

DOMAIN: Operations and Algebraic Thinking**CLUSTER: Represent and solve problems involving addition and subtraction.▲**

STANDARDS FOR MATHEMATICAL CONTENT	STANDARDS FOR MATHEMATICAL PRACTICE	RESOURCES	ASSESSMENT
<p>1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.</p>	<p>MP1 Make sense of problems and persevere in solving them. MP2 Reason abstractly and quantitatively. MP3 Construct viable arguments and critique the reasoning of others. MP4 Model with mathematics. MP5 Use appropriate tools strategically. MP6 Attend to precision. MP7 Look for and make use of structure. MP8 Look for and express regularity in repeated reasoning.</p>	<p>Developing Number Concepts, Book 2 (Richardson, 1999)</p> <ul style="list-style-type: none"> Counting Boards: Number-Combination Stories, p. 73 Finding and Recording Number Combinations, pp. 74-76 <p>engage^{ny} https://www.engageny.org/resource/grade-1-mathematics-module-1 https://www.engageny.org/ccls-math/1oa1</p> <p>My Math</p> <ul style="list-style-type: none"> 1-1 Addition Stories 1-2 Model Addition 1-3 Addition Number Sentences 1-6 Problem Solving: Writing a Number Sentence 2-1 Subtraction Stories 2-2 Model Subtraction 2-3 Subtraction Number Sentences 2-6 Problem Solving: Draw a diagram 2-7 Compare Groups 3-6 Problem Solving Strategy: Act it Out 3-8 Add in Any Order 4-4 Problem Solving Strategy: Write a Number Sentence What Do They Eat? <i>Real-World Problem Solving Readers Teacher's Guide</i>, p.45 <p>Table 1 from CCSS Appendix "Common Addition and Subtraction Situations" (continued on next page)</p>	<p>engage^{ny}</p> <ul style="list-style-type: none"> End-of-Module Assessment <p>My Math <i>Assessment Masters</i></p> <ul style="list-style-type: none"> Chapter 1, p. 7-28 Chapter 2, p. 33-54 Chapter 3, p. 59-79 <p>My Math <i>Think Smart for the SBAC</i></p> <ul style="list-style-type: none"> Ch. 1, pp.53-58 Ch. 2, pp. 59-64 Ch. 3, pp. 65-70 Ch. 4, pp. 71-76 <ul style="list-style-type: none"> Benchmark Test 1, OA.1 – OA.7, pp.133-138 Chapter Performance Tasks, pp. 113-119 <p>My Math <i>eAssessment</i></p>

STANDARDS FOR MATHEMATICAL CONTENT	STANDARDS FOR MATHEMATICAL PRACTICE	RESOURCES	ASSESSMENT
<p>1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.</p>	<p>MP1 Make sense of problems and persevere in solving them. MP2 Reason abstractly and quantitatively. MP3 Construct viable arguments and critique the reasoning of others. MP4 Model with mathematics. MP5 Use appropriate tools strategically. MP6 Attend to precision. MP7 Look for and make use of structure. MP8 Look for and express regularity in repeated reasoning.</p>	<p>(continued from previous page)</p> <p>Illustrative Mathematics</p> <ul style="list-style-type: none"> • At the Park http://www.illustrativemathematics.org/illustrations/160 • Boys and Girls, Variation 1 http://www.illustrativemathematics.org/illustrations/161 • Boys and Girls, Variation 2 http://www.illustrativemathematics.org/illustrations/195 • Field Day Scarcity http://www.illustrativemathematics.org/illustrations/1317 • Finding a Chair http://www.illustrativemathematics.org/illustrations/194 • Maria's Marbles http://www.illustrativemathematics.org/illustrations/162 • School Supplies http://www.illustrativemathematics.org/illustrations/2 • Sharing Markers http://www.illustrativemathematics.org/illustrations/163 	

