



# U.S. INTERNATIONAL CHRISTIAN ACADEMY

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## LESSON PLAN

**Grade/Course: GEOMETRY 1206310**

**Grade Level: 11<sup>th</sup> High School**

**A)TEXT BOOK: Glencoe Geometry, Student Edition [Hardcover]**

**McGraw-Hill (Author)**

**ISBN-10: 0078651069 | ISBN-13: 978-0078651069 |**

**Order No.: 1**

**Code:GEO1002**

**Class Type: Online**

**Resources:**

Text book  
Teacher works CD  
Teacher interactive  
online  
Links  
Sky Conference

**Length: 1 year**

**Instructional Supports:**

Textbook, Magazines, Journals, Websites  
Links, Conference, Comprehensive Reading  
Plan

**Area: Mathematics**

**Credits: 1**

**Total Numbers of class hours:300 hrs**

**Type: Mandatory**

**Standards:**  
Florida Sunshine State  
Standards

**Prerequisite:**  
Students must have successfully passed  
Algebra.

**B) LESSON PLAN Description:**

A full year, high school math course for the student who has successfully completed the prerequisite course, Algebra I. The course focuses on the skills and methods of linear, coordinate, and plane geometry. In it, students will gain solid experience with geometric calculations and coordinate plane graphing, methods of formal proof, and techniques of construction. By the end of the course, students will be expected to do the following:

- Understand defined terms, axioms, postulates, and theories.
- Apply rules of formal logic and construct proofs in two-column format.
- Know how to solve for angles given parallels, perpendiculars, and transversals.
- Demonstrate how to solve for sides and angles of triangles, quadrilaterals, and polygons.
- Understand trigonometric ratios and know how to use them to solve for unknown sides and angles in given triangles as well as application word problems.
- Be able to determine arcs, chords, and sectors of circles.
- Calculate perimeter, area, and volume of figures and solids.
- Graph lines and determine slopes, midpoints, and distances.
- Make geometric constructions on paper.
- Represent results of motion geometry (translation, rotation, reflection, dilation).

**C) LESSON PLAN Objectives:**

1. is the study of two- and three-dimensional objects and their properties.
2. to develop in all students will learn geometric and their applications
3. to promote an awareness of Geometry

**D) LESSON PLAN Contents:****Chapter 1 (Weeks: 1-2)**

Tools of Geometry

**Chapter 2 (Weeks: 3-4)**

Reasoning &amp; Proof

**Chapter 3 (Weeks 5-6)**

Parallel &amp; Perpendicular Lines

**Chapter 4 (Weeks: 7-8)**

Congruent Triangles

**Chapter 5 Weeks: 9-10)**

Relationships in Triangles

**Chapter 6 Weeks 11-12)**

Quadrilaterals

**Chapter 7 (Weeks: 13-14)**

Proportions &amp; Similarity

**Chapter 8 (Weeks: 15-17)**

Right Triangles &amp; Trigonometry

**Chapter 9 (Weeks: 18-21)**

Transformations & Symmetry

**Chapter 10 (Weeks: 22-25)**

Circles

**Chapter 11 (Weeks: 25-30)**

Areas of Polygons & Circles

**Chapter 12 (Weeks: 31-35)**

Extending Surface Area Volume

**F) LESSON PLAN: Reference, Websites, Journals, Magazines and book**

1. Geometry [Hardcover] by Ray C. Jurgensen and Richard G. Brown (Authors)
2. Tutor in a Book's Geometry Paperback by Jo Greig (Author), James R. Shiletto Ph.D (Editor)
3. Geometry: A Comprehensive Course (Dover Books on Mathematics) Paperback
4. McDougal Littell Geometry for Enjoyment & Challenge: Student Edition Geometry 1991 [Hardcover] MCDUGAL LITTEL (Author)

**H) Web Reference:**

<http://www.calculatorsoup.com/calculators/geometry-calculators.php>

[www.mathsisfun.com/geometry/index.html](http://www.mathsisfun.com/geometry/index.html)

[www.geometry.com](http://www.geometry.com)

[www.101science.com/Geometrylinks.htm](http://www.101science.com/Geometrylinks.htm)

[www.linkstolearning.com/links/geometry1.htm](http://www.linkstolearning.com/links/geometry1.htm)

[www.en.wikipedia.org/wiki/Link\\_\(geometry\)](http://www.en.wikipedia.org/wiki/Link_(geometry))

[www.math-play.com/Geometry-Math-Games.html](http://www.math-play.com/Geometry-Math-Games.html)

[www.linkstolearning.com/.../geometry\\_high\\_school.htm](http://www.linkstolearning.com/.../geometry_high_school.htm)

<http://www.mathsisfun.com/links/curriculum-high-school-geometry.html>

[www.homeworkspot.com/high/math](http://www.homeworkspot.com/high/math)

**I. Journals:**

Algebraic & Geometric Topology

Advances in Applied Mathematics

Advances in Mathematics

Advances in Theoretical and Mathematical Physics

Algebra & Number Theory

American Journal of Mathematics

American Mathematical Monthly

Analysis and Applications

## **J. Magazines:**

Math Horizons

## **K. Organizations:**

National Council of Teachers of Mathematics (N.C.T.M.)

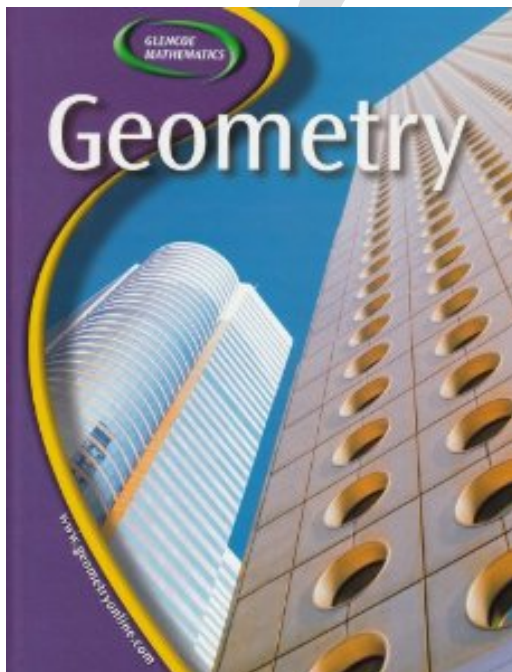
## **M. Comprehensive Reading Plan**

Students are required to read at least 1 book or their equivalent during each class as independent reading at-home. Students must also read for 30 minutes at home as part of their daily homework assignment in all subjects. Check your Class Reading Assignment at [www.USICAhs.org/CURRICULUM](http://www.USICAhs.org/CURRICULUM) and check free ebooks at [www.openlibrary.org](http://www.openlibrary.org).

## **Text Book Description**

Publication Date: January 1, 2005 | **ISBN-10: 0078651069** | **ISBN-13: 978-0078651069** | Edition: 1. Glencoe Geometry is the leading geometry program on the market. Algebra and applications are embedded throughout the program and an introduction to geometry proofs begins in Chapter 2.

## **BOOK:**



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