

Cosby High School

Instructor Information

Course: Geometry

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Course Description

This Geometry course teaches all the main topics in Geometry, such as 3-D shapes, lines, proofs, triangles, circles, probability, and measurement. Students will solve real-world problems, use hands-on activities, and work with technology to understand and apply geometric ideas. They will complete projects, presentations, labs, and creative assignments that help connect geometry to everyday life.

Prerequisite

- Algebra 1

General Education/High School Pathway Area

- General Education: Geometry is required for all high school students

Textbook & Course Materials

Required Text

- *enVision Geometry*
- *Geometry Tennessee TCAP Success*

Materials needed

- Lined paper
- Pencils
- 1 - 1" binder
- Sticky Tab Dividers or regular binder tab dividers

Student Learning Outcomes

Geometry Standards

- G.N.Q.A.1 Use units as a way to understand real world problems.* a. Use appropriate quantities in formulas, converting units as necessary.* b. Define and justify appropriate quantities within a context for the purpose of modeling.* c. Choose an appropriate level of accuracy when reporting quantities.*

- G.CO.A.1 Describe transformations as functions that take points in the plane (pre-image) as inputs and give other points (image) as outputs. Compare transformations that preserve distance and angle measure to those that do not, by hand for basic transformations and using technology for more complex cases.
- G.CO.A.2 Given a rectangle, parallelogram, trapezoid, or regular polygon, determine the transformations that carry the shape onto itself and describe them in terms of the symmetry of the figure.
- G.CO.A.3 Develop definitions of rotations, reflections, and translations in terms of angles, circles, perpendicular lines, parallel lines, and line segments.
- G.CO.A.4 Given a geometric figure, draw the image of the figure after a sequence of one or more rigid motions, by hand and using technology. Identify a sequence of rigid motions that will carry a given figure onto another.
- G.CO.B.5 Given two figures, use the definition of congruence in terms of rigid motions to determine informally if they are congruent.
- G.CO.B.6 Use the definition of congruence in terms of rigid motions to show that two triangles are congruent if and only if corresponding pairs of sides and corresponding pairs of angles are congruent.
- G.CO.B.7 Explain how the criteria for triangle congruence (ASA, SAS, AAS, SSS, and HL) follow from the definition of congruence in terms of rigid motions.
- G.CO.C.8 Use definitions and theorems about lines and angles to solve problems and to justify relationships in geometric figures.
- G.CO.C.9 Use definitions and theorems about triangles to solve problems and to justify relationships in geometric figures.
- G.CO.C.10 Use definitions and theorems about parallelograms to solve problems and to justify relationships in geometric figures.
- G.CO.D.11 Perform formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.).
- G.CO.D.12 Use geometric constructions to solve geometric problems in context, by hand and using technology.*
- G.SRT.A.1 Use properties of dilations given by a center and a scale factor to solve problems and to justify relationships in geometric figures.
- G.SRT.A.2 Define similarity in terms of transformations. Use transformations to determine whether two figures are similar.
- G.SRT.B.3 Use congruence and similarity criteria for triangles to solve problems and to justify relationships in geometric figures.
- G.SRT.C.4 Use side ratios in right triangles to define trigonometric ratios. a. Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles. b. Explain and use the relationship between the sine and cosine of complementary angles.
- G.SRT.C.5 Solve triangles.* a. Know and use the Pythagorean Theorem and trigonometric ratios (sine, cosine, tangent, and their inverses) to

