



Maths Progression Map: Addition and Subtraction

Please note that this progression framework has been taken from NCETM to show progression of the different maths strands. Skills may appear more than once as some skills support more than one area of progression.



	Number Bonds	Written Methods	Inverse Operations, Estimating and Checking Answers	Mental Calculation	
EYFS	<p>Subitise</p> <p>Explore the composition of numbers to 10</p> <p>Automatically recall number bonds for numbers 0–5 and some to 10</p>	<p>Compare quantities using language: 'more than', 'fewer than'</p> <p>Recognising numerals with matching values</p>	<p>Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle')</p>	<p>Say one more and one less of quantities up to 10</p>	
Year 1	<p>Represent and use number bonds and related subtraction facts within 20</p>	<p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</p>		<p>Add and subtract one-digit and two-digit numbers to 20, including zero</p>	<p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</p>
Year 2	<p>Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100</p>		<p>Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.</p>	<p>Add and subtract numbers using concrete objects, pictorial representations, and mentally, including:</p> <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 	<p>Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot</p>
Year 3		<p>Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction</p>	<p>Estimate the answer to a calculation and use inverse operations to check answers</p>	<p>Add and subtract numbers mentally, including:</p> <ul style="list-style-type: none"> * a three-digit number and ones * a three-digit number and tens 	



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				* a three-digit number and hundreds	
Year 4		Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate	Estimate and use inverse operations to check answers to a calculation		
Year 5		Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)	Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	Add and subtract numbers mentally with increasingly large numbers	
Year 6			Use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy.	Perform mental calculations, including with mixed operations and large numbers	Use their knowledge of the order of operations to carry out calculations involving the four operations

	Problem Solving
EYFS	
Year 1	Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = * - 9$
Year 2	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
Year 3	Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction
Year 4	Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why
Year 5	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
Year 6	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why