

## Maths -Curriculum Progression Map

The curriculum progression for The Oaktree Federation has been designed from the National Curriculum and White Rose Maths. The objectives cover the skills and knowledge children will learn through primary school.

	YR	YI	Y2	Y3	Y4	Y5	Y6
Representations	Concrete objects	Concrete objects	Place value chart	Place value chart	Place value chart	Place value chart	Place value chart
•	Number blocks	Number line	Number lines	Number lines	Number lines	Number lines	Number lines
	Numicon	Tens frames	Base 10	Base 10	Base 10	Base 10	Base 10
	2-sided counters	Numicon	Part whole	Part whole	Part whole	Place value counters	Place value counter:
	Bead strings	Base 10	Tens frames	Numicon	Place value counters	Part whole	Part whole
	Dice	2-sided counters	Numicon	Place value counters	Squares	Gattegno chart	Gattegno chart
		Bead strings	2-sided counters	2-sided counters	2-sided counters	Bar model	Bar model
		Playing cards	Bead strings	Playing cards	Playing cards	2-sided counters	2-sided counters
		Dice	Playing cards	Dice	Dice	Fraction walls	Fraction walls
			Dice			Playing cards	Playing cards
						Dice	Dice
Key Vocabulary	Numeral	Fewer	Partition	Partition	Partition	Digit	Digit
	Number	Less	Tens and ones	Hundreds, Tens and	Estimate	Value	Value
	Partition	More	Estimate	ones	Compare	Greater than	Greater than
	Quantity	Same	Compare	Estimate	Greater than	Less than	Less than
	Subitise	Greater than	Greater than	Compare	Less than	Equal to	Equal to
	More	Less than	Less than	Greater than	Equal to	Round	Round
	Less	Equal to	Equal to	Less than	Sum	Ascending	Ascending
		Count on	Edges	Equal to	Add	Descending	Descending
		Count backwards	Shape names (2-D /	Sum	Subtract	Powers	Powers
		Number sentences	3-D)	Add	Inverse	10, 100, 1000 times	Negative
		Fact families	Vertices	Subtract	Multiply	smaller / bigger	Integer
		2D and 3D shape	Symmetry	Inverse	Divide	Factors	Common multiples
		names and properties	Vertical	Multiples	Product	Prime	Common factors
			Pattern	Equal groups	Area	Square	Prime
					cm² / m² etc	Cube	Long division
							Long multiplication
Place Value	Find, match ad	Term I focus on	Counting	Counting	Counting	Counting	Counting
	objects which are	numbers to 10	count in steps of 2, 3,	count from 0 in		count forwards or	
	the same		and 5 from 0, and in	multiples of 4, 8, 50		backwards in steps of	



			÷ –				
		<u>Counting</u>	10s from any	and 100; find 10 or	find 1,000 more or	powers of 10 for any	use negative numbers in
	Compare sets of	count to and across	number, forward and	100 more or less	less than a given	given number up to	context, and calculate
	items using the	100, forwards and	backward	than a given number	number	1,000,000	intervals across 0
	language of	backwards, beginning	<u>Comparing</u>	<u>Comparing</u>		<u>Comparing</u>	
	more/fewer/same	with 0 or 1, or from	<u>numbers</u>	<u>numbers</u>	count backwards	<u>numbers</u>	Comparing numbers
	Compare	any given number	compare and order	compare and order	through 0 to include	Compare and order	order and compare
:	amounts		numbers from 0 up	numbers up to 1,000	negative numbers	numbers to at least	numbers up to
		count, read and write	to 100; use <, > and		count in multiples of	1000000	10,000,000 and
	Representing and	numbers to 100 in	= signs	Identifying,	1000		determine the value of
	comparing I, 2, 3	numerals	-	representing and		<u>ldentifying,</u>	each digit
			Identifying,	<u>estimating</u>	<b>Comparing</b>	representing and	
	Representing	count in multiples of	representing and	numbers	numbers	estimating numbers	Identifying,
	numbers to 5	twos, fives and tens	estimating	identify, represent	order and compare	round any number up	representing and
			<u>numbers</u>	and estimate	numbers beyond	to 1,000,000 to the	estimating numbers
	One more and	<u>Comparing</u>	identify, represent	numbers using	1,000	nearest 10, 100, 1,000,	round any whole
	one less	<u>numbers</u>	and estimate	different		10,000 and 100,000	number to a required
			numbers using	representations	Identifying,		degree of accuracy
	Compare	Identifying,	different		representing and	Reading and writing	
:	size/mass/capacity	representing and	representations,	Reading and	<u>estimating</u>	<u>numbers</u>	Reading and writing
		<u>estimating</u>	including the number	writing numbers	<u>numbers</u>	read Roman numerals	numbers
	Shapes with four	<u>numbers</u>	line		identify, represent	to 1,000 and recognise	Read and write numbers
:	sides	identify and		<u>Understanding</u>	and estimate	years written in Roman	up to 10,000,000 and
		represent numbers	Reading and	<u>place value</u>	numbers using	numerals	determine the value of
	Time – night and	using objects and	writing numbers	recognise the place	different		each digit
	day	pictorial	read and write	value of each digit in	representations	read, write, order and	
		representations	numbers to at least	a 3-digit number		compare numbers to	<u>Understanding place</u>
			100 in numerals and	(100s, 10s, 1s)	round any number to	at least 1,000,000 and	<u>value</u>
		Reading and	in words		the nearest 10, 100	determine the value of	solve number and
		writing numbers		solve number	or 1,000	each digit	practical problems that
		read and write	<u>Understanding</u>	problems and			involve all of the above
		numbers from 1 to	<u>place value</u>	practical problems	Reading and	<u>Understanding</u>	
		20 in numerals and	recognise the place	involving these ideas	writing numbers	<u>place value</u>	
		words	value of each digit in		read Roman	solve number	
			a two-digit number		numerals to 100	problems and practical	
		<u>Understanding</u>	(10s, 1s)			problems that involve	
		<u>place value</u>			<u>Understanding</u>	all of the above	
					<u>place value</u>		
					recognise the place		



