

Transition: Advanced Counting to Early Additive Domain: Addition and Subtraction

<b>Achievement Objectives</b>	<b>Number and Algebra: Level Two</b>
	<u>Number Strategies:</u>
	<ul style="list-style-type: none"> <li>Use simple additive strategies with whole numbers and fractions</li> </ul>
	<u>Number Knowledge:</u>
	<ul style="list-style-type: none"> <li>Know forward and backward counting sequences with whole numbers to at least 1000.</li> <li>Know the basic addition and subtraction facts.</li> <li>Know how many ones, tens, and hundreds are in whole numbers to at least 1000.</li> </ul>
	<u>Equations and Expressions:</u>
	<ul style="list-style-type: none"> <li>Communicate and interpret simple additive strategies, using words, diagrams [pictures], and symbols.</li> </ul>

E
CA
AC
EA
AA
AM
AP

Key Teaching Ideas	Problem progression	References	Knowledge being developed	Resources
<p>Our number system is based on ten. (Key Idea #1)</p> <p>Basic fact knowledge can be used to add and subtract tens. (Key Idea #2)</p>	$30 + 40 = \square$ , so $34 + 42 = \square$ . $50 + 40 = \square$ , so $53 + 43 = \square$ and $45 + 55 = \square$ . $60 - 30 = \square$ , so $64 - 32 = \square$ . $80 - 50 = \square$ , so $84 - 51 = \square$ and $88 - 54 = \square$ . $30 + 20 + 40 = \square$ , so $32 + 25 + 41 = \square$	<p><b>Teaching Addition and Subtraction (Book 5)</b>  <a href="#">More Ones and Tens</a> (38)  <a href="#">Adding Ones and Tens</a> (38)  <a href="#">Subtracting Ones and Tens</a> (39)</p> <p><b>BSM</b>                      12-1-9, 12-1-55, 12-1-56, 12-1-86</p> <p><b>Figure It Out</b>                      N2.1 <a href="#">Shaker Makers</a> (4)                      N2.1 <a href="#">How Old?</a> (5)                      N2.1 <a href="#">Mighty Marty!</a> (6)                      N2.2 <a href="#">Hunting the Taniwha</a> (7)                      N2.2 <a href="#">Leapfrog</a> (12)                      N2-3 <a href="#">Putting Numbers to Work</a> (2)                      N2-3 <a href="#">Going Up</a> (8)                      N3-4.1 <a href="#">Disappearing Dollars</a> (24)                      N7/8 L.1 <a href="#">Down with Darts</a> (18)                      N7/8 L.1 <a href="#">Absolutely Abseiling</a> (19)</p>	Identify all of the numbers in the range 0-1000	<p><b>Teaching Number Knowledge (Book 4)</b>  <a href="#">Number Fans</a> (4)  <a href="#">Place Value Houses</a> (5)  <a href="#">Number Hangman</a> (5)</p> <p><b>Figure It Out</b>                      N 2-3 <a href="#">What's My Number?</a> (3)                      N 2-3 <a href="#">Digit Time</a> (5)                      N 2-3 <a href="#">Going Up</a> (8)                      NS 7/8 L.1 <a href="#">Aiming High</a> (4)</p>