- solve right triangles in a real world context.* b. Know and use relationships within special right triangles to solve problems in a real-world context.* c. Use the Law of Sines and Law of Cosines to solve non-right triangles in a real-world context.*
- G.C.A.1 Use proportional relationships between the area of a circle and the area of a sector within the circle to solve problems in a real-world context.*
 - G.GPE.A.1 Use coordinates to justify geometric relationships algebraically and to solve problems.
 - G.GPE.A.2 Use the slope criteria for parallel and perpendicular lines to solve problems and to justify relationships in geometric figures.
 - G.GPE.A.3 Understand the relationship between the Pythagorean Theorem and the distance formula and use an efficient method to solve problems on the coordinate plane.
 - G.GMD.A.1 Understand and explain the formulas for the volume and surface area of a cylinder, cone, prism, and pyramid.
 - G.GMD.A.2 Use volume and surface area formulas for cylinders, cones, prisms, pyramids, and spheres to solve problems in a real-world context.*
 - G.MG.A.1 Use geometric shapes, their measures, and their properties to model objects found in a real-world context for the purpose of approximating solutions to problems.*
 - G.S.CP.A.1 Use set notation to represent contextual situations.* a. Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events ("or", "and", "not").* b. Flexibly move between visual models (Venn diagrams, frequency tables, etc.) and set notation.*
 - G.S.CP.B.2 Find the conditional probability of A given B as the fraction of B's outcomes that also belong to A and interpret the answer in terms of the given context.*
 - G.S.CP.B.3 Understand and apply the Addition Rule.* a. Explain the Addition Rule, $P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$ in terms of visual models (Venn diagrams, frequency tables, etc.).* b. Apply the Addition Rule to solve problems and interpret the answer in terms of the given context.*
 - G.S.CP.C.4 Calculate probabilities using geometric figures.*

Topic Outline/Schedule

Learning Methods: Lecture, notes, class discussion, group work, bookwork, quizzes, benchmarks, and tests.

Assessment Methods:

Mastery Connects: Weekly short assignments as well as 2 benchmark assessments will be completed.

Chapter tests: A test will be given at the end of each chapter.

Mid-term and Final: A mid-term exam will be given in December as well as a final exam in May.

EOC: The geometry end of course exam will be given in April/May.

Semester: Predicted time frame

Fall

Test 1 - Aug 28, 2026

Test 2 - Sept 15, 2026

Test 3 - Sept 30, 2026

Test 4 - Oct 28, 2026

Test 5 - Nov 13, 2026

Test 6 - Nov 24, 2026

Test 7 - Dec 9, 2026

Semester Project Due Dec 17

Midterms December 16, 17, and 18

Spring

Test 8 - January 14, 2027

Test 9 - January 29, 2027

Test 10 - February 17, 2027

Test 11 - March 4, 2027

Test 12 - March 18, 2027

EOC Review until testing is finished

Semester project due May 14

Final Exams May 19, 20, and 21

These dates are approximate and may change due to weather or students' needs.

Assessments and Grading Policy

Graded Course Assignments

Grading Scale

90-100 = A; 80-89 = B; 70-79 = C; 60-69 = D; 0-59 = F

***Disclaimer: Assignments may change at any time.

Grades for assignments that are turned in on time will generally be entered into ASPEN within 5 days of being turned in and returned to the student.

Final Exam Policy

As daily attendance at school is critical for academic success, Cosby High School has added an incentive to the academic program to reward individual daily attendance.

- All **non-EOC teachers** are required to administer a comprehensive final exam that assesses the mastery of standards taught throughout the semester.
- **EOC teachers** are required to administer a graded quiz or test during the final exam blocks on the dates listed above. EOC quick scores are used in the final exam column and weighted as the final exam. The graded quiz or test will be averaged with the 4th nine weeks grades.
- Exams are given on the last two - three days of both semesters. The grades on these exams will count 15% of the overall course average.

School Year 2026-2027

Midterms approximately December 16 - 18

and approximately May 19-21

EOC testing window is approximately April 12 - May 3

(In the spring, exam dates for seniors are adjusted to allow time to average grades for graduation.)

ALL students in grades 9-12 have an opportunity to earn exemption on the final exam in non-EOC courses and/or final quiz/test given in the EOC courses. Teachers will follow the following guidelines in determining student exam exemption:

- The student has missed no more than 3 days (excused or unexcused) in the semester prior to the first day of finals.
- Absences for a school related activity (field trip, CTE program, athletic competition, etc.) does not count as an absence.
- The student is passing the class prior to the exams.

The student who qualifies for exam exemption may opt to take the exam on a no-harm basis. If the exam grade lowers the class average, then the exam grade will not count.

