	two-digit number and
	Solve problems with	movement, including	• Recall and use	ones; a two-digit	division (÷) and equals	ones; a two-digit

- 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
- Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
- 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
- Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
- Recognise and use the inverse relationship between addition and subtraction and use this to check

- in а movement straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise).
- Recall and use multiplication and division facts for the 2, and 10 multiplication tables, including recognising odd and even numbers
- Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs
- Show that multiplication of two numbers can be done order any (commutative) and division of one number by another cannot
- Solve problems involving multiplication and division, using materials, arrays, addition, repeated

- multiplication and division facts for the 2, and 10 multiplication tables, including recognising odd and even numbers
- Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs
- Show that multiplication of two numbers can be done in order any (commutative) and division of one number by another cannot
- Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.
- Recognise, find, name and write fractions  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{2}{4}$ ,  $\frac{3}{4}$  of a length, shape, set of objects or quantity

- number and tens; two two-digit numbers; adding three one-digit numbers
- Show that addition of two numbers can be done in any order (commutative) subtraction of one number from another cannot
- Recognise and use the inverse relationship between addition and subtraction and use to check this calculations and solve missing number problems. 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
- Compare and order lengths, mass. volume/capacity and record the results using >, < and = [] recognise and use symbols for pounds (£) and pence (p); combine amounts to

- (=) signs
- Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot
- Solve problems involving multiplication and division. using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.
- 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
- Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
- Add and subtract numbers using concrete objects,

- number and tens; two two-digit numbers; adding three one-digit numbers
- Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
- Recognise and use the inverse relationship between addition and subtraction and use to check this calculations and solve missing number problems.
- Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line
- Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces
- Identify 2-D shapes on the surface of 3-D shapes,
- Compare and sort common 2-D and 3-D shapes and everyday objects.
- Order and arrange combinations of mathematical objects in patterns and sequences

calculations and solve missing number problems.	mental methods, and multiplication and division facts, including problems in contexts.	• Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$	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	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  Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot  Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.  Interpret and construct simple pictograms, tally charts, block diagrams and simple tables  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.	<ul> <li>Use 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 anticlockwise).</li> <li>Compare and sequence intervals of time</li> <li>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</li> <li>Know the number of minutes in an hour and the number of hours in a day.</li> </ul>
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#### Long Term Plan for Maths Year 3

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key	Place value	Geometry	Place Value	Addition and Subtraction	Fractions	Addition and subtraction
Learning	Addition and Subtraction	Multiplication and Division	Multiplication and Division	Measurement	Multiplication and Division	Geometry
			Fractions		Addition and Subtraction	Time
					Statistics	
National	• Count from 0 in	Draw 2-D shapes and		Add and subtract	Count up and down in	<ul> <li>Add and subtract</li> </ul>
Curriculum	multiples of 4, 8, 50	make 3-D shapes using	multiples of 4, 8, 50	numbers mentally,	tenths; recognise that	numbers mentally,
objectives	and 100; find 10 or	modelling materials;	and 100; find 10 or	including: a three-	tenths arise from	including: a three-
	100 more or less than	recognise 3-D shapes	100 more or less than	digit number and	dividing an object into	digit number and
	a given number.	in different	a given number.	ones; a three-digit	10 equal parts and in	ones; a three-digit
	Recognise the place	orientations and	Recognise the place	number and tens; a	dividing one-digit	number and tens; a
	value of each digit in a	<ul> <li>describe them.</li> <li>Recognise angles as a</li> </ul>	value of each digit in a	three-digit number and hundreds.	numbers or quantities by 10.	three-digit number and hundreds.
	three-digit number (hundreds, tens,	<ul> <li>Recognise angles as a property of shape or a</li> </ul>	three-digit number (hundreds, tens,	Add and subtract	Recognise, find and	Add and subtract
	ones).	description of a turn.	ones).	numbers with up to	write fractions of a	numbers with up to
	Compare and order	<ul> <li>Identify right angles,</li> </ul>	Compare and order	three digits, using	discrete set of objects:	three digits, using
	numbers up to 1000.	recognise that two	numbers up to 1000.	formal written	unit fractions and	formal written
	Identify, represent	right angles make a	• Identify, represent	methods of columnar	nonunit fractions with	methods of columnar
	and estimate numbers	half-turn, three make	and estimate numbers	addition and	small denominators 2	addition and
	using different	three quarters of a	using different	subtraction.	recognise and use	subtraction.
	representations.	turn and four a	representations.	• Estimate the answer	fractions as numbers:	• Estimate the answer
	• Read and write	complete turn;	Read and write	to a calculation and	unit fractions and non-	to a calculation and
	numbers up to 1000 in	identify whether	numbers up to 1000 in	use inverse operations	unit fractions with	use inverse operations
	numerals and in	angles are greater	numerals and in	to check answers.	small denominators.	to check answers.
	words.	than or less than a	words.	p. 55.1.5,	<ul> <li>Recognise and show,</li> </ul>	• Solve problems,
	• Solve number	right angle.	• Solve number	including missing	using diagrams,	including missing
	problems and	Identify horizontal and	problems and	number problems,	equivalent fractions	number problems,
	practical problems	vertical lines and pairs	practical problems	using number facts,	with small	using number facts,
	involving these ideas.	of perpendicular and	involving these ideas.	place value, and more	denominators.	place value, and more
	Add and subtract	parallel lines.	• Recall and use	complex addition and	Add and subtract	complex addition and
	numbers mentally,		multiplication and	subtraction.	fractions with the	subtraction.
	including: a three-	• Recall and use	division facts for the 3,	• Measure, compare,	same denominator	Draw 2-D shapes and

