**ORANGE HIGH SCHOOL**

 **400 LINCOLN AVENUE**

 **ORANGE NJ 07050**

**GEOMETRY. TEACHER: Mr. Rios. Date: 9/ 6/2024.**

**Geometry Course Syllabus**

# Course Description

In this course, students extend their understanding of geometry from grade 8 and connect several algebraic and geometric concepts in preparation for Algebra 2 and Precalculus.

They begin with constructions to develop precision in mathematical language.

Students use rigid transformations to define congruence. Particular attention is paid to both proving and applying triangle congruence theorems. Similarity is also defined in terms of transformations, including dilations.

Building from similarity, students focus on right triangles in preparation for trigonometry.

They develop a table of ratios before defining cosine, sine, and tangent to support conceptual understanding of what information a calculator can provide. The next set of lessons uses the coordinate plane to revisit transformations as well as study distance, completing the square (in the context of equations of circles), parallel lines, and perpendicular lines. Following that is a study of circles, including arcs, sectors, and an introduction to radians. The final two lessons explore chance experiments, probability, and two-way tables.

This set of lessons does not address characteristics of three-dimensional figures such as cross sections and volume. Students also do not spend time studying conditional probability, only reaching an introduction to chance experiments.

## Course Outline

Unit 1- Constructions and Rigid Transformations

Unit 2- Congruence

Unit 3- Similarity

Unit 4- Right Triangle Trigonometry

Unit 5- Coordinate Geometry

Unit 6- Circles

Unit 7- Conditional Probability

**Course Materials**

Curriculum Resources: Illustrative Math Geometry: [Illustrative](https://im.kendallhunt.com/) [Mathematics](https://im.kendallhunt.com/) [|](https://im.kendallhunt.com/) [Kendall](https://im.kendallhunt.com/) [Hunt](https://im.kendallhunt.com/)

## Grading

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

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

**Authentic Assessments**: Minimum of 2 authentic assessment projects per marking period

**Tests:** Minimum of 3 tests per marking period, plus a diagnostic before the start of every unit

**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 6 quizzes per marking period.

**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. Below are some important guidelines to follow:

1.) Homework is due on your desk during the Do Now at the beginning of class every day. If you fail to turn in your homework at the designated time, the most you can get is ½ credit.

2.) If a student is absent from school on the day homework is due, they are expected to turn it in the day they return. 3.) 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.

4.) Any student suspected of copying (or letting others copy) homework will receive a 0.

5.) When possible, ask the teacher for help. This will be the best way for you to do well on these assignments. I am here every morning and will stay after school upon request.

## Required Supplies

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

1. Illustrative Math workbooks (teacher will provide workbooks, and student must bring it to class everyday)
2. Graphing Calculators – Class sets will be used as needed based on the lessons. Calculators stay in the class and cannot be borrowed.
3. Class work folder for storing graded classwork and homework assignments.
4. Grid papers, or graphing paper, invisible tape, color pencils.
5. Pens, pencils with erasers, ruler, protractor and compass.

## Rules of Conduct & Guidelines

1. **Be respectful** to yourself, your classmates, and your teacher(s)
2. **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.
3. **Be on time**. This means in your seat and quiet before the class starts.
4. **Follow proper start up procedure.** First 10 minutes are spent either doing 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, 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.
5. **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.

## Absences

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| Students are responsible for all material taught. If pacing is too fast for a particular student, then they must seek extra help |
| from the teacher either before or after school. If a student is absent or 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. Students have |
| as many days as they were absent to make up additional assignments (including quizzes and tests). For example, if a |  |
| student is only absent for 1 day and misses a class work assignment, then it is THEIR responsibility to turn in the |  |
| assignment within 1 day after their return. If a student is absent for 2 days and misses a class work assignment and a quiz, |
| then it is THEIR responsibility to turn in the assignment and make up the quiz within 2 days after their return. |  |

## To Students and Parents

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

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| **I have read the geometry 2024-2025 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 must do to receive the grade I want.** |

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**Student Name Student Signature Date**

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| **Parent Name Parent Signature Date** |  |
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| **Contact Name Home Phone** | **Cell Phone** |  |