Teachers will administer tests in all courses and for all students except for those students who qualify for and accept the exemption.

Course Policies

Absent Work Policy

It is the responsibility of the student to request missed assignments, projects, tests, etc. Students will be given five days from the last day absent to make up any missed work unless other arrangements have been made.

Late Work Policy

Once an assignment is past the due date, you will **lose 2 points per day** that it is late. After 10 days have passed, an assignment will no longer be taken and a zero will be assigned. Once grades are in for the 9 weeks, you will not be able to turn in assignments due during that 9 weeks.

Notebook Checks

1st block - Monday

2nd block - Tuesday

3rd block - Wednesday

6th block - Thursday

8th block - Friday

Grading will be based on completion of the "bellringers/exit tickets," notes taken, and classwork completed.

Grading

50% Tests, Projects, Posters

25% Quizzes, Benchmarks

25% Notebook, Daily work, Bellringers/Exit Tickets

Classroom Rules and Expectations

Be prepared and in your seat before the bell rings. (Pencil sharpened, calculator and book ready.)

Remain in seats until the bell rings. No gathering at the door.

When the intercom comes on, be still and quiet.

Follow the school's hall pass policy.

Stay with class during drills.

Respect others, their property, and the classroom. (The smart board and white board are off limits without permission. The intercom and the thermostat box are for teacher use only.)

Sit only at the student desks/tables.

No chromebooks should be out unless we are using them for class.

NO CELL PHONES OUT OR IN USE DURING CLASS.

Academic Dishonesty Policy

Academic Dishonesty Policy

People learn most effectively and build their strength of character by doing their own reading, writing, test-taking, projects, research, and assignments. Students learn most from their education by evaluating, reflecting, and revising their own work.

Definitions of cheating and plagiarism:

Cheating

Cheating is the unauthorized possession, giving, sharing, taking, or presentation of information and material benefits to a student.

Examples of cheating include but are not limited to

- the passing of information during an assessment,
- having access to and utilizing unauthorized material and technology during an assessment,
- passing information about an exam from one class to another, and
- submitting work that is not one's own.

Plagiarism

According to the Harbrace Handbook, the 15th edition:

- Plagiarism is defined as "presenting someone else's ideas, research, or opinions as your own without proper documentation, even if it has been rephrased."
- This includes, but is not limited to:
 - Copying verbatim all or part of another's written work;
 - Using phrases, figures, or illustrations without citing the source;
 - Paraphrasing ideas, conclusions, or research without citing the source;
 - Using all or part of a literary plot, poem, or film without attributing the work to the creator.
- Consequences of Plagiarism
 - Plagiarism is a form of stealing and academic fraud. Students who are found guilty of plagiarism have the option of redoing the assignment within a specified period and accepting a letter drop or taking a zero on the assignment. Parents are to be involved in making the decision.

Artificial Intelligence

Students may use approved AI programs for instructional purposes. Any such use shall align with approved instructional standards and curriculum. Prior to using AI, teachers shall ensure students are provided with appropriate instruction on the responsible use of AI.

Academic Integrity

Students shall be instructed on responsible use standards, including but not limited to the following:

1. Effective use of generative AI;
2. When it is appropriate to use AI in assignments;
3. How to determine whether AI responses are accurate;
4. Users assume responsibility for incorporating AI content responsibly;
and
5. The difference between cheating and seeking support.

Religion in the Classroom

The Board affirms that it is essential that the teaching about religion—and not of a religion—be conducted in a factual, objective, and respectful manner in accordance with the following guidelines:

1. Religious themes may be a part of the curriculum for school-sponsored activities and programs provided it is essential to the learning experience in the various fields of study and is presented objectively;
2. The inclusion of religion shall be for educational purposes only;
3. The emphasis on religious themes should be only as extensive as necessary for a balanced and comprehensive study of the curriculum. Such studies shall never be used to proselytize, establish, foster, or demean any particular religion, religious tenets, or beliefs; and
4. Student-initiated expressions to questions or assignments which reflect their beliefs or non-beliefs about a religious theme shall be accommodated.