

Daycare 2/Rising 3	Nursery Pre-School (3s)	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
				Place	Value			
Knows that things exist even when out of sight Eg I have two socks Where is the other sock? Knows some counting words. Knows some counting gestures eg pointing making sounds, saying some numbers. Knows how to give one or two things. Knows how to say number words for a purpose.	Knows how to compare two small groups of up to 5 objects saying when there are the same objects in each group. Knows how to recite numbers from 0-10 Knows how to count numbers back from 10 to 0. Knows that there are numbers beyond 10. Knows numbers of personal significance	Know how to recite some numbers in order to 10. Knows number names and symbols when comparing numbers, showing interest in large numbers Know that the last number said is my total. Knows that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways	Knows how to count to 100 in 1s, 2s, 10s and 5s. Knows the base ten values of two-digit numbers. Knows that 1 ten is ten ones as a base ten value. Knows how the teen numbers are built. Knows how to identify and represent numbers using objects and pictorial representations including the number line, and use the language of equal to	Place Knows the place value of each digit in two-digit numbers. Knows how to read and write numbers to at least 100 in numerals and in words Knows the <, > and = signs. Knows how to represent numbers in different ways. Knows how to compare, order and estimate on a number line. Knows that	Value Knows the properties of three-digit numbers. Knows how to count in step sizes and estimate numbers up to 1000. Knows the relative position of numbers. Knows zero as a place holder in three-digit numbers. Knows the rules of rounding. Knows the standard form for writing numbers up to 1000.	Knows the properties of place value for four-digit numbers. Knows the rules of rounding. Knows the number system from zero into negative numbers. Knows a variety of representations and is fluent in the order and place value of numbers beyond 1000, including counting in tens, and hundreds. Knows 1,00 more or less than a given number.	Knows how to read and write numbers with up to 7 digits using the comma separator. Know the value of each digit. Knows how to use place value to order and compare numbers. Knows how to count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000 Knows how to read and interpret negative numbers	Knows how to say, read and write numbers with up to 8 digits using the comma separator. Know the value of each digit. Knows how to calculate with negative and positive numbers. Knows how to round whole numbers to a certain degree of accuracy
compare and recognise changes in numbers. (more, lots same) Knows that numbers are in a sequence, maybe skipping numbers	significance. Knows how to point to the number spoken (1-correspondance) up to 5 securely	in different ways with a wide range of objects Knows how to match a numeral with a group of objects. Know how to count	language of equal to, more than, less than (fewer), most, least. Knows how to read and write numbers from 1 to 20 in numerals and words.	Knows that numbers can be partitioned and rearranged Knows how to count in 10s from any number, forward and	Knows how to write numbers in words.	Knows how to maintain fluency in other multiples. Knows the symbols for Roman numerals up to C = 100.	negative numbers and find differences between negative and positive nmbers. Knows the Roman numerals up to M = 1000.	



(1, 2, 3, 5)		out a given number	backward	Knows the rules of	Knows the rules of	
	Knows some	up to 5 from a larger		Roman numerals i.e.,	reading Roman	
Beginning to know	number names and	group of objects.	Knows how to	rule of three symbols,	numerals including	
how to count on their fingers.	corresponding language during	Knows and	count in steps of 2,3,5	rule of order.	years.	
0	play.	understands numbers		Knows the role of	Knows how to round	
Knowshow to get		to 10, linking names		zero in the concepts	any number up to	
objects from a group	Knows numbers 1-	of numbers,		of place value.	1,000,000 to the	
Eg3 chairs.	10 and beyond in	numerals, their value,			nearest 10, 100,	
	and out of order.	and their position in		Knows that over time,	1,000, 10,000 and	
Knows some		the counting order		the numeral system	100,000	
numbersymbols.	Knowshowto	the counting or deri		changed to include		
	subitize under 5			and place value	Knows how to	
	counting	Knows how to use			describe linear	
		recall strategies and		Knows how to find	number sequences.	
	Knowsthatthelast	subitising to identify		the difference		
	numbersaidisthe	the number of		between negative		
	total counted so far	objects in the set		and positive numbers.		
	within numbers to 5.	objects in the set.				
		Knows number				
	Knows how to show	structures to 5.				
	finger numbers up	Knows and				
	to 5 and maybe	understands equality,				
	beyond.	inequality.				
	Knows how to link	Knows how to				
	numbers up 5 and	partition a number of				
	maybe beyond.	things in different				
	Knowsthat	ways, including when				
	numbers can be	problem solving.				
	representeurn marks and signs					
	n i la no di la olgi b.	Knows how to				
	Knows, through play	explore partitioning				
	and exploration,	in different ways				



that numbers are	with a wide range of			
madeup	objects.			
(composed) of				
smaller numbers	Know patterns within			
	numbers.			
Knows that each				
countingnumberis	Knows and			
onemorethanthe	recognises numbers			
number before.	of personal			
	significance.			
	Significancei			
Knows how to				
compare two				
small groups of				
up to five objects,				
saying when				
there are the				
same number of				
objects in each				
group, e.g.				
You've got two,				
l've got two.				
Same!				
Knows howto				
separate a group of				
three to four objects				
in separate ways				
and knowing it is still				
the same.				
•Beginning to use				
understanding of				
numbertosolve				
practical problems in				
play and meaningful				
activities				



