

Plano ISD ★Geometry Syllabus

1st semester

1 st grading period	2 nd grading period	3 rd grading period
<i>Proof, Parallel, & Perpendicular Lines</i> <ul style="list-style-type: none"> ❖ Identifying & drawing geometric shapes and their notation ❖ Proving lines are parallel ❖ Proving lines are perpendicular ❖ Writing equations of parallel and perpendicular lines ❖ Using segment and angle properties to solve problems ❖ Using inductive and deductive reasoning to justify conclusions ❖ Writing conditional and bi-conditional statements 	<i>Proof, Parallel, & Perpendicular Lines (cont.)</i> <i>Transformations, Triangles & Quadrilaterals</i> <ul style="list-style-type: none"> ❖ Exploring rigid transformations ❖ Identifying & drawing reflections, translations, rotations & composite transformations ❖ Identifying reflectional and rotational Symmetry + Distinguishing between reflectional and rotational Symmetry ❖ Proving triangle congruence 	<i>Transformations, Triangles & Quadrilaterals (cont.)</i> <ul style="list-style-type: none"> ❖ Verifying properties of triangles ❖ Solving triangle problems ❖ Proving angle relationships in triangles + Investigate relationships of special segments and points of concurrency ❖ Comparing properties of special quadrilaterals ❖ Applying properties of quadrilaterals to find missing information. ❖ Proving a quadrilateral is a specific shape Semester Exams: December 15 – 18

2nd semester

4 th grading period	5 th grading period	6 th grading period
<i>Similarity and Trigonometry</i> <ul style="list-style-type: none"> ❖ Applying scale factor to create dilations ❖ Proving triangles similar ❖ Applying the Triangle Proportionality Theorem to solve problems ❖ Solving problems using the Pythagorean Theorem and it's converse ❖ Applying relationships in special right triangles ❖ Applying trigonometric functions to solve problems + Deriving and using the Law of Sines and the Law of Cosines <i>Circles</i> <ul style="list-style-type: none"> ❖ Identifying parts of a circle ❖ Finding measures of arcs and their corresponding angles ❖ Applying relationships of segments in circles 	<i>Circles (cont.)</i> <ul style="list-style-type: none"> ❖ Writing and applying the equation of a circle <i>Two and Three Dimensional Shapes</i> <ul style="list-style-type: none"> ❖ Calculating area & perimeter of 2-D shapes ❖ Solving for arc length and area of a sector ❖ Converting from degrees to radians ❖ Calculating angles of polygons ❖ Solving for surface area of 3-D figures ❖ Solving for volume of 3-D figures ❖ Identifying cross sections of 3-D figures ❖ Comparing geometric relationships between spherical and Euclidean geometries 	<i>Two and Three Dimensional Shapes (cont.)</i> <ul style="list-style-type: none"> ❖ Describing how changes in linear dimensions affects perimeter, surface area and volume of 3-D shapes <i>Probability</i> <ul style="list-style-type: none"> ❖ Using fundamental counting principal, permutations and combinations to solve problems ❖ Determining probabilities based on area to solve problems ❖ Using Permutations/Combinations to compute probability ❖ Comparing independent & dependent events ❖ Applying conditional probability Semester Exams: May 31 – June 3 <ul style="list-style-type: none"> + Denotes a topic covered in Honors Geometry