

3rd Grade Math Curriculum Bundle # 10

Title		Suggested Dates
Congruence/ Symmetry/ Fractions/ Probability		March 22 - April 16 (19 days)

Big Idea/Enduring Understanding	Guiding Questions
<p>Explore to understand the basic concepts of geometry as related to the real world.</p> <p>Use fraction names and symbols to describe fractional parts of whole objects.</p>	<p>How is a line of symmetry identified?</p> <p>How are congruence and symmetry related?</p> <p>How can using congruence and symmetry help you in the real world?</p> <p>How is a fraction related to a whole?</p> <p>How many different ways can one fraction be represented?</p> <p>How do we use fractions in daily life?</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 resources. District resources are listed and categorized to indicate suggested uses. Any additional resources must be aligned with the TEKS.	
<p>3.9 The student recognizes congruence and symmetry.</p> <p>3.9A Identify congruent two-dimensional figures</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • identify congruent two-dimensional figures using a variety of strategies(ex: cut and compare, measuring, etc) • recognize shapes that are congruent but may have different orientations or positions 	<p>PISD 3rd grade TAKS Math Timeline</p>	<p><u>Whole Group Lesson</u></p> <p><u>Envision</u> Topic 15 Lesson 1</p> <p><u>Small Group Lessons/Centers</u></p> <p><u>AIRR</u> Introducing Congruent #86 Same Size, Same Shape #87 Congruent Match #88 Congruence #89</p> <p><u>Kamico</u> Congruence with Colors Page 184</p>

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			<u>Region IV Prep</u> Page 83 – 89
<p>3.9 The student recognizes congruence and symmetry.</p> <p>3.9B Create two-dimensional figures with lines of symmetry using concrete models and technology.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • use concrete models to create two-dimensional figures with lines of symmetry • use technology to create two-dimensional figures with lines of symmetry • demonstrate that a line of symmetry forms reflected shapes that are congruent 		<p><u>Whole Group Lesson</u></p> <p><u>Envision</u> Topic 15 Lesson 3</p> <p><u>Small Group Lessons/Centers</u></p> <p><u>Navigating Through Geometry</u> Patchwork Symmetry Pg. 49-51</p>
<p>3.9 The student recognizes congruence and symmetry.</p> <p>3.9C Identify lines of symmetry in two-dimensional geometric figures</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • identify all possible lines of symmetry in a wide variety of two-dimensional figures such as letters, pictures and shapes by using a variety of strategies(mirrors, reflections, folding the figure over the line of symmetry, etc) 		<p><u>Whole Group Lesson</u></p> <p><u>Envision</u> Topic 15 Lesson 2</p> <p><u>Small Group Lessons/Centers</u></p> <p><u>AIRR</u> Introducing Symmetry #90 Mirror Image #91 Lines of Symmetry in Shapes #92 Toothpick Symmetry #93</p> <p><u>Kamico</u> Alphabet Symmetry Page 192</p>
<p>3.14 The student applies Grade 3 mathematics to solve problems connected to everyday experiences and activities in and outside of school.</p> <p>3.14D 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"> • solving a problem using objects to make figures with lines of symmetry 		<p><u>Whole Group Lesson</u></p> <p><u>Envision</u> Topic 15 Lesson 4</p>
<p>3.2 The student uses fraction names and symbols (with denominators of 12 or less.) to describe fractional parts of whole objects or sets of objects.</p> <p>3.2A Construct concrete models of fractions.</p> <p><small>NOTE: 2nd grade- fraction models are constructed for students. 3rd grade – first time to construct fraction</small></p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • recognize that shaded parts do not have to be adjacent to each other • analyze a concrete model to describe the relationship of the fractional parts to distinguish between the numerator and denominator 	<p><u>Math Investigations</u> <u>Finding Fair Shares</u> Unit 7</p> <p>Investigation 1 Sessions 1 – 2 pages 24-234</p> <p><u>Teacher Note: Skip Session 3.</u></p>	<p><u>Whole Group Lesson</u></p> <p><u>Envision</u> Topic 11 Lessons 1 – 4</p>

