

Addition

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Skills:	Skills:	Skills:	Skills:	Skills:	Skills:	Skills:
Adding more	• Add two 1-digit numbers	• Add three 1-digit	• Add with up to 3-digits	• Add with up to 4-digits	• Add with more than 4-	Recall and use previous
	to 10	numbers			digits	calculation methods to
Calculations /	◆ Add 1 and 2-digit	• Add 1 and 2-digit	Calculations /	Calculations /	• Add with up to 3 decimal	find the most efficient
representations:	numbers to 20	numbers to 100	representations:	representations:	places	method to answer a
• 10 frames		 Add two 2-digit numbers 	 Part whole model 	Part whole model		question.
Number tracks	Calculations /		• Base 10	• Base 10	Calculations /	To manipulate calculation
 Children's fingers 	representations:	Calculations /	 Place value counters 	 Place value counters 	representations:	methods to solve arrange
Real life objects	Part-whole model	representations:	 Column addition 	 Column addition 	Part whole model	of problems.
• Cubes	Number shapes	Part-whole model	Bar model	Bar model	 Place value counters 	• To understand and apply
	■ Ten frames (within 10)	• Ten frames (within 20)			Column addition	these to real life
	Number tracks	Number shapes	265) ?	(1,378)	• Bar model	scenarios.
	 Number lines (labelled) 	Number lines	? 265 164			
	● Base 10	(labelled/blank)	164)	(?)	(?)	
		• Straws		2,148		
● ● ○ ○ 5 6 7 8 9 10		Base 10	Hundreds Tens Ones	2,13	(104,328) (61,731)	
		• Column addition	265 + 164		0,731	
		Bar model (end of Year 2)	429	?		
000000	(4)(3)			2,138 1,378	HTh TTh Th H T O	
		(16)	_	2170		
			Hundreds Tens Ones	2,138	0000 000000	
	ر ا		00000000	1,378		
		(7)(6)(3)				
			0000 0000	1378	1 0 4 3 2 8	
			•	+ 2 1 4 8	+ 6 1 7 3 1	
					1 6 6 0 5 9	
				1 1	1	
				Thousands Hundreds Tens Ones	·	
				Thousands Hundreds I ens Unes	?	
	8√+ 7 = 15				104,328 61,731	
	2 5 +2 +5				104,328	
	2 3 +2 +5				61,731	
	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20					
				Thousands Hundreds Tens Ones		
	1 2 3 4 5 6 7 8 9 10	00000		0000		



Subtraction

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Skills:	Skills:	Skills:	Skills:	Skills:	Skills:	Skills:
Taking away	 Subtract two 1-digit 	 Subtract 1and 2-digit 	• Subtract with up to 3-	• Subtract with up to 4-	• Subtract with up to 3	 Recall and use previous
	numbers	numbers to 100	digits	digits	decimal places	calculation methods to
Calculations /	Subtract 1 and 2-digit	 Subtract 2-digit numbers 				find the most efficient
representations:	numbers to 20		Calculations /	Calculations /	Calculations /	method to answer a
• 10 frames		Calculations /	representations:	representations:	representations:	question.
Number tracks	Calculations /	representations:	• Part whole model	Part whole model	Part whole model	To manipulate calculation
• Children's fingers	representations:	Part-whole model A second se	• Base 10	• Base 10	Place value counters	methods to solve arrange
Real life objects	Part-whole model	• Ten frames (within 20)	Place value counters	Place value counters	Column subtraction	of problems.
• Cube	• Number shapes	Number shapes	Column subtraction	Column subtraction	• Bar model	• To understand and apply
	• Ten frames (within 10)	• Number lines	Bar model	Bar model		these to real life scenarios.
	Number tracks Number tracks	(labelled/blank)			(294,382)	
	 Number lines (labelled) 	• Straws	(435)	(4,357)		
		Base 10 Base model (and of Year 3)	\sim			
	7	Bar model (end of Year 2)	λ		(182,501) ?	
_			(273) (?)	(2,735) (?)		
0 0 4 5 6 7 8 9 10					HTh TTh Th H T O	
	?)(3)			Thousands Hundreds Tens Ones		
		65 28	Hundreds Tens Ones	Hkk ;;; *	ØØØ 00 00 00 00 00 00 00 00 00 00 00 00	
		(28)	Hundreds Tens Ones			
		65			3 2 3 2 1 2 2 2	
					2 9 3/ 13 8 2	
	000	? 28		Thousands Hundreds Tens Ones	- 1 8 2 5 0 1	
	1 2 3 4 5 6 7 8 9 10		Hundreds Tens Ones		1 1 1 8 8 1	
		Tens Ones		0000		
	14 - 6 = 8	1111111			294,382	
	4 2	Y Y Y Y	VOOO Ø Ø Ø Ø Ø Ø Ø		182,501 ?	
	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	11111		4,357	294,382	
			3.1_	2,735 ?	182,501	
		888 8888	³ 4 ¹ 35	³ 1 4357		
		8 8 8 IIII → IIIII MX XXXX	– 273	4357 - 2735 4,357		
		ANN AND THE	262			
		+2 +30 +5		1622 2,735 ?		
		28 30 60 65	435 435			
			273 ? 273 ?			