				Calculatio	n + -			
Knows how to compare amounts using words like more or lots.	Knows that numbers are made up (composed) of smaller numbers. Knowsthateach countingnumberis one morethan the number before. Knows how to separate a group of three to four objects in separate ways and knowing it is still the same.	Knows how to automatically recall number bonds for numbers 0-5 and some for 10, including corresponding partitioning facts. Knows how to automatically the recall double facts up 5+5 Knows how to add and subtract 1 with numbers to 5. Knows how to estimate a number of things showing understanding of relative size. Knows and recalls number facts and relationships to 10 Knows the language of 'more' and 'fewer' to compare two sets of objects. Knows how to use the vocabulary involved	Knows that addition makes a larger total. Knows that subtraction reduces the amount. Knows how to read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs Knows the operation required and calculates using counting and known facts. Knows how to count on to find totals to 20. Knows the effect of zero. Knows the effect of zero. Knows that addition 'undoes' subtraction and vice versa.	Knows number bonds to 20. Knows that addition is commutative. Knows that addition is inverse to subtraction. Knows efficient methods using number sense, place value, bridging, near doubles and adjustment strategies. Knows number bonds to and within 20. Knows efficient strategies for adding and subtracting for up to two 2-digit numbers. (a two- digit number and 1s a two-digit number and 10s 2 two-digit	Knows bonds to 20 (Y2) and 100 (Y4 KIRF Target). Knows how to add/subtract multiples of 10, 100 from three-digit numbers. Knows how to calculate with columnar methods. Knows efficient mental strategies including partitioning and adjusting to add/subtract numbers mentally, including: a three-digit number and ones a three-digit number and tens a three-digit number and hundreds	Knows efficient methods for addition and subtraction up to and including four- digit numbers. Knows how to add and subtract using standard written algorithms including in the context of money. Knows how to add/subtract numbers with 2 decimal places, using formal written methods (columnar addition) Knows how to check the accuracy of addition and subtraction calculations using the inverse. Knows how to choose the order of calculations in two step problems.	Knows efficient mental methods for addition and subtraction. Knows how to add/subtract whole numbers with more than 4 digits (and with up to 3 decimal places), including using formal written methods (columnar addition)	Knows efficient mental methods applying knowledge of properties of number. Knows how to add/subtract multi- digit numbers with more than 4 digits (with up to 3 decimal places), using formal written methods (columnar addition) Knows the compact algorithms for addition and subtraction. Knows how to use mental calculations with increasingly large numbers and more complex calculations. Knows how to use estimation to check answers to calculations.



in a	adding and	Knows the operation	numbers)		Knows the efficient	
sub	btracting.	required and calculates		Knows how to	written algorithms for	
		using counting and	Knows efficient	calculate with	addition and	
Can	n subitise to 5.	known facts, including	strategies for	columnar methods	subtraction with	
		doubles.	adding 3 one digit	regrouping the tens	increasing fluency for	
I kn	now how to		numbers.	and exchanging in	large numbers.	
con	nceptually subitise	Knows the operation		subtraction.		
larg	rger numbers by	required and calculates	Knows Fact families			
sub	bitising smaller	using counting and	for + and –	Knows the compact		
gro	oups within the	known facts, including		algorithms for		
nur	mber.	doubles.	Knows the	addition and		
			operation to use	subtraction including		
l ki	know how to	Knows that counting	and chooses the	regrouping and		
exp	plore and work out	back is 'take away' and	efficient method.	exchanging.		
mat	athematical	counting on is 'find the				
		difference'.	Knows facts to 100			
pro	obiems, using signs		using multiples of			
and	d strategies with	Knows doubles up to	10.			
sup	pport.	20.	Knows number			
		Keener that we are	bonds to 100.			
	know i am	knows that near				
beg	ginning to explore	doubles are "one	Knows strategies to			
and	d work out	more/less than in one	solve missing			
ma	athematical	number.	number problems.			
pro	oblems using	Knows that addition				
sta	andard numerals.	subtraction are inverse				
tall	llies and + -	operations				
	ines and + -	operations.				
		Knows fact families to				
		10 then 20				
		20 1.101 201				
		Knows the operation				
		required and calculates				
		using counting and				
		known facts, including				
		known facts, including				



