

Orgone

Maths Curriculum Progression

Number – Addition and Subtraction								
Understanding Addition and Subtraction								
Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
	In practical activities and discussion, begin to use the vocabulary involved in adding and subtracting ELG: Understand addition as the combining of two or more groups to make a		Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting)	Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)	Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)	Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)	Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)	

large can b count when comb count Unde subtr away found amou and c many count	ter group and this be done by nting all the items on the groups are oblined or by nting on derstand traction as take ay and this can be and by removing one bount from another counting how ny are left or nting back	Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs	Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot Understand subtraction as take away and difference (how many more, how many less/fewer)	Understand and use take away and difference for subtraction, deciding on the most efficient method for the numbers involved, irrespective of context				
		Additio	on and Subtraction Facts	(including number bo	nds)			
Separ three differ begin that t same ELG: <i>i</i> bond: ELG: <i>i</i> less ti to 20	arate a group of ee or four objects in erent ways, inning to recognise t the total is still the ee : <i>Know number</i> <i>ds to 10</i> : Say one more or than a number up 0	Represent and use number bonds and related subtraction facts within 20	Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 <i>Recall and use number</i> <i>bonds for multiples of 5</i> <i>totalling 60 (to support</i> <i>telling time to nearest 5</i> <i>minutes)</i>	Recall and use addition and subtraction facts for 100 (multiples of 5 and 10) Derive and use addition and subtraction facts for 100 Derive and use addition and subtraction facts for multiples of 100 totalling 1000	Recall and use addition and subtraction facts for 100 Recall and use addition and subtraction facts for multiples of 100 totalling 1000 Derive and use addition and subtraction facts for 1 and 10 (with decimal numbers to one decimal place)	Recall and use addition and subtraction facts for 1 and 10 (with decimal numbers to one decimal place) Derive and use addition and subtraction facts for 1 (with decimal numbers to two decimal places)	Recall and use addition and subtraction facts for 1 (with decimal numbers to two decimal places)	
Mental methods								

Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same.	Find the total number of items in two groups by counting all of them ELG: Using quantities and objects, they add and subtract two		Select a mental strategy appropriate for the numbers involved in the calculation	Select a mental strategy appropriate for the numbers involved in the calculation	Select a mental strategy appropriate for the numbers involved in the calculation	Select a mental strategy appropriate for the numbers involved in the calculation	Select a mental strategy appropriate for the numbers involved in the calculation		
	single-digit numbers and count on or back to find the answer up to 20 ELG: Subtract a number of objects from a bigger group to find a total (9 teddies—5 teddies) ELG: Count on to find the answer when adding 2 numbers together to find a total (9 teddies + 3 teddies)	Add and subtract one- digit and two-digit numbers to 20, including zero (using concrete objects and pictorial representations)	Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: - a two-digit number and ones - a two-digit number and tens - two two-digit numbers - adding three one-digit numbers	Add and subtract numbers mentally, including: - a three-digit number and ones - a three-digit number and tens - a three-digit number and hundreds	Add and subtract mentally combinations of two and three digit numbers and decimals to one decimal place	Add and subtract numbers mentally with increasingly large numbers and decimals to two decimal places	Perform mental calculations, including with mixed operations and large numbers and decimals		
			Written me	thods	•	-			
	Record, using marks that they can interpret and explain	*Written methods are informal at this stage – see mental methods for expectation of calculations	*Written methods are informal at this stage – see mental methods for expectation of calculations	Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction	Add and subtract numbers with up to 4 digits(and decimals with one decimal place) using the formal written methods of columnar addition and subtraction where appropriate	Add and subtract whole numbers with more than 4 digits (<i>and decimals with</i> <i>two decimal places</i>), including using formal written methods (columnar addition and subtraction)	Add and subtract whole numbers and decimals using formal written methods (columnar addition and subtraction)		
Inverse operations, Estimating and checking calculations									

			Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems	Estimate the answer to a calculation and use inverse operations to check answers	Estimate and use inverse operations to check answers to a calculation	Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy			
Order of operations										
							Use their knowledge of the order of operations to carry out calculations involving the four operations			
	Solving addition and subtraction problems including those with missing numbers									
Show curiosity about numbers by offering comments or asking questions Show an interest in number problems	Record, using marks that they can interpret and explain Begin to identify own mathematical problems based on own interests and fascinations ELG: Solve problems Begin to record number stories using number sentences	Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = 0 - 9	Solve problems with addition and subtraction including those with missing numbers: - using concrete objects and pictorial representations, including those involving numbers, quantities and measures - applying their increasing knowledge of mental and written methods	Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why Solve addition and subtraction problems involving missing numbers	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Solve addition and subtraction problems involving missing numbers	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Solve problems involving addition, subtraction, multiplication and division, <i>including those</i> <i>with missing numbers</i>			
Vocabulary										

Number line add more plus, make sum total, altogether double half, halve equals is the same (including equals sign) How many more to make? How many more is,, , then,,,? How much more is? subtract, take	Number line add more plus make sum total altogether double half halve equals is the same (including equals sign) How many more to make? How many more is, , then,,,? How much more is? subtract, take	number bonds inverse near doubles difference between How many fewer isthan? How much less is?	numbers to 100 hundreds partition recombine hundred more/less commutative inverse sum 3-digit number commutative repeated addition times tables	column addition and subtraction exchange estimate	tens 4-digit number operations method tenths, hundredths, round (to nearest) thousand more/less than negative integers count through zero Roman Numerals (I to C)	efficient written method operation distributive law derive factor	order of operations millions ten millions prime factors degree of accuracy
---	--	---	---	--	---	---	--