Year	Foundation	Rapid	Mental	Objective	Method	Practical methods	Pictorial/written methods	Vocabulary
group		Recall	calculation					
group EYFS		Recall Chanting of counting in 2s	calculation	Repeated grouping Counting in pairs Doubling	Practical/ recorded using ICT (eg digital photos / pictures on IWB)	Toys, Beads, Rhymes, Counters, objects, number lines, Numicon, stories, role play, number lines- hopping on, counting pairs.	Drawing problems Begin to record using marks they can explain	Chanting/ counting in 2s.
							Ó	

Year	Foundation	Rapid Recall	Mental	Objective	Method	Practical methods	Pictorial/ written methods	Vocabulary
group			calculation					
	Count in 21a	Concolidation			Dreatical /	lana numban linaa 100		Chanting (
y 1	Count in 25	of EVES		Consolidation of Eyrs	recorded using	square counting sticks	Pictures to represent working out.	counting in 25
		012/13			ICT	Dienes, tape measure.	\odot	counting in 23.
						coins, cubes, bead strings,	\bigcirc	
	Count in 10's	Chanting of		Begin to understand		peg boards, numicon	3 • 3 • 3 • 3	Count on in
		counting of		small quantities	Informal	10116	5. Su	lots of arouns
		2s, 5s 10s		Sman quantites,	written			of.
	Doubles up to	,			methods	r		
	10			Salua ana atan mahlama		11/1/1	(B) (B) (B) (B) (B)	pattern,
		Double pairs		involving multiplication				
		to 10, then 20			Horizontal		Using arrays with teacher support.	
	Count in 5's				recording		0000	
				Make connections between			4×2=8	
				arrays and number patterns				
	Double						2 × 4 = 8	
	multiples of							
	10			Double numbers and quantities				
				Boable hambers and quantities				
1	Count in 21							
	Count in 2's, 5's and 10's			Count in multiples of twos		44		
	0 5 UNG 10 5			fives and tens			~~~~~	
							· f + l + l + l + l + l + l + h + h + h + h	

Year	Foundation	Rapid	Mental	Objective	Method	Practical	Pictorial/ written methods	Vocabulary
group		Recall	calculation			methods		
Y2	2 x table	Count in 2s,	Doubles of	Consolidation of Y1	Practical	Counting sticks,	Arrays	Chanting/
		5s and 10s	TU numbers			bead strings,		counting in 2s.
				Count in steps of 2 and 5 from 0, and in 10s from		number lines, 100	C # ## tall Alext	
	10 x table	Derive		any number, forward and backward	Informal	squares, Dienes,	3x4-11-	count on in,
	10 X Tuble	multiples of		Recall and use multiplication facts for the 2 5 and	written	objects in groups		lots of, groups
		2,5&10.		10 multiplication tables including recognising odd	methods	and arrays.	Red to obtain the	of,
		Relate to x		and even numbers	mornous		0000	pattern
	Doubles up to	facts (and					0000 4×2*8	Par 10111,
	20 and			Calculate mathematical statements for			2 x 4 = 0	odd, even,
	multiples of	derive		multiplication within the multiplication tables and	Horizontal		Repeated addition	every other,
	5.	related		write them using the multiplication (×) and equals	recording	Human Board		how many
		facts)		(=) signs		Constantion of the second	Rugo er	times, multiple
						12000000000000000000000000000000000000	and the second second	of, sequence,
	5 x table	Understand		Show that multiplication of two numbers can be			200 - C 10 202	times, multiply,
		that halving		done in any order (commutativity)		1000	Same and the second sec	multiplied by,
		is the		Solve problems involving multiplication using		la E a Galela Matoli		multiple of,
		inverse of		materials arrays repeated addition mental		Counting on	Horizontal recording as repeat	once, twice,
	Count in 3's.	doubling		methods and multiplication facts including		counting on	addition and using x and =	three times,
		and derive		problems in contexts		A REAL PROPERTY.		four times,
		and recall				00000	2×5=10	five times
	2x , 5x and	doubles of		Connect the 10 × multiplication table to place value			46 Autophony (n blog alday lins of 25, 59 2+2+2+2+2	ten times as
	10x tables.	to 20 and				and the second		(big, long, wide
		10 20, and		Relate multiplication to grouping discrete and			Multiplying by 10 using place value	and so on),
		correspondi		continuous quantities, to arrays and to repeated		arranging objects	Grid Method	repeated
		na halves		addition.		in array.	Bina Merilia	addition,
		ny nuives.		Use commutativity and inverse relations to develop			10 2	array, row,
				multiplicative reasoning (for example $A = 5 = 20$ and				column, double
				$20 \pm 5 = 4$			5	
				20 · 5 - 7).				

