# Geometry and Geometry Honors

# SYLLABUS

Teacher: Mr. West

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**Course Description**

Geometry Connections is the second in a five-year sequence of college preparatory mathematics courses. It emphasizes several big ideas in an integrated algebra/geometry context. The key concepts addressed in this course are:

* Transformations (reflection, rotation, translation, dilation) and symmetry
* Relationships between figures (such as similarity and congruence)
* Properties of plane figures (such as equal or perpendicular sides or diagonals)
* Measurements of plane figures (such as area, perimeter, and angle measure)
* Measurements of three-dimensional shapes (such as volume and surface area)
* Tools for analyzing and measuring shapes (such as the Pythagorean Theorem, trigonometric ratios, the Laws of Sines and Cosines, and coordinate geometry)
* Investigation and proof (having found patterns, students conjecture and prove)
* Geometric construction (with compass and straightedge)
* Algebra (with substantial review of writing and solving equations and graphing)
* Probability

The course is structured around problems and investigations that build spatial visualization skills, conceptual understanding of geometry topics, and an awareness of connections between different ideas. Students are encouraged to investigate, conjecture, and then prove to develop their reasoning skills.

**Materials**

These items must be brought to class everyday unless told otherwise.

* Composition Notebook
* Paper
* Charged Chromebook
* Something to write with

**Expectations**

* Work cooperatively with the teacher and members of the class. (PARTICIPATE)
* Students will commit to being prepared & on time daily
* Respect others, yourself, and property
* Follow directions the first time they are given.

**Policy**

* Cell phones are not permitted in the classroom unless instructed to use by the teacher.
* The use of inappropriate language is not permitted.

**Discipline**

Students will be held accountable for their behavior. Mr. West will apply the following consequences when students demonstrate misbehavior:

1st offense = warning

 2nd offense = student / teacher conference

 3rd offense = teacher detention / Call Home to Parents

 4th offense = Sent to an alternative learning environment

5th offense = Referral to Administrator

 \*Sever clause = Referral to Administrator \*

\*If the nature of the misbehavior is one which is considered severe and may present a danger to students in the classroom, students will be immediately referred to an administrator, bypassing the first four consequences.\*

**Grades**

Your final grade for each grading period or semester will be composed of:

* 40% Assignments (CW / HW / Participation)
* 20% Standards Quiz (Retake)
* 10% Group Assessments
* 20% Tests
* 10% Final

**Scale**

* 90-100% --A
* 80-89% -- B
* 70-79% -- C
* 60-69% -- D
* 59% and below-F

**COURSE LEARNING OBJECTIVES**

Upon completing this geometry course, students should be able to:

* Pose mathematical questions, such as “What if…?,” meaningfully and appropriately.
* Make conjectures and test their validity.
* Recognize and represent patterns mathematically or in prose.
* Appreciate geometry as a connected, systematic branch of mathematics.
* Apply geometry to solve problems in both mathematical and real-world contexts.
* Critique a logical argument.
* Complete, logical arguments to support their conclusions.
* Use algebra to formulate and solve equations arising from geometric situations both on and off a coordinate grid.
* Exhibit creativity and perseverance in mathematical problem solving, with the ability to determine when an approach is not working and a new direction is needed.

**LATE WORK / MISSING ASSIGNMENTS:** Late work is discouraged, but accepted. The most important thing is that you do the work so you can learn math. Points will be deducted for late work.

**Quizzes**

Quizzes will be mostly drawn from classwork and homework and will be given often. Expect a pop quiz that may arise any time during the week.

**Absences and Makeup**

Students are expected to be in class on time daily. It is up to the students to make up for missed work due to excused absences. Students have one day for each missed day to turn in their assignments.

**If you feel that you were not ready for a test or are not happy with your grade, you will have the opportunity to review the concepts on your own time and retest to improve your grade. Students are encouraged to retest because mathematical concepts continually build on top of one another.**

The makeup can be completed before school or during lunch. Scheduling the time for the Makeups is the responsibility of the student.

**Cheating Policy**

Any cheating will result in an **F grade**. Cheating includes copying the answers and communicating with others during a test, using notes or calculators when they are not allowed on a test or quiz, copying from another person's work, turning in another person's work as your own.

**More than anything, I wish you the best of luck and success in Math.**