


6th Grade Math Curriculum Bundle # 9

Title		Suggested Dates
Measurement		February 22 – March 12 (15 days)

Big Idea/Enduring Understanding	Guiding Questions
Perimeter is the number of linear units needed to surround a two-dimensional shape, and area is the number of square units needed to cover a two dimensional surface/shape.	1. Suppose you're remodeling a room and need to purchase carpeting, molding, and paint. How will perimeter and area help to determine the amount of carpet, molding and paint needed?
Formulas can be used to calculate perimeter, circumference, and area of two-dimensional shapes.	1. Given a rectangle with an area of 48 square units, what are all possible whole number dimensions? What is the corresponding perimeter for each rectangle? 2. Given a rectangle with a perimeter of 48 units, what are the possible dimensions along with its corresponding area.
Pi represents the constant relationship between the circumference and the diameter of all circles.	1. If you know the distance a tire travels in one revolution, how can you find the radius of the tire?

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>6.6 Geometry and spatial reasoning. The student uses geometric vocabulary to describe angles, polygons, and circles.</p> <p>6.6C describe the relationship between radius, diameter, and circumference of a circle</p>	<ul style="list-style-type: none"> • find the radius, diameter, or circumference from a given equation • compare equations to see relationships • approximate pi as 3 • leave answers in terms of pi • two radii equal the diameter • given the diameter or radius, find the circumference; given the circumference, find the diameter or radius • solve application problems involving circles with/without diagrams 	<p>CMP2 Covering and Surrounding Pearson Investigations 1, 3, 4, 5.2, 5.3</p>	<p>PH: Lesson 9-5</p> <p>Text Team Proportionality: "Pi Anyone?"</p> <p>Literature Connection: Sir Cumference Books</p> <p>Region IV: "Circle Act" pp. 114-117</p>

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<p>6.8 Measurement. The student solves application problems involving estimation and measurement of length, area, time, temperature, volume, weight, and angles.</p> <p>6.8A estimate measurements (including circumference) and evaluate reasonableness of results</p> <p>Note: Emphasize Pi as approximately 3, and leave answers in terms of Pi</p>	<ul style="list-style-type: none"> • find length, perimeter, and circumference in metric and customary units • find area in metric and customary units of circles, triangles, quadrilaterals • use various units of time, including elapsed time • use the conversions and formulas on the mathematics chart to solve problems • estimate before calculations • evaluate reasonableness of answers • recognize units related to area and perimeter • given the area, perimeter, or circumference, find the missing dimension • use overestimation and underestimation to determine a reasonable range 		<p>PH: Lessons 5-1, 6-6, 9-1, 9-5</p> <p>Text Team Geometry & Spatial Reasoning: “The Round Table”</p> <p>Kamico: “CircumNavigation”</p>
<p>6.8 Measurement. The student solves application problems involving estimation and measurement of length, area, time, temperature, volume, weight, and angles.</p> <p>6.8B select and use appropriate units, tools, or formulas to measure and to solve problems involving length (including perimeter), area, time, temperature, volume, and weight</p> <p>Note: volume for rectangular prisms only use mathematics chart for time, capacity, and length conversions</p>	<ul style="list-style-type: none"> • measure with the ruler on the mathematics chart (metric and customary system) • use the conversions and formulas on the mathematics chart to solve problems • identify and interpret degree scale of a thermometer • use the given dimensions of a figure to solve problems given the area, perimeter, or circumference, find the missing dimension <ul style="list-style-type: none"> ○ solve area problems for shaded/unshaded regions ○ solve perimeter problems in which dimensions are shared 		<p>PH: Lessons 5-7, 6-6, 6-7, 9-1, 9-2, 9-3, 9-4, 9-9</p> <p>Region IV: Decking, Area of regular polygons I & II Assessment, TE pgs 166-173, S pgs 174-179</p> <p>Region IV: “Perimeter of Rectangles and More” pp. 87-92</p>
<p>6.4 Patterns, relationships, and algebraic thinking. The student uses letters as variables in mathematical expressions to describe how one quantity changes when a related quantity changes.</p> <p>6.4A use tables and symbols to represent and describe proportional and other relationships such as those involving conversions, arithmetic sequences (with a constant rate of change), perimeter and area</p> <p>Note: perimeter and area</p>	<ul style="list-style-type: none"> • find equations or expressions to represent a situation <ul style="list-style-type: none"> ○ including data given in input/output tables • match a table of data to a given equation or expression • correctly identify proportions that represents a given situation 		<p>PH: Lessons 3-1, 3-2, 3-3</p> <p>4 Corners: share drive</p> <p>AIRR: “Generating Formulas” Activities 136-139</p> <p>www.BrainPop.com Equations with Variables</p>

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<p>6.4 Patterns, relationships, and algebraic thinking. The student uses letters as variables in mathematical expressions to describe how one quantity changes when a related quantity changes.</p> <p>6.4B use tables of data to generate formulas representing relationships involving perimeter, area, volume of a rectangular prism, etc.</p>	<ul style="list-style-type: none">• representations of:<ul style="list-style-type: none">○ perimeter of regular polygons○ circumference (using Pi as approximately 3)○ area of squares, rectangles, circles, and triangles○ volume of cubes and rectangular prisms○ Determine the value of the term in a given arithmetic sequence and the expression to represent the value of any term in the sequence		<p>PH: Lessons 3-3, 9-3</p> <p>Kamico: “Perimeter and Area of Rectangles”</p>
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