

Mathematics Curricular Guide

# THIRD GRADE

*Revised for CCSS-M*



*2013-2014 SCHOOL YEAR*

This pacing guide assumes that math will be taught every day, even on early release days, minimum of 80 to 90 minutes per day to include 10 minute math/number talk. **\*10 Minute Math should not be skipped due to alignment with Common Core State Standards.**

Title of Unit	Approximate Number of Days	Approximate Teaching Windows	Page
Unit 1: Trading Stickers and Combining Coins	10	August 27 – September 10	4
Unit 2: Surveys and Line Plots	17	September 11 – October 3	5
Unit 3: Collections and Travel Stories	24	October 4 – November 6	6
Unit 4: Perimeter, Angles, and Area	18	November 7 – December 5	7
Unit 5: Equal Groups	31	December 9 – February 5	8
Unit 6: Stories, Tables, and Graphs (Builds algebraic thinking)	15	February 6 – February 28	9
Unit 7: Finding Fair Shares	26	March 3 – April 15	10
Unit 8: How Many Hundreds, How Many Miles	19	April 16 – May 12	11
Unit 9: Solids and Boxes	10	May 13 – May 28	12

### K-3 Instructional Notes

**Fluency:** “The word fluent is used in the standards to mean ‘accurate, efficient/fast and flexible.’ Fluency in each grade involves a mixture of just knowing some answers, knowing some answers from patterns (e.g., adding 0 yields the same number), and knowing some answers from the use of strategies. It is important...to recognize that fluency will be a mixture of these kinds of thinking which may differ across students.”

**Strategy:** A strategy can be extended to all numbers, may or may not be efficient (e.g., counting on, doubles, doubles plus 1). Students use a variety of strategies through 3<sup>rd</sup> grade.

**Algorithm:** A series of well-defined steps used to solve a certain class of problems (e.g., all addition problems). There are many algorithms, only one of which is the U.S. Standard Algorithm.

This is an example of a subtraction problem solved using an algorithm.

$$\begin{array}{r} 856 \\ - 375 \\ \hline \end{array} \quad \text{or} \quad 856 - 375$$

$$\begin{array}{l} 856 - 300 = 556 \\ 556 - 70 = 486 \\ 486 - 5 = 481 \end{array}$$

$$556 - 50 = 506$$

**U.S. Standard Algorithm:** The U.S. Standard Algorithm (*stack it up-borrow or carry considering only digits not the concept of place value*), as a shortcut for experienced users, becomes a disadvantage for students who don't deeply understand place value and can lead to long-lived, difficult to eradicate, misconceptions. **Use of the U.S. Standard Algorithm begins in fourth grade according to the CCSM and Math Investigations.**

**\*\*Refer to Progressions for the CCSSM; *K-5 Counting and Cardinality; K-5, Operations and Algebraic Thinking* (page 18) and your *Implementing Investigations* Teacher's Guide in the Professional Development Section**