Year	Foundation	Rapid Recall	Mental	Objective	Method	Practical Methods	Pictorial/written	Vocabulary
group			calculation			Tens Units	methods	
						8 0		
2/2	Daviau 2x 5x	Daniva and nacall		Concolidation of V2	Practical	Counting sticks dianas	Pantitioning	Chanting/ counting
¥3	and 10x	2 3 4 5 8 and	10/100		Fractical	number lines hundred	Furthoning	in 2c
	tablac	2, 3, 4, 5, 8 unu 10 times tables	10/100	Count from 0 in multiples of 3, 4, 50 and 100		rauana tana maacunac	32 x 6 =	III 25.
	Tubles	Derive related	(describe			square, rape measures		count on in, lots of,
	4x tables	division	the effect)	Connect the 2, 4 and 8 multiplication tables	Informal		30 × 6 = 180	groups of, pattern,
		arvision		through doubling.	written	5 5 5 mm		odd, even, every
	Double 2 digit	facts). Also count	Doubles of		methods	and the second s	2 x 6 = 12	other, how many
	numbers.	in multiples of	Τυ/ΗΤυ	Recall and use multiplication and division facts			180 ± 12 - 192	times, multiple of,
	0.11	above.		for the 3, 4 and 8 multiplication tables			100 + 12 - 172	sequence, times,
	8x table.		numbers	Multiply TU x U using mental methods and	Horizontal		Written method:	multiply, multiplied
	3x table	Recognise		progressing to formal written methods	recordina	10	grid	by, multiple of, once,
	ox rubic.	multiples of 2,		progressing to formal written methods	recording		method	twice, three times,
	6x table or	5 and 10 up to		Solve problems, including missing number			× 30 5	four times, five
	review	1000		problems, involving multiplication including		Grid method using	7 210 35	times ten times
	others.	1000.		positive integer scaling problems and	Formal	concrete materials:	210 + 35 = 245	as (big, long, wide
		Use knowledge of		correspondence problems in which n objects are	written		Introduce formal	and so on), repeated
		number		connected to m objects	method		written method	addition, array, row,
		operations and					(expanded form):	column, double
		corresponding		Pupils develop efficient mental methods, for			27	Count on in
		inverses,		example, using commutativity and associativity			30	bundrade
		including doubling		(for example, $4 \times 12 \times 5 = 4 \times 5 \times 12 = 20 \times 12 =$			<u>x 5</u> 30	multiplication
		and halving, to		2+0 and multiplication facts to derive related			150	nroduct
		estimate and		$1000 \times 2 = 0.30 \times 2 = 0.30 \times 2 = 0.00$			180	product
		check					100	
		calculations						

Year	Foundation	Rapid	Mental	Objective	Method	Pr	ractical method	ls	Pictorial/ written	Vocabulary
group		Recall	calculation						methods	
У4	4x, 8x tables.	Derive and	Numbers up	Consolidation of Y3	Practical	Dienes, p	lace value counters	, coins	Moving to written method using	Chanting/
		recall facts	to 1000 ×			Sec. 1		1	grid	counting in 2s.
	10 times	to 10 × 10	10/100	Count in multiples of 6, 7, 9, 25	Informal	The second				count on in,
	bigger.		(whole	and 1000	written				× 300 20 7	lots of, groups
		Count in	number	Decall facts for multiplication	methods				6 1800 120 42	of, pattern,
	3x, 6x and	multiples of	answers	tables up to 12 x 12		600		10	1800 + 120 + 47 - 1982	odd, even,
	12x tables.	6, 7, 9, 25	and		Formal written					every other,
		and 1000	understand	Use place value known and	method					how many
	Double larger		the effect)	derived facts to multiply					1800+120+42=1962	times, multiple
	numbers and	Recognise		mentally, including: multiplying by		Using the	e grid method (as ir	ı УЗ),		of, sequence,
	decimals.	and use	Doubles of	0 and 1 and multiplying together		with plac	with place value counters.		More formal written method	times, multiply,
		factor pairs	Τυ/ΗΤυ	three numbers					(expanded method)	multiplied by,
	3x and 9x	and	numbers and							multiple of,
	tables.	commutativi	multiples of	Recognise and use factor pairs		<u>X</u>	400	10	327	once, twice,
		ty in mental	10/100	and commutativity in mental					<u>x 6</u>	three times,
	11x and 7x	calculations.		calculations		3			42	four times,
	tables.					5	I	1	120	five times
				Multiply TU × U using formal					<u>1800</u>	ten times as
				written layout		Moving to written method using the		sing the	<u>1962</u>	(big, long, wide
				Multiply LITH y LLuging formal		grid		-		and so on),
				written leveut		5				repeated
				witten ayout						addition,
				Solve problems involving					Formal written method (compact	array, row,
				multiplying and adding, including					form)	column, double,
				using the distributive law to					327	count on in
				multiply two digit numbers by					<u>× 6</u>	hundreds,
				one digit, integer scaling					<u>1962</u>	multiplication,
				problems and harder					14	product
				correspondence problems such as						
				n objects are connected to m						Factor,
				objects.						exchange