	given a number identify one more and one less	use place value and number facts to solve problems		value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s) solve number and practical problems that involve all of the		
				above and with increasingly large		
				positive numbers		
Addition and	For Term I work	Number bonds	Number bonds	Number bonds	Number bonds	Number bonds
subtraction	with numbers to	recall and use addition and	Mental calculation	Mental calculation	Mental calculation	Mental calculation
	10	subtraction facts to	add and subtract	Mental Calculation	add and subtract	perform mental
	Number bonds	20 fluently, and	numbers mentally,	Written methods	numbers mentally with	calculations, including
	represent and use	derive and use	including:	add and subtract	increasingly large	with mixed operations
	number bonds and	related facts up to	<ul> <li>a three-digit</li> </ul>	numbers with up to 4	numbers	and large numbers
	related subtraction	100	number and 1s	digits using the		
	facts		<ul> <li>a three-digit</li> </ul>	formal written	Written methods	use their knowledge of
		Mental calculation	number and 10s	methods of columnar	add and subtract whole	the order of operations
	Mental calculation	add and subtract numbers using	• a three-digit	addition and subtraction where	numbers with more than 4 digits, including	to carry out calculations involving the 4
	Written methods	concrete objects,	number and 100s	appropriate	using formal written	operations
	read, write and	pictorial	Written methods		methods (columnar	
	interpret	representations, and	add and subtract	Inverse	addition and	Written methods
	mathematical	mentally, including:	numbers with up to 3	operations,	subtraction)	
	statements involving	<ul> <li>a two-digit</li> </ul>	digits, using formal	estimating and		Inverse operations,
	addition (+),	number and 1s	written methods of	<u>checking</u>	Inverse operations,	estimating and
	subtraction	<ul> <li>a two-digit</li> </ul>	columnar addition	answers	estimating and	<u>checking</u>
	(–) and equals (=)	number and 10s	and subtraction	estimate and use	<u>checking</u>	answers
	signs	<ul> <li>2 two-digit</li> </ul>		inverse operations to check answers to a	answers	use estimation to check
	Invorso	numbers	Inverse	check answers to a calculation	use rounding to check answers to calculations	answers to calculations and determine, in the
	Inverse operations,	<ul> <li>adding 3 one-</li> </ul>	operations,	Calculation	and determine, in the	context of a problem, an
	estimating and	digit numbers	estimating and checking	Problem solving	context of a problem,	appropriate degree of
	checking	Written methods	answers	solve addition and	levels of accuracy	accuracy
	answers	<u>AATICLEIT MECHOUS</u>	<u></u>	subtraction two-step	,	,



			estimate the answer	problems in contexts,	Problem solving	Problem solving
	Problem solving	<u>Inverse</u>	to a calculation and	deciding which	solve addition and	solve addition and
	solve one-step	operations,	use inverse	operations and	subtraction multi-step	subtraction multi-step
	problems that involve	estimating and	operations to check	methods to use and	problems in contexts,	problems in contexts,
	addition and	<u>checking</u>	answers	why	deciding which	deciding which
	subtraction, using	answers			operations and	operations and methods
	concrete objects and	show that addition of	Problem solving		methods to use and	to use and why
	pictorial	2 numbers can be	solve problems,		why	
	representations, and	done in any order	including missing			
	missing number	(commutative) and	number problems,			
	problems such as 7 =	subtraction of I	using number facts,			
	? - 9	number from	place value, and more			
		another cannot	complex addition and subtraction			
		recognise and use the				
		inverse relationship				
		between addition and				
		subtraction and use				
		this to check				
		calculations and solve				
		missing number				
		problems				
		Problem solving				
		solve problems with				
		addition and				
		subtraction:				
		using concrete				
		objects and pictorial				
		representations,				
		including those				
		involving numbers,				
		quantities and measures				
Multiplication			Multiplication and	Multiplication and	Multiplication and	Multiplication and
and Division			division facts RECAP: count from	division facts	division facts RECAP: count	division facts
				recall multiplication and division facts for	forwards or backwards	Montal calculation
			0 in multiples of 4, 8,	and division facts for	IOI WALUS OF DACKWALUS	Mental calculation