Unit 1: Trading Stickers and Combining Coins (Addition and Subtraction up to 100).	Teachers Notes: Number sense up to 100. This unit is meant to provide the opportunity to observe students and to set routines. <b>*10 Minute Math should <u>not</u> be skipped due to alignment with Common Core State Standards (CCSS)</b> <ul style="list-style-type: none"> <li>○ <i>What's the Temperature? (3.MD.4) Start weekly routine – continue through all units</i></li> <li>○ <i>Practicing Place Value -include rounding and estimation (3.NBT.1)</i></li> <li>○ <i>More or Less (3.OA.D.8, )</i></li> </ul>	CCSS	Formative Assessment Checkpoints  *No End of Unit 1 Assessment is necessary
Investigation 1 <b>7 days</b>	<ul style="list-style-type: none"> <li>● Optional: 3<sup>rd</sup> grade beginning of the year assessment available in S-Drive.</li> <li>● Follow Instructions as described on Investigation Snap-in Unit guide. 1.1,1.2,1.3, 1.4, 1.5, 1.7, 1.8</li> <li>● Pages 33-34 introduce “What is the Temperature” routine during this unit.</li> <li>● <b><u>Skip session 1.6</u></b></li> <li>● Session 1.8 consider introducing ways to represent a number i.e. standard, expanded/extended notation, places value model (drawing) and words.</li> <li>● CCSS and Mathematical Practices Listed.</li> </ul>	<p><b>3.NBT.1:</b> Place Value  <b>3.NBT.2:</b> Fluently Add &amp; Subtract within 1,000.  <b>3.OA.8:</b> 2-step Word Problems  <b>3.OA.9:</b> Identify and Explain arithmetic patterns using properties of operations.</p> <p><b>Mathematical Practices 1-8</b></p> <ol style="list-style-type: none"> <li><b>1. Make sense of problems and persevere in solving them.</b></li> <li><b>2. Reason abstractly and quantitatively.</b></li> <li><b>3. Construct viable arguments and critique the reasoning of others.</b></li> <li><b>4. Model with mathematics</b></li> <li><b>5. Use appropriate tools strategically.</b></li> <li><b>6. Attend to precision</b></li> <li><b>7. Look for and make use of structure.</b></li> <li><b>8. Look for and express regularity in repeated reasoning.</b></li> </ol>	<p><b>Add to Session 1.8: student activity book (SAB) page 31</b></p> <ul style="list-style-type: none"> <li>● <b>3.NBT.1:</b> Place Value</li> <li>● Can re-assess using same page if students are not given specific feedback, during Unit 3</li> </ul>
Investigation 2 <b>3 days</b>	<ul style="list-style-type: none"> <li>● Follow Instructions as described on Investigation Snap-in Unit guide. 2.1, 2.2 and 2.3</li> <li>● <b><u>Skip: Session 2.4, 2.5, 2.6, 2.7 and 2.8</u></b></li> <li>● No summative assessment uses the information to guide intervention time.</li> </ul>		<p><b>Sessions 2.1 (pre) and 2.5 (post): M44</b></p> <ul style="list-style-type: none"> <li>● <b>3.NBT.2:</b> Fluently Add within 1,000.</li> <li>● <b>3.OA.9:</b> Identify and Explain arithmetic patterns using properties of operations.</li> </ul>

## Third Grade Math Curriculum Guide 2013/2014 Unit 2

Unit 2: Surveys and Line Plots (Data Analysis, bar graph, pictographs and line plots)	<p><b>Teachers Notes:</b> While teaching this unit, consider using intervention time (outside of math time) to allow the students that still need to learn combination facts from Unit 1 session 2.1.</p> <p><b>*10 Minute Math should <u>not</u> be skipped due to alignment with CCSS</b></p> <ul style="list-style-type: none"> <li>○ <i>What's the Temperature? (3.MD.4)</i></li> <li>○ <i>More or Less – estimation (3.NBT.1)</i></li> <li>○ <i>Guess My Rule – categorization</i></li> <li>○ <i>Today's Number-include rounding (3.NBT.1)</i></li> </ul>	CCSS	Formative Assessment Checkpoints
Investigation 1 <b>8 DAYS</b>	<ul style="list-style-type: none"> <li>● Follow Instructions as described on Investigation Snap-in Unit guide. (1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7 and 1.8).</li> <li>● During this investigation students create and analyze bar graphs and double bar graphs.</li> <li>● <b>**NOTE: Do not let the bars touch on a single bar graph</b></li> </ul>	<p><b>3. MD.3: Interpret and Analyze Data</b></p> <p><b>3.MD.4: Measure length and Create Line Plots.</b></p>	<p><b>Session 1.5 Student Activity Book Pages 13 and 14</b></p> <ul style="list-style-type: none"> <li>● <b>3. MD.3:</b> Interpret and Analyze Data</li> </ul>
Investigation 2 4 DAYS	<ul style="list-style-type: none"> <li>● Follow Instructions as described on Investigation Snap-in Unit guide for session 2.1, 2.2, 2.3A, 2.6 (During this investigation students create and analyze Line plots)</li> <li>● <b>2.3A</b> (See Supplemental book, <i>Investigations and the Common Core State Standards</i>, page CC5 for instructions) : Begin today's lesson on activity 2, you will use activity 1 during 2.6</li> <li>● <b>2.6:</b> Focus on activity 1, students did not participate in a survey to complete activity 2 (SAB 39-40)</li> <li>● Pictograph- see extra materials (Located on S drive under District Mathematics- Instructional Resources-Additional Practice- Graphs PDF) for more practice.</li> </ul>	<p><b>Mathematical Practices 1-8</b></p> <ol style="list-style-type: none"> <li>1. <b>Make sense of problems and persevere in solving them.</b></li> <li>2. <b>Reason abstractly and quantitatively.</b></li> <li>3. <b>Construct viable arguments and critique the reasoning of others.</b></li> <li>4. <b>Model with mathematics</b></li> <li>5. <b>Use appropriate tools strategically.</b></li> <li>6. <b>Attend to precision</b></li> <li>7. <b>Look for and make use of structure.</b></li> <li>8. <b>Look for and express regularity in repeated reasoning.</b></li> </ol>	<p><b>Session 2.6: M14 and M15</b></p> <ul style="list-style-type: none"> <li>● <b>3. MD.3:</b> Interpret and Analyze Data</li> <li>● <b>3.MD.4:</b> Measure length and Create Line Plots.</li> </ul>
Investigation 3 5 DAYS	<ul style="list-style-type: none"> <li>● Follow Instructions as described on Investigation Snap-in Unit guide for session 3.1, 3.2, 3.3, and 3.4. (This will cover the CCSS). Measure to halves and fourths of an inch.</li> </ul>		<p><b>Summative Assessment</b> (Located on S-drive/District Mathematics/Instructional Resources/ 3<sup>rd</sup> Grade/ Summative Assessments)</p>