- number and digit ones; a three-digit number and tens: a three-digit number and hundreds.
- Add and subtract numbers with up to digits, three using formal written methods of columnar addition and subtraction.
- Estimate the answer to a calculation and use inverse operations to check answers.
- Solve problems. missing including number problems, using number facts, place value, and more complex addition and subtraction.

- multiplication and division facts for the 3, 4 and 8 multiplication • tables.
- Write and calculate mathematical statements for multiplication and division using the multiplication tables they that know. including for two-digit numbers times onedigit numbers, using and mental progressing to formal written methods.
- Solve 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.

- 4 and 8 multiplication tables.
- Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times onedigit numbers, using mental and progressing to formal written methods.
- Solve 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.
- Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.
- Recognise, find and write fractions of a discrete set of objects: unit fractions and non unit fractions with small denominators.
- Recognise and use

- add and subtract: lengths (m/cm/mm); mass (kg/g);volume/capacity (I/mI).
- Measure the perimeter of simple 2-D shapes.
- Add and subtract amounts of money to give change, using both £ and p in practical contexts.

- within one whole.
- Compare and order unit fractions, and fractions with the same denominators.
- Solve problems that involve all of the • above.
- Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.
- Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit | • numbers times onedigit numbers, using mental and progressing to formal | • written methods.
- problems, including missing number problems, involving multiplication and • division, including positive integer scaling problems correspondence problems in which n objects are connected to m objects.

Solve

Add and subtract numbers mentally, including: a threedigit number and

- make 3-D shapes using modelling materials; recognise 3-D shapes different in orientations and describe them.
- Recognise angles as a property of shape or a description of a turn.
- 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 horizontal and vertical lines and pairs of perpendicular and parallel lines.
- Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.
- Estimate and read time with increasing to the accuracy nearest minute: record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight.

fractions as numbers:	ones; a three-digit • Know the number of
unit fractions and	number and tens; a seconds in a minute
non-unit fractions	three-digit number and the number of
with small	and hundreds. days in each month,
denominators.	Add and subtract year and leap year.
<ul> <li>Recognise and show,</li> </ul>	numbers with up to   Compare durations of
using diagrams,	three digits, using events.
equivalent fractions	formal written
with small	methods of columnar
denominators.	addition and
Add and subtract	subtraction.
fractions with the	Estimate the answer
same denominator	to a calculation and
within one whole.	use inverse operations
Compare and order	to check answers.
unit fractions, and	Solve problems,
fractions with the	including missing
same denominators.	number problems,
Solve problems that	using number facts,
involve all of the	place value, and more
above.	complex addition and
	subtraction.
	Interpret and present
	data using bar charts,
	pictograms and tables.
	Solve one-step and
	two-step questions
	using information
	presented in scaled
	bar charts and
	pictograms and tables.

