

Honors: Geometry

Geometry is a comprehensive course that provides an in-depth exploration of geometric concepts. Through a "Discovery-Confirmation-Practice" based exploration of geometric concepts, students are challenged to work toward a mastery of computational skills, to deepen their conceptual understanding of key ideas and solution strategies, and to extend their knowledge in a variety of problem-solving applications. Course topics include reasoning, proof, and the creation of a sound mathematical argument; points, lines, and angles; triangles; quadrilaterals and other polygons; circles; coordinate geometry; and three-dimensional solids. The course concludes with a look at special topics in geometry, such as constructions, symmetry, tessellations, fractals, and non-Euclidean geometry. Within each Geometry lesson, students are supplied with a post-study "Checkup" activity, providing them the opportunity to hone their computational skills in a low-stakes, 10-question problem set before moving on to a formal assessment. Additionally, many Geometry lessons include interactive-tool-based exercises and/or math explorations to further connect lesson concepts to a variety of real-world contexts. To further assist students for whom language presents a barrier to learning, this course includes audio resources in both Spanish and English. The content is based on the National Council of Teachers of Mathematics (NCTM) standards and is aligned to state standards.