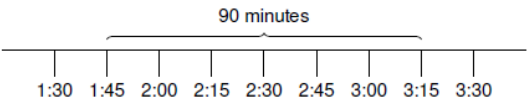
## Third Grade Math Curriculum Guide 2013/2014 Unit 3

Unit 3 Collections and Travel Stories (Addition and Subtraction up to 600 in the number system).	Teachers Notes: Number sense up to 300 for subtraction and 400 for addition. See Common Core State Standards book page 88 for common addition and subtraction situations. <b>*10 Minute Math should <u>not</u> be skipped due to alignment with CCSS</b> <ul style="list-style-type: none"> <li>○ <b>What's the Temperature? (3.MD.4)</b></li> <li>○ <b>What time is it? (3.MD.1) [Ten Minute Math is where time is taught in 3<sup>rd</sup> grade – be sure to do all of these in Units 3, 5, and 7]</b></li> <li>○ <b>Today's Number-include rounding (3.NBT.1)</b></li> <li>○ <b>Class Collection (optional)</b></li> </ul>	CCSS	Formative Assessment Checkpoints
Investigation 1 7 DAYS	<ul style="list-style-type: none"> <li>• Optional-Pre assessment</li> <li>• Follow Instructions as described on Investigation Snap-in Unit guide for session 1.1, 1.2, 1.3, 1.4, 1.5, and 1.7-A.</li> <li>• Session 1.7-A rounding (See supplemental book <i>Investigations and Common Core State Standards</i> page CC14 for instructions).</li> <li>• 1.3: Estimate by finding the nearest 10 and 100 using collection activity cards and Go Collecting game</li> </ul>	<p><b>3.NBT.1:</b> Place Value  <b>3.NBT.2:</b> Fluently Add &amp; Subtract within 1,000.  <b>3.OA.8:</b> 2-step Word Problems  <b>3.OA.9:</b> Identify and Explain arithmetic patterns using properties of operations.  <b>3.MD.1:</b> Solve problems involving time (create supplemental materials)</p>	<p>Session 1.7A: 22D</p> <ul style="list-style-type: none"> <li>• <b>3.NBT.1:</b> Place Value to Round</li> <li>• Can re-assess using same page if students are not given specific feedback, during Unit 8</li> </ul>
Investigation 2 6 DAYS	<ul style="list-style-type: none"> <li>• Follow Instructions as described on Investigation Snap-in Unit guide for session 2.1, 2.3, 2.4, 2.5, 2.6 and 2.7.</li> <li>• For session 2.3 consider using Capture 5 game in the 300 to 600 chart from unit 8- session 1.2.</li> </ul>	<p><b>Mathematical Practices 1-8</b></p> <ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reasoning of others.</li> <li>4. Model with mathematics</li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision</li> <li>7. Look for and make use of structure.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol>	<p>Session 2.3: M35 and M36</p> <ul style="list-style-type: none"> <li>• <b>3.NBT.1:</b> Place Value</li> <li>• <b>3.OA.9:</b> Identify and Explain arithmetic patterns using properties of operations.</li> </ul> <p>Session 2.7: M42</p> <ul style="list-style-type: none"> <li>• <b>3.NBT.2:</b> Fluently Add &amp; Subtract within 1,000.</li> </ul>
Investigation 3 6 DAYS	<ul style="list-style-type: none"> <li>• Follow Instructions as described on Investigation Snap-in Unit guide for session 3.2, 3.3, 3.4, 3.5, 3.6 and 3.7.</li> <li>• <b>Skip 3.1</b></li> </ul>		<p>Session 3.7: M61 and M62</p> <ul style="list-style-type: none"> <li>• <b>3.OA.8:</b> 2-step Word Problems</li> </ul>
Investigation 4 5 DAYS	<ul style="list-style-type: none"> <li>• Follow Instructions as described on Investigation Snap-in Unit guide for session 4.2, 4.3, 4.4 and 4.5</li> <li>• <b>Skip 4.6</b></li> </ul>		<p><b>Summative Assessment</b> (Located on S-drive/District Mathematics/Instructional Resources/ 3<sup>rd</sup> Grade/ Summative Assessments</p>

