

Grade 2 Mathematics – Unit 7: Geometry & Fractions

Phoenixville Area School District

Stage 1 Desired Results									
<p>PA Core Standards: CC.2.3.2.A.1 Analyze and draw two and three-dimensional shapes having specified attributes.</p> <p>CC.2.3.2.A.2 Use the understanding of fractions to partition shapes into halves, quarters, and thirds.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #cccccc;"> <th colspan="2" style="text-align: center; padding: 5px;"><i>Transfer</i></th> </tr> </thead> <tbody> <tr> <td colspan="2" style="padding: 5px;"> <p>TRANSFER GOALS <i>Students will be able to independently use their learning to...</i></p> <ul style="list-style-type: none"> • <i>Number Sense:</i> Develop a sound foundation to determine the value of numbers by describing their various representations, relationships, and patterns. • <i>Problem-Solving:</i> Persistently apply various problem-solving strategies and organized approaches to accurately understand and solve problems. • <i>Fluency:</i> Demonstrate automatic recall of addition, subtraction, multiplication and division facts. • <i>Mathematical Vocabulary:</i> Interpret mathematical vocabulary and apply proper terminology to engage in meaningful oral and written expression that communicates mathematical thinking, problem-solving methods, and rationale. </td> </tr> <tr style="background-color: #cccccc;"> <th colspan="2" style="text-align: center; padding: 5px;"><i>Meaning</i></th> </tr> <tr> <td style="width: 50%; padding: 5px;"> <p>UNDERSTANDINGS <i>Students will understand that...</i></p> <ul style="list-style-type: none"> • Concepts of congruency and similarity are used to relate and compare two- and three-dimensional figures. • A shape's characteristics (dimensionality, side measures, angle measures, faces, edges, area, perimeter, and volume) are used for identification. • Points, lines, and planes are the building blocks of geometry. </td> <td style="width: 50%; padding: 5px;"> <p>ESSENTIAL QUESTIONS <i>Students will keep considering...</i></p> <ul style="list-style-type: none"> • How are geometric shapes and objects measured/classified/compare? • What tools and units are used to measure the attributes of an object? • How can we use attributes and properties to solve problems? • How can I put shapes together and take them apart to form other shapes? </td> </tr> </tbody> </table>	<i>Transfer</i>		<p>TRANSFER GOALS <i>Students will be able to independently use their learning to...</i></p> <ul style="list-style-type: none"> • <i>Number Sense:</i> Develop a sound foundation to determine the value of numbers by describing their various representations, relationships, and patterns. • <i>Problem-Solving:</i> Persistently apply various problem-solving strategies and organized approaches to accurately understand and solve problems. • <i>Fluency:</i> Demonstrate automatic recall of addition, subtraction, multiplication and division facts. • <i>Mathematical Vocabulary:</i> Interpret mathematical vocabulary and apply proper terminology to engage in meaningful oral and written expression that communicates mathematical thinking, problem-solving methods, and rationale. 		<i>Meaning</i>		<p>UNDERSTANDINGS <i>Students will understand that...</i></p> <ul style="list-style-type: none"> • Concepts of congruency and similarity are used to relate and compare two- and three-dimensional figures. • A shape's characteristics (dimensionality, side measures, angle measures, faces, edges, area, perimeter, and volume) are used for identification. • Points, lines, and planes are the building blocks of geometry. 	<p>ESSENTIAL QUESTIONS <i>Students will keep considering...</i></p> <ul style="list-style-type: none"> • How are geometric shapes and objects measured/classified/compare? • What tools and units are used to measure the attributes of an object? • How can we use attributes and properties to solve problems? • How can I put shapes together and take them apart to form other shapes?
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Knowledge and Skills Acquisition		
	<p>KNOWLEDGE <i>Students will know...</i></p> <ul style="list-style-type: none"> • Parts of lines and curves • Drawing parts of lines and curves • Stacking, sliding, and rolling • Two-dimensional plane shapes and three-dimensional solid figures • Patterns of shapes • Flat and curved surfaces • Equal and unequal parts • Unit fractions (halves, thirds, fourths) <p>VOCABULARY</p> <ul style="list-style-type: none"> • Curve • Line • Surface • Plane Shape • Slide/Stack/Roll • Equal/Unequal • Whole • Fraction • Unit Fraction • Denominator/Numerator 	<p>SKILLS <i>Students will be skilled at...</i></p> <ul style="list-style-type: none"> • Identifying how many parts of lines and curves are on a drawing of a two-dimensional figure orally and in writing. • Drawing a two-dimensional figure using both parts of lines and curves. • Drawing a three-dimensional object with flat surfaces and curved surfaces. • Identifying three-dimensional figures that can slide, stack, and roll by writing down the name of the solid shape (e.g. rectangular prism) or by writing the words 'stack,' 'slide,' or 'roll' if the name or picture of the solid shape is given. • Identifying how many flat surfaces and curved surfaces are on a three-dimensional figure orally and in writing. • Identifying the plane shapes (e.g. triangle, rectangle. Etc.) that make up a figure consisting up of multiple plane shapes orally and through writing the name of the plane shapes in words. • Identifying orally whether a shape is divided into equal or unequal parts • Partition shapes into fractional halves, thirds, and quarters • Writing unit fractions (i.e. halves, thirds, fourths) as a numerator over a denominator

Stage 2 – Evidence

Code A/M/T	Evaluative Criteria	Assessment Evidence	
N/A	N/A	<p>PERFORMANCE TASK(S)</p> <p><i>Students will demonstrate understanding (meaning making and transfer) through complex performance by...</i></p>	<p>Differentiation Considerations: N/A</p>
A	<p>All necessary work is shown with no missing information/skipped steps.</p> <p>Uses mathematics vocabulary and notation concisely and correctly.</p> <p>All representations are clear and labeled accurately.</p>	<p>OTHER EVIDENCE</p> <p>Geometry (7.1) Unit Test</p> <ul style="list-style-type: none"> • Multiple Choice • Open-Ended Response • Matching <p>Fraction (7.2) Unit Test</p> <ul style="list-style-type: none"> • Multiple Choice • Open-Ended Response • Matching 	<p>Differentiation Considerations:</p> <p>[Work on this section after completing Stages 1-2 of all units]</p>