STANDARDS FOR MATHEMATICAL CONTENT	STANDARDS FOR MATHEMATICAL PRACTICE	RESOURCES	ASSESSMENT
<p>1.OA.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.</p>	<p>MP1 Make sense of problems and persevere in solving them. MP2 Reason abstractly and quantitatively. MP3 Construct viable arguments and critique the reasoning of others. MP4 Model with mathematics. MP5 Use appropriate tools strategically. MP6 Attend to precision. MP7 Look for and make use of structure. MP8 Look for and express regularity in repeated reasoning.</p>	<p>Developing Number Concepts, Book3 (Richardson, 1999)</p> <ul style="list-style-type: none"> Building Models of Multiplication Problems, pp. 152-3 (use repeated addition to record) Building Related Models, pp. 155-156 (use repeated addition to record) <p>engage^{ny} https://www.engageny.org/ccls-math/1oa2</p> <p>Illustrative Mathematics</p> <ul style="list-style-type: none"> Measuring Blocks http://www.illustrativemathematics.org/illustrations/197 <p>My Math</p> <ul style="list-style-type: none"> 3-9 Add Three Numbers <i>Finding The Way, Real-World Problem Solving Readers Teacher's Guide</i>, p. 23 <i>Maps and Mail, Real-World Problem Solving Readers Teacher's Guide</i>, p. 11 <i>Rock Collections, Real-World Problem Solving Readers Teacher's Guide</i>, p. 41 	<p>My Math Assessment Masters</p> <ul style="list-style-type: none"> Chapter 3, p. 59-79 <p>My Math Think Smart for the SBAC</p> <ul style="list-style-type: none"> Ch. 3, p. 68 Benchmark Test 1, OA.2, p.137 Chapter Performance Tasks, pp. 117-118 <p>My Math eAssessment</p>

CLUSTER: Understand and apply properties of operations and the relationship between addition and subtraction. ^

STANDARDS FOR MATHEMATICAL CONTENT	STANDARDS FOR MATHEMATICAL PRACTICE	RESOURCES	ASSESSMENT
<p>1.OA.3 Apply properties of operations as strategies to add and subtract. Examples: if $8+3=11$ is known, then $3+8=11$ is also known (Commutative property of addition). To add $2+6+4$, the second two numbers can be added to make a ten, so $2+6+4=2+10$ (Associative property of addition).</p>	<p>MP1 Make sense of problems and persevere in solving them. MP2 Reason abstractly and quantitatively. MP3 Construct viable arguments and critique the reasoning of others. MP4 Model with mathematics. MP5 Use appropriate tools strategically. MP6 Attend to precision. MP7 Look for and make use of structure. MP8 Look for and express regularity in repeated reasoning.</p>	<p><i>About Teaching Mathematics, 2nd Ed.</i> (Burns, 2000)</p> <ul style="list-style-type: none"> Number Sums, pp. 126-7 <p>Table 1 from CCSS Appendix “Common Addition and Subtraction Situations”</p> <p>Table 3 from CCSS Appendix “The Properties of Operations”</p> <p>engage^{ny} https://www.engageny.org/ccls-math/1oa3</p> <p>My Math</p> <ul style="list-style-type: none"> 1-4 Add 0 2-4 Subtract 0 3-8 Add in Any Order 3-9 Add Three Numbers 	<p>My Math Assessment Masters</p> <ul style="list-style-type: none"> Chapter 1, p. 7-28 Chapter 2, p. 33-54 <p>My Math Think Smart for the SBAC</p> <ul style="list-style-type: none"> Ch. 3, pp. 67, 69 Benchmark Test 1, OA.3, p. 137 Benchmark Test 2, OA.3, p. 145 Chapter Performance Tasks, p. 114 <p>My Math eAssessment</p>

