

Transition: Early Additive to Advanced Additive

Domain: Addition and Subtraction

E
CA
AC
EA
AA
AM
AP

Achievement Objectives	Number and Algebra: Level Three
	<u>Number Strategies:</u> <ul style="list-style-type: none"> Use a range of additive strategies and simple multiplicative strategies with whole numbers, fractions, decimals, and percentages.
	<u>Number Knowledge:</u> <ul style="list-style-type: none"> Know counting sequences for whole numbers. Know how many tenths, tens, hundreds, and thousands are in whole numbers.
	<u>Equations and Expressions:</u> <ul style="list-style-type: none"> Record and interpret additive and simple multiplicative strategies, using words, diagrams, and symbols, with an understanding of equality.

Key Teaching Ideas	Problem progression	References	Knowledge being developed	Resources
Introduction to using the number line to solve change unknown problems (Key Idea #1)		<i>Teaching Addition and Subtraction (Book 5)</i> Jumping the Number Line (54)	Identify all of the numbers in the range 0 - 1 000 000.	Teaching Number Knowledge (Book 4) Number Fans (4) Place Value Houses (5) Number Hangman (5) Arrow Cards (13) Figure It Out N3 Number Stretches (2) NS7/8 L.1 Aiming High (4) N7/8 L.2 Expanding your Horizons (16) N 7/8 L.1 Space Zapper (8)

Transition: Early Additive to Advanced Additive

Domain: Addition and Subtraction

Key Teaching Ideas	Problem progression	References	Knowledge being developed	Resources
10 tens make one hundred and 10 hundreds make one thousand (Key Idea #2)	$35 + 15 = \square$. $28 + 27 = \square$. $47 + 29 = \square$. $67 + 34 = \square$. $76 + 36 = \square$. $158 + 33 = \square$. $267 + 26 = \square$. $484 + 39 = \square$. $780 + 240 = \square$. $643 + 276 = \square$.	<p>Teaching Addition and Subtraction (Book 5) How many ten dollar notes? (55) How many tens and hundreds? (56)</p> <p>Figure It Out N3.3 Banking Issues (3)</p>	Say the forwards and backwards whole number word sequences by ones, tens, hundreds, and thousands in the range 0 – 1 000 000, including finding numbers that are 10, 100, and 1 000 more or less than a given number	<p>Teaching Number Knowledge (Book 4) Number Fans (4) Counting (11) Skip-counting on a Number Line (11) Lucky Dip (13) Using Calculators (4)</p> <p>Teaching Number Sense and Algebraic Thinking (Book 8) Whole Number Rounding (19)</p>
Solve addition and subtraction problems using place value (Key Idea #3)	$42 - 26 = \square$. $82 - 45 = \square$. $71 - 39 = \square$. $123 - 57 = \square$. $124 - 68 = \square$. $272 - 93 = \square$. $486 - 157 = \square$. $916 - 408 = \square$.	<p>Teaching Addition and Subtraction (Book 5) Addition and Subtraction on the Number Line (56) Problems Like $\square + 29 = 81$ (57)</p> <p>Figure It Out N2.1 Hip Hup Hop (8) N2.1 Weka Wobble (11) N2.1 What's My Number (16) N3.3 Slippery Slope (8) N3-4.1 Money Everywhere (1) NS&AT3.1 Megabytes of Memory (4) N7/8 L.1 Firewood Fever (16) N7/8 L.1 Space Zapper (8) N7/8 L.1 Fund-raising (6)</p>	Read decimals with tenths, count forwards and backwards in tenths, order decimals with tenths.	<p>Teaching Number Knowledge (Book 4) Card Ordering (12) Arrow Cards (13) Rocket- Where Will I Fit (14) Number Line Flips (15) Squeeze – Guess My Number (15)</p>

E
CA
AC
EA
AA
AM
AP

Transition: Early Additive to Advanced Additive

Domain: Addition and Subtraction

Key Teaching Ideas	Problem progression	References	Knowledge being developed	Resources
Solve addition and subtraction problems by using rounding and compensating (Key Idea # 4)	$35 + 19 = \square$ as $34 + 20 = \square$. $48 + 49 = \square$ as $50 + 50 - 3 = \square$. $65 + 97 = \square$ as $62 + 100 = \square$. $298 + 397 = \square$ as $300 + 400 - 5 = \square$. $78 + 387 = \square$ as $65 + 400 = \square$.	Teaching Addition and Subtraction (Book 5) When One Number is Near One Hundred (58) Problems Like $73 - 19 = \square$ (59) Problems Like $23 + \square = 71$ (60) Problems Like $\square + 29 = 81$ (60)	Read decimals with tenths, count forwards and backwards in tenths, order decimals with tenths.	Teaching Number Knowledge (Book 4) Card Ordering (12) Arrow Cards (13) Rocket - Where will I fit (14) Number Line Flips (15) Squeeze – Guess My Number (15)
Addition and subtraction are inversely related (Key Idea #5)	$43 - 39 = \square$ as $39 + \square = 43$ $83 - 76 = \square$ as $76 + \square = 83$ $91 - 68 = \square$ as $68 + \square = 91$ $203 - 187 = \square$ as $187 + \square = 203$ $783 - 395 = \square$ as $395 + \square = 783$	Teaching Addition and Subtraction (Book 5) Don't Subtract – Add! (61) Figure It Out BF3 Array Puzzles (8)	Recall groupings within 1000, e.g., 240 + 760.	Teaching Number knowledge (Book 4) Traffic Lights (25) Zap (26) Figure It Out N 3.3 Crazy Compatibles (1) NS 7/8 L.1 Writing 1000 (14) N 7/8 L.1 Jungle Land (7)

