

# GEOMETRY

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## **COURSE OVERVIEW**

*The main goal of Geometry is for students to develop a Euclidean geometric structure and apply the resulting theorems and formulas to address meaningful problems. Students will use experimentation and inductive reasoning to construct geometric concepts, discover geometric relationships, and formulate conjectures. Students will employ deductive logic to prove theorems and justify conclusions. Students will extend their pre-existing experiences with algebra and geometry to trigonometry, coordinate geometry, and probability. Students will use dynamic geometry software, compass and straightedge, and other tools to investigate and explore mathematical ideas and relationships and develop multiple strategies for analyzing complex situations. Students will apply mathematical skills and make meaningful connections to life's experiences.*

## **COURSE MATERIALS**

Textbook: *Geometry, Glencoe Mathematics, 2004*

Daily Materials:

*Students are expected to supply a 3-ring binder for this course with dividers headed as notes, homework, quizzes, and tests. Students should supply their own loose leaf paper, graph paper, and pencils.*

## **TEACHING METHODS**

*The teacher will engage students in many different teaching methods. Students will work cooperatively in groups on a daily basis to discuss and solve problems. Students will also participate in inquiry, role-play, debate, socratic seminar, and jigsaw based lessons. These teaching methods will require students to hypothesize and investigate solutions, work with others, design explanations using research and theory, and explain Geometry topics to peers.*

## **EVALUATION INFORMATION**

*The student's grade will be based on several factors: homework assignments, quizzes, projects, and tests. Graded assignments shall not be submitted in ink. The nine weeks average will be computed using the following weighting scheme:*

Tests: 34%

Homework/Projects: 33%

Quizzes: 33%

*In addition, the semester grade is calculated by allowing each nine weeks grade to count as 1/3 of the grade and the semester exam to count as 1/3.*

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Quizzes and tests will model concepts applied during class and homework exercises. Homework will be assigned nightly and quizzes will be given frequently. Homework grades are based both on processes shown to solve and amount completed. Homework will be collected each day. It is expected that students put forth exemplary effort on each problem assigned.

Projects are extended activities intended to assess both depth of understanding and skills needed to solve real-world problems using Geometry.

## COURSE CALENDAR

### 1<sup>st</sup> nine weeks

Points, Lines, Planes, and Angles  
Reasoning and Proofs  
Parallel and Perpendicular Lines

### 3<sup>rd</sup> nine weeks

Quadrilaterals  
Transformations  
Circles

### 2<sup>nd</sup> nine weeks

Congruent Triangles  
Relationships of Triangles  
Proportions and Similarities  
Right Triangles and Trigonometry

### 4<sup>th</sup> Nine weeks

Area of Polygons and Circles  
Surface Area  
Volume

## INSTRUCTOR INFORMATION

Instructor: Mr. Lance Key

School Email Address: [lkey@fcsweb.net](mailto:lkey@fcsweb.net)

School Phone Number: 615-449-1573

Planning Period: 9:35 – 11:10 on Tuesday and Thursday

I generally arrive at school by 7:00 a.m. I am more than happy to meet before school or during lunch. Please give advance notice if you would like me to come at another time.