Transition: Advanced Counting to Early Additive Domain: Addition and Subtraction

Key Teaching Ideas	Problem progression	References	Knowledge being developed	Resources
<p>Numbers can be rearranged and combined to make ten. (Key Idea #3)</p> <p>Addition is associative, so addends can be re-grouped to solve a problem more efficiently. (Key Idea #6)</p>	$4 + 6 = \square$ , so $4 + 6 + 4 + 6 = \square$ . $7 + 3 = \square$ , so $7 + 5 + 5 + 3 = \square$ . $8 + 4 + 6 + 3 + 2 + 7 = \square$ , $2 + 4 + 9 + 6 = \square$ , $3 + 8 + 6 + 7 + 2 + 4 = \square$ , $50 + 40 + 60 + 50 + 30 = \square$ . $4 + 17 + 26 + 3 + 8 = \square$	<p><b>Teaching Addition and Subtraction (Book 5)</b></p> <p><a href="#">Make Ten</a> (working with ten) (40)</p> <p><a href="#">Compatible Numbers</a> (44)</p>	<p>Say the forwards and backwards number word sequences by ones, tens, and hundreds in the range 0-1000.</p> <p>Say the number 1, 10, or 100 more or less than a given number in the range 0-1000.</p>	<p><b>Teaching Number Knowledge (Book 4)</b></p> <p><a href="#">Number Fans</a> (4)</p> <p><a href="#">Counting</a> (11)</p> <p><a href="#">Skip Counting on a Number Line</a> (11)</p> <p><a href="#">Lucky Dip</a> (13)</p> <p><a href="#">Using Calculators</a> (14)</p> <p><b>BSM</b></p> <p>12-3-3, 12-3-4, 12-3-81, 12-3-82</p> <p><b>Figure It Out</b></p> <p>N 2.2 (2) <a href="#">Fan-tastic Numbers</a></p>
<p>Addition and subtraction problems can be solved by partitioning one of the numbers to go up or back through ten. (Key Idea #4)</p> <p>Subtraction problems can be solved by going back through ten, partitioning numbers rather than counting back (Key Idea #5)</p>	$9 + 6$ as $10 + 5 = \square$ . $6 + 8$ as $4 + 10 = \square$ . $18 + 7$ as $20 + 5 = \square$ . $59 + 8$ as $60 + 7 = \square$ . $6 + 87$ as $3 + 90 = \square$ . $97 + 6$ as $100 + 3 = \square$ . $38 + 298$ as $36 + 300 = \square$ .	<p><b>Teaching Addition and Subtraction (Book 5)</b></p> <p><a href="#">Adding in Parts</a> (working through ten) (41)</p> <p><a href="#">Subtraction in Parts</a> (subtracting back through ten) (42)</p> <p><b>Figure It Out</b></p> <p>N2.2 <a href="#">Counting Counts</a> (10)</p> <p>N2.2 <a href="#">On and Off the Train</a> (14)</p> <p>NS&amp;AT2-3.2 <a href="#">Make 28</a> (14)</p> <p>BF3 <a href="#">Animal Antics</a> (1)</p> <p>BF3 <a href="#">Carrot Country</a> (6)</p> <p>BF3-4 <a href="#">Diamond Dazzle</a> (4)</p> <p>BF3-4 <a href="#">Bunches</a> (1)</p> <p>BF3-4 <a href="#">Magical Tens</a> (11)</p> <p>BF3-4 <a href="#">Face Totals</a> (18)</p> <p>N7/8 L.1 <a href="#">King of the Castle</a> (15)</p>	<p>Recall the number of tens and hundreds in centuries and thousands.</p>	<p><b>Teaching Number Knowledge (Book 4)</b></p> <p>Close to 100 (24)</p> <p><a href="#">Tens in Hundreds and More</a> (27)</p>

E
CA
AC
EA
AA
AM
AP

Key Teaching Ideas	Problem progression	References	Knowledge being developed	Resources
Change unknown problems can be solved by using place-value knowledge of tens and ones or by partitioning through tens. (Key Idea #7)	$7 + \square = 13$ $16 + \square = 25$ $67 - \square = 21$ $68 + \square = 75$ $31 + \square = 73$ $200 - \square = 156$	<b>Teaching Addition and Subtraction (Book 5)</b> <a href="#">Up Over Ten</a> (change unknown working through ten) (45) <a href="#">The missing ones and tens</a> (46) <a href="#">Problems like <math>37 + \square = 79</math></a> (change unknown with tens) (46) <a href="#">Problems like <math>67 - \square = 34</math></a>	Record the results of addition calculations, using equations and diagrams.	<b>Teaching Number Knowledge (Book 4)</b> Close to 100 (24) N 3-4 <a href="#">Disappearing Dollars</a> (24)
Subtraction can be used to solve difference problems in which two amounts are being compared. (Key Idea #8)	$12 - 4$ $42 - 4$ $5 + \square = 11$ so $11 - 5 = \square$ $68 + \square = 77$ so $77 - 68 = \square$	<b>Teaching Addition and Subtraction (Book 5)</b> <a href="#">Comparisons: Finding Difference in Data</a> (48) <a href="#">More comparisons: Comparing Heights</a> (49)	Order numbers in the range 0-1000.	<b>Teaching Number Knowledge (Book 4)</b> <a href="#">Card Ordering</a> (12) <a href="#">Arrow Cards</a> (13) <a href="#">Rocket - Where Will I Fit</a> (15) <a href="#">Number Line Flips</a> (15) <a href="#">Squeeze – Guess my Number</a> (15) <a href="#">Hundreds Boards and Thousands Book</a> (16) <a href="#">Bead Strings</a> (17) <a href="#">Who is the Richest</a> (18)  <b>BSM</b> 10-3-86, 11-3-3, 11-3-42  <b>Figure It Out</b> N 2-3 <a href="#">On the Cards</a> (7) NS 7/8 L.1 <a href="#">Up the Ladder</a> (15)