STANDARDS FOR MATHEMATICAL CONTENT	STANDARDS FOR MATHEMATICAL PRACTICE	RESOURCES	ASSESSMENT
<p>1.OA.4 Understand subtraction as an unknown-addend problem. For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8.</p>	<p>MP1 Make sense of problems and persevere in solving them. MP2 Reason abstractly and quantitatively. MP3 Construct viable arguments and critique the reasoning of others. MP4 Model with mathematics. MP5 Use appropriate tools strategically. MP6 Attend to precision. MP7 Look for and make use of structure. MP8 Look for and express regularity in repeated reasoning.</p>	<p>engage^{ny} https://www.engageny.org/ccls-math/1oa4</p> <p>My Math</p> <ul style="list-style-type: none"> • 2-2 Model Subtraction • 4-6 Use Related Facts to Add and Subtract • 4-8 Missing Addends 	<p>My Math Assessment Masters</p> <ul style="list-style-type: none"> • Chapter 2, p. 33-54 • Chapter 4, p. 84-104 <p>My Math Think Smart for the SBAC</p> <ul style="list-style-type: none"> • Chapter 2, p.63 • Chapter 4, p.75 • Benchmark Test 2, OA.4, pp. 146-147 • Chapter Performance Tasks, Ch 2, pp. 115-116 Ch 4, p.120 <p>My Math eAssessment</p>

CLUSTER: Add and subtract within 20.

STANDARDS FOR MATHEMATICAL CONTENT	STANDARDS FOR MATHEMATICAL PRACTICE	RESOURCES	ASSESSMENT
<p>1.OA.5 Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).</p>	<p>MP1 Make sense of problems and persevere in solving them. MP2 Reason abstractly and quantitatively. MP3 Construct viable arguments and critique the reasoning of others. MP4 Model with mathematics. MP5 Use appropriate tools strategically. MP6 Attend to precision. MP7 Look for and make use of structure. MP8 Look for and express regularity in repeated reasoning.</p>	<p>About Teaching Mathematics, 2nd Ed. (Burns, 2000)</p> <ul style="list-style-type: none"> Number Sums, pp. 126-7 Making Books with Dots, p. 167 <p>Developing Number Concepts, Book 2 (Richardson, 1999)</p> <ul style="list-style-type: none"> Developing Strategies for Adding and Subtracting, pp. 99-111 (teacher resource) Instant Recognition of Number Arrangements, pp. 115-116 <p>engage^{ny} https://www.engageny.org/ccls-math/1oa5</p> <p>Lessons for Algebraic Thinking Grades K-2 (Von Rotz & Burns, 2002)</p> <ul style="list-style-type: none"> Chapter 6 "Two of Everything," p. 68-78 <p>My Math</p> <ul style="list-style-type: none"> 3-1 Count on 1, 2, or 3 3-3 Use a Number Line to Add 4-1 Count Back 1, 2, or 3 4-2 Use a Number Line to Subtract Double the Number, <i>Real-World Problem Solving Readers: Teacher's Guide</i>, p. 3 	<p>My Math Assessment Masters</p> <ul style="list-style-type: none"> Chapter 3, p. 59-79 Chapter 4, p. 84-104 <p>My Math Think Smart for the SBAC</p> <ul style="list-style-type: none"> Chapter 3, p. 65 Chapter 4, p. 73 Benchmark Test 1, OA.5, p.134 Benchmark Test 2, OA.5, p. 143 Chapter Performance Tasks, Ch. 3, p. 117 Ch. 4, p. 119 <p>My Math eAssessment</p>