#### Long Term Plan for Maths Year 4

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key	Place value	Geometry	Place Value	Addition and Subtraction	Fractions	Addition and subtraction
Learning	Addition and Subtraction	Multiplication and Division	Multiplication and Division	Measurement	Multiplication and Division	Geometry
			Fractions		Addition and Subtraction	Time
					Statistics	
National	Count in multiples of	<ul> <li>Compare and classify</li> </ul>	<ul> <li>Count in multiples of</li> </ul>		<ul> <li>Recognise and show,</li> </ul>	<ul> <li>Add and subtract</li> </ul>
Curriculum	6, 7, 9, 25 and 1000.	geometric shapes,	6, 7, 9, 25 and 1000.	numbers with up to 4	using diagrams,	numbers with up to 4
objectives	Find 1000 more or less	including	<ul> <li>Find 1000 more or less</li> </ul>	digits using the formal	families of common	digits using the formal
	than a given number.	quadrilaterals and	than a given number.	written methods of	equivalent fractions.	written methods of
	Count backwards	triangles, based on	• Count backwards	columnar addition and	Count up and down in	columnar addition and
	through zero to	their properties and	through zero to	subtraction where	hundredths; recognise	subtraction where
	include negative	sizes.	include negative	appropriate	that hundredths arise	appropriate.
	numbers.	Identify acute and	numbers.	Estimate and use	when dividing an	
	Recognise the place	obtuse angles and compare and order	Recognise the place	inverse operations to check answers to a	object by one hundred and dividing tenths by	inverse operations to check answers to a
	value of each digit in a	angles up to two right	value of each digit in a	calculation	ten.	calculation.
	four-digit number (thousands, hundreds,	angles by size.	four-digit number (thousands, hundreds,		• Solve problems	
	tens, and ones).	• Identify lines of	tens, and ones).	subtraction two-step	involving increasingly	subtraction two-step
	Order and compare	symmetry in 2-D	<ul> <li>Order and compare</li> </ul>	problems in contexts,	harder fractions to	problems in contexts,
	numbers beyond 1000	shapes presented in	numbers beyond 1000	deciding which	calculate quantities,	deciding which
	• identify, represent	different orientations.	• identify, represent	operations and	and fractions to divide	operations and
	and estimate numbers	<ul> <li>Complete a simple</li> </ul>	and estimate numbers	methods to use and	quantities, including	methods to use and
	using different	symmetric figure with	using different	why.	non-unit fractions	why.
	representations.	respect to a specific	representations.	• Convert between	where the answer is a	Describe positions on
	Round any number to	line of symmetry.	<ul> <li>Round any number to</li> </ul>	different units of	whole number.	a 2-D grid as
	the nearest 10, 100 or	Recall multiplication	the nearest 10, 100 or	measure.	<ul> <li>Add and subtract</li> </ul>	coordinates in the first
	1000.	and division facts for	1000.	Measure and calculate	fractions with the	quadrant.
	Solve number and	multiplication tables	<ul> <li>Solve number and</li> </ul>	the perimeter of a	same denominator	<ul> <li>Describe movements</li> </ul>
	practical problems	up to 12 × 12.	practical problems	rectilinear figure	<ul> <li>Recognise and write</li> </ul>	between positions as
	that involve all of the	• Use place value,	that involve all of the	(including squares) in	decimal equivalents of	translations of a given
	above and with	known and derived	above and with	centimetres and	any number of tenths	unit to the left/right
	increasingly large	facts to multiply and	increasingly large	metres.	or hundredths.	and up/down.

- positive numbers.
- 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.
- Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.
- Estimate and use inverse operations to check answers to a calculation.
- Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.

- divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.
- Recognise and use factor pairs and commutativity in mental calculations.
- Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.

problems

Solve

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.

- positive numbers.
- 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.
- Recall multiplication and division facts for multiplication tables up to 12 × 12.
- 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.
- Recognise and use factor pairs and commutativity in mental calculations.
- Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.
- Solve 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.

- Find the area of rectilinear shapes by counting squares.
- Estimate, compare and calculate different measures, including money in pounds and pence.
- Recognise and write decimal equivalents to  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$
- Find the effect of dividing a one- or twodigit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.
- Round decimals with one decimal place to the nearest whole number.
- Compare numbers with the same number of decimal places up to two decimal places.
- Solve simple measure and money problems involving fractions and decimals to two decimal places.
- Recall multiplication and division facts for multiplication tables up to 12 × 12.
- 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.
- Recognise and use factor pairs and commutativity in mental calculations.
- Multiply two-digit and

- Plot specified points and draw sides to complete a given polygon.
- Read, write and convert time between analogue and digital 12- and 24-hour clocks.
- Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.

