

Grade: 3 Unit: 3	Operations and Algebraic Thinking, Part 2	4 Weeks
---------------------	-------------------------------------------	---------

Progression	
2 <sup>nd</sup> Grade	<b>Students learned...</b> to solve one-step word problems with addition and subtraction.
<b>3rd<sup>d</sup> Grade</b>	<b>Students will learn to...</b> solve one-step word problems using multiplication and division. They will model and then solve two-step word problems using all four operations.
4th Grade	<b>Students will...</b> continue modeling and solving multi-step multiplication and division word problems.

**STUDENT LEARNING GOALS**  
**Mathematics Standards** (*Appendices A & B*)

**CCSS.Math.Content.3.OA.D.8**

Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.<sup>3</sup>

**CCSS.Math.Content.3.OA.D.9**

Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends

<b>Interdisciplinary Standards</b>		<b>Key Vocabulary</b>	
<b>Technology Integration</b> <i>(Appendix C)</i>	<b>21<sup>st</sup> Century Skills</b> <i>(Appendix D)</i>		
IS1. Information Strategies IS2. Information Use	TCS1. Use of Information TCS5. Problem Solving	addend addition area model array commutative property of multiplication decomposing difference	distributive property of multiplication divide equation expression factor multiply operation product quotient square unit subtract unknown/variable

<p><b>Enduring Understandings</b></p> <ul style="list-style-type: none"> <li>Using manipulatives can help make word problems more concrete and easier to solve.</li> <li>The array/area model is a good representational way to solve word problems.</li> <li>Some one-step and two-step problems require more than one operation.</li> <li>Estimating can help you determine the reasonableness of answers to word problems.</li> </ul>	<p><b>Essential Questions</b></p> <ul style="list-style-type: none"> <li>What strategies can be used to solve one-step and two-step word problems?</li> <li>How can manipulatives be used to solve word problems?</li> <li>How can the array/area model be used to solve word problems?</li> <li>How can you determine the operations needed to solve word problems?</li> <li>How can you determine the reasonableness of answers?</li> </ul>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Assessment Plan**

<p><b>Summative Assessment(s)/Performance Based Assessments including 21<sup>st</sup> Century Learning</b></p> <p>RCC Interim Assessment, Student p. 128 &amp; 129 RCC Performance Task, Student 130</p>	<p><b>Formative and Diagnostic Assessment(s)</b></p> <p>STAR Math Assessment (Fall) RCC Embedded Tasks and Assessments</p> <p>Exit Slip Assessments: <a href="https://grade3commoncoremath.wikispaces.hcpss.org/home">https://grade3commoncoremath.wikispaces.hcpss.org/home</a></p>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**Learning Plan Components**

Text	Ready Common Core Mathematics Instruction 3, 2014, Curriculum Associates, ISBN: 978-0-7609-8637-0
Print	Ready Common Core Mathematics Teacher Resource Book 3, 2014, Curriculum Associates, ISBN: 978-0-7609-8644-8
Electronic	<a href="http://www.teacher-toolbox.com">www.teacher-toolbox.com</a> <a href="http://www.stratfordmath.wikispaces.com">www.stratfordmath.wikispaces.com</a> <a href="http://www.xtramath.org">www.xtramath.org</a>
<b>Weeks 1 &amp; 2</b>	Students will: <ul style="list-style-type: none"> <li>Solve multiplication and division word problems involving equal groups.</li> <li>Solve multiplication and division word problems involving arrays.</li> <li>Solve multiplication and division word problems involving area models.</li> </ul>

Lessons	Tasks / Activities	Worksheets	Technology
Ready Common Core Lesson 11 pgs. 96-107	*How Long, How Many (introduce as area model) *Ready CC Hands on with base ten" p. 111 * Ready CC Visual model p. 112 "Ready CC Hands on" p. 117 "Ready CC Hands on" p. 120 "Multiplication with Base Ten Blocks" (Georgia) "Array Challenge" (Georgia) "Making Up Multiplication" (Georgia)	"Gifts from Grandma" "Solving Word Problems" "Analyzing Word Problems" Scott Foresman R 6-7, P 7-1, 7-3, PS 11-5, PS 11-6	

<b>Week 3</b>	Students will: <ul style="list-style-type: none"> <li>Determine operations needed to solve two-step word problems.</li> <li>Model two-step problems with four operations using a variety of representations, including an equation with a variable</li> <li>Solve two-step problems with four operations.</li> </ul>		
<b>Lessons</b>	<b>Tasks / Activities</b>	<b>Worksheets</b>	<b>Technology</b>
RCC Lesson 12 pgs. 108-117	*Ready CC Hands on" p. 123 *Ready CC visual" p. 125 *Ready CC Hands on p. 130 "Hooked on Solutions" (Georgia) "Making Up Multiplication" w/2 step problems (Georgia)	"Cookie Dough" Scott Foresman 6-11	
<b>Week 4</b>	Students will: <ul style="list-style-type: none"> <li>Determine operations needed to solve two-step word problems.</li> <li>Model two-step problems with four operations using a variety of representations, including equations with a variable.</li> <li>Solve two-step problems with four operations.</li> <li>Assess the reasonableness of answers.</li> </ul>		
<b>Lessons</b>	<b>Tasks / Activities</b>	<b>Worksheets</b>	<b>Technology</b>
RCC Lesson 13 pgs. 131-139	*Ready CC "Hands On" p. 135 *Ready CC "Concept Ext. mental math" p. 136 *Ready CC Hands On" p. 140		
<b>Summative Assessment</b>		<b>Performance Task</b>	
RCC Unit 3 Interim Assessment -Student p. 128-129 -Scoring Guide (teacher's guide) p. 141		RCC Unit 3 Performance Task -Student p. 130 -Rubric p. 143	