


4th Grade Math Curriculum Bundle # 10

Title	Suggested Dates
Geometry Continued/Fourth Grade Math Timeline 	March 22 – April 16 (19 days)

Big Idea/Enduring Understanding	Guiding Questions
Geometric figures can be described, compared, and transformed using symmetry and congruence.	<p>How do you differentiate between transformations?</p> <p>How can you determine if a figure has symmetry?</p> <p>What are the attributes of a two-dimensional or three-dimensional shape?</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>4.8 The student identifies and describes attributes of geometric figures using formal and geometric language.</p> <p>4.8C Use essential attributes to define two-and three-dimensional geometric figures</p>	<p>Including but not limited to:</p> <ul style="list-style-type: none"> • define two- and three-dimensional geometric figures using essential attributes • identify, classify, and describe attributes of two-and three-dimensional figures when given a variety of models, everyday objects and nets • compare and contrast both two- and three-dimensional figures according to attributes (include nets) describing similarities and differences using formal geometric vocabulary • identify attributes according to labels (sides, edges, angles, vertices, faces) 	<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>PISD Fourth Grade Math Timeline</p> <p><u>Math Investigations</u></p> <p><u>Size, Shape and Symmetry</u> Unit 4</p> <p>Investigations 2 Sessions 1 – 4 pages 54- 79</p> <p><u>Teacher Notes: Focus on Two-Dimensional shapes.</u></p> <p><u>Moving Between Solids and Silhouettes</u> Unit 7</p>	<p><u>Whole Group Lessons</u></p> <p><u>Envisions</u> Topic 14 Lessons 3 – 6</p> <p><u>Small Group Lessons/Centers</u></p> <p><u>AIRR</u> Space Figures Who Has My Solid Fill it Up Polygons</p> <p><u>Kamico</u> What Am I? Pages 195 – 220</p> <p><u>Navigating through Geometry</u></p>

4th Grade Math Curriculum Bundle # 10

		Investigations 1 Sessions 1 – 2 pages 22 – 32 Teacher Notes: Focus on Three-Dimensional shapes.	Roping in Quad Pages 22 – 25
<p>4.9 The student connects transformations to congruence and symmetry.</p> <p>4.9A Demonstrate translations, reflections, and rotations using concrete models.</p>	<p>Including but not limited to:</p> <ul style="list-style-type: none"> • demonstrate the physical movement of a concrete object to model the 3 different types of transformations <ul style="list-style-type: none"> ○ translations (slides vertically, horizontally, and diagonally) ○ rotations (turn or rotated) ○ reflections (flipped over or reflected) • describe the 3 types of transformations using correct mathematical vocabulary (ex: the transformation of the figure is a translation because the figure slides to the right and up) • describe the difference among translations, reflections, and rotations 		<p><u>Whole Group Lessons</u></p> <p><u>Envisions</u> Topic 15 Lesson 1 – 3</p> <p><u>Small Group Lessons/Centers</u></p> <p><u>AIRR</u> Movements Moving Around Reflect It, Translate It, Rotate It</p> <p><u>TEXTEAMS</u> Wax Paper Transformation</p>
<p>4.9 The student connects transformations to congruence and symmetry.</p> <p>4.9B Use translations, reflections, and rotations to verify that two shapes are congruent.</p>	<p>Including but not limited to</p> <ul style="list-style-type: none"> • describe and verify translation, reflections, and rotations produce two congruent shapes by a variety of strategies (ex: cut and compare, measuring, line of reflection etc) • recognize shapes that are congruent but may have different orientation 		<p><u>Small Group Lessons/Centers</u></p> <p><u>Kamico</u> Identical Twins Pages 221 – 233</p> <p><u>TEXTEAMS</u> Reflect It</p>
<p>4.9 The student connects transformations to congruence and symmetry.</p> <p>4.9C Use reflections to verify that a shape has symmetry</p>	<p>Including but not limited to:</p> <ul style="list-style-type: none"> • verify that a shape has symmetry using a variety of methods of reflections (mirrors, folding, etc) • use reflections (across a vertical line, across a horizontal line, or across a diagonal line) when testing for symmetry • identifies multiple lines of symmetry in a shape 	<p><u>Math Investigations</u></p> <p><u>Size, Shape and Symmetry</u> Unit 4</p> <p>Investigations 4 Sessions 1 – 2 pages 112 - 120</p>	<p><u>Whole Group Lessons</u></p> <p><u>Envisions</u> Topic 15 Lesson 5</p> <p><u>Small Group Lessons/Centers</u></p> <p><u>Kamico</u> See Me Try Pages 234 – 241</p>

4th Grade Math Curriculum Bundle # 10

			<p><u>Navigating through Geometry</u> Patchwork Symmetry Pages 49 – 51 Symmetry Detective Pages 52 – 54</p> <p><u>Region IV Prep</u> Transformations Lessons Pages 118 – 124</p> <p><u>TEXTEAMS</u> Symmetry with Tiles</p>
<p>4.14 The student applies Grade 4 mathematics to solve problems connected to everyday experiences and activities in and outside of school.</p> <p>4.14D 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"> • Process skill to be addressed with relevant content. 		