

Year 3 Long Term Plan:

	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12
Aut		mber: Place V 3NPV-2, 3NPV-3		Num		tion and , 3AS-2, 3A	Subtraction S-3				itiplication and Divi 3-MD-1, 3NF-2	sion A
Spr		er: Mulitiplicat Division B IF-2, 3NF-3, 3M		Measuremen Perin 3NF-1, 3NPV-2,	neter			nber: Fractic 3F-1, 3F-2, 3F-	-	Mea	surement: Mass and 3AS-2, 3NF-1, 3NP	
Sum		Fractions B 2, 3F-3, 3F-4		asurement: Money 3NPV-2, 3AS-2	Me	asuremer	nt: Time	of SI	: Properties napes , 3G-2		itatistics 3NPV-4	Consolidation



In line with government guidance, the Year 3 Ready-to-Progress criteria has been mapped to the long term plan. The Ready-to-Progress criteria sets out the key areas that children must be secure with in order to progress with their learning the following year.

There are 6 strands within this criteria: Number and Place Value, Number Facts, Addition and Subtraction, Multiplication and Division, Fractions and Geometry.

Strand	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
NPV	1NPV-1 Count within		3NPV–1 Know that	4NPV–1 Know that	5NPV–1 Know that	6NPV-1 Understand
	100, forwards and		10 tens are	10 hundreds are	10 tenths are	the relationship
	backwards, starting		equivalent to 1	equivalent to 1	equivalent to 1 one,	between powers of
	with any number.		hundred, and that	thousand, and that	and that 1 is 10 times	10 from 1 hundredth
			100 is 10 times the	1,000 is 10 times the	the size of 0.1. Know	to 10 million, and use
			size of 10; apply this	size of 100; apply this	that 100 hundredths	this to make a given
			to identify and work	to identify and work	are equivalent to 1	number 10, 100,
			out how many 10s	out how many 100s	one, and that 1 is 100	1,000, 1 tenth, 1
			there are in other	there are in other	times the size of	hundredth or 1
			threedigit multiples	four-digit multiples of	0.01. Know that 10	thousandth times the
			of 10	100.	hundredths are	size (multiply and
					equivalent to 1 tenth,	divide by 10, 100 and
					and that 0.1 is 10	1,000).
					times the size of	
					0.01.	
		2NPV-1 Recognise	3NPV-2 Recognise	4NPV-2 Recognise	5NPV-2 Recognise	6NPV-2 Recognise
		the place value of	the place value of	the place value of	the place value of	the place value of
		each digit in two-	each digit in three-	each digit in four-	each digit in	each digit in
		digit numbers, and	digit numbers, and	digit numbers, and	numbers with up to	numbers up to 10
		compose and	compose and	compose and	2 decimal places,	million, including
		decompose two-	decompose three-	decompose four-	and compose and	decimal fractions,
		digit numbers using	digit numbers using	digit numbers using	decompose	and compose and
		standard and	standard and non-	standard and	numbers with up to	decompose