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50 and 100; find 10	multiplication tables	in steps of powers of	perform mental
or 100 more or less	up to 12 × 12	10 for any given	calculations, including
than a given number		number up to	with mixed operations
	Mental calculation	1,000,000	and large number
Mental calculation	use place value,		
recall and use	known and derived	Mental calculation	Written calculation
multiplication and	facts to multiply and	multiply and divide	multiply multi-digit
division facts for the	divide mentally,	numbers mentally,	numbers up to 4 digits
3, 4 and 8	including: multiplying	drawing upon known	by a two-digit whole
multiplication tables	by 0 and 1; dividing	facts	number using the formal
	by I; multiplying		written method of long
<u>Written</u>	together 3 numbers	Written calculation	multiplication
<u>calculation</u>			
	<u>Written</u>	Properties of	divide numbers up to 4
Properties of	<u>calculation</u>	<u>numbers:</u>	digits by a two-digit
<u>numbers:</u>		<u>multiples, factors,</u>	whole number using the
<u>multiples, factors,</u>	Properties of	primes, square and	formal written method
<u>primes, square</u>	<u>numbers:</u>	<u>cube numbers</u>	of long division, and
and cube numbers	<u>multiples, factors,</u>	identify multiples and	interpret remainders as
	<u>primes, square</u>	factors, including	whole number
Order of	and cube numbers	finding all factor pairs	remainders, fractions, or
operations		of a number, and	by rounding, as
	Order of	common factors of 2	appropriate for the
<u>Inverse</u>	operations	numbers	context
operations,			
estimating and	<u>Inverse</u>	recognise and use	divide numbers up to 4
checking	<u>operations,</u>	square numbers and	digits by a two-digit
answers	estimating and	cube numbers, and the	number using the formal
	<u>checking</u>	notation for squared	written method of short
Problem solving	<u>answers</u>	( <sup>2</sup> ) and cubed ( <sup>3</sup> )	division where
			appropriate, interpreting
	Problem solving	establish whether a	remainders according to
		number up to 100 is	the context
		prime and recall prime	
		numbers up to 19	Properties of
			numbers:
		know and use the	<u>multiples, factors,</u>
		vocabulary of prime	



		numbers, prime factors and composite (non- prime) numbers Order of operations Inverse operations, estimating and checking answers Problem solving solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes	primes, square and cube numbersidentify common factors, common multiples and prime numbersOrder of operations use their knowledge of the order of operations to carry out calculations involving the 4 operationsInverse operations, estimating and checking answersProblem solving solve problems involving addition, subtraction, multiplication and
Fractions		<u>Counting in</u> <u>fractional steps</u>	division Counting in fractional steps
		Recognising fractions identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths recognise mixed numbers and improper fractions and convert	Recognising fractions <u>Comparing fractions</u> compare and order fractions, including fractions >1 <u>Calculating fractions</u> use common factors to simplify fractions; use common multiples to



				from one form to the other	express fractions in the same denomination
				Comparing fractions compare and order fractions whose denominators are all multiples of the same number Calculating fractions add and subtract fractions with the same denominator, and denominators that are multiples of the same number	add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions multiply simple pairs of proper fractions, writing the answer in its simplest form divide proper fractions by whole numbers
					Problem solving
				Problem solving	
Measurement			<u>Comparing and</u> <u>Estimating:</u>		Comparing and Estimating:
			Measuring and Calculating: find the area of rectilinear shapes by counting squares		Measuring and Calculating: 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
Geometry	Identifying shapes and their properties recognise and name common 2-D and 3- D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles] 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]. Identifying shapes and their properties	Identifying shapes and their properties 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, [for example, a circle on a cylinder and a triangle on a pyramid]. Recognise and name common 3-D shapes (for example cubes, pyramids and spheres)		



Drawing and constructing
Comparing and         classifying:         Compare and sort         common 2-D and 3-         D shapes and         everyday objects
compare and sort common 2-D and 3- D shapes and everyday objects



