

New Jersey 5th Grade Geometry Standards: “Circling the Bases”
National Baseball Hall of Fame and Museum

A. Geometric Properties

1. Understand and apply concepts involving lines and angles.
 - Notation for line, ray, angle, line segment
 - Properties of parallel, perpendicular, and intersecting lines
 - Sum of the measures of the interior angles of a triangle is 180°
2. Identify, describe, compare, and classify polygons.
 - Triangles by angles and sides
 - Quadrilaterals, including squares, rectangles, parallelograms, trapezoids, rhombi
 - Polygons by number of sides.
 - Equilateral, equiangular, regular
 - All points equidistant from a given point form a circle
3. Identify similar figures.
4. Understand and apply the concepts of congruence and symmetry (line and rotational).

B. Transforming Shapes

1. Use a translation, a reflection, or a rotation to map one figure onto another congruent figure.
2. Recognize, identify, and describe geometric relationships and properties as they exist in nature, art, and other real-world settings.

C. Coordinate Geometry

1. Create geometric shapes with specified properties in the first quadrant on a coordinate grid.

D. Units of Measurement

1. Select and use appropriate units to measure angles and area.
2. Convert measurement units within a system (e.g., 3 feet = ___ inches).
3. Know approximate equivalents between the standard and metric systems (e.g., one kilometer is approximately $\frac{6}{10}$ of a mile).
4. Use measurements and estimates to describe and compare phenomena.

E. Measuring Geometric Objects

1. Use a protractor to measure angles.
2. Develop and apply strategies and formulas for finding perimeter and area.
 - Square
 - Rectangle
3. Recognize that rectangles with the same perimeter do not necessarily have the same area and vice versa.
4. Develop informal ways of approximating the measures of familiar objects (e.g., use a grid to approximate the area of the bottom of one’s foot).