STANDARDS FOR MATHEMATICAL CONTENT	STANDARDS FOR MATHEMATICAL PRACTICE	RESOURCES	ASSESSMENT
<p>1.OA.6 Add and subtract within 20, demonstrating fluency for addition and subtraction in 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).</p>	<p>MP1 Make sense of problems and persevere in solving them. MP2 Reason abstractly and quantitatively. MP3 Construct viable arguments and critique the reasoning of others. MP4 Model with mathematics. MP5 Use appropriate tools strategically. MP6 Attend to precision. MP7 Look for and make use of structure. MP8 Look for and express regularity in repeated reasoning.</p>	<p>Developing Number Concepts, Book 2 (Richardson, 1999)</p> <ul style="list-style-type: none"> Internalizing Number Combinations to 10, pp. 42-55 (teacher resource) Snap It, pp. 56-57 The Tub Game, p. 58 The Wall Game, p. 59 Bulldozer, p. 60 The Cave Game, p. 61 Finger Combinations, p. 63 Working with Number Shapes, pp. 64-67 Working with Number Trains, pp. 68-72 What Do You Think? Using Grab Bags, pp. 125-126 What Do You Think? Using Tubs, pp. 12-128 Let's Pretend: Grab Bags, p. 129 Let's Pretend: Counting Boards, p. 129 Let's Pretend: Number Trains, p. 130 Let's Pretend: Number Shapes, p. 130 <p>(1 to 10)</p> <ul style="list-style-type: none"> Counting Boards: How Many Ways, p. 131 Combination Toss, p. 132 Build-a-Floor Race, pp. 133 Apartment Buildings, pp. 136-7 Describing Shape Puzzles, pp. 138 Addition-and-Subtraction Spin It, pp. 14-142 Counting Boards: Think and Write: p. 143 Grab-Bag Addition Station, p. 144 Grab-Bag Subtractions Station, p. 145 Two-Color Train, p. 146 The Tub-Game Station, p. 147 The Snap-It Station, p. 148 What's Missing? p. 149 Comparing Combinations, p. 150 Number Combinations to 20, p. 151-154 How Do You See It? Adding Number Shapes, pp. 155-156 Working with Ten-Shapes, pp. 157-159 A Ten-Shape and More: Subtraction, pp. 160-161 Exploring Number Relationships with the Magic Box, pp. 161- 166 <p>(1 to 20)</p> <ul style="list-style-type: none"> Two Ten-Shapes: Addition and Subtraction, pp. 168-169 A Ten-Shape and More: Subtraction Station, p. 170 Roll and Double, p. 171 Wipe Out, p. 172 <p>(continued on next page)</p>	<p>My Math Assessment Masters</p> <ul style="list-style-type: none"> Chapter 1, p. 7-28 Chapter 2, p. 33-54 Chapter 3, p. 59-79 Chapter 4, p. 84-104 <p>My Math Think Smart for the SBAC</p> <ul style="list-style-type: none"> Chapter 1, pp. 55 - 58 Chapter 2, pp. 60 - 64 Chapter 3, pp. 65 - 70 Chapter 4, pp. 72 - 76 Benchmark Test 1, OA.6, pp.133 - 140 Benchmark Test 2, OA.6, pp. 146 - 147 Chapter Performance Tasks, Ch. 3, p. 117 Ch. 4, pp.120 - 121 <p>My Math eAssessment</p>

STANDARDS FOR MATHEMATICAL CONTENT	STANDARDS FOR MATHEMATICAL PRACTICE	RESOURCES	ASSESSMENTS
<p>1.OA.6 Add and subtract within 20, demonstrating fluency for addition and subtraction in 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).</p>	<p>MP1 Make sense of problems and persevere in solving them. MP2 Reason abstractly and quantitatively. MP3 Construct viable arguments and critique the reasoning of others. MP4 Model with mathematics. MP5 Use appropriate tools strategically. MP6 Attend to precision. MP7 Look for and make use of structure. MP8 Look for and express regularity in repeated reasoning.</p>	<p>(continued from previous page)</p> <p>engage^{ny} https://www.engageny.org/ccls-math/1oa6</p> <p>My Math</p> <ul style="list-style-type: none"> • 1-5 Vertical Addition • 1-7 Ways to Make 4 and 5 • 1-8 Ways to Make 6 and 7 • 1-9 Ways to Make 8 • 1-10 Ways to Make 9 • 1-11 Ways to make 10 • 1-12 Find Missing Parts of 10 • 2-5 Vertical Subtraction • 2-8 Subtract from 4 and 5 • 2-9 Subtract 6 and 7 • 2-10 Subtract from 8 • 2-11 Subtract from 9 • 2-12 Subtract from 10 • 2-13 Relate Addition and Subtraction • 3-2 Count On Using Pennies • 3-4 Use Doubles to Add • 3-5 Use Near Doubles to Add • 3-7 Make 10 to Add • 4-3 Use Doubles to Subtract • 4-5 Make 10 to Subtract • 4-7 Fact Families 	