Term 3 and 4	Term 3 and 4									
	YR	YI	Y2	Y3	Y4	Y5	Y6			
Representations	Scales Tens frames Number blocks 3D shapes Number cards Containers Dice Part-whole 2-sided counters	Tens frames Part- whole models Rulers Scales 2-sided counters Playing cards Dice	Money Rulers Counters Arrays 2-sided counters Playing cards Dice	Number lines Place value columns Part – whole models Rulers 2-sided counters Cuisenaire rods	Counters Squared paper Place value columns 2-sided counters Cuisenaire rods	Counters Squared paper Place value columns Two-way tables Timetables Line graphs 2-sided counters Cuisenaire rods	Pie charts Line graphs Counters 2-sided counters Cuisenaire rods			
Key Vocabulary	Nothing there All gone The same as More Fewer Tall Thin Narrow Wide Shallow Equal to Heavier than Lighter than Heaviest Lightest Subitise Compare 3D shape names	long/short, longer/shorter, tall/short double/half heavy/light heavier than lighter than full/empty more than less than half half full quarter quicker, slower, earlier, later	Multiply Divide Array long/short, longer/shorter, tall/short degrees (°C) grams kilograms pounds pence	Scaling Multiply Divide Exchange Length cm / mm / m Twice Equivalent Perimeter Numerator Denominator Tenths	Multiples Factors Factor pairs Formal written method Efficient methods Perimeter cm / m / Rectilinear shapes Polygons Area Compare	Short division Compound shapes Estimate Area Rectilinear shapes Perimeter Polygons	Line graphs Mean Average Pie charts Percentages			
Addition and subtraction		Work within numbers to 20 Number bonds represent and use number bonds and related subtraction facts								



		<u>Mental</u> calculation					
	<u>r</u> r ii n s ii ( (	Written methods read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs					
	2 9 2	Inverse operations, estimating and checking answers					
	s F iii a u c F r r a r r a r	Problem solving solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? – 9					
Multiplication			Multiplication and	Multiplication and	Multiplication and	Multiplication and	Multiplication and
and Division			division facts	division facts	division facts	division facts	division facts
			recall and use multiplication and	Mental calculation	Mental calculation	Mental calculation	Mental calculation
			division facts for the				



	2, 5 and 10	Written	Written calculation	Written calculation	Written calculation
	multiplication tables,	calculation	multiply two-digit and	multiply numbers up	<u>·······</u>
	including recognising	write and calculate	three-digit numbers by	to 4 digits by a one- or	Properties of
	odd and even	mathematical	a one-digit number	two-digit number	numbers:
	numbers	statements for	using formal written	using a formal written	multiples, factors,
		multiplication and	layout	method, including long	primes, square and
	Mental calculation	division using the		multiplication for two-	cube numbers
		multiplication tables	<b>Properties of</b>	digit numbers	
	<u>Written</u>	that they know,	numbers:	5	Order of operations
	calculation	including for two-	multiples, factors,	divide numbers up to	•
	calculate	digit numbers times	primes, square and	4 digits by a one-digit	Inverse
	mathematical	one-digit numbers,	cube numbers	number using the	operations,
	statements for	using mental and	recognise and use	formal written method	estimating and
	multiplication and	progressing to	factor pairs and	of short division and	checking
	division within the	formal written	commutativity in	interpret remainders	answers
	multiplication tables	methods	mental calculations	appropriately for the	
	and write them using			context	Problem solving
	the multiplication	Properties of	Order of operations		
	(×), division (÷) and	<u>numbers:</u>		Properties of	
	equals (=) signs	<u>multiples, factors,</u>	<u>Inverse</u>	<u>numbers:</u>	
		<u>primes, square</u>	operations,	<u>multiples, factors,</u>	
	Properties of	and cube numbers	estimating and	<u>primes, square and</u>	
	<u>numbers:</u>		<u>checking</u>	<u>cube numbers</u>	
	<u>multiples, factors,</u>	Order of	<u>answers</u>		
	<u>primes, square</u>	<u>operations</u>		Order of operations	
	and cube numbers		Problem solving		
		Inverse		Inverse	
	Order of	operations,		operations,	
	<u>operations</u>	estimating and		estimating and	
		<u>checking</u>		<u>checking</u>	
	Inverse	<u>answers</u>		<u>answers</u>	
	operations,				
	estimating and	Problem solving		Problem solving	
	checking	solve problems,		solve problems	
	<u>answers</u>	including missing		involving addition,	
		number problems,		subtraction,	
	Problem solving	involving		multiplication and	
		multiplication and		division and a	



