

Geometry Syllabus

Course Description: This course develops students' understanding of geometric concepts through reasoning, problem-solving, and real-world applications. Topics include points, lines, planes, angles, triangles, polygons, circles, coordinate geometry, transformations, and three-dimensional figures. Students explore geometric relationships and proofs, apply algebraic skills, and use tools such as compass, straightedge, and other manipulatives. Algebraic concepts will be thoroughly integrated into the course.

Course Outline:

FALL SEMESTER	SPRING SEMESTER
Basics of Geometry	Right Triangles and Trigonometry
Reasoning and Proofs	Quadrilaterals
Parallel and Perpendicular Lines	Circumference and Area
Congruent Triangles	Surface Area and Volume
Transformations	Circles
Similarity	Probability

Teaching Strategies

Instruction will include a mix of teaching methods to support various learning styles and promote student success. Lessons will combine direct instruction, guided practice, collaborative group work, and class discussions to encourage critical thinking and peer interaction. Manipulatives, visual aids, hands-on activities, and real-world examples will be used to reinforce key concepts. Students will also work independently to develop problem-solving skills and mathematical confidence.