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<p>models, first time to use fraction symbol.</p>	<ul style="list-style-type: none"> • recognize fractions are represented by equal size parts of a whole or by a set of objects • construct concrete models of fractions with denominators of 12 or less • Make sure students have multiple opportunities to see visual representations often when solving problems (ex: construct 3 different representations of the same fractional part) 	<p>Investigation 1 Session 4 pages 43 – 46</p>	
<p>3.2 The student uses fraction names and symbols (with denominators of 12 or less.) to describe fractional parts of whole objects or sets of objects</p> <p>3.2B Compare fractional parts of whole objects or sets of objects in a problem situation using concrete models.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • recognize that shaded parts do not have to be adjacent to each other • analyze whole objects or sets of objects in a problem situation to compare fractional parts using comparison terminology (less than one whole or equal to one whole or greater than one whole) • analyze whole object or sets of objects s in a problem situation to compare fractional parts using comparison words terminology (less than (<), equal to (=), greater than (>)) • Make sure students have multiple opportunities to see visual representations often when solving problems (ex: construct 3 different representations of the same fractional part) 	<p><u>Math Investigations</u> <u>Finding Fair Shares</u> Unit 7</p> <p>Investigation 2 Session 1 pages 60 – 64 activity 1</p>	<p><u>Whole Group Lesson</u></p> <p><u>Envision</u> Topic 11 Lessons 5 – 6</p> <p><u>Small Group Lessons/Centers</u></p> <p><u>AIRR</u> Follow My Lead #24 All Set #25 Compare Yours To Mine #26 Less Than, Greater Than, Equal To #27</p> <p><u>Kamico</u> Fabulous Fraction Comparison Page 49i</p> <p><u>Region IV Prep</u> Page 29 – 33</p>
<p>3.2 The student uses fraction names and symbols (with denominators of 12 or less.) to describe fractional parts of whole objects or sets of objects.</p> <p>3.2C Use fraction names and symbols to describe fractional parts of whole objects or sets of objects.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • recognize fractions are represented by equal size parts of a whole or by a set of objects recognize that shaded parts do not have to be adjacent to each other) • use "out of" when distinguishing part vs whole • describe fractional parts using name and symbols in multiple ways Ex: less than one whole, halves, 1 out of 2 equal (equivalent) parts, 		<p><u>Whole Group Lesson</u></p> <p><u>Envision</u> Topic 11 Lessons 2 – 4</p> <p><u>Small Group Lessons/Centers</u></p> <p><u>AIRR</u> Name That Fraction #28 What Part Is Red #29 How Many Way Can You Name Fractions #30</p>

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	<p>1/2 of a whole. Ex: equal to one whole, 7 out of 7 equal (equivalent) parts, 7/7 or 1</p>		<p>Fraction Names and Symbols of Display #31 Find My Match #32 Pasta Fractions #33 <u>Kamico</u> Bearly Colorful Fractions Pg 56</p>
<p>3.2 The student uses fraction names and symbols (with denominators of 12 or less.) to describe fractional parts of whole objects or sets of objects.</p> <p>3.2D Construct concrete models of equivalent fractions for fractional parts of whole objects.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • generates models of equivalent fractions • represent fractions using words and concrete models • construct whole object concrete models to demonstrate equivalent fractional values • demonstrates an understanding of equivalence by constructing multiple whole object concrete models of a given fraction that use different denominators 	<p><u>Math Investigations</u> <u>Finding Fair Shares</u> Unit 7 Investigation 2 Session 1 Activity 3 pages 66-68 <u>Finding Fair Shares</u> Unit 7 Investigation 2 Session 2 Activity 1-3 pages 69 – 73</p>	<p><u>Whole Group Lesson</u> <u>Envision</u> Topic 11 Lesson 8</p>
<p>3.10 Use tools such as real objects, manipulatives, and technology to solve problems.</p> <p>3.10A Locate and name points on a number line using whole numbers and fractions, including halves and fourths.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • determine strategies for locating and naming of whole numbers and fractional values (halves and fourths) • locate and name points on a number line that may or may not begin with zero • locate and name points on a number line according to increments other than 1 (think skip counting) ex: (3, 6 ?, 12) 		<p><u>Whole Group Lesson</u> <u>Envision</u> Topic 13 Lessons 3 – 4 <u>Small Group Lessons/Centers</u> <u>AIRR</u> Adding Machine Tape Number Lines #94 Folding for Fourths #7 <u>Kamico</u> Between You and Me Page 197 We'll Point you in the Right Direction Page 194 Monster March Page 206 <u>Region IV Prep</u> Page 91 – 95</p>
<p>3.13 The student solves problems by collecting,</p>	<p>Including but not limited to</p>		<p><u>Whole Group Lesson</u></p>

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<p>organizing, displaying, and interpreting sets of data.</p> <p>3.13C Use data to describe events as more likely than, less likely than, or equally likely as.</p>	<ul style="list-style-type: none">• analyze experimental activities or spinners to describe if the event is<ul style="list-style-type: none">○ more likely than○ less likely than○ equally likely as• represent results of experiments by generating lists, tables, graphs (ex: tally marks)• identify if there is no possibility of the event occurring as "impossible"• identify if it is "certain" for an event to occur		<p><u>Envision</u> Topic 20 Lesson 5</p> <p><u>Small Group Lessons/Centers</u> <u>AIRR</u> How Likely Is It #125 Design a Spinner #126 Match the Spinner # 31 Table of Events #32 Pick a Cube # 33 The Results Are In #34</p> <p><u>Navigating Through Data Analysis and Probability</u> How Likely is it to Land in the Trash Can pg. 62-67</p> <p><u>Kamico</u> It's in the Bag, or Is It? Page 299</p> <p><u>Region IV Prep</u> Page 147-154</p>
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