		bridging the 10. Knows that more than two numbers can be added.					
			Calculation	n X ÷			
	Knows how to count in twos. Can subitise to 5. I know how to conceptually subitise larger numbers by subitising smaller groups within the number.	Knows how to count to 100 in 1s, 2s, 10s and 5s. Knows that doubles are two groups of the same number and begin to relate to multiplication. Knows that equal groups can be represented as an array. Knows how to multiply and divide with money using the value of the coins.	Knows the operations of multiplication (repeated addition) and division (equal groups of). Knows that multiplication is commutative. Knows that division is not commutative. Knows how to calculate mathematical	Knows the 2, 3, 4- and 8-times tables and the doubling patterns, odds, and evens Knows how to multiply using partitioning. Knows how to partition numbers when multiplying. Knows how to rearrange dividends into multiples of the divisor.	Knows and applies table facts for recall of multiplication and division facts for multiplication tables up to 12 × 12. Knows how to multiply/divide two- digit and three-digit numbers by one-digit numbers using expanded or formal written methods of short multiplication and division. Knows and applies	Knows how to find factor pairs. Knows the definition of prime and composite numbers. Knows efficient mental methods for multiplication and division. Knows the efficient written algorithms for long multiplication and short division. Knows the definition of square and cube	Knows efficient mental methods applying knowledge of properties of number. Knows how to multiply multi-digit numbers up to 4 digits by a two- digit whole number using the formal written method of long multiplication Knows the efficient written algorithms for long/short multiplication and long/short division.