	• –	rodoration			
	solve problems	division, including		combination of these,	
	involving	positive integer		including	
	multiplication and	scaling problems and		understanding the	
	division, using	correspondence		meaning of the equals	
	materials, arrays,	problems in which n		sign	
	repeated addition,	objects are		5	
	mental methods, ar			solve problems	
	multiplication and	objects		involving multiplication	
	division facts,			and division, including	
	including problems	in		scaling by simple	
	contexts.			fractions and problems	
				involving simple rates	
Fractions		Counting in	Counting in	Counting in	Counting in
		fractional steps	fractional steps	fractional steps	fractional steps
		count up and down	count up and down in	•	
		in tenths; recognise	hundredths; recognise	<b>Recognising</b>	<b>Recognising fractions</b>
		that tenths arise	that hundredths arise	fractions	0 0
		from dividing an	when dividing an		Comparing fractions
		object into 10 equal	object by 100 and	<b>Comparing</b>	
		parts and in dividing	dividing tenths by 10	fractions	<b>Calculating fractions</b>
		one-digit numbers or			associate a fraction with
		quantities by 10	<b>Recognising</b>	<b>Calculating</b>	division and calculate
			fractions	fractions	decimal fraction
		<b>Recognising</b>	recognise and show,	multiply proper	equivalents [for
		<b>fractions</b>	using diagrams, families	fractions and mixed	example, 0.375] for a
		recognise and use	of common equivalent	numbers by whole	simple fraction [for
		fractions as numbers:	fractions	numbers, supported	example, 3/8 ]
		unit fractions and		by materials and	
		non-unit fractions	<u>Comparing</u>	diagrams	Problem solving
		with small	fractions		recall and use
		denominators	recognise and show,	Problem solving	equivalences between
			using diagrams,		simple fractions,
		<u>Comparing</u>	equivalent fractions		decimals and
		<u>fractions</u>	with small		percentages, including in
			denominators		different contexts
		<b>Calculating</b>			
		<u>fractions</u>	<b>Calculating</b>		
			<u>fractions</u>		



			add and subtract		
		Broblem colving	fractions with the		
		Problem solving			
			same denominator		
			Problem solving		
			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		
Decimals and			Comparing	Comparing	Comparing decimals
Percentages			decimals	decimals	identify the value of
				read, write, order and	each digit in numbers
			Rounding including	compare numbers	given to three decimal
			decimals	with up to three	places and multiply
			deennais	decimal places	and divide numbers by
			<u>Equivalence</u>	decimal places	10, 100 and 1000 giving
			(including fractions,	Rounding including	answers up to three
			decimals and	decimals	decimal places
			percentages)	round decimals with	decimal places
			<u>percentages)</u>	two decimal places to	Rounding including
			Multiplication and	the nearest whole	
			Multiplication and		<u>decimals</u>
			division of decimals	number and to one	_ · ·
			find the effect of	decimal place	Equivalence
			dividing a one- or two-		(including fractions,
			digit number by 10 and	Equivalence	decimals and
			100, identifying the	(including fractions,	<u>percentages)</u>
			value of the digits in	decimals and	
			the answer as ones,	<u>percentages)</u>	Multiplication and
			tenths and hundredths	read and write decimal	division of decimals
				numbers as fractions	multiply one-digit
			Problem solving	[for example, 0.71 =	numbers with up to two
				100 71]	decimal places by whole
				_	numbers



		recognise and use	
		thousandths and relate	use written division
		them to tenths,	methods in cases where
		hundredths and	the answer has up to
		decimal equivalents	two decimal
		recognise the per cent	places
		symbol (%) and	
		understand that per	Problem solving
		cent relates to	solve problems which
		'number of parts per	require answers to be
		hundred', and write	rounded to specified
		percentages as a	degrees of accuracy
		fraction with	
		denominator 100, and	solve problems involving
		as a decimal	the calculation of
			percentages [for
		Multiplication and	example, of measures
		division of decimals	and such as 15% of 360]
			and the use of
		Problem solving	percentages for
		solve problems	comparison
		involving number up	
		to three decimal	Ratio and Proportion
		places	solve problems involving
			the relative sizes of 2
		solve problems which	quantities where missing
		require knowing	values can be found by
		percentage and	using integer
		decimal equivalents of	multiplication and
		$\frac{1}{2}\frac{1}{4}\frac{1}{5}\frac{2}{5}\frac{4}{5}$ and those	division facts
		fractions with a	
		denominator of a	solve problems involving
		multiple of 10 or 25.	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
Algebra						Equations express missing number problems algebraically
						enumerate possibilities of combinations of 2 variables
						find pairs of numbers that satisfy an equation with 2 unknowns
						<u>Formulae</u> use simple formulae RECAP: recognise when it
						is possible to use formulae for area and volume of shapes
						Sequences generate and describe linear number sequences
Measurement	Comparing and Estimating: compare, describe and solve practical problems for: lengths and	Comparing and Estimating: compare and order lengths, mass, volume/capacity and record the results	Comparing and Estimating: compare, add and subtract: lengths (m/cm/mm); mass (kg/g);	Comparing and Estimating: Convert between different units of measure	<b>Comparing and</b> <b>Estimating:</b> calculate and compare the area of rectangles (including squares), and including using	<b>Comparing and</b> <b>Estimating:</b> recognise that shapes with the same areas can have different perimeters and vice
	<ul> <li>heights</li> <li>mass/weight</li> <li>capacity and volume</li> </ul>	using >, < and = <u>Measuring and</u> <u>Calculating:</u>	volume/capacity (I/ml <u>)</u> <u>Measuring and</u> <u>Calculating:</u>	Measure and calculate the perimeter of a rectilinear figure (including squares) in	standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes	versa <u>Measuring and</u> <u>Calculating:</u>