Recognise and show,	three-digit numbers
using diagrams,	by a one-digit number
families of common	using formal written
equivalent fractions.	layout.
Count up and down in	Solve problems
hundredths; recognise	involving multiplying
that hundredths arise	and adding, including
when dividing an	using the distributive
object by one hundred	law to multiply two
and dividing tenths by	digit numbers by one
ten.	digit, integer scaling
Solve problems	problems and harder
involving increasingly	correspondence
harder fractions to	problems such as n
calculate quantities,	objects are connected
and fractions to divide	to m objects.
quantities, including	Add and subtract
non-unit fractions	numbers with up to 4
where the answer is a	digits using the formal
whole number.	written methods of
Add and subtract	columnar addition and
fractions with the	subtraction where
same denominator.	appropriate.
Recognise and write	Estimate and use
decimal equivalents of	inverse operations to
any number of tenths	check answers to a
or hundredths.	calculation.
Recognise and write	Solve addition and
decimal equivalents to	subtraction two-step
$\frac{1}{4'}\frac{1}{2'}\frac{3}{4}$	problems in contexts,
Find the effect of	deciding which
dividing a one- or two-	operations and methods to use and
digit number by 10	why.
and 100, identifying	Interpret and present
the value of the digits	discrete and
in the answer as ones,	continuous data using
tenths and	appropriate graphical
hundredths.	methods, including
Round decimals with	bar charts and time
one decimal place to	graphs.
the nearest whole	Solve comparison,

number.	sum and difference
Compare numbers	problems using
with the same number	information presented
of decimal places up	in bar charts,
to two decimal places.	pictograms, tables and
Solve simple measure	other graphs.
and money problems	other graphs:
involving fractions and	
decimal places.	

#### Long Term Plan for Maths Year 5

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key	Place value	Geometry	Place Value	Addition and Subtraction	Fractions	Addition and subtraction
Learning	Addition and Subtraction	Multiplication and Division	Multiplication and Division	Measurement	Multiplication and Division	Geometry
			Fractions		Addition and Subtraction	Time
					Statistics	
National	<ul> <li>Read, write, order and</li> </ul>	• Identify 3-D shapes,	<ul> <li>Read, write, order and</li> </ul>	<ul> <li>Add and subtract</li> </ul>	Compare and order	Add and subtract
Curriculum	compare numbers to	including cubes and	compare numbers to	whole numbers with	fractions whose	whole numbers with
objectives	at least 1 000 000 and	other cuboids, from 2-	at least 1 000 000 and	more than 4 digits,	denominators are all	more than 4 digits,
	determine the value	D representations.	determine the value	including using formal	multiples of the same	including using formal
	of each digit.	Know angles are	of each digit.	written methods	number.	written methods
	Count forwards or	measured in degrees:	Count forwards or	(columnar addition	Identify, name and	(columnar addition
	backwards in steps of	estimate and compare	backwards in steps of	and subtraction).	write equivalent	and subtraction).
	powers of 10 for any given number up to	acute, obtuse and	powers of 10 for any	<ul> <li>Add and subtract numbers mentally</li> </ul>	fractions of a given fraction, represented	<ul> <li>Add and subtract numbers mentally</li> </ul>
	1 000 000.	reflex angles.	given number up to 1 000 000.	•	visually, including	with increasingly large
		<ul> <li>Draw given angles, and measure them in</li> </ul>		with increasingly large numbers.	tenths and	numbers.
	<ul> <li>Interpret negative numbers in context,</li> </ul>	degrees (o).	<ul> <li>Interpret negative numbers in context,</li> </ul>	<ul> <li>Use rounding to check</li> </ul>	hundredths.	Use rounding to check
	count forwards and	• Identify: angles at a	count forwards and	answers to	Recognise mixed	answers to
	backwards with	point and one whole	backwards with	calculations and	numbers and	calculations and
	positive and negative	turn (total 360o);	positive and negative	determine, in the	improper fractions	determine, in the
	whole numbers,	angles at a point on a	whole numbers,	context of a problem,	and convert from one	context of a problem,
	including through	straight line and 2 1 a	including through	levels of accuracy.	form to the other and	levels of accuracy.
	zero.	turn (total 180o);	zero.	<ul> <li>Solve addition and</li> </ul>	write mathematical	<ul> <li>Solve addition and</li> </ul>
	<ul> <li>Round any number up</li> </ul>	other multiples of	<ul> <li>Round any number up</li> </ul>	subtraction multi-step	statements > 1 as a	subtraction multi-step
	to 1 000 000 to the	90o.	to 1 000 000 to the	problems in contexts,	mixed number.	problems in contexts,
	nearest 10, 100, 1000,	Use the properties of	nearest 10, 100, 1000,	deciding which	<ul> <li>Add and subtract</li> </ul>	deciding which
	10 000 and 100 000.	rectangles to deduce	10 000 and 100 000.	operations and	fractions with the	operations and
	• Solve number	related facts and find	• Solve number	methods to use and	same denominator	methods to use and
	problems and	missing lengths and	problems and	why.	and denominators	why.
	practical problems	angles.	practical problems	• Convert between	that are multiples of	Identify, describe and
	that involve all of the	<ul> <li>Distinguish between</li> </ul>	that involve all of the	different units of	the same number.	represent the position
	above.	regular and irregular	above.	metric measure.	<ul> <li>Multiply proper</li> </ul>	of a shape following a

- Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.
- Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).
- Add and subtract numbers mentally with increasingly large numbers.
- Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.
- Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

- polygons based on reasoning about equal sides and angles.
- Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.
- Know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers.
- Establish whether a number up to 100 is prime and recall prime numbers up to 19.
- 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 and divide numbers mentally drawing upon known facts.
- 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.
- Multiply and divide whole numbers and those involving decimals by 10, 100

- Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.
- factors, including finding all factor pairs of a number, and common factors of two numbers.
- Know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers.
- Establish whether a number up to 100 is prime and recall prime numbers up to 19.
- 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 and divide numbers mentally drawing upon known facts.
- 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.
- Multiply and divide whole numbers and

- Understand and use approximate 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.
- Calculate and compare the area of rectangles (including squares), and including standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes.
- Estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water].
- Solve problems involving converting between units of time.
- Use all four operations to solve problems involving measure using decimal notation, including scaling.

- fractions and mixed numbers by whole numbers, supported by materials and diagrams.
- Read and write decimal numbers as fractions.
- Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.
- Round decimals with two decimal places to the nearest whole number and to one decimal place.
- Read, write, order and compare numbers with up to three decimal places.
- Solve problems involving number up to three decimal places.
- 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 <sup>1</sup>/<sub>2</sub>, <sup>1</sup>/<sub>4</sub>, <sup>1</sup>/<sub>5</sub>, <sup>2</sup>/<sub>5</sub>, <sup>4</sup>/<sub>5</sub> and those

reflection or translation, using the appropriate language, and know that the shape has not changed.

involving multiplication	and 1000.  Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3).  and Solve problems involving	denominator of a multiple of 10 or 25.  Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.  Know and use the vocabulary of prime numbers, prime	
multiples, squa cubes.		(non prime) numbers.	
<ul> <li>Solve prinvolving as subtraction, multiplication division and combination of including understanding meaning of the sign.</li> <li>Solve prinvolving multiplication division, in scaling by fractions</li> </ul>	multiples, squares and cubes.  Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.  and compare and order fractions whose denominators are all multiples of the same number.  Identify, name and	number up to 100 is prime and recall prime numbers up to 19.  • 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 and divide numbers mentally drawing upon known facts.  • Divide numbers up to 4 digits by a one-digit number using the formal written	
	write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.  Recognise mixed numbers and	division and interpret remainders appropriately for the context.  • Multiply and divide whole numbers and	

