



# Course-at-a-Glance (CAG) --- Mathematics --- Geometry

Note: MN Benchmarks 9.3.2.3 and 9.2.3.4 are included in all units.

First Semester	Second Semester
<p><b>Unit 1: Lines and Angles</b> (5 weeks) <b>Approximate dates: August 29 – October 3, 2016</b></p> <p><b>1.1</b> I can solve problems and justify my results using geometric terms, notations, markings, and constructions. (9.3.2.1, 9.3.2.3, 9.3.2.5, 9.3.3.1)</p> <p><b>1.2</b> I can solve problems and justify my results using parallel and perpendicular line properties, including properties of angles. (9.2.3.7, 9.3.2.2, 9.3.3.2)</p> <p><b>1.3</b> I can use coordinate geometry and linear algebra skills to represent and analyze points and lines. (9.3.4.4)</p> <p><b>Unit 2: Triangles Part 1</b> (7 weeks) <b>Approximate dates: October 4 – December 1, 2016</b></p> <p><b>2.1</b> I can solve problems and justify my results using properties of triangles. (9.3.2.1, 9.3.2.2, 9.3.2.3, 9.3.2.4, 9.3.2.5, 9.3.3.3)</p> <p><b>2.2</b> I can solve problems and justify my results using properties of equilateral and isosceles triangles. (9.3.2.1, 9.3.2.2, 9.3.2.3, 9.3.2.4, 9.3.2.5, 9.3.3.3)</p> <p><b>2.3</b> I can solve problems and justify my results using properties of congruent triangles (9.3.2.1, 9.3.2.2, 9.3.2.3, 9.3.2.4, 9.3.2.5, 9.3.3.6).</p> <p><b>2.4</b> I can apply the Pythagorean Theorem and its converse to solve problems and logically justify my results. 9.3.2.2, 9.3.3.4, 9.3.4.7)</p> <p><b>2.5</b> I can apply the properties of special right triangles to solve problems and logically justify my results (9.3.3.5)</p> <p><b>2.6</b> I can use coordinate geometry to translate, reflect and rotate triangles and analyze the results. (9.3.4.4, 9.3.4.6)</p> <p><b>Unit 3: Triangles Part 2</b> (6 weeks) <b>Approximate dates: December 2, 2016 – January 26, 2017</b></p> <p><b>3.1</b> I can solve problems and justify my results using properties of similar triangles. (9.3.3.6, 9.3.4.7)</p> <p><b>3.2</b> I can solve problems and justify my results using the trigonometric ratios sine, cosine, and tangent in right triangles (9.3.4.1, 9.3.4.2, 9.3.4.3).</p> <p><b>3.3</b> I can select and apply the correct triangle relationship (congruency, Pythagorean Theorem, similarity, trigonometric ratios) to find missing sides and angles of triangles. (9.3.1.3, 9.3.1.5, 9.3.3.3, 9.3.3.4, 9.3.3.6, 9.3.4.1, 9.3.4.2, 9.3.4.3)</p>	<p><b>Unit 4: Quadrilaterals</b> (6 weeks) <b>Approximate dates: January 31 – March 16, 2017</b></p> <p><b>4.1</b> I can compose and decompose quadrilaterals to solve area and perimeter problems. (9.3.1.2)</p> <p><b>4.2</b> I can describe, compare and contrast properties of quadrilaterals and use that knowledge to solve problems. (9.3.3.7)</p> <p><b>4.3</b> I can solve problems and justify my results using properties of congruent and similar quadrilaterals. (9.3.3.6)</p> <p><b>4.4</b> I can use coordinate geometry to measure and classify quadrilaterals. (9.3.4.4)</p> <p><b>Unit 5: Polygons</b> (4 weeks) <b>Approximate dates: March 16 – April 20, 2017</b></p> <p><b>5.1</b> I can compose and decompose polygons to solve area and perimeter problems. (9.3.1.2)</p> <p><b>5.2</b> I can describe, compare and contrast properties of polygons and use that knowledge to solve problems. (9.3.3.6, 9.3.3.7)</p> <p><b>5.3</b> I can solve problems and justify my results using properties of congruent and similar polygons. (9.3.3.6, 9.3.3.7)</p> <p><b>5.4</b> I can use coordinate geometry to measure and classify polygons. (9.3.4.4)</p> <p><b>Unit 6: Circles</b> (4 weeks) <b>Approximate dates: April 21 – May 17, 2017</b></p> <p><b>6.1</b> I can solve problems and justify my results using angle, arc and segment properties of circles. (9.3.3.8)</p> <p><b>6.2</b> I can solve problems and justify my results using circumference and area of circles. (9.3.3.8)</p> <p><b>6.3</b> I can generate, justify and apply the equation of a circle and analyze the effects of translations on the equation. (9.3.4.5)</p> <p><b>6.4</b> I can measure perimeter and area of complex 2-dimensional figures. (9.3.1.2)</p> <p><b>Unit 7: Solids</b> (4 weeks) <b>Approximate dates: May 18 – June 14, 2017</b></p> <p><b>7.1</b> I can calculate surface area and volume of pyramids, cones and spheres (9.3.1.1)</p> <p><b>7.2</b> I can compose and decompose 3 dimensional figures to determine surface area and volume of various figures. (9.3.1.2)</p> <p><b>7.3</b> I can explain and demonstrate the effect of scale factor on length, area, and volume. (9.3.1.3, 9.3.1.4)</p>