		1			
	choose and use	Measure lengths	centimetres and		recognise when it is
Measuring and	appropriate standard	(m/cm/mm); mass	metres	Measuring and	possible to use formulae
Calculating:	units to estimate and	(kg/g);		Calculating:	for area and volume of
measure and begin	measure	volume/capacity	Estimate, compare and	measure and calculate	shapes
to record the	length/height in any	(l/ml)	calculate different	the perimeter of	
following:	direction (m/cm);		measures (also	composite rectilinear	calculate the area of
<ul> <li>lengths and</li> </ul>	mass (kg/g);	measure the	appears in measuring	shapes in centimetres	parallelograms and
heights	temperature (°C);	perimeter of simple	and calculating)	and metres	triangles
<ul> <li>mass/weight</li> </ul>	capacity (litres/ml) to	2-D shapes			
<ul> <li>capacity and</li> </ul>	the nearest		Measuring and		calculate, estimate and
volume	appropriate unit,		Calculating:		compare volume of
	using rulers, scales,		Estimate, compare and		cubes and cuboids using
	thermometers and		calculate different		standard units,
	measuring vessels		measures		including cubic
					centimetres (cm3) and
	recognise and use				cubic metres (m3), and
	symbols for pounds				extending to other units
	(£) and pence (p);				[for example, mm3 and
	combine amounts to				km3].
	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		1	1	



Statistics				Interpreting,
				Constructing and
				Presenting Data
				interpret and construct
				pie charts and line
				graphs and use these to
				solve problems
				-
				calculate and interpret
				the mean as an average.



Term 5 and 6	VD	NI.			N/4	NE	<u></u>
<b>D</b>	YR	YI	Y2	Y3	Y4	Y5	Y6
Representations	Tens frame	Clocks	Bar models	Bar models	Place value charts	Place value charts	Circles
	Bead strings	Calendars	Visual fraction	Visual fraction	Money	Scales	Co-ordinate grids
	Dice	Grids	representations	representations	Number lines	Rulers	Nets of shapes
	Dominoes	Arrays	Clocks	2-D shapes	Clocks	Number lines	Mirrors
Towers of cubes	Counters	Graphs (pictograms)	3-D shapes	Calendars	Protractors	Tracing paper	
	Rekenreks	Number lines	Tally charts	Angles	Pictograms	Timetables / tables	
	Number tracks	Bar models		Rulers	Tables	Line graphs	
	Tangrams	Visual fraction		Clocks	Line graphs	Thermometers	
	Geo boards	representations		Bar graphs			
				Pictograms			
				Tables			
Key Vocabulary	Subitise	(un)equal groups	Half / quarter / third	Horizontal	Decimal	mm / cm / m / km	Circles
	Count on	Half / quarter	(non) unit fractions	Vertical	Tenths	ml / l	Radius
	Count back	Hour / minute /	Half / quarter	Perpendicular	Hundredths	g / kg	Diameter
	Positional language	seconds	Hour / minute /	Parallel	Round	Metric	Circumference
	Add	Half an hour	seconds	Half-turn	analogue	Imperial	Co-ordinates
	Subtract	0'clock	Half an hour	Three quarters	digital	Inches	Quadrants
	Twice as many	Quarter past/to	0'clock	Complete	hours / minutes /	Pounds	Translate
	Double	Days	Quarter past/to	turn	seconds / years /	Pints	Reflect
	Sharing	Months	<>=	Greater than	months/ weeks / days	Negative	Protractor
	Grouping	Full turn	Data	Less than	12 / 24 hour clock	line graph	Degrees
	Even	Half turn	Full turn	Acute	a.m. / p.m.	tables	Nets
	Odd	Quarter turn	Half turn	Obtuse	Acute	timetables	Vertical
		Three-quarter turn	Quarter turn	Right angle	Obtuse	Acute	Horizontal
		Clockwise	Three-quarter turn	Degrees	Right angle	Obtuse	Straight line
		Anti-clockwise	Clockwise	names of shapes	Degrees	Right angle	
		Positional language	Anti-clockwise	Hour / minute /	quadrilaterals	Degrees	
				seconds	triangles		
				Data			
				(non) unit fractions			
Place Value	Build numbers					Counting	
	beyond 10					interpret negative	
	-,					numbers in context,	
	Count patterns					count forwards and	
	beyond 10					backwards with positive	