Know that an array represents equal groups of J to of groups of J are even, groups of J are even, groups of J are in 0.Know tracts withous correct notation.Knows the formal division facts when calculating.Knows compact multiply using partitioning.Knows compact multiple tractions.Knows the formal division facts when calculating.Knows compact multiple tractions.Knows the formal multiple tractions.Knows the formal divisionKnow the test of divisionitity for 2, even numbers.Knows that array are used to represent multiplication and division facts.Knows how to and 10s times tables and can find represent multiplication and division facts.Knows how to and 10s times tables and can find represent multiplication and division facts.Knows how to and 10s times tables for 2,5 and and chooses the officient written tables for 2,5 and 10.Knows how to find fictient written and chooses the officient written tables for 2,5 and and choose the organisation to use and choose the organisation to tables for 2,5 and tables for 2,5 and <br< th=""><th></th><th></th><th>statements for</th><th></th><th>table facts for recall</th><th>numbers and the</th><th></th></br<>			statements for		table facts for recall	numbers and the	
represents equal groups of are even groups of a re in 0.represents equal correct symbols (x) (x) (x)division is inclusing, partitioning, and 10 stress partitioning, and 10 stress she shales and can find divisibility for 2, sen in 0.division is inclusing, partition numbers, in 0.division is inclusing, multiple is		Know that an array	multiplication and	Knows how to	of multiplication and	correct notation.	Knows the formal
groups of.     correct symbols.     partitioning.     calculating.     calculating.     knows more som part indivision and indivision and indivision and indivision indinand indindivision indivision indindivision indivision indivisin in		represents equal	division using the	multiply using	division facts when		written method of long
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even, groups of 5 end in 0.       Knows the 25, 5s and 105 times tables and can find related facts.       Knows thow to partition numbers when multiplying in a related facts.       multiply three-digit numbers with 1 decimal place by one-digit number remainders.       Multiplication.       Knows thow to interpret remainders.         Knows the test of divisibility for 2, even numbers.       Knows thet arrays are used to represent multiplication facts.       Knows thow to divide using known       Multiply three-digit numbers with 1 decimal place by one-digit number       Knows thow to interpret remainders.       Knows thow to interpret remainders.         Knows the tarrays are used to represent multiplication facts.       Knows thow to divide using known       Knows thow to divide using known       Knows the vide ind threider facts.       Knows the vid eind threider facts.         Knows the facts.       Knows the represent multiplication tables in cluding fir two-digit numbers with 1       Knows the rules of papper place in cluding fir two-digit numbers with 1       Knows the rules of multiplication and division.       Knows the rules of multiplication and division.         Knows the diss or 2,5 and in cluding for three efficient written recorise multiples       Knows the of division.       Knows the terms factor multiple and prime numbers.       Knows the terms factor multiple and prime numbers.       Knows the terms factor multiple and prime numbers.         Knows how to recorise multiples       Knows how to recorise multiples       Knows the ordin factor multiple of a in terms and division.       Knows the rules factor multiple of		Know groups of 2 are	(×), (÷) (=)		Knows how to	notation for long	division
S or 0, groups of 10 end in 0.Minux Me 2, so and 10 stimes tables and ca find related fact repared a numbers.Knows how to and fact related fact related fact repared fact<		even, groups of 5 end in	Kaawa tha Da Fa		multiply three-digit	multiplication.	
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tables for 2,5 and 10.Knows how divide and record remainders.with commutative 			evens in the times	methods.	distributive law along	Knows the terms	
10.Knows now divide and record remainders.and associative laws.prime, square and cube numbers.Knows how to recognise multiples of a divisor.Knows how to solve integer scaling problems and harder correspondence problems.Knows how to solve integer scaling problems and harder correspondence problems.Knows the test of divisibility for 2, 5 and 10.Knows how to recognise multiples of a divisor.Knows how to represent problems including four times as long, twice as highKnows the formal written method of short multiplication and short division4 multiple of 4 in tens and ones.			tables for 2,5 and	Ka awa la awaliwiala	with commutative	ractor, multiple and	
All record remainders.Knows how to recognise multiples of a divisor.Knows how to solve integer scaling problems and harder correspondence problems.Know the test of divisibility for 2, 5 and 10.Knows how to recognise multiples of a divisor.Knows how to recognise multiples of a divisor.Knows how to solve integer scaling problems and harder correspondence problems.Know the test of divisibility for 2, 5 and 10.Knows how to represent problems including <i>four times as long, twice as high</i> Knows the formal written method of short multiplication and short division4 multiple of 4 in tens and ones.			10.	knows now divide	and associative laws.	cube numbers	
Knows how to recognise multiples of a divisor.Knows how to solve integer scaling problems and harder correspondence problems.Knows how to solve integer scaling problems and harder correspondence problems.Knows the test of divisibility for 2, 5 and 10.Knows how to represent problems including <i>four times</i> <i>as long, twice as high</i> Knows the volume short multiplication and short divisionKnows how to solve integer scaling problems and harder correspondence problems.Knows the test of divisibility for 2, 5 and 10.				remainders		case numbers.	
Knows how to recognise multiples of a divisor.integer scaling problems and harder correspondence problems.divisibility for 2, 5 and 10.Knows how to represent problems including four times as long, twice as highKnows how to represent problems and ones.Knows the formal written method of short multiplication and short divisiondivisibility for 2, 5 and 10.				Temainuers.	Knows how to solve	Know the test of	
Intercognise multiples of a divisor.problems and harder correspondence problems.10.Knows how to represent problems including <i>four times as long, twice as high</i> Knows the formal written method of short multiplication and short division10.Knows how to represent problems including <i>four times</i> as long, twice as highKnows the formal written method of short multiplication and short division10.				Knows how to	integer scaling	divisibility for 2, 5 and	
of a divisor.correspondence problems.3- digit sum of 3, 6 or 9.Knows how to represent problems including four times as long, twice as highKnows the formal written method of short multiplication and short division3- digit sum of 3, 6 or 9.				recognise multiples	problems and harder	10.	
Knows how to represent problems9.Knows how to represent problems including four times as long, twice as highKnows the formal written method of short multiplication and short division9.Mail of the second state4 multiple of 4 in tens and ones.				of a divisor.	correspondence	3- digit sum of 3, 6 or	
Knows how to represent problems including four times as long, twice as highKnows the formal written method of short multiplication and short division4 multiple of 4 in tens and ones. 6 - even and digit sum of 3,6 or 9.					problems.	9.	
represent problems including <i>four times</i> <i>as long, twice as high</i> including <i>four times</i> <i>as long, twice as high</i> including <i>four times</i> <i>and ones.</i> <i>6 – even and digit</i> <i>sum of 3,6 or 9.</i>				Knows how to	Knows the formal	4 multiple of 4 in tens	
including <i>four times</i> as long, twice as high and short division and short division				represent problems	written method of	and ones.	
as long, twice as high and short division sum of 3,6 or 9.				including four times	short multiplication	6 – even and digit	
				as long, twice as high	and short division	sum of 3,6 or 9.	