E
CA
AC
EA
AA
AM
AP

Transition: Early Additive to Advanced Additive

Domain: Addition and Subtraction

Key Teaching Ideas	Problem progression	References	Knowledge being developed	Resources
Solve subtraction problems with the mental strategy of equal adjustments (Key Idea # 6)	$53 - 19 = \square$, as $53 - 20 + 1 = \square$. $82 - 48 = \square$, as $82 - 50 + 2 = \square$. $185 - 96 = \square$, as $185 - 100 + 4 = \square$. $453 - 289 = \square$, as $453 - 300 + 11 = \square$.	Teaching Addition and Subtraction (Book 5) Equal Additions (62) Figure It Out N3.2 Tracking Toroa (1) NS&AT3.1 Tidying Up (2)	Record the results of mental calculation using addition and subtraction equations and diagrams	Teaching Number knowledge (Book 4) Bridges (35) Figure It Out NS 7/8 1 Different Approaches (17) NS 7/8 2 Short Cuts (1)
Choosing wisely (Key Idea #7)	$65 + 79 = \square$ $94 - 78 = \square$ $345 + 656 = \square$ $84 - 56 = \square$ $603 - 287 = \square$ $286 + \square = 942$ $\square - 429 = 831$	Teaching Addition and Subtraction (Book 5) Mixing the Methods- Mental Exercises for the Day (63) Mixing the methods – mental exercises for the day (63)	Recall how many tens and hundreds there are in four-digit numbers.	Teaching Number knowledge (Book 4) Close to 100 (24) Tens in Hundreds and More (27) Figure It Out N 3.3 Banking Issues (3) N 3-4 Money Everywhere (1) NS 7/8 1 Aiming High (4)

E
CA
AC
EA
AA
AM
AP

Transition: Early Additive to Advanced Additive

Domain: Addition and Subtraction

Key Teaching Ideas	Problem progression	References	Knowledge being developed	Resources
Using the standard written form to solve addition and subtraction problems (Key Idea #8)	$\begin{array}{r} 46 \\ + 38 \\ \hline \end{array}$ $\begin{array}{r} 93 \\ - 57 \\ \hline \end{array}$ $\begin{array}{r} 537 \\ + 429 \\ \hline \end{array}$ $\begin{array}{r} 714 \\ - 267 \\ \hline \end{array}$	<p>Teaching Addition and Subtraction (Book 5)</p> <p>A Standard Written Form for Addition (64)</p> <p>Decomposition – a Written Form for Subtraction (65)</p> <p>Large Numbers Roll Over (66)</p> <p>Mental or Written? (66)</p>	Carry out column addition and subtraction with whole numbers of up to four digits	<p>Teaching Number knowledge (Book 4)</p> <p>Close to 100 (24)</p> <p>Figure It Out</p> <p>N 2-3 Maps and Magic (10)</p> <p>N 3-4 Head Cases (13)</p>
			Round whole numbers to the nearest ten, hundred, or thousand	<p>Teaching Number knowledge (Book 4)</p> <p>Swedish Rounding (28)</p> <p>Figure It Out</p> <p>BF 3 Steeplechase (23)</p>

Knowledge being developed	Resources
Recall addition and subtraction facts to 20.	<p>Teaching Number knowledge (Book 4) Number Boggle (33) Tens Frames Again (34) Number Mats and Number Fans (34) Bowl a Fact (35) Loopy (37) Addition Flash Cards (37)</p> <p>Figure It Out BF 2-3 Takeaway Numbers (12) BF 3-4 Bunches (1) BF 3-4 Diamond Dazzle (4) BF 3-4 Face Totals (18)</p>
Order whole numbers in the range 0-1 000 000.	<p>Teaching Number Knowledge (Book 4) Card Ordering (12) Arrow Cards (13) Rocket- Where Will I Fit (14) Number Line Flips (15) Squeeze – Guess My Number (15) Hundreds Boards and Thousands Book (16) Bead Strings (17) Who is the Richest? (18)</p> <p>Figure It Out N 3.2 Playing For Points (4) N 7/8 4.3 Exploration to Earth (22)</p>