Fairfax Collegiate

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Measurement and Geometry 5-6 Online Syllabus

Course Goals

1 Geometric Figures Fluency
Students begin to mentally picture objects in 3 dimensions by utilizing the surface area and volume formulas of geometric figures.

2 Coordinate Plane Fluency
Students practice many problems on the coordinate plane and become comfortable manipulating points and figures on it. This familiarity prepares students to develop algebraic fluency.

3 2D Shape Review
Students review and shore up an overall knowledge of perimeter and area of traditional 2D shapes (triangles, parallelograms, and circles).

Course Topics

1 Area and Perimeter
Students are introduced to area and perimeter formulas for triangles, parallelograms, trapezoids, and circles. Students also reason area and perimeter of composite figures.

2 Angles
Students learn about adjacent, complementary, supplementary, vertical, acute, obtuse, straight, reflex, and full angles. Students use this knowledge and algebraic methods to find the measure of unknown angles.

3 Triangles
Students learn the interior angle sum of triangles and the Pythagorean Theorem. Students apply their knowledge to real-life situations.

4 Circles
Students learn vocabulary associated with circles and practice finding perimeter and area of circles and composite figures involving circular components through diagram problems and word problems.

5 Surface Area
Students learn and apply the formulas of surface area for rectangular prisms, pyramids, cones, and cylinders.

6 Volume
Students learn the volume formulas for rectangular prisms, pyramids, cones, and cylinders and apply them to solve diagram problems.

7 Congruence & Similarity
Students use proportional relationships to find missing side lengths of triangles and quadrilaterals.

8 The Coordinate Plane
Students review the coordinate plane and practice plotting shapes on the coordinate plane to calculate area and perimeter.

9 Tranformations

Students perform translations and reflections on the coordinate plane. Students are also introduced to dilations.

10 Distance & Midpoint Formulas
Students learn the distance formula and midpoint formula in order to apply them to coordinate plane problems.

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