Year	Foundation	Rapid	Mental	Objective	Method	Practical	Pictorial/written methods	Vocabulary
group		Recall	calculation			methods		
У5	4x and 8x	Recall	TU x U (eg	Consolidation of Y4	Practical	Dienes, place	Written method:	Chanting/ counting
	tables.	quickly	12 x 9)			value	(grid method to be used when	in 2 <i>s</i> .
		facts to		Identify multiples and factors, including finding all factor	Informal	counters	introducing and embedding	count on in, lots
	100, 1000	12	TU x TU	pairs of a number, and common factors of two numbers.	written		understanding of formal method):	of, groups of,
	times bigger.	x 12	(eg 16 x 25)		methods			pattern, odd, even,
				Know and use the vocabulary of prime numbers, prime			42 X 23 =	every other, how
	3x, 6x and	Use facts	Doubles of	factors and composite (non- prime) numbers.			x 40 2	many times,
	12x tables.	to	U.t / 0.th		Formal	35	20 800 40	multiple of,
		multiply		Establish whether a number up to 100 is prime and recall	written		3 120 6	sequence, times,
	10, 100, 1000	pairs of	Multiply	prime numbers up to 19	method			multiply, multiplied
	times smaller.	multiples	whole			and the second	And recording as:	by, multiple of,
	Double larger	of 10/100	numbers	ThHTU x U using a formal written method			800	once, twice, three
	numbers and		and				1 2 0	times, four times,
	decimals.	Use	decimals by	ThHTU x TU		(100)	+ 6	five times ten
		known	10/100/100	using a formal written method,			966	times as (big,
	3x and 9x	facts to	0	including long multiplication for two-digit numbers			Moving on to a more formal	long, wide and so
	tables.	derive					method:	on), repeated
		other		Multiply numbers mentally drawing upon known facts			34	addition, array,
	11x and 7x	facts eg					1 0 2 34 x 3, carrying 1 ten from 4 x 3	row, column,
	tables.	300x6 =		Multiply whole numbers and those involving decimals by			3 4 0 34±10	double,
		1800		10, 100 and 1000			4 4 2	count on in
	Partition to						Moving further to more complex	hundreds,
	multiply	Also, find		Recognise and use square numbers and cube numbers, and			numbers:	multiplication,
	mentally.	common		the notation for squared (2) and cubed (3)			1 2 3 4	product, factor,
		multiples					7404	exchange
		of two		Solve problems involving multiplication including using			1 2 2	
		numbers		their knowledge of factors and multiples, squares and			$\frac{12340}{19744}$	Factor, prime,
				cubes			, , , , , , ,	prime factor
				Solve problems involving multiplication.				

Year	Foundation	Rapid Recall	Mental	Objective	Method	Practical methods	Pictorial/written	Vocabulary
group			calculation				methods	
Y6	Multiplication	Use facts up to	TU x U	Consolidation of Y5	Practical	Dienes, place value	As above (including	Chanting/ counting in
/0	facts up to	10 × 10 to				counters	multiplying decimals by	2s.
	12×12		U.t x U	ThHTU x TU using the formal			whole numbers	
		derive facts		written method of long	Informal			count on in, lots of,
		involving		multiplication	written	A WAY A SHOW	eg 4.92 x 3).	groups of, pattern, odd,
	Partition to	multiples of	Integer x 1000/	Multiply one-digit numbers	methods	🖉 🤴 🦉		even, every other, now
	multiply	10/100	100/10/0.1/0.01	with up to two decimal places		an an		sequence times.
	mentally.			by whole numbers.			Equivalent Fractions:	multiply, multiplied by,
		(eg 80 x 30)			Formal written			multiple of, once, twice,
		and decimals		Identity common factors,	method			three times, four times,
	Double larger	(eg 0.8 x 7)		numbers			<u>3</u> (x3) = <u>9</u>	five times ten times
	numbers and			hamboro		-0	E (.2) 1E	as (big, long, wide and
	decimals			Explore the order of			5 (X3) =15	so on), repeated
		Derive squares		operations using brackets; for				column double
		от		example, 2 + 1 x 3 = 5 and (2 +				column, double,
		numbers to 12		1) x 3 = 9.			Multiplying fractions	count on in hundreds,
		x 12		Use common factors to find			1 3 3	multiplication, product,
				equivalent fractions.				factor, exchange,
								factor, prime, prime
		Derive		Multiply simple pairs of proper				factor
		corresponding		in its simplest form			(multiply numerators)	
							(multiply denominators)	
		squares of		(1/2 × 2/4 = 2/8 = 1/4)				Common denominator
		multiples of					2 x 8 = 16	
		10.						