## Third Grade Math Curriculum Guide 2013/2014 Unit 4

Unit 4 Perimeter, Angles, and Area.	Teachers' Notes: Include quadrilateral lessons for this unit. <b>*10 Minute Math should <u>not</u> be skipped due to alignment with CCSS</b> <ul style="list-style-type: none"> <li>○ <i>What's the Temperature? (3.MD.4)</i></li> <li>○ <i>Quick Images</i></li> <li>○ <i>Quick Draw</i> (supplemental book)- <i>lines, angles and quadrilaterals (3.G.1)</i></li> <li>○ <i>(removed Practicing Place Value to allow time for Quick Draw)</i></li> </ul>	CCSS	Formative Assessment Checkpoints
Investigation 1 7 DAYS	<ul style="list-style-type: none"> <li>● Begin with a chart to introduce vocabulary and attributes of quadrilaterals. Samples located on the S drive/District Math/Instructional Resources/3<sup>rd</sup> gr/Unit 4 (Welcome to Geometry Park) <b>add chart</b></li> </ul> <p><u>Key Vocabulary:</u> Perimeter, parallel, intersecting, quadrilateral, parallelogram, metric, angle, perpendicular, line segment, line, right angle, diagonal, length, width, measure, square, rectangle, kite, rhombi/rhombus, parallelogram, trapezoid, vertex, vertices, figure, attribute, property, closed figure, quadrilateral, side, straight edge, triangle</p> <ul style="list-style-type: none"> <li>● Follow Instructions as described on Investigation Snap-in Unit guide for session 1.1, 1.2, 1.3, 1.4, and 1.5. (Except for 10 Minute Math, replace it with Quick Draw).</li> <li>● Focus on perimeters of quadrilaterals.</li> </ul>	<ul style="list-style-type: none"> <li>● <b>3.MD.4:</b> Measure Length using ruler.</li> <li>● <b>3.MD.5. a and b:</b> Area</li> <li>● <b>3.MD. 6:</b> Measure Area</li> <li>● <b>3. MD.7.a and b:</b> Relate Area to Multiplication and Division.</li> <li>● <b>3. MD. 8:</b> Perimeters of Polygons</li> <li>● <b>3.G.1:</b> Attributes of Shapes</li> </ul> <p><b>Mathematical Practices 1-8</b></p> <ol style="list-style-type: none"> <li>1. <b>Make sense of problems and persevere in solving them.</b></li> <li>2. <b>Reason abstractly and quantitatively.</b></li> <li>3. <b>Construct viable arguments and critique the reasoning of others.</b></li> <li>4. <b>Model with mathematics</b></li> <li>5. <b>Use appropriate tools strategically.</b></li> <li>6. <b>Attend to precision</b></li> <li>7. <b>Look for and make use of structure.</b></li> <li>8. <b>Look for and express regularity in repeated reasoning.</b></li> </ol>	<p><b>Session 1.3: SAB pgs. 9-10</b></p> <ul style="list-style-type: none"> <li>● <b>3. MD. 8:</b> Perimeters of Polygons</li> <li>● <b>3.MD.4:</b> Measure Length using ruler.</li> </ul>
Investigation 2 7 DAYS	<ul style="list-style-type: none"> <li>● Follow Instructions as described on Investigation Snap-in Unit guide for session 2.1, 2.2, 2.3, 2.4, 2.5A, 2.5, and 2.6. (Except for 10 Minute Math, replace it with Quick Draw).</li> <li>● 2.5A session located in Common Core supplemental Book page CC23.</li> <li>● See Common Core State Standard Book page 89 for examples of area.</li> </ul>		<p><b>Session 2.6: M20</b></p> <ul style="list-style-type: none"> <li>● <b>3.MD.5. a and b:</b> Area</li> <li>● <b>3.MD. 6:</b> Measure Area</li> </ul>
Investigation 3 4 DAYS	<ul style="list-style-type: none"> <li>● Follow Instructions as described on Investigation Snap-in Unit guide for session 3.3, 3.4, and 3.5 (Except for 10 Minute Math, replace it with Quick Draw).</li> <li>● Focus on attributes of quadrilaterals.</li> <li>● <b>Skip 3.1, 3.2 and 3.6</b></li> </ul>		<p><b>Summative Assessment not aligned to Common Core – needs to be revised</b></p>

