



Addition & Subtraction Refresh



Phase 1: Addition & Subtraction with identified “worry point” if not achieved during the progress.				
Must achieve during first six months	Must achieve during first year	Must achieve during second year	Progress outcome by end of year 3 Number & Algebra	Maths Aotearoa
<ul style="list-style-type: none"> Join and separate groups of up to 10 objects and find the result by grouping and counting 	<ul style="list-style-type: none"> Join and separate groups of up to 20 objects, and find the difference by grouping and counting 	<ul style="list-style-type: none"> Add and subtract numbers up to 100 by grouping and using number patterns 	<p>I know that: Numbers can be composed and decomposed in different ways using patterns The commutative property applies to addition (e.g. $2 + 5 = 5 + 2$) The additive identity is 0 (e.g. $4 + 0 = 4$ and $5 - 0 = 5$)</p> <p>I know how to:</p> <ul style="list-style-type: none"> Add and subtract two and three digit numbers Recall addition facts to 20 and their corresponding subtraction facts Use the additive identity (0) and commutative property 	Book 1a: Unit 2 Unit 3 Unit 4 Book 1b: Unit 1 Unit 2 Unit 4 Book 2a: Unit 1 Unit 3 Unit 5 Book 2b: Unit 1 Unit 3 Unit 5
Phase 2: Addition & Subtraction with identified “worry point” if not achieved during the progress				
Must achieve during year 4	Must achieve during year 5		Progress outcomes by end of year 6	
<ul style="list-style-type: none"> Use their recalled addition and subtraction basic facts to solve problems Add and subtract two and three digit numbers reliably and efficiently Add and subtract using the commutative property 	<ul style="list-style-type: none"> Add and subtract whole numbers reliably and efficiently 		<p>I know that: The associative property applies to addition e.g. $3 + 5 + 7 = 3 + 7 + 5$</p> <p>I know how to:</p> <ul style="list-style-type: none"> Add and subtract whole numbers and decimal numbers to 2 decimal places Use the associative and commutative properties 	Book 3a: Unit 2 Unit 4 Unit 5 Book 3b: Unit 2 Unit 4 Unit 5
Phase 3 Addition & Subtraction				
Progress Outcomes by end of year 8				
<p>I know that: Positive and negative numbers can be added and subtracted The inverse property applies to addition ($3 + - 3 = 0$) The commutative, associative and identity properties work the same for all numbers.</p> <p>I know how to:</p> <ul style="list-style-type: none"> Add and subtract decimals to three decimal places Add and subtract fractions with the same denominator Add and subtract integers 				Book 4a: Unit 1 Unit 2 Book 4b: Unit 1 Unit 2

Phase 4 Addition & Subtraction	
Progress Outcomes by the end of year 10	
<p>I know that: The properties of operations (commutative, associative, inverse and identity) apply to numbers and variable. There is an order of operations when using numbers and variables.</p> <p>I know how to:</p> <ul style="list-style-type: none"> Add and subtract fractions with unlike denominators by using equivalent fractions 	<p>Book 4a: Unit 2 Book 4b: Unit 2</p>

Teachers need an in depth knowledge of addition and subtraction concepts. This teacher handbook was written to assist teachers develop their own knowledge through the context of teaching and learning experiences.

This book is available from the online store at wilkieyay.co.nz
Cost \$45.00