decimals by 10, 100

and convert from one	and 1000.
form to the other and	Recognise and use
write mathematical	square numbers and
statements > 1 as a	cube numbers, and
mixed number.	the notation for
Add and subtract	squared (2) and cubed
fractions with the	(3).
same denominator	Solve problems
and denominators	involving
that are multiples of	multiplication and
the same number.	division including
Multiply proper	using their knowledge
fractions and mixed	of factors and
numbers by whole	multiples, squares and
numbers, supported	cubes.
by materials and	Solve problems
diagrams.	involving addition,
Read and write	subtraction,
decimal numbers as	multiplication and
fractions.	I
	division and a combination of these,
Recognise and use thousandths and	·
	including understanding the
relate them to tenths,	
hundredths and	meaning of the equals
decimal equivalents.	sign.
Round decimals with	Add and subtract      Add and subtract
two decimal places to	whole numbers with
the nearest whole	more than 4 digits,
number and to one	including using formal
decimal place.	written methods
Read, write, order and	(columnar addition
compare numbers	and subtraction).
with up to three	Add and subtract
decimal places.	numbers mentally
Solve problems	with increasingly large
involving number up	numbers.
to three decimal	Use rounding to check
places.	answers to
Recognise the per	calculations and
cent symbol (%) and	determine, in the
understand that per	context of a problem,
cent relates to	levels of accuracy.

T , , , , , , , , , , , , , , , , , , ,	
'number of parts per	Solve addition and
hundred', and write	subtraction multi-step
percentages as a	problems in contexts,
fraction with	deciding which
denominator 100, and	operations and
as a decimal.	methods to use and
Solve problems which	why.
require knowing	• Solve comparison,
percentage and	sum and difference
decimal equivalents	problems using
of $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{1}{5}$ , $\frac{2}{5}$ , $\frac{4}{5}$ and those	information presented
fractions with a	in a line graph.
denominator of a	Complete, read and
multiple of 10 or 25.	interpret information
	in tables, including
	timetables.

#### Long Term Plan for Maths Year 6

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Key	Place value	Geometry	Place Value	Addition and Subtraction	Fractions	Addition and subtraction
Learning	Addition and Subtraction	Multiplication and Division	Multiplication and Division	Measurement	Multiplication and Division	Geometry
			Fractions		Addition and Subtraction	Ratio and Proportion
					Statistics	
National	<ul> <li>Read, write, order and</li> </ul>	<ul> <li>Draw 2-D shapes using</li> </ul>	Read, write, order and	<ul> <li>Solve addition and</li> </ul>	Use common factors	Solve addition and
Curriculum	compare numbers up	given dimensions and	compare numbers up	subtraction multi-step	to simplify fractions;	subtraction multi-step
objectives	to 10 000 000 and	angles.	to 10 000 000 and	problems in contexts,	use common multiples	problems in contexts,
	determine the value	<ul> <li>Recognise, describe</li> </ul>	determine the value	deciding which	to express fractions in	deciding which
	of each digit.	and build simple 3-D	of each digit.	operations and	the same	operations and
	Round any whole	shapes, including	Round any whole	methods to use and	denomination.	methods to use and
	number to a required	making nets.	number to a required	why.	Compare and order	why.
	degree of accuracy.	Compare and classify	degree of accuracy.	Perform mental     salaulations including	fractions, including fractions > 1.	Perform mental     adjusting including
	Use negative numbers	geometric shapes	Use negative numbers	calculations, including		calculations, including
	in context, and calculate intervals	based on their properties and sizes	in context, and calculate intervals	with mixed operations and large numbers.	<ul> <li>Add and subtract fractions with</li> </ul>	with mixed operations and large numbers.
	across zero.	and find unknown	across zero.	<ul> <li>Use their knowledge</li> </ul>	different	<ul> <li>Use their knowledge</li> </ul>
	<ul> <li>Solve number and</li> </ul>	angles in any triangles,	Solve number and	of the order of	denominators and	of the order of
	practical problems	quadrilaterals, and	practical problems	operations to carry	mixed numbers, using	operations to carry
	that involve all of the	regular polygons.	that involve all of the	out calculations	the concept of	out calculations
	above.	Illustrate and name	above.	involving the four	equivalent fractions.	involving the four
	<ul> <li>Solve addition and</li> </ul>	parts of circles,	Multiply multi-digit	operations.	Multiply simple pairs	operations.
	subtraction multi-step	including radius,	numbers up to 4 digits	Solve problems	of proper fractions,	Solve problems
	problems in contexts,	diameter and	by a two-digit whole	involving addition,	writing the answer in	involving addition,
	deciding which	circumference and	number using the	subtraction,	its simplest form.	subtraction,
	operations and	know that the	formal written	multiplication and	• Divide proper	multiplication and
	methods to use and	diameter is twice the	method of long	division.	fractions by whole	division.
	why.	radius.	multiplication.	• Use estimation to	numbers.	• Use estimation to
	• Perform mental	<ul> <li>Recognise angles</li> </ul>	Divide numbers up to	check answers to	<ul> <li>Associate a fraction</li> </ul>	check answers to
	calculations, including	where they meet at a	4 digits by a two-digit	calculations and	with division and	calculations and
	with mixed operations	point, are on a	whole number using	determine, in the	calculate decimal	determine, in the
	and large numbers.	straight line, or are	the formal written	context of a problem,	fraction equivalents	context of a problem,