						1
		nonstandard	standard	nonstandard	2 decimal places	numbers up to 10
		partitioning.	partitioning.	partitioning.	using standard and	million using
					nonstandard	standard and
					partitioning.	nonstandard
						partitioning.
	1NPV-2 Reason	2NPV-2 Reason	3NPV-3 Reason	4NPV-3 Reason	5NPV-3 Reason	6NPV-3 Reason
	about the location of	about the location of				
	numbers to 20	any twodigit	any threedigit	any fourdigit	any number with up	any number up to
	within the linear	number in the linear	number in the linear	number in the linear	to 2 decimals places	10 million, including
	number system,	number system,	number system,	number system,	in the linear number	decimal fractions, in
	including comparing	including identifying	including identifying	including identifying	system, including	the linear number
	using < > and =	the previous and	the previous and	the previous and	identifying the	system, and round
		next multiple of 10.	next multiple of 100	next multiple of	previous and next	numbers, as
			and 10.	1,000 and 100, and	multiple of 1 and 0.1	appropriate,
				rounding to the	and rounding to the	including in
				nearest of each.	nearest of each.	contexts.
			3NPV-4 Divide 100	4NPV-4 Divide	5NPV-4 Divide 1	6NPV-4 Divide
			into 2, 4, 5 and 10	1,000 into 2, 4, 5	into 2, 4, 5 and 10	powers of 10, from 1
			equal parts, and	and 10 equal parts,	equal parts, and	hundredth to 10
			read scales/number	and read	read scales/number	million, into 2, 4, 5
			lines marked in	scales/number lines	lines marked in	and 10 equal parts,
			multiples of 100	marked in multiples	units of 1 with 2, 4, 5	and read
			with 2, 4, 5 and 10	of 1,000 with 2, 4, 5	and 10 equal parts.	scales/number lines
			equal parts.	and 10 equal parts.		with labelled
			1 1			intervals divided
						into 2, 4, 5 and 10
						equal parts.
					5NPV-5 Convert	
					between units of	
					measure, including	
					using common	
					decimals and	
					fractions.	
NF	1NF-1 Develop	2NF-1 Secure	3NF-1 Secure			
	fluency in addition	fluency in addition	fluency in addition			
						1



and subtraction	and subtraction	and subtraction			
facts within 10.	facts within 10,	facts that bridge 10,			
	through continued	through continued			
	practice.	practice.			
1NF-2 Count		3NF-2 Recall	4NF–1 Recall	5NF-1 Secure	
forwards and		multiplication facts,	multiplication and	fluency in	
backwards in		and corresponding	division facts up to ,	multiplication table	
multiples of 2, 5 and		division facts, in the	and recognise	facts, and	
10, up to 10		10, 5, 2, 4 and 8	products in	corresponding	
multiples, beginning with any multiple,		multiplication tables, and	multiplication tables as multiples of the	division facts, through continued	
and count forwards		recognise products	corresponding	practice.	
and backwards		in these	number.	practice.	
through the odd		multiplication tables	number.		
numbers.		as multiples of the			
		corresponding			
		number.			
			4NF-2 Solve		
			division problems,		
			with two-digit		
			dividends and one-		
			digit divisors, that		
			involve remainders,		
			and interpret		
			remainders		
			appropriately according to the		
			context.		
		3NF-3 Apply place-	4NF-3 Apply place-	5NF-2 Apply place-	
		value knowledge to	value knowledge to	value knowledge to	
		known additive and	known additive and	known additive and	
		multiplicative	multiplicative	multiplicative	
		number facts	number facts	number facts	
		(scaling facts by 10).	(scaling facts by	(scaling facts by 1	
			100)		



				tenth or 1	
				hundredth).	
AS	1AS-1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.	2AS–1 Add and subtract across 10.	3AS–1 Calculate complements to 100.	nunureunj.	6AS/MD-1 Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a
	1AS-2 Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts.	2AS-2 Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more?".	3AS–2 Add and subtract up to three- digit numbers using columnar methods.		whole number). 6AS/MD-2 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.
		2AS-3 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two-digit number.	3AS-3 Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part-part-whole		6AS/MD-3 Solve problems involving ratio relationships.



	2AS-4 Add and	structure. Understand and use the commutative property of addition, and understand the related property for subtraction.			6AS/MD-4 Solve
	subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two- digit numbers.				problems with 2 unknowns.
MD	2MD-1 Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables.	3MD-1 Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division.	4MD-1 Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size.	5MD-1 Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size.	For year 6, MD ready-to-progress criteria are combined with AS ready-to-progress criteria (please see above).
	2MD-2 Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division		4MD-2 Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication.	5MD-2 Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors.	



