

## Gratiot-Isabella RESD Geometry Non-Negotiable Standards

Do not include red portion of the standard.

Add language in blue

Green - Undecided

- N.Q.1 Use units as a way to understand problems and to guide the solution of multi-step problems; choose and interpret units consistently in formulas; choose and interpret the scale and the origin in graphs and data displays.
- G.CO.1 Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.
- G.CO.9 ~~Prove~~ Apply theorems about lines and angles. Theorems include: vertical angles are congruent; when a transversal crosses parallel lines, alternate interior angles are congruent and corresponding angles are congruent; points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints. (Apply Not Prove)
- G.CO.10 ~~Prove~~ Apply theorems about triangles. Theorems include: measures of interior angles of a triangle sum to  $180^\circ$ ; base angles of isosceles triangles are congruent; the segment joining midpoints of two sides of a triangle is parallel to the third side and half the length; the medians of a triangle meet at a point. (Apply Not Prove)
- G.CO.11 ~~Prove~~ Apply theorems about parallelograms. Theorems include: opposite sides are congruent, opposite angles are congruent, the diagonals of a parallelogram bisect each other, and conversely, rectangles are parallelograms with congruent diagonals. (Apply Not Prove)
- G.SRT.2 Given two figures, ~~use the definition of similarity in terms of similarity transformations to~~ decide if they are similar; ~~explain using similarity transformations the meaning of similarity for triangles as the equality of all~~ use corresponding pairs of angles and the proportionality of all corresponding pairs of sides to decide if two triangles are similar.
- G.SRT.3 Use the properties of similarity ~~transformations~~ to establish the AA criterion for two triangles to be similar.
- G.SRT.5 Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures.
- G.SRT.6 Understand that by similarity, side ratios in right triangles are

properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles.

G.SRT.8 Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.

G.GMD.3 Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.