CLUSTER: Work with addition and subtraction equations. ▲

STANDARDS FOR MATHEMATICAL CONTENT	STANDARDS FOR MATHEMATICAL PRACTICE	RESOURCES	ASSESSMENT
<p>1.OA.7 Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.</p> <p>1.OA.7.1 Write and solve number sentences from problem situations that express relationships involving addition and subtraction within 20. CA</p>	<p>MP1 Make sense of problems and persevere in solving them. MP2 Reason abstractly and quantitatively. MP3 Construct viable arguments and critique the reasoning of others. MP4 Model with mathematics. MP5 Use appropriate tools strategically. MP6 Attend to precision. MP7 Look for and make use of structure. MP8 Look for and express regularity in repeated reasoning.</p>	<p>engage^{ny} https://www.engageny.org/ccls-math/1oa7</p> <p>My Math</p> <ul style="list-style-type: none"> • 1-13 True and False Statements • 2-14 True and False Statements 	<p>My Math Assessment Masters</p> <ul style="list-style-type: none"> • Chapter 1, p. 7-28 • Chapter 2, p. 33-54 <p>My Math Think Smart for the SBAC</p> <ul style="list-style-type: none"> • Chapter 1, p. 55 • Chapter 2, p. 61 • Chapter 3, pp. 68-69 • Chapter 4, pp. 72-76 • Benchmark Test 1, OA.7, pp.134,137 • Benchmark Test 2, OA.7, pp. 145,151 <p>My Math eAssessment</p> <p>Kentucky Department of Education</p> <ul style="list-style-type: none"> • Formative Assessment Lesson: OA: Equal or Not http://education.ky.gov/curriculum/conpro/Math/Pages/ElemFormAssessLessons.aspx

STANDARDS FOR MATHEMATICAL CONTENT	STANDARDS FOR MATHEMATICAL PRACTICE	RESOURCES	ASSESSMENTS
<p>1.OA.8 Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations: $8 + ? = 11$, $5 = U - 3$, $6 + 6 = U$.</p>	<p>MP1 Make sense of problems and persevere in solving them. MP2 Reason abstractly and quantitatively. MP3 Construct viable arguments and critique the reasoning of others. MP4 Model with mathematics. MP5 Use appropriate tools strategically. MP6 Attend to precision. MP7 Look for and make use of structure. MP8 Look for and express regularity in repeated reasoning.</p>	<p>engage^{ny} https://www.engageny.org/ccls-math/1oa8</p> <p>Lessons for Algebraic Thinking Grades K- 2 (Von Rotz & Burns, 2002),</p> <ul style="list-style-type: none"> Chapter 4: Dot Cards Version 1, p. 34-46 Chapter 11: Two Handfuls, p. 138-156 <p>My Math</p> <ul style="list-style-type: none"> 1-12 Find Missing Parts of 10 4-6 Use Related Facts to Add and Subtract 4-8 Missing Addends 	<p>My Math Assessment Masters</p> <ul style="list-style-type: none"> Chapter 1, p. 7-28 Chapter 4, p. 84-104 <p>My Math Think Smart for the SBAC</p> <ul style="list-style-type: none"> Chapter 2, p. 61, 63 Benchmark Test 4, OA.8, p. 164 <p>My Math eAssessment</p>

Domain Legend

▲ **Major Cluster:** Areas of intensive focus, where students need fluent understanding and application of the core concepts (approximately 75%)

s/a **Supporting Cluster:** Rethinking & linking; some material is being covered, but in a way that applies core understandings (s/a approximately 25%)

Additional Cluster: Expose students to other subjects, may not connect explicitly to the major work of the grade