	equations (quotitive division).				
			4MD-3 Understand	5MD-3 Multiply any	
			and apply the	whole number with	
			distributive	up to 4 digits by any	
			property of	one-digit number	
			multiplication.	using a formal	
			· · F	written method.	
				5MD-4 Divide a	
				number with up to 4	
				digits by a one-digit	
				number using a	
				formal written	
				method, and	
				interpret	
				remainders	
				appropriately for	
				the context.	
F		3F–1 Interpret and			6F-1 Recognise
		write proper			when fractions can
		fractions to			be simplified, and
		represent 1 or			use common factors
		several parts of a			to simplify fractions.
		whole that is			
		divided into equal			
		parts.			
		3F–2 Find unit		5F–1 Find non-unit	6F–2 Express
		fractions of		fractions of	fractions in a
		quantities using		quantities.	common
		known division facts			denomination and
		(multiplication			use this to compare
		tables fluency).			fractions that are
					similar in value.
		3F–3 Reason about	4F–1 Reason about		6F-3 Compare
		the location of any	the location of		fractions with



			fraction within 1 in the linear number system.	mixed numbers in the linear number system.		different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy.
				4F–2 Convert mixed numbers to improper fractions and vice versa.	5F–2 Find equivalent fractions and understand that they have the same value and the same position in the linear number system.	
			3F–4 Add and subtract fractions with the same denominator, within 1.	4F–3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers	5F–3 Recall decimal fraction equivalents for $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$ and $\frac{1}{10}$ and for multiples of these proper fractions.	
G	1G–1 Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles,	2G–1 Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and	3G-1 Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in		5G–1 Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size.	



cuboids and pyramids are not always similar to one another.	differences in properties.	different orientations.			
				5G–2 Compare areas and calculate the area of rectangles (including squares) using standard units.	
1G-2 Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations.		3G–2 Draw polygons by joining marked points, and identify parallel and perpendicular sides.	4G–1 Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant.		6G–1 Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.
			4G-2 Identify regular polygons, including equilateral triangles and squares, as those in which the side- lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons.		
			4G-3 Identify line symmetry in 2D shapes presented in different		



	orientations. Reflect shapes in a line of symmetry and	
	complete a symmetric figure or	
	pattern with respect to a specified line of symmetry.	

Maths Programme of Study National Curriculum (2013)

Purp	ose of study	Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution
		to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering,
		and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a
		foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of
		mathematics, and a sense of enjoyment and curiosity about the subject.



Aims	 The national curriculum for mathematics aims to ensure that all pupils: become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately. reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language can solve problems by applying their mathematics to a variety of routine and nonroutine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions. Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The programmes of study are, by necessity, organised into apparently distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. They should also apply their mathematical knowledge to science and other subjects. The expectation is that the majority of pupils will move through the programmes of study are based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.
Subject content – by the end of Key Stage 1 pupils should be taught to:	The principal focus of mathematics teaching in key stage 1 is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. This should involve working with numerals, words and the four operations, including with practical resources [for example, concrete objects and measuring tools]. At this stage, pupils should develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching should also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money. By the end of year 2, pupils should know the number bonds to 20 and be precise in using and understanding place value. An emphasis on practice at this early stage will aid fluency. Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.



the end	content – by of Lower Key pupils should nt to:	The principal focus of mathematics teaching in lower key stage 2 is to ensure that pupils become increasingly fluent with whole numbers and the four operations, including number facts and the concept of place value. This should ensure that pupils develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers. At this stage, pupils should develop their ability to solve a range of problems, including with simple fractions and decimal place value. Teaching should also ensure that pupils draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties, and confidently describe the relationships between them. It should ensure that they can use measuring instruments with accuracy and make connections between measure and number. By the end of year 4, pupils should have memorised their multiplication tables up to and including the 12 multiplication table and show precision and fluency in their work. Pupils should read and spell mathematical vocabulary correctly and confidently, using their growing word reading knowledge and their knowledge of spelling.
-	content – by	The principal focus of mathematics teaching in upper key stage 2 is to ensure that pupils extend their understanding of the
	of Upper Key	number system and place value to include larger integers. This should develop the connections that pupils make between
	pupils should	multiplication and division with fractions, decimals, percentages and ratio. At this stage, pupils should develop their ability to
be taugh	זד דס:	solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems demanding efficient written and mental methods of calculation. With this foundation in arithmetic, pupils are introduced to the language of algebra as a means for solving a variety of problems. Teaching in geometry and measures should consolidate and extend knowledge developed in number. Teaching should also ensure that pupils classify shapes with increasingly complex geometric properties and that they learn the vocabulary they need to describe them. By the end of year 6, pupils should be fluent in written methods for all four operations, including long multiplication and division, and in working with fractions, decimals and percentages. Pupils should read, spell and pronounce mathematical vocabulary correctly.