Multiplication

EYFS	Year 1 and 2	Year 3	Year 4	Year 5	Year 6	
Skills:	Skills: Skills:		Skills:	Skills:	Skills:	
Doubling			• Multiply 2-digit by 1-digit	Multiply 4-digit by 1-digit	Multiply 4-digit by 2-digit	
	multiplication	numbers	numbers - recap	numbers	numbers	
Calculations / representations:	ations / representations:		Multiply 3-digit by 1-digit	Multiply 4-digit by 2-digit	Recall and use previous	
• Real life objects	Calculations / representations:	Calculations / representations: numbers		numbers	calculation methods to find	
• Ten frames	• Counters	Place value counters	_	_	the most efficient method to	
• Cubes	• Arrays	• Base 10	Calculations / representations:	Calculations / representations:	answer a question.	
Number shapes	Ten frames	Grid method	Place value counters	Place value counters		
	Number lines	Expanded written method	• Base 10	• Short written method		
	Base 10 (counting in 10s)		Grid method	Thousands Horderfi Fern Over	Calculations / representations:	
		Hundreds Tens Ones	Expanded written method		Short written method	
<u>* </u>		00000	• Short written method	0000 00		
					TTh Th H T O	
		000000	Hundreds Tens Ones			
			000000000000000000000000000000000000000		2 7 3 9	
	5+5+5+5=20	00000		T T. O		
	$4 \times 5 = 20$			Th H T O	× 2 8	
	$5 \times 4 = 20$		60	1 8 2 6		
00000			Hundreds Tens Ones	1 8 2 0	2 1 9 1 2	
Pair-wise pattern				× 3	2 5 3 7	
raii-wise patterri		Hundreds Tens Ories	•••••		5 4 7 8 0	
		0000	•••••	5 4 7 8	1 1	
		0000	50000		7 6 6 9 2	
				2 1		
					1	
			нто нто	TTh Th H T O		
			3 4 3 4	2 7 3 9		
		H T O	× 5 2 0 (5×4) × 5			
	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	3 4	+ 1 5 0 (5×30) 1 7 0	X		
		x 5	1 7 0 1 2	2 1 9 1 2		
		2 0 (5 × 4)		2 5 3 7		
		+ 1 5 0 (5 × 30) 1 7 0		5 4 7 8 0		
				7 6 6 9 2		
				, 0 0 3 2		
				1		



Division

EYFS	Year 1 and 2	Year 3	Year 4	Year 5	Year 6
Skills:	Skills:	Skills:	Skills:	Skills:	Skills:
Sharing and grouping	• Solve one-step problems with	Divide 2-digits by 1-digit (no	• Divide 2-digits by 1-digit	• Divide 2-digits by 1-digit	Divide multi-digits by 2-digits
	division (sharing)	exchange)	(sharing with remainders) -	(grouping) – recap	(short division)
Calculations / representations:	• Solve one-step problems with	Divide 2-digits by 1-digit (with)	recap	• Divide 3-digits by 1-digit	Divide multi-digits by 2-digits
Real life objects	division (grouping)	exchange)	Divide 2-digits by 1-digit	(grouping) - recap	(long division)
		● Divide 2-digits by 1-digit	(grouping)	● Divide 4-digits by 1-digit	
	Calculations / representations:	(sharing with remainders)	Divide 3-digits by 1-digit	(grouping)	Calculations / representations:
	Real life objects		(sharing with exchange)		Written short division
	• Arrays	Calculations / representations:	Divide 3-digits by 1-digit	Calculations / representations:	List of multiples
	• Counters	• Base 10	(grouping)	Place value counters	Written long division
	• Number lines	Place value counters	Coloulations / wormanantations	Place value chart	(chunking)
	Bar model (year 2 only)	Part-whole model	Calculations / representations: • Place value counters	Bar model Written all aut divisions	
0000000		Bar model	Place value counters Place value chart	Written short division	0 3 6
3 00 00 00 0		-	Part-whole model	The H T O	12 4 4 3 7 2
		Tens Ones	Bar model		12 4 3 2
			Bai model		
			Tens Cox		0 4 8 9 1 × 15 = 15
		000	2888 2000 8000		15 7 3 3 5
		•••			- 6 0 0 0 (×40c 2 × 15 = 30 3 × 15 = 45
			00 0000		- 1 2 0 0 (×80) 4 × 15 = 60
	0000	000000		Hundreds Tens Ones	1 3 5 5 × 15 = 75
	$20 \div 5 = 4$	Tens Ones	(ST)		- 1 3 5 (x9) 10 x 15 = 150
	20 - 5 = 4	0 000	856		0
		0 000	800 (40) (16)		
		0 000			
			200 10 4		
		53		2 1 4	
			0.44	4 8 5 16	
	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	40 (13)	844	4 8 5 6	
		÷4			
	20		? ? ?		
		10			
		53			
	? ? ? ? ? ?				
		17 17 17 17 1			
		13 13 13 1			
	1		<u> </u>	<u> </u>	1