

2nd Grade Math Curriculum Bundle # 10

Title		Suggested Dates
Fractions, Probability, & Measurement		March 22 -April 16 (19 days)

Big Idea/Enduring Understanding	Guiding Questions
<p>Fractions represent parts of a whole or a part of a group or set of objects</p> <p>Data can be used to predict when things can occur</p> <p>Objects can be measured with non-standard units</p>	<p>How are fractional parts represented?</p> <p>How do we use fractions in our everyday lives?</p> <p>How many equal pieces does it take to make a whole?</p> <p>How can you represent a fraction with a group or set of objects?</p> <p>Note: These 4 questions are continued from Bundle 9.</p> <p>How can you decide if a given fraction is closer to 0, ½, or 1 whole?</p> <p>How can you use data to describe events as more or less likely, certain or impossible?</p> <p>How do we use probability in our everyday lives?</p> <p>When is an event more or less likely, certain or impossible?</p> <p>How can you select and use non-standard units used to measure length?</p> <p>How can you make reasonable estimates to determine measurements?</p> <p>How do you take an accurate measurement?</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)	
<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</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 	<p>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>	<p>Continue to work on addition and subtraction as warm ups and small group activities. Make sure you have taught the concept through manipulatives and made the connection to the algorithm.</p>

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<p>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>ways by joining and separating numbers (expanded notation $523 = 500 + 20 + 3$)</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>2.2 The student describes how fractions are used to name parts of whole objects or sets of objects.</p> <p>2.2A Use concrete models to represent and name fractional parts of a whole object (with denominators of 12 or less)</p> <p>Note: Make sure you are representing fractions using the following models: Region/Area (ex. paper folding, fraction circles, pattern blocks) Length (ex. Cuisenaire rods, fraction strips) Set (ex. 2 color counters, color tiles, etc.)</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • use "out of" when distinguishing part versus whole (ex: one out of three equal parts) • identify part to whole relationships such as one-half means one out of two equal parts • recognize fractions are represented by equal size parts of a whole or of a set of objects • relates fraction symbol to model • model with real world examples such as pizzas, cookies, cakes, paper folding/cutting/shading 	<p>Note: These lessons on fractions are continued from Bundle #9.</p> <p><u>Parts of a Whole, Parts of a Group</u> Unit 7</p> <p>Investigation 1 Session 1, pages 20-24</p> <p>Investigation 2 Sessions 1-6, pages 46-75</p>	<p><u>Whole Group Lessons</u></p> <p><u>Envision</u> Topic 10 Lessons 1-3, 5-7</p> <p><u>Small Group Lessons/Centers</u></p> <p><u>A.I.R.R.</u> Model the Fractions # 59 Fractional Parts # 60 Exploring the Parts of a Group # 61 Draw a Set for Each Fraction # 62 Parts of a Set # 63 Pattern Block Sets # 64</p>
<p>2.2 The student describes how fractions are used to name parts of whole objects or sets of objects.</p> <p>2.2B Use concrete models to represent and name fractional parts of a set of objects (with denominators of 12 or less).</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • use "out of" when distinguishing part versus the total set of equal parts • model with real world objects such as marbles, tiles, counters, etc. 		
<p>2.2 The student describes how fractions are used to name parts of whole objects or sets of objects.</p> <p>2.2C Use concrete models to determine if a fractional part of a whole is closer to 0, $\frac{1}{2}$ or 1.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • use real world objects such as pies, cakes, marbles, tiles • have concrete examples of 0, $\frac{1}{2}$ and 1 available for comparisons (ex: Is a $\frac{1}{4}$ of a pie closer to 0, $\frac{1}{2}$ or 1? The pictures would be no pie, $\frac{1}{2}$ a pie, of a whole pie) 	<p><u>Parts of a Whole, Parts of a Group</u> Unit 7</p> <p>Investigation 1 Session 3, pages 31-35</p>	<p><u>Whole Group Lessons</u></p> <p><u>Envision</u> Topic 10 Lesson 4</p> <p><u>Small Group Lessons/Centers</u></p> <p><u>A.I.R.R.</u> What is Closer to? # 65 Number Line Models # 66 About How Much? # 67 Close Fractions # 68 Using Models to Estimate</p>

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			<p>Fractions # 69</p> <p><u>Kamico</u> Fraction Fun Page 64-65</p>
<p>2.11 The student organizes data to make it useful for interpreting information.</p> <p>2.11C Use data to describe events as more likely or less likely such as drawing a certain color crayon from a bag of seven red crayons and three green crayons.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • Understanding the concept of impossible, likely, less likely, etc. • Describe probable events using not only similar sets, but sets that include various sizes, shapes, and objects 		<p><u>Whole Group Lessons</u></p> <p><u>Envision</u> Topic 20 Lesson 5</p> <p><u>Small Group Lessons/Centers</u></p> <p><u>A.I.R.R.</u> Is it More Likely or Less Likely? #224 More Likely or Less Likely? # 225 and # 226 Which Outcome is More or Less Likely? # 227</p>
<p>2.9 The student selects and uses nonstandard units to describe length, area, capacity, and weight/mass. The student recognizes and uses models that approximate standard units (from both SI, also known as metric and customary systems) of length, weight/mass, capacity, and time.</p> <p>2.9A Identify concrete models that approximate standard units and use them to measure length.</p> <p><i>Note: Nonstandard and standard units of measure are student expectations in science 2.4A and 2.4B.</i></p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • estimation before measuring with approximate standard units • identify tools used to measure length • associate concrete models that represent standard units (color tile is about an inch) and use these standards units to compare and describe the lengths of objects • Science student expectation for grade 2 specifies rulers and meter sticks. • 2.4(A) Collect information using tools including rulers, meter sticks, measuring cups, clocks, hand lenses, computers, thermometers, and balances. • 2.4(B) Measure and compare organisms and objects and parts of organisms and objects, using standard and non-standard units. 	<p><u>Measuring Length and Time</u> Unit 9</p> <p>Investigation 1 Sessions 1-6, pages 24-54</p> <p>Investigation 2 Sessions 1-3, pages 58-74</p> <p>Investigation 3 Session 1, pages 78-84</p>	<p><u>Whole Group Lessons</u></p> <p><u>Envision</u> Topic 17 Lessons 2-5</p> <p><u>Small Group Lessons/Centers</u></p> <p><u>A.I.R.R.</u> How Long is a Foot? # 183 Estimating Length # 184 Nonstandard Measuring Tools # 186</p> <p><u>Kamico</u> Measure Magic Pages 222-225</p> <p><u>Region IV - Making Connections with Measurement</u> Length 34-57</p>