Third Grade Math Curriculum Guide 2013/2014 **Unit 5-** (Start this unit after Winter Break)

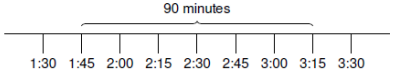
Unit 5 Equal Groups (multiplication and Division)	Teachers' Note: See Common Core State Standard book page 89 for common multiplication and division situations. <b>*10 Minute Math should not be skipped due to alignment with CCSS</b> <ul style="list-style-type: none"> <li>○ <b>What's the Temperature? (3.MD.4)</b></li> <li>○ <b>What Time is It?(3.MD.1)</b> [Ten Minute Math is where time is taught in 3<sup>rd</sup> grade – be sure to do all of these in Units 3, 5, and 7] <b>begin representing the time word problems on number lines</b></li> <li>○ <b>Counting Around the Class (3.OA.1)</b></li> </ul>	<p style="text-align: center;"><b>CCSS</b></p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p style="font-size: small;">What time does Marla have to leave to be at her friend's house by a quarter after 3 if the trip takes 90 minutes?</p>  <p style="font-size: x-small;">Using a number line diagram to represent time is easier if students think of digital clocks rather than round clocks. In the latter case, placing the numbers on the number line involves considering movements of the hour and minute hands.</p> </div>	<p style="text-align: center;"><b>Formative Assessment Checkpoints</b></p>
Investigation 1 4 DAYS	<ul style="list-style-type: none"> <li>● Follow Instructions as described on Investigation Snap-in Unit guide for session 1.1, 1.2, 1.3, and 1.4.</li> </ul>	<p><b>3.OA.1-4:</b> Multiplication and Division  <b>3.OA.5-6:</b> Inverse relationship of Multiplication and division, and properties of multiplication (commutative, associative, distributive)  <b>3.OA.7:</b> Multiplication and division fluency within 100. (Memorize products: 0-9)  <b>3.OA.8:</b> 2-step Word Problems  <b>3.OA.9:</b> Identify and Explain arithmetic patterns using properties of operations  <b>3.MD.7. a-d:</b> Relate to the Operation of Multiplication and Division.  <b>3.NBT.3:</b> Multiply 1-digit numbers by Multiples of 10- in the range of 10-90).</p>	<p style="text-align: center;"><b>Session 1 .4: Activity 2</b></p> <ul style="list-style-type: none"> <li>● <b>3.OA.1, 3, 4:</b> Multiplication</li> </ul>
Investigation 2 7 DAYS	<ul style="list-style-type: none"> <li>● Follow Instructions as described on Investigation Snap-in Unit guide for session 2.1,,2.2, 2.3, 2.4, 2.5, 2.6</li> </ul>	<p><b>3.OA.7:</b> Multiplication and division fluency within 100. (Memorize products: 0-9)  <b>3.OA.8:</b> 2-step Word Problems  <b>3.OA.9:</b> Identify and Explain arithmetic patterns using properties of operations  <b>3.MD.7. a-d:</b> Relate to the Operation of Multiplication and Division.  <b>3.NBT.3:</b> Multiply 1-digit numbers by Multiples of 10- in the range of 10-90).</p>	<p style="text-align: center;"><b>Session 2.5: M13</b></p> <ul style="list-style-type: none"> <li>● <b>3.OA.1, 3, 4:</b> Multiplication</li> <li>● <b>3.OA.9:</b> Identify and Explain arithmetic patterns using properties of operations</li> </ul>