ADDITIONAL SUPPORT

LANGUAGE OBJECTIVES	ENDURING UNDERSTANDINGS	ESSENTIAL QUESTIONS	KEY VOCABULARY																																																												
<ul style="list-style-type: none"> The student will answer word problems with complete sentence answers. The student will explain to a partner, using academic vocabulary, how the problem was solved using pictures, words, numbers, or manipulatives. The student will use academic language appropriately. The student will explain both how to best solve an expression with three addends and why it works, using academic vocabulary. The student will listen carefully and ask clarifying questions to make sense of other's mathematical thinking during math talks. The student will identify which strategy would be best to use for particular facts and explain, using academic vocabulary, why a model was used. The student will read mathematical expressions fluently, including inequalities. 	<ul style="list-style-type: none"> Addition and subtraction sentences can be used to represent various word problem situations. Diagrams, such as part-part-whole and number bonds, can be used to connect the addition and subtraction situation to the equation. Flexible methods for computation involve taking apart and combining numbers in a variety of ways. Addition and subtraction are connected. Addition names the whole in terms of the parts, and subtraction names missing part. The equal sign does not mean "the answer comes next," "makes," or "results in". Rather, the equal sign always means, "is the same as." Number relationships provide the foundation for strategies that help students remember basic facts. 	<ul style="list-style-type: none"> How can we represent this word problem with pictures, numbers, and words to help us understand how to solve it? How can we match a diagram with an equation/number sentence? What would be an efficient way to add these three numbers? How can we rewrite this equation/number sentence to make it easier to solve using the strategies we have learned? What might be another way to solve this equation? Given one part of a whole number, how do we find the other part? Which number is the whole/total in this equation? How can we find all of the addends for a given number from 1 to 20? What is the meaning of the equal sign? How does the left side of this expression/number sentence compare to the right side? 	<table> <tr> <td>about</td> <td>none</td> </tr> <tr> <td>add</td> <td>number</td> </tr> <tr> <td>addends</td> <td>number line</td> </tr> <tr> <td>addition</td> <td>one</td> </tr> <tr> <td>number</td> <td>order</td> </tr> <tr> <td>sentence</td> <td>part</td> </tr> <tr> <td>backward</td> <td>plus(+)</td> </tr> <tr> <td>column</td> <td>related fact</td> </tr> <tr> <td>compare</td> <td>row</td> </tr> <tr> <td>count</td> <td>same</td> </tr> <tr> <td>count by 10s</td> <td>subtract</td> </tr> <tr> <td>count back</td> <td>subtraction</td> </tr> <tr> <td>count on</td> <td>number</td> </tr> <tr> <td>difference</td> <td>sentence</td> </tr> <tr> <td>doubles</td> <td>sum</td> </tr> <tr> <td>doubles minus 1</td> <td>true</td> </tr> <tr> <td>doubles plus 1</td> <td>whole</td> </tr> <tr> <td>equal (=)</td> <td>zero</td> </tr> <tr> <td>fact family</td> <td></td> </tr> <tr> <td>false</td> <td></td> </tr> <tr> <td>fewer than</td> <td></td> </tr> <tr> <td>forward</td> <td></td> </tr> <tr> <td>greater</td> <td></td> </tr> <tr> <td>growing pattern</td> <td></td> </tr> <tr> <td>hundred chart</td> <td></td> </tr> <tr> <td>in all</td> <td></td> </tr> <tr> <td>less</td> <td></td> </tr> <tr> <td>minus(-)</td> <td></td> </tr> <tr> <td>missing addend</td> <td></td> </tr> <tr> <td>more than</td> <td></td> </tr> </table>	about	none	add	number	addends	number line	addition	one	number	order	sentence	part	backward	plus(+)	column	related fact	compare	row	count	same	count by 10s	subtract	count back	subtraction	count on	number	difference	sentence	doubles	sum	doubles minus 1	true	doubles plus 1	whole	equal (=)	zero	fact family		false		fewer than		forward		greater		growing pattern		hundred chart		in all		less		minus(-)		missing addend		more than	
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DAILY ROUTINES

- Create a Number of the Day equation to match the date. Students create as many equations as possible to match the number of the day, with the goal of showing balanced equations, with multiple addends on both sides of the equal sign.
- “Guess My Number” game, using the 100s chart or a number line as a support, to reinforce number relationships.
- Problem Solving Notebook
- Number Talks

