

2nd Grade Math Curriculum Bundle # 8



Title	Suggested Dates
Problem Solving Using 2-Digit Addition and Subtraction (Con't.) and Time	February 1- February 19 (13 days)** AMI MOY Window 2/12/15

Big Idea/Enduring Understanding	Guiding Questions
<p>Problems can be solved using a variety of strategies</p> <p>Clocks help us keep track of time</p> <p>Events can be measured by using beginning and ending times</p>	<p>How can you prove your answer?</p> <p>How do you select an appropriate problem solving strategy?</p> <p>What are some ways that you can explain and record your problem solving strategy?</p> <p><i>Note: These 3 questions are continuing from Bundle 7.</i></p> <p>What tools can be used to estimate and measure time?</p> <p>How can patterns help you identify time on an analog clock?</p> <p>How can you compare an analog and digital clock?</p> <p>Do we really need clocks to tell time?</p> <p>What are some things that you can do in one second, one minute, and one hour?</p> <p>How can you describe a given time on an analog or digital clock?</p>

The resources included here provide teaching examples and/or meaningful learning experiences to address the District Curriculum. In order to address the TEKS to the proper depth and complexity, teachers are encouraged to use resources to the degree that they are congruent with the TEKS and research-based best practices. Teaching using only the suggested resources does not guarantee student mastery of all standards. Teachers must use professional judgment to select among these and/or other resources to teach the district curriculum.

Knowledge & Skills with Student Expectations	District Specificity/Examples	Suggested Resources (See note above) Teachers will use Math Investigations as the main instructional resource. District resources are listed and categorized to indicate suggested uses. Any additional resources must be aligned with the TEKS.	
<p>2.3 The student adds and subtracts whole numbers to solve problems.</p> <p>2.3B Model addition and subtraction of two-digit numbers with objects, pictures, words, and numbers</p> <p><i>Very Important Note: It is very important that the students understand and practice adding and subtracting 2 digit numbers with multiple strategies BEFORE the algorithm is introduced. Concrete</i></p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • use multiple strategies (ex: base-10 blocks, tally marks, pictures, adding tens and ones separately and then adding the final ten and one together) to solve addition and subtraction problems • represent and use whole numbers in flexible ways by joining and separating numbers (expanded notation $523 = 500 + 20 + 3$) 	<p><u>Partners, Teams, and Paper Clips</u> Unit 8</p> <p>Investigation 4 Sessions 1-5, pages 110-149 <i>Note: Do this investigation first.</i></p> <p>Investigation 3 Sessions 1-5, pages 70-108</p>	<p><u>Whole Group Lessons</u></p> <p><u>Envision</u> Topic 8 Lessons 1 – 7</p> <p><i>Note: Do these only after you have modeled, modeled, modeled!</i></p>

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<p>models need to be used over and over again to establish a firm understanding at a conceptual level.</p>	<ul style="list-style-type: none"> • describe in words an explanation of strategy • model real situations when start (beginning), change (middle), or result (end) is unknown • use equation (number sentence) to represent addition or subtraction situations • use 2 or more addends 	<p>Note: In these investigations, addition and subtraction strategies are mixed together. There are more addition and subtraction strategies listed in Bundles 6 and 7 as well.</p>	<p>Please read the 2nd Grade Introductory Paragraph and notice that it does not mention algorithms for 2nd Grade.</p>
<p>2.3 The student adds and subtracts whole numbers to solve problems 2.3 The student adds and subtracts whole numbers to solve problems</p> <p>2.3C Select addition or subtraction to solve problems using two-digit numbers, whether or not regrouping is necessary.</p> <p>Very Important Note: It is very important that the students understand and practice adding and subtracting 2 digit numbers with multiple strategies BEFORE the algorithm is introduced. Concrete models need to be used over and over again to establish a firm understanding at a conceptual level.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • use multiple strategies (ex: base-10 blocks, adding tens and ones separately then adding the final ten and one together, tally marks) with and without regrouping • model and explain addition or subtraction problems using concrete materials in contextual situations • model real situations when start (beginning), change (middle), or result (end) is unknown use story problems and/or story mats. 		
<p>2.12 The student applies Grade 2 mathematics to solve problems connected to everyday experiences and activities in and outside of school.</p> <p>2.12A Identify the mathematics in everyday situations.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • Process skill to be addressed with relevant content. • Solving 2 digit addition and subtraction story problems 		<p><u>Small Group Lessons/Centers</u></p> <p><u>A.I.R.R.</u> What Information is Needed? # 228 How do you Solve the Problem? # 229 Understand the Problem # 230 Is the Solution Reasonable? # 231 Draw a Picture # 232 Look for Patterns in a Calendar # 233 Guess and Check # 234 Act it Out # 235</p> <p><u>Kamico</u> Outdoor Activities Pages 340-365 Indoor Activities Pages 366-376 Around the World</p>
<p>2.12 The student applies Grade 2 mathematics to solve problems connected to everyday experiences and activities in and outside of school.</p> <p>2.12B Solve problems with guidance that incorporates the processes of understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • Process skill to be addressed with relevant content. • Solving 2 digit addition and subtraction story problems 		
<p>2.12 The student applies Grade 2 mathematics to solve problems connected to everyday experiences and activities in and outside of school.</p> <p>2.12C Select or develop an appropriate problem-solving plan or strategy including drawing a picture, looking for a pattern, systematic guessing and checking, or acting it out in order to solve a problem.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • Process skill to be addressed with relevant content. • Solving 2 digit addition and subtraction story problems 		

