

## NOTRE DAME CATHOLIC SCHOOL

Ms. Bledsoe  
Geometry  
Textbook: Geometry  
Publisher: Glencoe

### Specific Objectives:

- Students will:
- 1) Learn about points, lines, and planes, the building blocks of geometry
  - 2) Explore congruent segments and angles and learn to construct them with a compass and straight-edge
  - 3) Expand on their knowledge of the Pythagorean Theorem to master the Distance Formula and use the Midpoint Formula
  - 4) Compute the perimeter of a given polygon
  - 5) Explore methods of reasoning and learn to apply those methods to geometry
  - 6) Write formal and informal proofs
  - 7) Solve problems by writing linear equations and use slope to determine whether two lines are parallel, perpendicular, or neither
  - 8) Prove triangles congruent
  - 9) Apply the Angle Sum Theorem and the Exterior Angle Theorem
  - 10) Identify and explore bisectors, medians, and altitudes
  - 11) Apply properties of inequalities relating to measures of angles and sides of a triangle
  - 12) Learn to recognize and use proportional parts and relationships to solve problems involving similar triangles and parallel lines
  - 13) Use trigonometric ratios to solve right triangle problems
  - 14) Explore rectangles, rhombi, and squares and their special properties
  - 15) Position quadrilaterals on the coordinate plane for use in coordinate proofs
  - 16) Explore different types of transformations
  - 17) Use matrices to perform transformations in the coordinate plane
  - 18) Focus on circles and their special properties
  - 19) Find areas of parallelograms, rhombi, trapezoids, and triangles
  - 20) Find the lateral areas and surface area of prisms, cylinders, pyramids, and cones
  - 21) Find volume of prisms, cylinders, pyramids, cones, and spheres