Transition: Advanced Counting to Early Additive Domain: Addition and Subtraction

Key Teaching Ideas	Problem progression	References	Knowledge being developed	Resources
<p>Knowledge of doubles can be used to work out problems close to a double. (Key Idea #9)</p>	<p><math>3 + 3 = \square</math> so <math>4 + 3 = \square</math>.  <math>7 + 7 = \square</math> so <math>7 + 8 = \square</math>,  <math>6 + 7 = \square</math>, <math>14 - 7 = \square</math>.  <math>8 + 8 = \square</math> so <math>16 - 7 = \square</math>,  <math>16 - 9 = \square</math>, <math>15 - 8 = \square</math>.  <math>25 + 25 = \square</math> so <math>26 + 27 = \square</math>,  <math>23 + 27 = \square</math>, <math>50 - 24 = \square</math>.  <math>500 + 500 = \square</math> so <math>503 + 501 = \square</math>,  <math>498 + 497 = \square</math>, <math>501 - 498 = \square</math>.</p>	<p><b>Teaching Addition and Subtraction (Book 5)</b>  <a href="#">Near Doubles</a> (49)</p> <p><b>Figure It Out</b>            N2.1 <a href="#">Helping Hands</a> (3)            N2.2 <a href="#">It's Not Fair</a> (15)            BF2.3 <a href="#">Fizzing It Up</a> (5)</p>	<p>Recall groupings within 100, e.g. 49 and 51 (particularly multiples of 5 e.g. 25 &amp; 75)</p> <p>Recall the number of groupings of tens that can be made from a three-digit number</p>	<p><b>Teaching Number Knowledge (Book 4)</b>  <a href="#">Traffic Lights</a> (25)  <a href="#">Zap</a> (26)  <a href="#">Nudge</a> (24)  <a href="#">Slavonic Abacus</a> (23)  <a href="#">Tens and Ones</a> (23)</p> <p><b>BSM</b>            11-3-4, 11-3-5, 11-3-43, 11-3-44, 11-3-45, 11-3-81, 11-3-82, 12-1-1, 12-1-2, 12-1-41, 12-1-82, 12-1-83</p> <p><b>Figure It Out</b>            N 2.1 <a href="#">Different Strokes!</a> (2)            N 2.1 <a href="#">Mighty Marty!</a> (6)            N 2.2 <a href="#">All that Glitters</a> (3)            N 2.2 <a href="#">Leapfrog</a> (12)            N 2.2 <a href="#">Hitting 100</a> (4)            N 2-3 <a href="#">Putting Numbers to Work</a> (2)</p>

E
CA
AC
EA
AA
AM
AP

Key Teaching Ideas	Problem progression	References	Knowledge being developed	Resources
<p>The equals sign represents balance. (Key Idea #10)</p>	<p> <math>6 + 1 = 5 + \square</math>  <math>2 + 4 = \square + 3</math>  <math>\square + 12 = 15 + 13</math>  <math>42 + 38 = \square + 32</math>  <math>\square + 65 = 67 + 33</math>  <math>585 - 35 = \square - 34</math> </p>	<p> <i>Teaching Addition and Subtraction (Book 5)</i>  <a href="#">A Balancing Act</a> (50)                 </p>	<p>Recall addition and subtraction facts to 20</p>	<p> <b>Teaching Number Knowledge (Book 4)</b>  <a href="#">Number Boggle</a> (33)  <a href="#">Tens Frames Again</a> (34)  <a href="#">Number Mats and Number Fans</a> (34)  <a href="#">Bridges</a> (35)  <a href="#">Bowl a Fact</a> (35)  <a href="#">Loopy</a> (37)  <a href="#">Addition Flash Cards</a> (37)                 </p> <p> <b>BSM</b>                      9-3-6, 9-3-7, 9-3-48, 9-3-83, 9-3-84, 10-3-6, 10-3-8, 10-3-10, 10-3-46, 10-3-47, 10-3-52, 10-3-53, 10-3-54, 11-1-8, 11-1-9, 11-1-52, 11-1-53, 11-1-83, 11-1-84, 11-3-52, 11-3-53, 11-3-84, 12-1-7, 12-1-52, 12-1-85, 12-3-2, 12-3-45, 12-3-46, 12-3-47, 12-3-8, 12-3-52, 12-3-53, 12-3-85                 </p> <p> <b>Figure It Out</b>                      N 2.1 <a href="#">Frogs Frolic</a> (22)                      BF 2-3 <a href="#">Quick Add</a> (3)                      BF 2-3 <a href="#">Add it On</a> (6)                      BF 2-3 <a href="#">Twenty-Seven</a> (15)                      BF 2-3 <a href="#">Stay on Line</a> (19)                      BF 2-3 <a href="#">Testing Triangles</a> (21)                      BF 3 <a href="#">Beat Yourself Down</a> (2)                      BF 3 <a href="#">Give or Take</a> (5)                      BF 3 <a href="#">Four in a Row</a> (7)                      BF 3 <a href="#">Array Puzzles</a> (8)                      N 2-3 <a href="#">Going Down</a> (9)                      N 3.3 <a href="#">Skimming Stones</a> (4)                 </p>

E
CA
AC
EA
AA
AM
AP

Transition: Advanced Counting to Early Additive Domain: Addition and Subtraction

Knowledge being developed	Resources
Round three-digit whole numbers to the nearest 10, or hundred	<i>BSM</i> 12-1-6, 12-1-46
Recall the multiples of 100 that add to 1000, e.g. 400 and 600.	<i>BSM</i> 12-1-3, 12-1-4, 12-1-42, 12-1-43

E
CA
AC
EA
AA
AM
AP