Investigation 3 12 DAYS	<ul style="list-style-type: none"> <li>● Follow Instructions as described on Investigation Snap-in Unit guide for session 3.1A, 3.1, 3.2, 3.3, 3.4, 3.5A, 3.5B, 3.5, 3.6, 3.7A</li> </ul>	<p><b>3.OA.9:</b> Identify and Explain arithmetic patterns using properties of operations  <b>3.MD.7. a-d:</b> Relate to the Operation of Multiplication and Division.  <b>3.NBT.3:</b> Multiply 1-digit numbers by Multiples of 10- in the range of 10-90).</p> <p><b>Mathematical Practices 1-8</b></p> <ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reasoning of others.</li> <li>4. Model with mathematics</li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision</li> <li>7. Look for and make use of structure.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol>	<p style="text-align: center;"><b>Session 3.1: M14-M15</b></p> <p><b>Possible numbers could include: 8, 12, 16, 18, 20, 24, 28, 30, 32, 36</b>  <b>Extension numbers could be: 64, 72, 128, prime numbers</b></p> <ul style="list-style-type: none"> <li>● <b>3.OA.1 &amp; 4:</b> Multiplication</li> <li>● <b>3.OA.9:</b> Identify and Explain arithmetic patterns using properties of operations</li> <li>● <b>3.OA.5-6:</b> Inverse relationship of Multiplication and division, and properties of multiplication</li> <li>● <b>3.MD.7. a-d:</b> Relate to the Operation of Multiplication and Division</li> </ul>
Investigation 4 8 DAYS	<ul style="list-style-type: none"> <li>● Follow Instructions as described on Investigation Snap-in Unit guide for session 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7</li> <li>● End of the Unit test</li> </ul>	<p><b>Mathematical Practices 1-8</b></p> <ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reasoning of others.</li> <li>4. Model with mathematics</li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision</li> <li>7. Look for and make use of structure.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol>	<p style="text-align: center;"><b>Session 4.3-: Activity 2</b></p> <p><b>Guide students so they write a division story problem</b></p> <ul style="list-style-type: none"> <li>● <b>3.OA.2, 3, 4:</b> Division</li> <li>● <b>3.OA.5-6:</b> Inverse relationship of Multiplication and division</li> </ul> <p><b>Summative Assessment</b> (Located on S-drive/District Mathematics/Instructional Resources/ 3<sup>rd</sup> Grade/ Summative Assessments</p>



Third Grade Math Curriculum Guide 2013/2014 Unit 6

Unit 6: Stories, Tables, and Graphs	<b>Teachers' Notes:</b> *10 Minute Math should <u>not</u> be skipped due to alignment with CCSS ○ <i>What's the Temperature? (3.MD.4)</i> ○ <i>Practicing Place Value -include rounding and estimation (3.NBT.1)</i>	<b>CCSS</b>	<b>Formative Assessment Checkpoints</b>
Investigation 1	<ul style="list-style-type: none"> <li>Skip investigation 1 – it is not aligned to common core</li> </ul>	<b>3. MD.3:</b> Interpret and Analyze Data (Pictographs and Bar Graphs). <b>3. OA.3:</b> Word Problems with Multiplication and Division (Within 100)	
Investigation 2 3 DAYS	<ul style="list-style-type: none"> <li>Follow Instructions as described on Investigation Snap-in Unit guide for session: 2.1, 2.2 and 2.3.</li> </ul>	<b>3.OA.5:</b> Properties of Operations (Commutative, Associative, Distributive)	
Investigation 3 6 DAYS	<ul style="list-style-type: none"> <li>Follow Instructions as described on Investigation Snap-in Unit guide for session: 3.1, 3.2, 3.3, 3.4, 3.5 and 3.6</li> </ul>	<b>3. OA.7:</b> Multiplication and division fluency within 100. (Memorize products: 0-9) <b>3.OA.8:</b> 2-step Word Problems <b>3.OA.9:</b> Identify and Explain arithmetic patterns using properties of operations  <b>Mathematical Practices 1-8</b> <ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reasoning of others.</li> <li>4. Model with mathematics</li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision</li> <li>7. Look for and make use of structure.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol>	<b>Summative Assessment</b> (Located on S-drive/District Mathematics/Instructional Resources/3 <sup>rd</sup> Grade/ Summative Assessments)

