# 2023-2024 Geometry Syllabus

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ROOM: 2054

## COURSE OBJECTIVES

A. Understand and apply geometric terminology.
B. Demonstrate the ability to problem solve using various geometric skills.
C. Apply geometry to solve real world problems.
D. Use logical arguments to prove or counter-examples to disprove geometric statements.
E. Develop critical and analytical thinking skills.

## COURSE OUTLINE

The course outline is based off the pacing guide set by the Tennessee Reveal Geometry Curriculum. This is the first year with this curriculum so the dates and order outlined below is not exact and may be subject to change.

**Quarter 1**

- Module 1: Tools of Geometry (2 weeks)
  - Understand the basic elements of Geometry, such as points, lines, segments, planes, and angles.
  - Measure distances and compute midpoints on number lines and the coordinate plane.
- Module 2: Angles and Geometric Figures (3 weeks)
  - Find measures of angles
  - Find measures of two- and three-dimensional figures.
  - Accurately and precisely report measurements.
- Module 3: Logical Arguments and Line Relationships (4 weeks)
  - Prove conjectures using logical arguments and disprove conjectures using counterexamples.
  - Apply logical arguments to basic line and angle relationships.

**Quarter 2**

- Module 4: Transformations and Symmetry (2 weeks)
  - Perform and use rigid motions including rotations, translations, and reflections.
  - Perform and use compositions of transformations.
  - Explore symmetry using transformations.
- Module 5: Triangles and Congruence (3 weeks)
  - Use triangle sum theorems to solve problems.
  - Prove triangle congruence using different congruence criteria.
  - Use congruent triangles to solve problems.
- Module 6: Relationships in Triangles (3 weeks)
  - Explore relationships in triangles that result from bisectors, medians, and altitudes of triangles.
  - Recognize and apply the properties of inequalities to the measures of the angles and sides of a triangle.
  - Apply the Hinge Theorem or its converse to make comparisons in two triangles.
- Prepare for Midterm Exam (1 Week)

**Quarter 3**

- Module 7: Quadrilaterals (2 weeks)
  - Prove theorems and solve problems about polygons and parallelograms.
  - Recognize and apply the properties of rectangles, rhombi, squares, kites, and trapezoids.

    - Classify quadrilaterals.
- Module 8: Similarity (1 week)
    - Identify similarity and use ratios and proportions to solve problems.
    - Use the AA Similarity Postulate and the SSS and SAS Similarity Theorems to solve problems.
- Module 9: Right Triangles and Trigonometry (3 weeks)
    - Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems.
    - Explain and use the relationship between sine and cosine of complementary angles.
    - Prove the Laws of Sines and Cosines and use them to solve problems.
- Module 10: Circles (3 weeks)
    - Measure and find relationships between arcs, chords, and inscribed angles in circles.
    - Solve problems using relationships between tangents, secants, and circumscribed angles of circles.
    - Determine and use equations of conic sections.

**Quarter 4**

- Module 11: Measurement (4 weeks)
    - Give informal arguments for the formulas for the circumference of a circle, volume of a cylinder, pyramid, and cone.
    - Identify the shapes of two-dimensional cross sections of three-dimensional objects.
    - Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems.
- Module 12: Probability (3 weeks)
    - Represent sample spaces.
    - Use permutations and combinations with probability.
    - Find probability of compound events.
    - Solve real-world problems using probability

For state standards please visit:
https://www.tn.gov/content/dam/tn/education/standards/math/Standards_Support_Geom_Mathematics.pdf

**SUPPLY LIST**

- Pencil, Eraser, Paper, Textbook (Provided by the school), Computer (Provided by the school)
- TI84 Graphing calculator- suggested, not required. Calculators may be rented from the library for $20/year. Each class has a set, so they are available to students at school. There is a free app for phones for home use.

**COMMUNICATION**

Most class announcements that are pertinent to students alone (such as test dates, due dates, etc.) will be communicated through each class's TEAMS chat. Any class announcements that I believe parents will want to know (such as exam dates and school events) will be communicated through remind.

Students are able to contact me in person during class and during my planning period (4th period). If a parent/guardian wishes to contact me throughout the day, the best method of communication is email. I will answer and respond to emails as soon as I can from 7AM-6PM Monday-Saturday. I will not respond to emails outside of the provided time frame. If you would like to meet face-to-face, I will gladly do so, but please email or call me beforehand to set up a date and time.

