

Norwood Public Schools

Curriculum Overview

Geometry 210H, 221

Description

Geometry is the study of points, lines, planes, angles, two-dimensional shapes and three-dimensional objects. Students discover facts about them, learn definitions, and practice using formulas to compute lengths, areas and volumes. Students learn how to use intuition and inductive logic to discover general principles. The course consists of using deductive reasoning to prove theorems by constructing orderly chains of statements and reasons. Many classroom demonstrations and homework problems use the skills learned in Algebra 1, and prepare students to take Algebra 2. Students will study topics such as inductive reasoning, deductive reasoning, and proofs. Other topics include constructions, the properties of lines, angles, triangles, polygons, and circles. Students will also learn about transformational geometry, area, volume, similarity, and some trigonometry. Many of the topics discussed will incorporate real world applications to enrich the content. Most students take honors level geometry (210) as freshman or college prep geometry (221) as sophomores.

Learning Experiences

Students will experience learning through many formats in addition to routine classroom experiences. Students will perform investigations using a straight edge and compass and protractors to discover and make conjectures about the rules of geometry. Students will use Geometer's Sketchpad to further their learning and create two-column and flow-chart proofs. These classes meet six times in a seven day cycle.

Content Outline:

Term 1	Chapter 2 Chapter 3 Supplemental	Introducing Geometry Using Tools of Geometry Proof Packet
Term 2	Chapter 4 Chapter 5 Chapter 6	Line & Angle Properties Triangle Properties Polygon Properties
MIDYEAR EXAM		
Term 3	Supplemental Chapter 7 Chapter 8 Supplemental Chapter 9	Probability Packet Circles Transformations Square Roots Packet Area
Term 4	Chapter 10 Chapter 13 Chapter 11 Chapter 12	Pythagorean Theorem Trigonometry Volume Similarity

Resources Used

Textbook used: *Discovering Geometry: An Inductive Approach*, 1997, ISBN:1-55953-200-9
 Geometer's Sketchpad software; *Geometry: Plane & Simple*, 1989, Creative Publications