**Overview for PFA Geometry**

In the second semester of McDougal-Littell at Pioneer Family Academy, we complete in order Chapters 7 through 12 along with the respective tests and quizzes for those chapters. Covered in this semester are the following topics by chapter and lesson titles:

**Chapter 7 Right Triangles and Trigonometry**

Apply the Pythagorean Theorem | Use the Converse of the Pythagorean Theorem | Use Similar Right Triangles | Special Right Triangles | Apply the Tangent Ratio | Apply the Sine and Cosine Ratios | Solve Right Triangles

**Chapter 8 Quadrilaterals**

Find Angle Measures in Polygons | Use Properties of Parallelograms | Show that a Quadrilateral is a Parallelogram | Properties of Rhombuses, Rectangles and Squares | Use Properties of Trapezoids and Kites | Identify Special Quadrilaterals

**Chapter 9 Properties of Transformations**

Translate Figures and Use Vectors | Use Properties of Matrices | Perform Reflections | Perform Rotations | Apply Compositions of Transformations | Identify Symmetry | Identify and Perform Dilations

**Chapter 10 Properties of Circles**

Use Properties of Tangents | Find Arc Measures | Apply Properties of Chords | Use Inscribed Angles and Polygons | Apply Other Angle Relationships in Circles | Find Segment Lengths in Circles | Write and Graph Equations of Circles

**Chapter 11 Measuring Length and Area**

Areas of Triangles and Parallelograms | Areas of Trapezoids, Rhombuses and Kites | Perimeter and Area of Similar Figures | Circumference and Arc Length | Areas of Circles and Sectors | Areas of Regular Polygons | Use Geometric Probability

**Chapter 12 Surface Area and Volume of Solids**

Explore Solids | Surface Area of Prisms and Cylinders | Surface Area of Pyramids and Cones | Volume of Prisms and Cylinders | Volume of Pyramids and Cones | Surface Area and Volume of Spheres | Explore Similar Solids