			etc Knows tables facts for 2,3,4,5,8,10s. Knows how to derive corresponding divisions for the 2,3,4,5,8,10 times table Know the commutative and associative laws for multiplication. Knows how to multiply two-digit numbers, using multoiplication facts they know, using efficient written methods- 'partitioning method' Know the test of divisibility for 2, 5 and 10. 3 -digit sum of 3, 6 or 9.	with exact answers. Know the test of divisibility for 2, 5 and 10. 3- digit sum of 3, 6 or 9. 4 multiple of 4 in tens and ones.		
		FDPR	P			
Knows that objects can be cut	Knows that halves are two equal parts of a	Knows that fractions are	Knows that fractions are relative to the	Knows how to connect hundredths	Knows that when the numerator is larger	Knows how to add and subtract fractions with



into two equal whole. relative to the whole and can be to tenths and place than the de	enominator different denominators
halves of the same Knows that quarters whole. represented in value and decimal it is an imp	roper and mixed numbers by
whole. are 4 equal parts of a different ways. measure. fraction.	identifying and finding
whole. Knows that	equivalent fractions
fractions are equal Knows how to count Knows how to Knows that	an with the same
Know how to find parts to the whole. <b>up and down in</b> connect tables improper fr	raction is denominator.
half/quarter of tenths; recognise knowledge to families converted t	to a mixed
counted objects and Knows simple that tenths arise of common number.	Knows how to
whole objects or equivalence in from dividing an equivalents.	compare and order
shapes. halves and object into 10 equal Knows deci	imal fractions
quarters. parts and in dividing Knows how to add notation ar	ាd the
one-digit numbers or and subtract fractions language as	ssociated Knows how to multiply
Knows thirds are quantities by 10 with the same with it for u	up to three pairs of proper
three equal parts of Knows unit and denominator. decimal pla	rces. fractions
a whole.	
as numbers on the Knows how to write Knows how	/ to Knows how to write
Knows that decimal equivalents convert fra	ctions to a the answer in its
fractions of how to represent of any number of common	simplest form.
amounts can be equivalence tenths or hundredths. denominat	or for
calculated using addition an	ıd
multiplication and Knows how to make subtraction	1.
division facts connections between	Knows how to divide
fractions of a length, Knows that	proper fractions by
Knows how to of a shape and as a percentage	es, whole numbers.
calculate halves and representation of one decimals, a	ind
quarters in the whole or set of fractions ar	re different Knows how to identify
context of length, quantities. ways of exp	pressing the value of each digit
mass and capacity.	s. in numbers given to
Knows how to use	3dp.
factors and multiples Knows the	e per cent
to recognise symbol (%)	and Knows how to multiply
equivalent fractions understand	that per and divide numbers by
and simplify where cent relate	s to 10.100 and 1000
appropriate. <b>'number of</b>	giving answers up to
parts per h	undred' 3dp.
Knows that decimals	



· · · · · · · · · · · · · · · · · · ·	1					1
				and fractions are	Knows how to write	Knows how to multiply
				different ways of	percentages as a	and divide 1 and 2 digit
				expressing numbers	fraction with	whole numbers by
				and proportions.	denominator 100,	numbers with up to
					and as	2dp.
				Knows decimal	a decimal	
				notation and the		Knows how to round
				language associated	Knows how to	decimals to a specified
				with it, including in	read, write, order	degree of accuracy.
				the context of	and compare	
				measurements.	numbers with up to	Knows how to find a
					three decimal	percentage of a
					nlaces	specified an amount.
					places.	
					Ku awa hawata	Knows how to recall
						and convert
					rouna aecimais	equivalences between
					with two decimal	fractions decimals and
					places to the	nercentages
					nearest whole	percentages
					number and to one	Knows that
					decimal place.	proportions relate to
						the whole and ratios
					Knows how to	are part to part
					multiply proper	
					fractions and mixed	Knows the notation ash
					numbers using the	to record a ratio
					rule of dividing by 1	
					to represent the	Knows how to use
					whole number as a	multiplication (division
					fraction.	to find a scale factor
					Knows how to	
					describe linear	
					number sequences,	
					including those	



				involving fractions and decimals, and find the term-to-term rule. Knows how to find 10% and 1% of an amount using division by 10 and 100. Knows how to calculate with fractions. Knows how to find LCM and HCF for simplifying.	
		Algebr	a		
					Knows how to use a simple formulae. Knows how to find the common difference for the nth term. Knows how to generate and describe



