

Mathematics
Topics in Algebra and Geometry
Unit 5: Basic Geometry

Essential Understandings	<ul style="list-style-type: none"> ▪ Graphing has basic terms and facts that are used to derive additional geometric facts.
Essential Questions	<ul style="list-style-type: none"> ▪ What are the basic terms in geometry? ▪ What are postulates, theorems, and definitions? ▪ What are angles and segments, and how do we find their measures?
Essential Knowledge	<ul style="list-style-type: none"> ▪ The basic terms in geometry are point, line, and plane. ▪ Definitions, postulates, and theorems are used to describe relationships between geometric figures. ▪ Segments and angles have measures, and these measures can be found by using segment relationships and angle relationships and their measures.
Vocabulary	<ul style="list-style-type: none"> ▪ <u>Terms:</u> <ul style="list-style-type: none"> ○ point, line, plane, space, collinear, coplanar, segment, midpoint, bisect, angle, angle bisector, adjacent angles, acute, right, obtuse, and straight angles, rays, vertex, postulate, theorem
Essential Skills	<ul style="list-style-type: none"> ▪ Use basic terms, postulates, and theorems. ▪ Define basic terms. ▪ Use relationships to find the measure of missing angles and segments.
Related Maine Learning Results	<p><u>Mathematics</u> C. Geometry Geometric Figures C1.Students justify statements about polygons and solve problems.</p> <ol style="list-style-type: none"> a. Use the properties of triangles to prove theorems about figures and relationships among figures. b. Solve for missing dimensions based on congruence and similarity. c. Use the Pythagorean Theorem in situations where right triangles are created by adding segments to figures. d. Use the distance formula.
Sample Lessons And Activities	<ul style="list-style-type: none"> ▪ Students will practice constructing and measuring angles with protractors through teacher directed activities.
Sample Classroom Assessment Methods	<ul style="list-style-type: none"> ▪ Students will demonstrate knowledge of angle measure and construction by completion of an individual quiz.

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Sample Resources	<ul style="list-style-type: none">▪ <u>Publications:</u><ul style="list-style-type: none">○ <u>Geometry</u>, Jurgensen, Brown, Jurgensen (McDougal-Littell)○ <u>Geometry: Concepts and Skills</u>, Larson, Boswell, Stiff (McDougal-Littell)
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