Year 3 Curriculum Progression

What should they know from the previous year?	What should they know this year?	Where are they going next year?
Year 2	Year 3	Year 4
	Number – Number and place value	
• Count in steps of 2, 3 and 5 from 0 and in 10s from any number, forward and backward.	 Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more/less. 	 Count in multiples of 6, 7, 9, 25 and 1000.
Recognise the place value of each	 Recognise the place value of 3-digit number (hundreds, tens, ones). 	• Find 1000 more or less.
digit in a 2-digit number (tens, ones).	• Compare and order numbers to 1000.	 Count backwards through zero to include negative numbers.
 Identify, represent and estimate numbers using different representations (including the number line). 	 Identify, represent and estimate numbers using different representations. 	 Recognise the place value of each 4- digit number (thousands, hundreds, tens, ones.)
 Compare and order numbers from 0 to 100; use < , > and = 	 Read and write numbers to 1000 in numerals and words. 	 Order and compare numbers beyond 1000.
 Read and write numbers to at least 100 in numerals and words. 	 Solve number problems and practical problems involving these ideas. 	 Identify, represent and estimate numbers using different representations.



 Use place value and number facts to solve problems. 		 Round any number to the nearest 10, 100 or 1000. Solve numbe and practical problems involving the above. Read Roman numerals to 100 and know that the numeral system changed over time to include zero/place value.
	Number – addition and subtraction	
 Solve problems with addition and subtraction (using concrete objects and pictorial representations; applying their increasing knowledge of mental and written methods.) Recall and use addition and subtraction facts to 20 fluently and derive/use related facts up to 100. Add and subtract numbers using concrete objects, pictorial representations and mentally (including: 2-digit number and ones; 2-digit number and tens; two 2-digit 	 Add and subtract numbers mentally including: 3-digit number and ones; 3-digit number and ones; 3-digit number and hundreds). Add and subtract numbers with 3 digits, using formal written methods (column addition and subtraction). Estimate the answer to a calculation and use inverse operations to check answers. Solve problems, including missing number, using number facts, place value and more complex + and - 	 Add and subtract numbers with up to 4 digits using formal written methods (column). Estimate and use inverse operations to check answers to calculations. Solve addition and subtraction two-step problems in context, deciding which operations/method to use and why.



 numbers; adding three 1-digit numbers). Show that addition can be done in any order (commutative) and subtraction can't. Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. 			
Number – multiplication and division			
 Recall and use x and ÷ facts for 2, 5 and 10 times tables and recognise odd and even numbers. Calculate x and ÷ statements within times tables and use the signs. Show multiplication can be done in any order (commutative) and division can't. 	 Recall and use x and ÷ facts for 3, 4 and 8 times tables. Write an calculate x and ÷ statements using times tables they know (including 2-digit numbers times 1- digit, using mental method then written). Solve problems, including missing number, involving x and ÷ (including positive integer scaling problems and correspondence problems.) 	 Recall x and ÷ facts for times tables up to 12 x 12. Use place value, known and derived facts to x and ÷ mentally (including x 0 and 1, ÷ 1, x 3 numbers together). Recognise and use factor pairs and commutativity in mental calculations. Multiply 2-digit and 3-digit numbers by 1-digit using formal method. Solve problems involving x and (including distributive law to x 2-digit 	



• Solve problems involving x and ÷ (using materials, arrays, repeated addition, mental methods)		numbers by 1-digit, integer scaling problems and harder correspondence problems.)
	Number - fractions	
 Recognise, find, name and write fractions: ¹/₃, ¹/₄, ²/₄ and ³/₄ of length, shape, objects and quantity. Write simple fractions and recognise equivalent of ¹/₂ and , ²/₄ 	 Count up and down in tenths; recognise tenths come from ÷ 10. Recognise, find and write fractions of objects (unit and non-unit fractions with small denominators). Recognise and use fractions as numbers Recognise and show, using diagrams, equivalent fractions with small denominators. Add and subtract fractions with same denominator within 1 whole. Compare and order unit fractions/fractions with same denominator. 	 Recognise and show, using diagrams, families of common equivalent fractions. Count up and down in hundredths; recognise hundredths come from ÷ 100 or ÷ tenths by 10. Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities (including non-unit fractions where the answer is a whole number). Add and subtract fractions with same denominator. Recognise and write decimal equivalents of any number of tenths and hundredths.
	Solve problems involving above.	



