Number: Addition & Subtraction

EYFS

Composition
Part-whole – identifying smaller numbers within a number
Inverse operations – partitioning and recombining groups to make the same total
A number can be partitioned into different pairs of numbers
A number can be partitioned into more than 2 numbers
Number bonds – knowing which pairs make a given number (up to 5)

Comparison
More than/less than
Identifying groups with the same number of things
Comparing numbers and reasoning
Knowing the 'one more than/one less than, relationship between counting numbers

NUMBER BONDS					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
represent and use number bonds and related subtraction facts within 20 Autumn 2 Spring 1	recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 Autumn 2				
MENTAL CALCULATION					
add and subtract one-digit and two-digit numbers to 20, including zero Autumn 2 Spring 1	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 Autumn 2	add and subtract numbers mentally, including: * a three-digit number and ones * a three-digit number and tens * a three-digit number and hundreds Autumn 2 & 3		add and subtract numbers mentally with increasingly large numbers Autumn 2	perform mental calculations, including with mixed operations and large numbers Autumn 2
read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Written Methods) Autumn 2 Spring 1	show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot Autumn 2				use their knowledge of the order of operations to carry out calculations involving the four operations Autumn 2

WRITTEN METHODS					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Mental Calculation) Autumn 2 Spring 1		add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction Autumn 2 Spring 4	add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate Autumn 2	add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) Autumn 2	
INVERSE OPERATIONS, ESTIMATING AND CHECKING ANSWERS					
	recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. Autumn 2	estimate the answer to a calculation and use inverse operations to check answers Autumn 2 Summer 5	estimate and use inverse operations to check answers to a calculation Autumn 2	use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy Autumn 2	use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy. Autumn 2
PROBLEM SOLVING					
solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ - 9 Autumn 2 Spring 1	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 Autumn 2	solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction Autumn 2 Spring 4 Summer 4	solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why Autumn 2	solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Autumn 2	solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Autumn 2
	solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change (copied from Measurement)				Solve problems involving addition, subtraction, multiplication and division