								linear sequences.
								Knows how to use the arithmetic relationships to find unknowns or variables. Knows how to express missing number problems algebraically. Knows how to find pairs of numbers that satisfy an equation with two unknowns.
				Geomet	ru			
Knows how to use blocks to create simple structures including lines of identical shapes. Knows how to make simple	Knows the term 2D and know the informal and formal mathematical language associated with it. Eg circle,	Knows characteristics of everyday objects and shapes and uses mathematical language to describe them. Knows how to rotate and	Know the mathematical names of 2d and 3d shapes. Know the properties of 2d and 3d shapes. Knows that shapes can be placed in different locations.	Know the properties of 2d and 3d shapes. Knows how to order and arrange combinations of mathematical objects in patterns and sequences.	Knows how to draw 2-D shapes Know and recognise right angles in 2d shapes. Knows how to describe and classify 2D shapes using mathematical properties.	Knows how to describe and classify shapes using mathematical properties. Knows how to draw a pair of axes in one quadrant, with equal scales and integer labels.	Knows that angles are measured using a protractor. Knows right, acute, obtuse, straight, and reflex angles. Knows the conventional	Knows how to draw 2D shapes using given dimensions and angles. Knows how to find unknown angles on a straight, round a point and in any triangles quadrilaterals and



constructions	rectangles,	manipulate shape		Knows and can			markings for parallel	regular polygons.
by stacking or	triangles, side,	to develop special	Know how to	recognise 2d	Knows acute and	Knows how to read,	lines and right angles.	
clicking	corner, flat,	reasoning skills.	describe the position	shapes on the	obtuse in relation to	write, and use pairs of		Knows the parts of the
together.	round.		of an object and	surface of 3d	right angles.	coordinates.	Knows how to	circle.
			move it to a new	shapes.			describe a translation	
Knows spatial	Knows the	Knows how to	position on a grid.	Ka ana ang ka	Knows how to	Knows how to	or reflection of a	Knows the diameter is
words like on	term 3D and	compose and		Knows symmetry	describe lines using	identify acute and	shape, including	twice the radius.
top of, up,	know the	decompose shapes	Knows describe	is reflection in a	mathematical	obtuse angles.	reference to the axes	
down and	informal and	to recognise a	position, direction	vertical line.	terms.		in the first quadrant.	Knows how to
through.	formal	shape can have	and movement,	Knows how to		Knows that two right		visualise 3D shapes
	mathematical	another shape	including whole, half,	compare and sort	Knows how to make	angles form a straight	Knows how to use	from nets.
Knows how to	language	within it.	quarter and three	2d and 3d shapes	3-D shapes using	line.	angle sum facts and	
complete inset	associated		quarter turns	(including	modelling materials.		other properties to	Knows how to
puzzles	with it. Eg	Knows how to		everyday objects)	Knows how to	Knows how to	make deductions	compare and classify
	cube, cuboid,	continue, copy and			describe and	describe positions as	about missing angles	geometric shapes
Knows their	sphere.	create repeating		Knows how to	classify 3D shapes	translations using the	and lengths.	based on their
way around		patterns within		describe position	using mathematical	correct terms.		properties.
familiar	Knows	number and the		and movement	properties.		Knows the term	
environments.	positional	environment.		using in terms of		Knows and is familiar	diagonal and can	Knows how to describe
	language			right angles for		with different	make conjectures	positions on the 4
Knows where	alone without	Knows how to		three-quarter		orientations of lines	about the angles	quadrant grid.
to find their	gestures.	use own ideas to		turns (clockwise		of symmetry; and can	formed between	
favourite		make model of		and anticlockwise)		recognise line	diagonals and parallel	Knows how to draw
activities.	Knows and	increasing		,		symmetry in a variety	sides and other	and translate simple
	can describe a	complexity,		Knows how to		of diagrams, including	properties of	shapes on the co-
Knows some	familiar route.	selecting blocks		describe position		symmetry does not	quadrilaterals	ordinate plane and
of the		needed, solving		and movement		dissect the original	quadi naterais.	reflect in the axes.
language	Knows how to	problems and		using quarter turns		chane		
associated	discuss routes	visualising what		(right angle), half		shape.		
with patterns	and locations	I will need.		and three-quarter		Knows the properties		
Eg spots,	using words			turns.		of regular and		
stripes,	like front of					irregular polygons		
спескеа.	and benina.							
	Knows how t-							
	KNOWS NOW TO							
	select snapes							



for a purpose			
Eq cone for a			
roof.			
Knows how to			
armhine			
combine			
shapes to			
make a new			
one Eg bogger			
triangles.			
Knows how to			
create their			
own spatial			
patterns			
showing some			
organisation			
or regularity.			
Knows how to			
add to simple			
linear patterns			
and explores			
linear patterns			
of two or three			
repeating items,			
e.g. stick, leaf			
(AB) or stick,			
leaf, stone			
(ABC).			
Knows and joins			
in with simple			
patterns in			
sounds, objects,			
games and stories			
dance and			
movement,			