	Spatial reasoning (1) – select and				and negative whole numbers, including through 0	
Multiplication	rotate shapes in a	Problem solving				
and Division	given space.	solve one-step				
		problems involving				
	Match, rotate,	multiplication and				
	manipulate – use	division, by				
	positional language	calculating the				
		answer using				
	Adding more	concrete objects,				
		pictorial				
	Taking away	representations and				
		arrays with the				
	Spatial reasoning	support of the				
	(2) – combining	teacher.				
	shapes to make					
Fractions	new shapes	Counting in	Counting in	Counting in		
		fractional steps	fractional steps	fractional steps		
	Compose and	_	_	-		
	decompose –	<b>Recognising</b>	<b>Recognising</b>	<b>Recognising</b>		
	combining shapes	fractions	fractions	fractions		
	in different ways	recognise, find and	recognise, find, name	recognise, find and		
		name a half as one	and write fractions	write fractions of a		
	Doubling	of two equal parts	1/3 1/3 2/4 and <sup>3</sup> /4 of	discrete set of		
		of an object, shape	a length, shape, set of	objects: unit		
	Sharing & grouping	or quantity	objects or quantity	fractions and non-		
				unit fractions with		
	Even & odd	recognise, find and	<u>Comparing</u>	small denominators		
		name a quarter as	<u>fractions</u>			
	Spatial reasoning	one of four equal	write simple fractions	recognise and use		
	(3) - replicate	parts of an object,	for example, $\frac{1}{2}$ of 6	fractions as		
	simple	shape or quantity.	= 3 and recognise the	numbers: unit		
	constructions,	<u>Comparing</u>	equivalence of 2/4	fractions and non-		
	models, real places	<u>fractions</u>	and ½	unit fractions with		
	and places			small denominators		
	in stories					



		Calculating	Calculating			
	Visualise & build	fractions	fractions	fractions		
	visualise & build	<u>In accions</u>	<u>In accions</u>	compare and order		
	Consolidate	Problem solving	Problem solving	unit fractions, and		
	learning - problem			fractions with the		
	solving and develop			same denominators		
	their critical					
	thinking skills			<b>Calculating</b>		
	U U			fractions		
	Patterns and					
	relationships -			Problem solving		
	relationships			solve problems that		
	between numbers			involve all of the		
	and shapes			above (including		
				term I & 2		
	Spatial reasoning			objectives).		
Decimals and	(4) – use maps and				<b>Comparing</b>	
Percentages	plans to represent				<u>decimals</u>	
	places				compare numbers	
					with the same	
	Mapping - create				number of decimal	
	their				places up to 2	
	own maps to				decimal places	
	represent the					
	models they build,				Rounding	
	familiar				including decimals	
	places and places in				round decimals with	
	stories				I decimal place to	
					the nearest whole	
					number	
					Equivalance	
					Equivalence (including	
					fractions, decimals	
					and percentages)	
					recognise and write	
					decimal equivalents	
		1			Geennai equivalents	L



				of any number of	
				tenths or hundreds	
				recognise and write	
				decimal equivalents	
				to 1/4 , 1/2 , ¾	
				Problem solving	
				solve simple measure	
				and money problems	
				involving fractions	
				and decimals to 2	
				decimal places	
Measurement	Comparing and	Comparing and	Comparing and	Comparing and	Comparing and
	Estimating:	Estimating	Estimating	Estimating:	Estimating:
	compare, describe	compare and	estimate and read	estimate, compare	estimate volume [for
	and solve practical	sequence intervals of	time with increasing	and calculate	example, using 1 cm3
	problems for:	time	accuracy to the	different measures,	blocks to build cuboids
	• time		nearest minute;	including money in	(including cubes)] and
		Measuring and	record and	pounds and pence	capacity [for example,
	Measuring and	Calculating:	compare time in	F F	using water]
	<u>Calculating:</u>	tell and write the	terms of seconds,	Measuring and	
	measure and begin	time to five minutes,	minutes and hours;	Calculating:	understand and use
	to record the	including quarter	use vocabulary such	read, write and	approximate
	following:	past/to the hour and	as o'clock,	convert time	equivalences between
	• time (hours,	draw the hands on a	a.m./p.m., morning,	between analogue	metric units and
	minutes,	clock face to show	afternoon, noon	and digital 12- and	common imperial units
	seconds)	these times	and midnight	24-hour clocks	such as inches, pounds
	seconds)				and pints
	sequence events in	know the number of	compare durations	solve problems	
		minutes in an hour	of events	involving converting	Measuring and
	chronological order	and the number of	or events	from hours to	Calculating:
	using language [for	hours in a day.	Measuring and	minutes; minutes to	convert between
	example, before	nouis ili a day.	Calculating:	seconds; years to	different units of metric
	and after, next,		add and subtract	months; weeks to	measure (for example,
	first, today,		amounts of money	days.	kilometre and metre;
	yesterday,		to give change,	uays.	centimetre and metre;
	tomorrow,		<b>U</b>		
		l	using both £ and p	l	centimetre and



