Goose Green Number: Addition and Subtraction Progression

Number bonds	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		Automatically recall number bonds for numbers 0 to 5 and some to 10	Represent and use number bonds and related subtraction facts within 20 Automatically recall without reference to rhymes, counting or other aids, number bonds up to five, including subtraction facts, and some number bonds to 10 including double facts	Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100	Use rapid recall of number bonds to unitise when adding or subtracting larger numbers up to a thousand	Use rapid recall of number bonds to unitise when adding or subtracting numbers up to ten thousand		

Mental calculation	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			Add and subtract one-digit and two-digit numbers to 20, including zero	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 numbers mentally with increasingly large numbers	Perform mental calculations, including with mixed operations and large numbers

			Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Written Methods)	Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot				Use their knowledge of the order of operations to carry out calculations involving the four operations

Written methods	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		Recognise simple repetition patterns Explore and represent patterns within numbers up to 10 including evens and odds, double facts and how quantities can be distributed evenly	Read, write and Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? – 9		Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction	Represent addition and subtraction facts on a number line or bar model accurately estimating and representing the proportions involved Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate	Using written methods, add and subtract whole numbers with more than 4 digits, first using expanded formal written method then the standard columnar method for addition and subtraction Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)	
Inverse operations, estimating and checking answers	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
				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, levels of accuracy.

Problem solving	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ - 9	Solve problems with addition and subtraction: * 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 multi-step problems in contexts, deciding which operations and methods to use and why	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
				Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change				Solve problems involving addition, subtraction, multiplication, and division