		 Recognise and write decimal equivalents to ¹/₄, ²/₄ and ³/₄. Find effect of dividing a 1 or 2-digit number by 10 and 100 (<i>identifying value of digits as ones, tenths, hundredths</i>). Round decimals with 1dp to nearest whole number. Compare numbers with same number of decimals (<i>up to 2dp</i>). Solve simple measure and money problems involving fractions and decimals (<i>to 2dp</i>).
	Measurement	
 Choose and use appropriate standard units to estimate and measure: length/height; mass; temperature; 	 Measure, compare, add and subtract: lengths; mass; volume/capacity. 	 Convert between different units of measure.
capacity.	• Measure perimeter of 2D shapes.	 Measure and calculate perimeter of rectilinear figure (cms, ms).
 Compare and order: lengths; mass; volume/capacity and record results using < , > and = 	 Add and subtract amounts of money to give change. 	 Find area of rectilinear shapes by counting squares.



 Recognise and use symbols for pounds and pence; combine amounts to make value Find different combinations of coins that equal same amount of money. Solve simple problems in practical context involving + and – of money <i>(including giving change).</i> Compare and sequence intervals of time. Tell and write time to 5 minutes and draw hands on clock. Know number of minutes in hour and hours in a day. 	 Tell and write time from analogue clock (including Roman numerals from I to XII; 12 and 24hr clocks). Estimate and read time to nearest minute. Record and compare time using secs, mins and hours. Know number of seconds in minute and days in each month and leap year. Compare durations of events. 	 Estimate, compare and calculate different measures, including money in pounds and pence. Read, write and convert between analogue and digitial 12 and 24-hr clocks. Solve problems involving converting from hours to mins; mins to secs; years to months; weeks to days.
	Geometry – properties of shapes	
 Identify and describe 2D shapes (number of sides, vertical lines of symmetry). Identify and describe 3D shapes (edges, vertices, faces). 	 Draw 2D shapes and make 3D shapes using materials. Recognise 3D shapes in different orientations and describe them. 	 Compare and classify geometric shapes (including quadrilaterals and triangles, based on their properties and sizes).



 Identify 2D shapes on surface of 3D shapes. Compare and sort 2D and 3D shapes. 	 Identify right angles (2 right angles make half-turn; 3 make ¾ turn; 4 make complete turn; identify angles less than/greater than right angle). Identify horizontal and vertical lines and perpendicular/parallel lines. 	 Identify acute and obtuse angles and compare and order angles up to 2 right angles by size. Identify lines of symmetry in 2D shapes presented in different orientations. Complete a simple symmetric figure with respect to a specific line of symmetry. 		
	Geometry – position and direction			
 Order and arrange combinations of mathematical objects in patterns and sequences. 		• Describe positions on a 2D grid as coordinates in the first quadrant.		
 Use mathematical vocab to describe position, direction and movement in straight line and distinguish between rotation as a turn and in terms of 		 Describe movements between positions as translations of a given unit to the left/right and up/down. 		
right angles (clockwise and anti- clockwise).		 Plot specified points and draw sides to complete a given polygon. 		
Statistics				
 Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. 	 Interpret and present data using bar charts, pictograms and tables. 	 Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. 		



 Ask and answer simple questions counting objects in each group a sorting categories by quantity. Ask and answer questions about totalling and comparing categori data. 	nd questions, using information presented in scaled bar charts, pictograms and tables.	 Solve comparison, sum and difference problems using information presented in charts, pictograms, tables and other graphs.
	1	