## Number: Addition and Subtraction



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	recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100							
		MENTAL (	CALCULATION					
add and subtract one- digit and two-digit numbers to 20, including zero	<ul> <li>add and subtract numbers using concrete objects, pictorial representations, and mentally, including:</li> <li>a two-digit number and ones</li> <li>a two-digit number and tens</li> <li>two two-digit numbers</li> <li>adding three one-digit numbers</li> </ul>	<ul> <li>add and subtract</li> <li>numbers mentally,</li> <li>including:</li> <li>a three-digit number</li> <li>and ones</li> <li>a three-digit number</li> <li>and tens</li> <li>a three-digit number</li> <li>and tens</li> <li>a three-digit number</li> </ul>		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			

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## Number: Addition and Subtraction



WRITTEN METHODS							
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6		
read, write and interpret	Formal written methods of	add and subtract	add and subtract	add and subtract whole			
mathematical statements	columnar addition and	numbers with up to	numbers with up to 4	numbers with more than 4			
involving addition (+),	subtraction.	three digits, using	digits using the formal	digits, including using			
subtraction (-) and equals		formal written methods	written methods of	formal written methods			
(=) signs		of columnar addition	columnar addition and	(columnar addition and			
(appears also in Mental		and subtraction	subtraction where	subtraction)			
Calculation)			appropriate				
INVERSE OPERATIONS, ESTIMATING AND CHECKING ANSWERS							
	recognise and use the	<mark>estimate the answer to</mark>	estimate and <mark>use inverse</mark>	use rounding to check	use estimation to check		
	inverse relationship	<mark>a calculation and use</mark>	operations to check	answers to calculations and	answers to calculations and		
	between addition and	<mark>inverse operations to</mark>	answers to a calculation	determine, in the context	<mark>determine, in the context</mark>		
	subtraction and use this to	<mark>check answers</mark>		of a problem, levels of	of a problem, levels of		
	check calculations and			accuracy	accuracy.		
	solve missing number						
	problems.						

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PROBLEM SOLVING								
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 $7 = \Box - 9$	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 MNP: Chapter 9 – More Word Problems Solve two-step problems.	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 (copied from Measurement)				Solve problems involving addition, subtraction, multiplication and division			

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