LITERATURE CONNECTIONS

- *Leaping Lizards* by Stuart J. Murphy
- *How Many Feet in the Bed?* by Dianne Johnston Hamn
- *Little Bear's New Year's Party* by Janice Brustlein
- *Elevator Magic* by Stuart J. Murphy
- *Sea Sums* by Joy N. Hulme
- *Domino Addition* by Lynette Long
- *Springtime Addition* by Jill Fuller
- *Under the Picnic Tree* by Rozanne Lanczak Williams
- *If You Were a Plus Sign* by Trisha Speed
- *If You Were a Minus Sign* by Trisha Speed
- *Zero* by Kathryn Otoshi
- *Plus 0, Minus 0* by Ann H. Matzke
- *One More Bunny: Adding from One to Ten* by Rick Walton
- *Math Fables: Lessons that Count* by Greg Tang
- *Help Me Learn Addition* by Jean Marzollo
- *Ten for Me* by Barbara Mariconda
- *Equal Shmequal* by Virginia L. Kroll
- *Just Enough Carrots* by Stuart J. Murphy
- *Jack the Builder* by Stuart J. Murphy
- *Number Lines: How Far to the Car?* By John Burstein
- *Double the Ducks* by Stuart J. Murphy
- *Double Play* by Betsy Franco
- *Adding Puppies and Kittens* by Patricia J. Murphy
- *1 + 1 = 5 and Other Unlikely Additions* by David LaRochelle
- *Ten Black Dots* by Donald Crew
- *Two Ways to Count to Ten* by Ruby Dee
- *From One to One Hundred* by Teri Sloat
- *What Comes in 2's, 3's, and 4's* by Suzanne Aker
- *The King's Commissioners* by Aileen Friedman
- *The Mission of Addition* by Brian P. Cleary
- *Mama Cat Has Three Kittens* by Denise Fleming
- *Animals on Board* by Stuart Murphy
- *Quack and Count* by Keith Baker
- *Ten Tiny Monsters* by Sheila White Samton
- *Subtraction* by Ann Becker
- *Subtraction Action* by Loreen Leedy
- *The Action of Subtraction* by Brian P. Cleary
- *Subtraction at School* by Jennifer Rozines Roy
- *Subtracting with Sebastian Pig and Friends on a Camping Trip* by Jill Anderson
- *Five Little Monkeys Jumping on the Bed* by Eileen Christelow
- *Six Snowy Sheep* by Judith Ross Enderle and Stephanie Gordon Tessler
- *What's the Difference? An Endangered Animal Subtraction Story* by Suzanne Slade
- *Ten Sly Piranhas: A Counting Story in Reverse* by William Wise
- *12 Ways to Get to 11* by Eve Merriam
- *More Bugs? Less Bugs?* By Don L. Curry
- *The Fact Family* by Sandy Turley
- *Safari Park* by Stuart J. Murphy

DIFFERENTIATION 

FRONT LOADING ¹	ENRICHMENT ²	INTERVENTION ³
<p>My Math Each chapter includes: (at beginning of chapter)</p> <ul style="list-style-type: none"> • My Math Words • My Vocabulary Cards • My Foldables <p>Each lesson includes: (at beginning of lesson)</p> <ul style="list-style-type: none"> • ELL Instructional Strategy 	<p>My Math Each lesson includes:</p> <ul style="list-style-type: none"> • a beyond level hands-on activity under differentiated instruction (found after Practice & Apply) 	<p>My Math Each lesson includes:</p> <ul style="list-style-type: none"> • an approaching level Tier 2: strategic intervention hands-on activity (found after Practice & Apply) <p>Each formative assessment includes:</p> <ul style="list-style-type: none"> • Tier 2 Strategic Intervention, Ch. 1, p. 36A • Tier 2 Strategic Intervention, Ch. 2, p. 166A • Tier 2 Strategic Intervention, Ch. 3, p. 242A • Tier 2 Strategic Intervention Ch. 4, p. 306A

Key:

¹: Front Loading refers to materials that can be used before the lesson begins to prepare students for success, which may be helpful for English learners, students with disabilities or low achieving students.

²: Enrichment refers to materials that can be used with students who are ready to have their thinking extended, which may be helpful for gifted and talented and high achieving students, or any students who are ready for more depth and complexity.

³: Intervention refers to materials that can be used after the lessons with students who are needing additional positive experiences with the mathematics, low achieving students who would benefit from another approach, or students who have gaps in their knowledge.

For more information on Differentiation, please refer to: The California Framework, Universal Access section:

<http://www.cde.ca.gov/ci/ma/cf/documents/mathfwuniversalaccess.pdf#search=Universal%20Access&view=FitH&pagemode=none>