Third Grade Math Curriculum Guide 2013/2014 **Unit 7**

<p>Unit 7 Finding Fair Shares (Fractions)</p>	<p><b>Teachers' Note:</b> Incorporate number line throughout the unit after it's introduced in 1.4A <b>*10 Minute Math should <u>not</u> be skipped due to alignment with CCSS</b></p> <ul style="list-style-type: none"> <li>○ Today's number (Include expanded form, and rounding to nearest 10 and 100). (3.NBT.1)</li> <li>○ <i>What's the Temperature?</i> (3.MD.4)</li> <li>○ <i>What Time is It?</i>(3.MD.1)[<i>Ten Minute Math is where time is taught in 3<sup>rd</sup> grade – be sure to do all of these in Units 3, 5, and 7</i>] <b>begin representing the time word problems on number lines</b></li> </ul>	<p><b>CCSS</b> GR 3 expectations in this domain are limited to fractions with denominators 2,3,4,6 and 8.</p> <div data-bbox="1087 261 1503 529" style="border: 1px solid black; padding: 5px;"> <p>What time does Marla have to leave to be at her friend's house by a quarter after 3 if the trip takes 90 minutes?</p>  <p>Using a number line diagram to represent time is easier if students think of digital clocks rather than round clocks. In the latter case, placing the numbers on the number line involves considering movements of the hour and minute hands.</p> </div>	<p><b>Formative Assessment Checkpoints</b></p>
<p>Investigation 1 8 DAYS</p>	<ul style="list-style-type: none"> <li>● Follow Instructions as described on Investigation Snap-in Unit guide for session 1.1, 1.2, 1.3, ,1.4A, 1.4B, 1.5 and 1.6</li> </ul>	<ul style="list-style-type: none"> <li><b>3. G.2:</b> Partitioning Shapes into Equal Parts.</li> <li><b>3. NF.1:</b> Understand Fractions as Numbers.</li> <li><b>3. NF.2.a-b:</b> Represent Fractions on a Number Line.</li> <li><b>3. NF.3.a-c:</b> Equivalency of Fractions.</li> <li><b>3. NF.3.d:</b> Comparing Fractions (With Same Numerator or Same Denominator).</li> </ul>	<p><b>Session 1 .3: SAB pg. 7</b></p> <ul style="list-style-type: none"> <li>● <b>3. G.2:</b> Partitioning Shapes into Equal Parts.</li> </ul> <p><b>Session 14B: C47</b></p> <ul style="list-style-type: none"> <li>● <b>3. NF.2.a-b:</b> Represent Fractions on a Number Line.</li> <li>● 3. NF.3.a-c: Equivalency of Fractions. You must focus the students on equivalency, "How do you know?"</li> </ul>
<p>Investigation 2 2 DAYS</p>	<ul style="list-style-type: none"> <li>● Follow Instructions as described on Investigation Snap-in Unit guide for session 2.1 and 2.2</li> </ul>	<p><b>Mathematical Practices 1-8</b></p> <ol style="list-style-type: none"> <li><b>1. Make sense of problems and persevere in solving them.</b></li> <li><b>2. Reason abstractly and quantitatively.</b></li> <li><b>3. Construct viable arguments and critique the reasoning of others.</b></li> <li><b>4. Model with mathematics</b></li> <li><b>5. Use appropriate tools strategically.</b></li> <li><b>6. Attend to precision</b></li> <li><b>7. Look for and make use of structure.</b></li> <li><b>8. Look for and express regularity in repeated reasoning.</b></li> </ol>	<p><b>Summative Assessment</b> (Located on S-drive/District Mathematics/Instructional Resources/ 3<sup>rd</sup> Grade/ Summative Assessments</p>
<p>Supplemental Activities NUMBER OF DAYS VARIES WITH AMOUNT OF PRACTICE  10 days (varies)</p>	<ul style="list-style-type: none"> <li>● Fourth Grade: Fraction Card session: Copy of lesson and material on S-drive/District Mathematics/Instructional Resources/ 3<sup>rd</sup> grade/ Curriculum Guide Supplemental material/ Lesson from Fourth Grade fractions cards.</li> <li>● For more supplemental lessons/ideas go to S-drive-District Mathematics/Instructional Resources/3<sup>rd</sup> grade/ 3r gr Supplemental from curriculum.</li> <li>● End of Unit Assessment</li> </ul>		