I do also use Google Voice for communication from time to time. I only use Google Voice when I feel it is necessary to communicate something immediately, but I am unable to call for whatever reason. My Google Voice number is

also at the top of the syllabus with my other contact information. If you'd like to contact me through Google Voice, the hours of availability are the same as my hours of availability for email – 7AM-6PM Monday-Saturday.

**ABSENCES:**

Students have 3 days to turn in a parent note. 3 parent notes are allowed each quarter. Doctor notes are unlimited. Students have 1 day to turn in a tardy note. (See page 27 in Student Handbook for tardy policy.) Students will have access to all assignments and assessments inside and outside of the classroom.

**CLASS RULES**

**BE READY:**

- Come to class on time and ready to learn
- Read the board as you come in
- Gather all needed materials **before** class begins

**BE RESPECTFUL**:

- Do not disrupt the class
- Be kind to yourself and others

**BE RESPONSIBLE**:

- Keep up with your class materials
- Come to class with all necessary materials (like your laptop, textbook, a pencil, and some paper)
- Keep up to date with due dates
- Ask for help if you need it

**CELL PHONE POLICY**

Cell phone use in this class is **strictly prohibited** unless you are given explicit approval to use your phone. If you need to call someone during class, you must ask permission before doing so.

**QUIZ MAKE-UP AND TEST RETAKE POLICY**

Students may complete corrections on quizzes to make up to 50% of missed points back. Quiz corrections must be done on a separate piece of paper and follow this format:

- Question
- Old answer
- Show work/Explain new answer
- New answer

Quiz corrections are to be completed on your own time and must be turned in within **one school week (5 school days)** of receiving your scores. After the week is up, I will not take any corrections.

Students may retake tests to make up to 50% of the missed points back. If a student wishes to retake a test, they must request a retake within **two weeks (10 school days)** of receiving their score.

If you know ahead of time that you will be absent on a quiz or test day, you may request to take it in advance. This does not apply for the midterm exam, EOC, or final exam.

**LATE WORK POLICY**

Students may turn in homework and classwork after the due date; however, work turned in late this way will lose 5 points per day, maxing out after 8 days where the maximum grade on that assignment will be a 60. Late work must be turned in within the same quarter it was assigned for it to be accepted.

**BATHROOM POLICY**

According to school policy, no student is allowed to leave the classroom during the first 10 or the last 10 minutes of class. Other than that, students are allowed to go to the restroom during class. Students must ask to use the restroom before leaving, and they must sign out on a sign out sheet and take a hall pass. **Students are not allowed to go the vending machine during class. If you ask I will say no.** Only one student is allowed out of the room at a time.

## EXAMS AND EXAM EXEMPTION POLICY

We will take two exams throughout the year. The first exam is the midterm exam given before winter break. **There are no exemptions for the midterm exam.** The second exam we will take is the state EOC test for geometry. Geometry is a tested subject, and as a result **all students must take the EOC for this class**, no exceptions. Because of the EOC, our "final exam" is only worth a test grade, and this is what you may be exempt from. Below is the exam exemption policy for MCPS:

Exam exemptions for high school students will be allowed for the Spring Semester if students meet the following criteria:

- No In-school or Out-of-school suspensions
- Satisfactory attendance requirements are as follows:

A. A average—no more than 4 absences (excused/unexcused)
B. B average—no more than 3 absences (excused/unexcused)
C. C average—no more than 2 absences (excused/unexcused)
D. D average—no more than 1 absence (excused/unexcused)

Tardies: Students who are tardy to school/class seven or more times will not be exempt from exams.

## GRADING SYSTEM

Grades will be determined at the end of each semester using the following grading scales (subject to change by MCPS Board of Education):

| Letter Grade | Percentage |
|---|---|
| A 4.0 | 90-100 |
| B 3.0 | 80-89 |
| C 2.0 | 70-79 |
| D 1.0 | 60-69 |
| F 0.0 | 0-59 |

| Category | Percentage |
|---|---|
| Exam/Midterm | 15% |
| Tests | 40% |
| Quizzes | 30% |
| Assignments | 15% |

## PARENT PORTAL/GRADES

Students and parents are encouraged to ***track student grades and messages from teachers using the online parent portal***. You can gain access to parent portal (which allows you to see your student's grades for EVERY class) by calling the attendance office: 931-381- 2222 ext. 1102 or 1125.

## TUTORING

CHS offers free tutoring every Tuesday and Thursday from 3-4. If you would like the student to attend tutoring, then please contact Mr. Baker so he can sign the student up.

**I have read the course syllabus for Mr. Baker's Geometry class.**

Student Name_____

Parent/Guardian Signature_____

Parent/Guardian Phone Number _____

Parent/Guardian Email Address _____