			odoration	•		•
	morning, afternoon		in practical		millimetre; gram and	
	and evening]		contexts		kilogram; litre and	
					millilitre)	
	recognise and use		tell and write the			
	language relating to		time from an		solve problems involving	
	dates, including		analogue clock,		converting between	
	days of the week,		including using		units of time	
	weeks, months and		Roman numerals			
	years		from		use all four operations	
	,		I to XII, and 12-		to solve problems	
	tell the time to the		hour and 24-hour		involving measure [for	
	hour and half past		clocks		example, length, mass,	
	the hour and draw				volume, money] using	
	the hands on a		know the number		decimal notation,	
	clock face to show		of seconds in a		including scaling.	
	these times.		minute and the		6 6	
			number of days in			
	recognise and know		each month,			
	the value of		year and leap year			
	different		, , ,			
	denominations of					
	coins and notes					
Geometry /	Identifying	Identifying shapes	Identifying	Identifying shapes	Identifying shapes	Identifying
Position and	shapes and their	and their	shapes and their	and their	and their properties	shapes and their
direction	properties	properties	properties	properties	identify 3-D shapes,	properties
	FF	<del></del>	identify horizontal	identify lines of	including cubes and	recognise, describe
	Drawing and	Drawing and	and vertical lines	symmetry in 2-D	other cuboids, from 2-D	and build simple 3-
	constructing	constructing	and pairs of	shapes presented in	representations	D shapes, including
		Comparing and	perpendicular and	different orientations	-F	making nets
	Comparing and	classifying:	parallel lines.		distinguish between	
	classifying:	order and arrange	F	Drawing and	regular and irregular	Drawing and
	<b>------------------------------------</b> -	combinations of	Drawing and	constructing	polygons based on	constructing
	Angles:	mathematical objects	constructing	complete a simple	reasoning about equal	draw 2-D shapes
		in patterns and	draw 2-D shapes	symmetric figure with	sides and angles.	using given
	Position and	sequences	and make 3-D	respect to a specific	0.00	dimensions and
	direction		shapes using	line of symmetry.	Drawing and	angles
	describe position,	use mathematical	modelling materials;		constructing	
	direction and	vocabulary to	recognise 3-D		<b>-</b>	
	sectori and			1	1	



			odoration			
		describe position,	shapes in different	describe positions on	identify, describe and	illustrate and name
	0	direction and	orientations and	a 2-D grid as	represent the position of	parts of circles,
		movement, including	describe them	coordinates in the	a shape following a	including radius,
th	ree-quarter turns	movement in a		first quadrant	reflection or translation,	diameter and
		straight line and	Comparing and		using the appropriate	circumference and
		distinguishing	classifying:	describe movements	language, and know that	know that the
		between rotation as		between positions as	the shape has not	diameter is twice
		a turn and in	Angles:	translations of a given	changed.	the radius
		terms of right angles	recognise angles as	unit to the left/right	-	
		for quarter, half and	a property of shape	and up/down	Comparing and	describe positions
		three-quarter turns	or a description of		classifying:	on the full
		(clockwise and	a turn		use the properties of	coordinate grid (all
		anticlockwise)		plot specified points	rectangles to deduce	four quadrants)
		,	identify right angles,	and draw sides to	related facts and find	• •
		Angles:	recognise that two	complete a given	missing lengths and	draw and translate
		-	right angles make a	polygon	angles	simple shapes on
			half-turn, three		-	the coordinate
			make three	Comparing and	Angles:	plane, and reflect
			quarters of a turn	classifying:	know angles are	them in the axes.
			and four a	compare and classify	measured in degrees:	
			complete turn;	geometric shapes,	estimate and compare	Comparing and
			identify whether	including	acute, obtuse and reflex	classifying:
			angles are greater	quadrilaterals and	angles	compare and
			than or less than a	triangles, based on	-	classify geometric
			right angle	their properties and	draw given angles, and	shapes based on
				sizes	measure them in	their properties
					degrees (°)	and sizes and find
				Angles:	- • •	unknown angles in
				identify acute and	identify:	any triangles,
				obtuse angles and	<ul> <li>angles at a point and</li> </ul>	quadrilaterals, and
				compare and order	one whole turn	regular polygons
				angles up to two	(total 360° )	
				right angles by size	• angles at a point on	Angles:
					a straight line and $\frac{1}{2}$	recognise angles
					a turn (total 180°)	where they meet
					<ul> <li>other multiples of</li> </ul>	at a point, are on a
					90°	straight line, or are
						vertically opposite,



					and find missing angles.
Statistics	Interpreting,	Interpreting,	Interpreting,	Interpreting,	
	Constructing and	Constructing and	Constructing and	Constructing and	
	Presenting Data	Presenting Data	Presenting Data	Presenting Data	
	interpret and	interpret and	interpret and present	solve comparison, sum	
	construct simple	present data using	discrete and	and difference problems	
	pictograms, tally	bar charts,	continuous data using	using information	
	charts, block	pictograms and	appropriate graphical	presented in a line graph	
	diagrams and simple	tables	methods, including		
	tables		bar charts and time	complete, read and	
		solve one-step and	graphs.	interpret information in	
	ask and answer	two-step questions		tables, including	
	simple questions by	[for example, 'How	solve comparison,	timetables.	
	counting the number	many more?' and	sum and difference		
	of objects in each	'How many fewer?']	problems using		
	category and sorting		information		
	the categories by	presented in scaled	presented in bar		
	quantity	bar charts and	charts, pictograms,		
		pictograms and	tables and other		
	ask and answer	tables.	graphs		
	questions about				
	totalling and				
	comparing				
	categorical data.				