	predicting what comes next. Knows how to describe patterns around them using appropriate language. Knows how to notice and correct errors in repeating patterns.							
				Measuren	nent			
Knows what is meant by empty and full. Knows how to compare size weight etc using gestures and language eg bigger/little/s maller, high/low, tall, heavy. Knows that things may	I know how to make comparisons between objects relating to size, length, weight and capacity. Knows the language to sequence events real and fictional using first, then, after.	Knows that time passes and recognises routines. Knows the date and month of their birthday. Knows that money is used to buy items. Knows terms such as longer, shorter, heavier, lighter. <b>Knows how to</b> tackle problems involving prediction and	Knows that days of the week and the months of the year. Knows the sequence of events in chronological order using language Knows the coins and notes by their value, size, and colour Know how to measure a length, a mass, and a capacity in nonstandard units then standard units.	Knows the symbols for £ and p. Knows how to combine amounts to make a particular value. Knows how to find different combinations of coins that equal the same amounts of money using notes and coins. Knows how to find change in the	Knows how to measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) Knows how to measure the perimeter of simple 2-D shapes. Knows how to read the time to the nearest minute. Knows that the 12-	Knows how to multiply and divide to convert between units of measure. Knows how to estimate, compare and calculate different measures, including money in pounds and pence Knows how to read, write, and convert time between analogue and digital 12- and 24-hour clocks.	Knows how to use place value, multiplication, and division to convert between standard units. Knows that angles are measured using a protractor. Knows right, acute, obtuse, straight, and reflex angles. Knows how to calculate the	Knows that approximately 5 miles = 8 kilometres. Knows how to use, read , write and convert between standard units of length, mass and volume. Knows how to recognise that shapes with the same area can have different perimeters and vice versa. Knows how to



happen now	Knows when	discussion,		context of money.	hour clock can	Knows how to	perimeter of	calculate, estimate
or at another	key times of	comparisons of	Knows the correct		represent am or pm.	calculate the	rectangles and	and compare volume
time	the day are	length, weight or	measuring equipment	Knows the value of	Knows that analogue	perimeter as the	related composite	of cubes and cuboids
	eg lunchtime,	capacity, paying	for length, mass, and	coins and notes in	clocks can be	measurement of the	shapes, including	using the formula <i>l x b</i>
	hometime	attention to	capacity.	order to compare	represented in roman	boundary of a	using the relations of	x h
		fairness and		amounts.	numerals.	rectilinear figure.	perimeter or area to	
	Knows	accuracy.	Know that time passes	Kin avva the a	Knows the passing of	Knows the area is the	find unknown	Knows approximate
	familiar	,	in cycles.	knows the	time can be	measurement of the	lengths.	conversions of
	patterns in		Know the features of	measure for	calculated as time	surface of a		imperial/metric units.
	daily routines.		the clock face: hands, 1	length, height, mass, temperature	durations.	rectilinear figure	Knows the common	Knows how to
			to 12 positions, half				imperial	calculate the area of
	Knows what		past and o'clock.	and capacity.	Knows the correct	Knows how to use	measurements in use	parallelograms and
	is happening			. ,	notation and	multiplication to	and begin to convert	triangles.
	next		Knows that	Knows how to	strategies for	convert from larger to	to metric measures.	
			nonstandard units need	compare and order	calculating with	smaller units.	Karawa tha thurse	
			to be standardised.	units of measure	money.	<i></i>	knows the three	
			Knows the correct unit	using < > =		Knows perimeter can	dimensions for	
			of measure and the			be expressed	inding the volume.	
			equipment for each	Knows the number	reading the marked	algebraically as 2(a +	Knows how to use	
			measurement	of minutes in an	divisions in the	b) where a and b are	use all four	
			measurement.	hour and the	appropriato units	che uniterisions in the	operations in	
				a day.	appropriate units.	same unit.	nrohlems involving	
					Knows how to add		time and money	
					and subtract in the		including conversions.	
				Knows how to read	context of			
				the time to the 5-	measures.		Knows how to solve	
				minute intervals.			missing measures	
				Knows how to road	Knows the time in 12-		questions such as	
				quarter past and	hour and 24-hour		these can be	
			quarter pa	quarter to on a	representations.		expressed	
				clock face			algebraically.	
					Knows the number of			
				Knows how to draw	seconds in a minute		Knows how to	
				the hands on a	and the number of		calculate the area	
				clock face to show	days in each month,		from scale drawings	



			quarter past and quarter to. Knows how to compare and sequence intervals of time.	year and leap year.		using given measurements.		
Statistics								
	Knows how to sort and match by criteria.	Knows that graphs and charts represent information.	Knows how data is represented and read. Knows how to interpret data.	Knows how to read varying representations of discrete data. Knows how to use a simple scale. Knows how to interpret and analyse data. Knows how to present data in many contexts.	Knows how to correctly present data using appropriate graphical methods. Knows how to interpret and analyse graphs and charts to solve problems. Knows how to use a greater range of scales in their representations. Knows the graphical representation of data to record change over time.	Knows which representations of data are most appropriate and why. Knows when to use a line graph. Knows how to read a timetable. Knows how to complete, and interpret information in tables, including timetables.	Knows how to interpret and construct pie charts and use these to solve problems Knows how to interpret and construct line graphs and use these to solve problems Knows the arithmetic for finding the mean average.	