Third Grade Math Curriculum Guide 2013/2014 **Unit 8**

Unit 8: How Many 100s, How Many Miles	<b>Teachers' Note:</b> <b>*10 Minute Math should <u>not</u> be skipped due to alignment with CCSS</b> <ul style="list-style-type: none"> <li>○ <i>What's the Temperature? (3.MD.4)</i></li> <li>○ <i>Today's number (Include expanded form, and rounding to nearest 10 and 100). (3.NBT.1)</i></li> <li>○ <i>Counting Around the Class (3.OA.1)</i></li> </ul>	<b>CCSS</b>	<b>Formative Assessment Checkpoints</b>
Investigation 1 5 DAYS	<ul style="list-style-type: none"> <li>• Follow Instructions as described on Investigation Snap-in Unit guide for session 1.1, 1.2, 1.3, and, 1.4. 1.5</li> <li>• <b>U.S Standard Algorithm is a strategy; it should not be explicitly taught or enforced.</b></li> </ul>	<b>3.NBT.2:</b> Add and Subtract up to 1,000 <b>3.OA.8:</b> 2-step Word Problems <b>3.OA.9:</b> Identify and Explain arithmetic patterns using properties of operations <b>3.MD.1:</b> Solve problems involving time (create supplemental materials)  <b>Mathematical Practices 1-8</b> <ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reasoning of others.</li> <li>4. Model with mathematics</li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision</li> <li>7. Look for and make use of structure.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol>	
Investigation 2 4 DAYS	<ul style="list-style-type: none"> <li>• Follow Instructions as described on Investigation Snap-in Unit guide for all sessions</li> </ul>		
Investigation 3 10 DAYS	<ul style="list-style-type: none"> <li>• Follow Instructions as described on Investigation Snap-in Unit guide for session 3.1, 3.2, 3.3, 3.4,3.5, 3.6 3.7, 3.8 and 3.9.</li> </ul>		

Third Grade Math Curriculum Guide 2013/2014 Unit 9: Solids and Boxes

Unit 9	<p>Teachers Notes:                      *10 Minute Math should <u>not</u> be skipped due to alignment with CCSS</p> <ul style="list-style-type: none"> <li>○ <i>What's the Temperature? (3.MD.4)</i></li> <li>○ <i>Practicing Place Value</i> -include rounding and estimation (3.NBT.1)</li> </ul>	<p>CCSS</p>	<p>Formative Assessment Checkpoints</p>
<p>10 days</p>	<ul style="list-style-type: none"> <li>● <b>Skip Investigation 1 completely.</b></li> <li>● Follow Instructions as described on Investigation Snap-in Unit guide for Investigation 4 (4A.1, 4A.2,4A.3)</li> <li>● <b>Investigations 2 and 3 are optional this year</b></li> <li>● For Ten Minute Math, use those in Investigations 1-3.</li> </ul>	<p><b>3. MD.2:</b> Measure Volume and Mass</p> <p><b>3.MD.1:</b> Solve problems involving time (create supplemental materials)</p> <p><b>Mathematical Practices 1-8</b></p> <ol style="list-style-type: none"> <li>1. Make sense of problems and persevere in solving them.</li> <li>2. Reason abstractly and quantitatively.</li> <li>3. Construct viable arguments and critique the reasoning of others.</li> <li>4. Model with mathematics</li> <li>5. Use appropriate tools strategically.</li> <li>6. Attend to precision</li> <li>7. Look for and make use of structure.</li> <li>8. Look for and express regularity in repeated reasoning.</li> </ol>	