

## Scope and Sequence

Subject/Title of Unit	Grade	6 Weeks	Estimated Time Frame (# of days)
MATH Unit 3: Geometry, Spatial Reasoning, Measurement	8th	3 <sup>rd</sup> 6 weeks	20 days
Objectives		Examples/Specifications	
<p><b><u>Ch 6/7:</u></b>  <b><u>(8.16)</u></b> Underlying processes and mathematical tools. The student uses logical reasoning to make conjectures and verify conclusions.                      The student is expected to:                      (A) make conjectures from patterns or sets of examples and nonexamples; and                      (B) validate his/her conclusions using mathematical properties and relationships.  <b><u>(8.7)(B)</u></b> use geometric concepts and properties to solve problems in fields such as art and architecture  <b><u>(8.6)</u></b> Geometry and spatial reasoning. The student uses transformational geometry to develop spatial sense.                      The student is expected to:                      (B) graph dilations, reflections, and translations on a coordinate plane.  <b><u>(8.15)</u></b> Underlying processes and mathematical tools. The student communicates about Grade 8 mathematics through informal and mathematical language, representations, and models.                      The student is expected to:                      (A) communicate mathematical ideas using language, efficient tools, appropriate units, and graphical, numerical, physical, or algebraic mathematical models; and  <b><u>(8.14)</u></b> Underlying processes and mathematical tools. The student applies Grade 8 mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school.                      The student is expected to:                      (A) identify and apply mathematics to everyday experiences, to activities in and outside of school, with other disciplines, and with other mathematical topics;                      (C) select or develop an appropriate problem-solving strategy from a variety of different types, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table,</p>		<p>Identify special pairs of angles and relationships of angles formed by 2 lines cut by a transversal                      Identify congruent polygons; graph translations, reflections, rotations on a coordinate plane                      Graph reflections on a coordinate plane</p> <p>Find the areas of composite figures</p>	

<p>working a simpler problem, or working backwards to solve a problem; and  <b>(8.7)</b> Geometry and spatial reasoning. The student uses geometry to model and describe the physical world.  The student is expected to:</p> <p><b>(8.7)(B)</b> use geometric concepts and properties to solve problems in fields such as art and architecture  <b>(8.8)</b> Measurement. The student uses procedures to determine measures of three-dimensional figures.  The student is expected to:  (A) find lateral and total surface area of prisms, pyramids, and cylinders using concrete models and nets (two-dimensional models);  (B) connect models of prisms, cylinders, pyramids, spheres, and cones to formulas for volume of these objects; and  (C) estimate measurements and use formulas to solve application problems involving lateral and total surface area and volume.  <b>(8.9)</b> Measurement. The student uses indirect measurement to solve problems.  The student is expected to:  (B) use proportional relationships in similar two-dimensional figures or similar three-dimensional figures to find missing measurements.</p>	<p>Find the lateral and total surface areas of composite figures</p> <p>Find dimension, surface areas, and volume of similar solids</p>
<p><b>Language of Instruction:</b></p>	<p><b>Textbook Correlations:</b></p>
<p>Ch 6:  Alternate exterior angles  Alternate interior angles  Complementary angles  Corresponding angles  Exterior angles  Inductive reasoning  Interior angles  Line of reflection  Line of symmetry  Reflection  Rotational symmetry  Supplementary angles  Transformation  Translation</p>	<p><u>Glencoe:</u> Chapter 6: Geometry and Spatial Reasoning  Formula chart  Grid paper  Geometry – Crazy Quilt  Vocabulary Match (4x5 =20 pieces)  Tic-Tac-Toe (4 in a row OR 36 Geometric vocab/picture match)  Chapter 7: Geometry: Measuring Area and Volume  t-made 2-D shapes – measure to find perimeter and area  t-made 3-D shapes – measure to find volume; lateral/total surface area  student 3-D objects –measure, find volume; surface areas</p>
	<p><b>Weblinks/Other Resources:</b></p>

<p>Transversal Vertical angles</p> <p>Ch 7: Base Center Circle Circumference Composite figure Composite solid Cone Cylinder Diameter Edge Face Lateral face Lateral surface area Net Pi Plane Polyhedron Prism Pyramid Radius Regular pyramid Similar solids Slant height Solid Sphere Total surface area Vertex Volume</p>	
<p><b>Evaluation/External Assessment/Local Assessment:</b></p>	<p><b>Best Instruction Timeline:</b></p>
<p>Quizzes, chapter tests, benchmarks</p>	<p>Chapter 6: 7 days Chapter 7: 14 days</p>