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<p>2.12 The student applies Grade 2 mathematics to solve problems connected to everyday experiences and activities in and outside of school.</p> <p>2.12D Use tools such as real objects, manipulatives, and technology to solve problems.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • Process skill to be addressed with relevant content. • Solving 2 digit addition and subtraction story problems 		<p>Pages 380-396</p>
<p>2.13 The student communicates about Grade 2 mathematics using informal language.</p> <p>2.13A Explain and record observations using objects, words, pictures, numbers, and technology.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • Process skill to be addressed with relevant content. • Solving 2 digit addition and subtraction story problems 		
<p>2.13 The student communicates about Grade 2 mathematics using informal language.</p> <p>2.13B Relate informal language to mathematical language and symbols.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • Process skill to be addressed with relevant content. • Solving 2 digit addition and subtraction story problems 		
<p>2.14 The student is expected to justify his or her thinking using objects, words, pictures, numbers, and technology.</p> <p>2.14A Justify his or her thinking using objects, words, pictures, numbers, and technology</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • Process skill to be addressed with relevant content. • Solving 2 digit addition and subtraction story problems 		
<p>2.10 The student uses standard tools to estimate and measure time and temperature (in degrees Fahrenheit).</p> <p>2.10B Read and write times shown on an analog and digital clock using five-minute increments</p> <p>Note: This is the first time students are accountable for writing times shown on a clock.</p> <p>Calendars and schedules may be addressed at this time.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • identifies hour hand and minute hand • models the direction that hands move on a clock • understand the position of the hour hand according to the position of the minute hand (2:15 vs 2:55) • Record time shown on an analog clock in digital form • Describes time on a clock using vocabulary such as half past, quarter past, quarter to 		<p><u>Whole Group Lessons</u></p> <p><u>Envision</u> Topic 19 Lessons 1 – 3</p> <p><u>Small Group Lessons/Centers</u></p> <p><u>A.I.R.R.</u> What Time is it? # 204 Match the Time # 205 Show the Times Three Ways # 206 Make Your Own Clock # 207</p>

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			<p>Digital Time # 208 Show Time # 209 It's About Time # 210 Show the Time # 211 My, How Time Flies # 212 Convert the Time # 214</p> <p><u>Kamico</u> Bingo Time Pages 259-267</p> <p><u>Region IV Prep</u> Time Lesson Pages 148-157</p>
<p>2.10 The student uses standard tools to estimate and measure time and temperature (in degrees Fahrenheit).</p> <p>2.10C Describe activities that take approximately one second, one minute, and one hour.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • activities that students physically complete in order to understand the length of a second, minute, and/or hour • describing the approximate length of time a particular activity would take 		<p><u>Whole Group Lessons</u></p> <p><u>Envision</u> Topic 19 Lesson 4</p> <p><u>Small Group Lessons/Centers</u></p> <p><u>A.I.R.R.</u> Things that Take About a Second # 214 Our Daily Schedule # 215 It Only Takes a Minute # 216</p> <p><u>Kamico</u> Smack Jack Pages 268-277</p> <p><u>Region IV Prep</u> Time Lesson Pages 148-157</p>