Finding All	EYFS	KS1	LKS2	UKS2
Possibilities				
knows how to work systematically. knows how to check for repeats. knows how to satisfy the criteria with solution/s.	I know how to put items and objects, including pictures in order. I know when items are the same.	I know how I will put my answers in order. I know what resources to use. I know if I have some answers the same.	I know the best way to record the results. I know if some solutions repeated. I know if I have solved the problem and when there is more than one solution.	I know how to identify are the starting and stopping points. I know when some solutions are repeated and when it affects the outcome. I know when the criteria restrict the number of possibilities.
Logic	EYFS	KS1	LKS2	UKS2



Patterns & Rules	EYFS	KS1	LKS2	UKS2
I know how to spot the pattern/rule and describe it mathematically. I know how to design a process or arithmetic strategy using the rules.	I know what comes next. I know how to make a repeating pattern.	I know what a repeating pattern is. I know how to find the step size, following a rule. I know how to describe patterns mathematically using signs and symbols.	I know what a repeating pattern is. I know how to follow a rule. I know when the pattern increases or decreases. I know how to apply inverse relationships. I know how to describe rules mathematically using signs and symbols.	I know what a repeating pattern is and can predict sequences. I know how to apply a rule including more than one step. I know when the rule increases or decreases or is incremental. I know how to apply inverse relationships and reverse strategies. I know how to describe rules mathematically using signs and symbols including expressions.
Word Problems	EYFS	KS1	LKS2	UKS2
Read and analyse the problem. Identify the steps. Calculate efficiently. Check the solution.	I know how to listen to the word problem story. I know what the story is about. I know how to find the answer.	I know what the narrative is about and what words tell me about the maths. I know what arithmetic I need to answer a one-step problem. I know how to answer a two-step problem. I know what arithmetic methods are best and what resources I might choose. I know when I have answered the question correctly.	I know what the narrative is about and what words identify the operations needed. I know what arithmetic I need to answer a one-step problem, two-step or multi step problem. I know what arithmetic methods are efficient and what to record. I know when I have answered the question correctly and checked the context.	I know what the narrative is about and what words identify the operations and the concepts needed. I know what arithmetic I need to answer a one-step problem, two-step, multi-step problem or complex problem. I know what arithmetic methods are efficient and what to record in sequences. I know when I have answered the question correctly and checked the context.

Reasoning	EYFS	KS1	LKS2	UKS2
Generalising is about starting with	I know when something is always true.	I know how to say or write the general	I know how to say or write the general	I know how to say or write the general
specific cases and becoming less	I know how to match a number, an	rule.	rule using mathematical terms.	rule using mathematical terms.



specific.	object, or a picture to something that	I know how to match examples that	I know how to choose examples that	I know how to choose examples that
Specialising is about starting with	is true.	prove the rule.	prove the rule using technical	prove the rule from a conjecture or line
something general and seeing what it			vocabulary and notation.	enquiry.
tells us about a specific case. It might				
seem that generalising is therefore				
more important (or harder) than				
specialising, but that is not always				
true.				
Models of proof	I know how to select objects or draw	I know how to draw mathematical	I know how to construct mathematical	I know how to construct mathematical
<ul> <li>Visually: a constructed model</li> </ul>	graphics to show when something is	diagrams or select equipment to prove	diagrams or select equipment to prove	diagrams or select equipment to prove
or a diagram	true.	a generalisation.	a generalisation or offer a reasoned	a generalisation.
<ul> <li>Examples that satisfy the</li> </ul>			argument.	
rule: by making a series of	I know when something is not the	I know how to write arithmetic	-	I know how to write 3 arithmetic
statements	same, it is not true.	statements to prove a generalisation.	I know how to write 3 arithmetic	statements to prove a generalisation to
(at least 3 to prove a truth and 1			statements to prove a generalisation to	be true.
to counter example to disprove.)		I know how to write a statement to	be true.	
Algebraically: with an		show when something is not always		I know how to write a single statement
expression		true or never true.	I know how to write a single statement	to show when something is sometimes
			to show when something is not always	true or never true.
			true or never true.	I know how to write the expression to
				prove a rule using n to represent any
				number.
				I know how to determine the criteria
				for n.