- Use their knowledge of the order of operations to carry out calculations involving the four operations.
- Solve problems involving addition, subtraction, multiplication and division.
- Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.

- vertically opposite, and find missing angles.
- Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.
- 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 bν rounding, as appropriate for the context.
- Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context.
- Identify common factors, common multiples and prime numbers.
- Perform mental calculations, including with mixed operations and large numbers.
- Use their knowledge of the order of

- method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.
- Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context.
- Perform mental calculations, including with mixed operations and large numbers.
- Use their knowledge of the order of operations to carry out calculations involving the four operations.
- Solve problems involving addition, subtraction, multiplication and division.
- Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
- use common factors to simplify fractions;

- an appropriate degree of accuracy.
- Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.
- 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.
- Convert between miles and kilometres.
- Recognise that shapes with the same areas can have different perimeters and vice versa.
- Recognise when it is possible to use formulae for area and volume of shapes.
- Calculate the area of parallelograms and triangles.
- Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic

 Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10. 100 and 1000

for a simple fraction.

Multiply one-digit numbers with up to two decimal places by whole numbers.

giving answers up to

three decimal places.

- Use written division methods in cases where the answer has up to two decimal places.
- Solve problems which require answers to be rounded to specified degrees of accuracy.
- Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
- Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.
- 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

- an appropriate degree of accuracy.
- Describe positions on the full coordinate grid (all four quadrants).
- Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.
- 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.
- 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.
- Use simple formulae 
   generate and describe
   linear number
   sequences.
- Express missing number problems algebraically.
- Find pairs of numbers that satisfy an

T		<del>-</del>	<u>.</u>	
operations to carry	use common multiples	centimetres (cm3) and	number remainders,	equation with two
out calculations	to express fractions in	cubic metres (m3),	fractions, or by	unknowns.
involving the four	the same	and extending to		<ul> <li>Enumerate</li> </ul>
operations.	denomination.	other units.	appropriate for the	possibilities of
• Solve problems	<ul> <li>Compare and order</li> </ul>		context.	combinations of two
involving addition,	fractions, including		• Divide numbers up to	variables.
subtraction,	fractions > 1.		4 digits by a two-digit	
multiplication and	<ul> <li>Add and subtract</li> </ul>		number using the	
division.	fractions with		formal written	
• Use estimation to	different		method of short	
check answers to	denominators and		division where	
calculations and	mixed numbers, using		appropriate,	
determine, in the	the concept of		interpreting	
context of a problem,	equivalent fractions.		remainders according	
an appropriate degree	<ul> <li>Multiply simple pairs</li> </ul>		to the context.	
of accuracy.	of proper fractions,		• Identify common	
	writing the answer in		factors, common	
	its simplest form.		multiples and prime	
	• Divide proper		numbers.	
	fractions by whole		<ul> <li>Solve addition and</li> </ul>	
	numbers.		subtraction multi-step	
	<ul> <li>Associate a fraction</li> </ul>		problems in contexts,	
	with division and		deciding which	
	calculate decimal		operations and	
	fraction equivalents		methods to use and	
	for a simple fraction.		why.	
	Identify the value of		Perform mental	
	each digit in numbers		calculations, including	
	given to three decimal		with mixed operations	
	places and multiply		and large numbers.	
	and divide numbers by		Use their knowledge	
	10, 100 and 1000		of the order of	
	giving answers up to		operations to carry	
	three decimal places.		out calculations	
			involving the four	
			operations.	
			Solve problems	
			involving addition,	
			subtraction,	
			multiplication and	
			division.	
			<ul> <li>Use estimation to</li> </ul>	

of accuracy.  Interpret and construct pie charts and line graphs and use these to solve problems.  Calculate and interpret the mean as an average.
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