



ADDITION AND SUBTRACTION

NUMBER BONDS

Early Learning Goal	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
	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					

MENTAL CALCULATION

Number ELG: Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer.	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: <ul style="list-style-type: none"> * 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: <ul style="list-style-type: none"> * 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	use the four operations, including formal written methods, applied to integers and decimals; multiply proper and improper fractions, and mixed numbers, all both positive and negative use conventional notation for the priority of operations, including brackets recognise and use relationships between the operations +, −, ×, ÷, including inverse operations
	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					



WRITTEN METHODS							
Early Learning Goal	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
	read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs (appears also in Mental Calculation)		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 using the formal written methods of columnar addition and subtraction where appropriate	add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)	use their knowledge of the order of operations to carry out calculations involving the four operations	
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.	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.	<p>round numbers and measures to different degrees of accuracy, for example to the nearest whole number or to one decimal place</p> <p>round numbers and measures to an appropriate degree of accuracy, for example to the nearest whole number or to one decimal place</p> <p>use approximation, through rounding to the nearest whole number or to one</p>



							decimal place, to estimate answers
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PROBLEM SOLVING							
Early Learning Goal	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
	solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \quad - 9$	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 <i>solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change (copied from Measurement)</i>	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	use the four operations, including formal written methods, applied to integers and decimals; multiply proper and improper fractions, and mixed numbers, all both positive and negative use conventional notation for the priority of operations, including brackets recognise and use relationships between the operations $+$, $-$, \times , \div , including inverse operations



St. Bernadette's Catholic Primary Voluntary Academy