

Orange High School

To Educate, Elevate, and Empower Every Student!

Department of Mathematics

Geometry Course Syllabus

Instructor: Ms. Sonya Noebels (AKA Ms. Nikolaidis)

Email: nikolaso@orange.k12.nj.us

Period: 2, 3, 6, 7 (General Geometry); Period 4 (Honors Geometry)

Room #: 113B (Period 1&2); 177 (Period 3,4, 6, 7 and after school)

Course Description

Geometry is a year-long 5 credit course provided for Orange High School students. In this course for the first several units, students practice generating conjectures and observations. This begins with work on compass and straightedge constructions. Next, students build on their middle school study of transformations of figures. Students use transformation-based definitions of congruence and similarity, allowing them to rigorously prove the triangle congruence and similarity theorems. In the course, students also derive volume formulas and study the effect of dilation on both area and volume. They use transformations and the Pythagorean Theorem to build equations of circles, parabolas, parallel lines, and perpendicular lines from definitions, and they link transformations to the concept of functions. Students analyze relationships between segments and angles in circles and develop the concept of radian measure for angles, which will be built upon in subsequent courses. They close the year by extending what they learned about probability in grade 7 to consider probabilities of combined events, including identifying when events are independent.

Course Outline

Unit 1- Constructions and Rigid Transformations

Unit 2- Congruence

Unit 3- Similarity

Unit 4- Right Triangle Trigonometry

Unit 5- Solid Geometry

Unit 6- Coordinate Geometry

Unit 7- Circles

Unit 8- Conditional Probability

Course Materials

Curriculum Resources: Illustrative Math [Illustrative Mathematics](#) | [Kendall Hunt](#)

Grading

Your Geometry grade is made up the following categories and their corresponding weights:

| | |
|---------------------------|-----|
| Authentic Assessments | 25% |
| Tests | 25% |
| Classwork / Participation | 20% |
| Quizzes | 20% |
| Homework | 10% |

Authentic Assessments: Minimum of 2 authentic assessment projects per marking period. These could be individual or in groups. Students will be graded on a rubric and receive feedback.

Tests: Minimum of 2 tests per marking period. To study for tests, students should complete test reviews and review their quiz and authentic grades.

Classwork: Minimum of 8 classwork grades per marking period. Whether it is individual work or group work, students are expected to actively work on these assignments. Class work may be collected at the end of the class to be graded for accuracy.

Quizzes/Checkups: Minimum of 3-4 quizzes per marking period. To study for the quizzes, students should complete all the homework assignments.

Homework: Minimum of 8 homework assignments per marking period. Homework assignments should be treated as if they were take-home tests because it will be graded for *correctness* and *thoroughness*. Therefore, answers must be correct, and all work must be provided in order to receive full credit. If work is not provided, it will automatically be ½ points off, even if the answers are correct. Also:

- I may occasionally assign homework from the workbook. This work will be spot-checked during the warm-up time the next day. Late homework will receive at most ½ credit.
- Before every test and quiz, I will assign homework on a separate worksheet. Worksheets are due on my desk **before** the test or quiz. If you do not have your homework completed before the test or quiz, I will accept it for full credit only if your work with me after school.
- If a student is absent from school on the day homework is due, they are expected to turn it in the day they return. If a student is only absent from my class, they are still expected to turn in their homework on time at some point during the day. Please turn in your work in the folder by the door in room 177 by 3:30pm.
- Any student suspected of copying (or letting others copy) homework will receive a 0.
- Don't be afraid to ask me for help on the homework! This will be the best way for you to do well on these assignments. I am always in room 177 afterschool until at least 3:30pm.

Required Supplies

Each student is responsible for coming to class everyday with the following:

- Illustrative Math workbooks (each student will receive a workbook, and must have it in class every day)
- Math notebook **or** three-ring binder with filler paper, to be used only for Geometry assignments
- Classwork folder for storing graded classwork and homework assignments
- Pencils with erasers

Rules of Conduct & Guidelines

- **Be respectful** to yourself, your classmates, and your teacher(s)
- **Do not become a disruption or a distraction** in class. This will not be tolerated, and the student will receive detention and/or be removed from class if this occurs. Removal from class would result in loss of participation and classwork points for the day, and possible administrative action.
- **Be on time.** This means in your seat and quiet before the class starts.
- **Follow proper start up procedure.** First 10 minutes are spent doing either a Do Now problem or taking an “entrance slip” which will assess students on the previous day’s material. Entrance slips should be taken seriously and with NO talking, so as to simulate a testing environment. Your homework should be on your desk for the teacher to grade while you are working on your Do Now.
- **Do your class work with purpose and urgency.** Complete all classwork with the intention to LEARN something, not to just check it off a list.
- **ALL Orange High School Rules and Procedures MUST be followed in class and out of class.** Please visit our Orange High School Website to review the Student/Parent Handbook.

Absences

Students are responsible for all material taught. If pacing is too fast for a particular student, then they must seek extra help from teacher either before or after school. If a student is removed from class, then points will be lost from their participation/class work grade, and they will still be responsible for all material they may have missed. If a student is absent, they are excused from classwork but must complete all homework, tests and quizzes. Students have as many days as they were absent to make up additional assignments (including quizzes and tests). For example, if a student is absent for 2 days and misses a class work assignment, homework assignment and a quiz, then it is THEIR responsibility to make up the quiz and homework assignment within 2 days after their return.

-----Please cut and return

To Students and Parents

With hard work and accountability, we can have all of our students succeed in Geometry.

I have read the Geometry 2022-2023 Syllabus and its guidelines. I understand that I am responsible for upholding all requirements and guidelines in order to succeed in this course. I know what I have to do in order to receive the grade I want.

Student Name

Student Signature

Date

Parent Name

Parent Signature

Date

Contact Name

Home Phone

Cell Phone