Welcome to Geometry! Although the mathematical jargon, concepts, and tools of geometry may not yet be familiar to you, chances are you have used geometry regularly in your everyday life. Anyone who has measured the length of some object, attempted to "level" a painting on the wall, or tried to build something so that it is "square" has used geometry. The study of geometry allows us to apply mathematical rigor to many of these daily activities that involve length, parallelism (for instance, making a picture or painting level with the floor), angles, areas, volumes, or a variety of other parameters. This goal is to teach you the mathematical foundation of geometry, which will give you the ability not only to perform many daily tasks with a new rigor and understanding, but also to gain knowledge that you can extend into other fields of math and science.

Numerous occupations and fields of study rely heavily on geometry. Construction, for example, requires a solid understanding of lengths, angles, areas, and other geometric parameters. The natural sciences also require a solid understanding of geometry; in physics, for instance, geometric reasoning and calculation are an integral part of solving a wide range of problems. Anyone interested in these or any number of other areas of work or study can benefit from a solid and rigorous understanding of geometry.

Course Description:
Geometry uses logical reasoning, measurement, and geometric construction to investigate the special relationships of lines, angles, triangles, circles and polygons. Through these relationships, we will investigate congruence and similarities of triangles, area and volume, the Pythagorean Theorem, geometric proofs and the basics of trigonometry. Students will study and demonstrate knowledge of the properties of circles, polygons, similar and congruent figures, lines, angles, and planes. Students will construct and judge the validity of logical arguments. Students will use geometric tools and technology. Students will calculate length, area, and volume and demonstrate an understanding of transformations and symmetry. Algebraic skills are continuously reviewed and strengthened through geometric applications.

Typically in a Math class, to understand the majority of the information it is necessary to continuously practice your skills. Some hints for success in a Math class include: attending class daily, asking questions in class, and thoroughly completing all homework problems with detailed solutions as soon as possible after each class session.

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<tr>
<th>Teacher Information: Mike Bauer <a href="mailto:mike@onenessfamily.org">mike@onenessfamily.org</a></th>
<th>Course Website: <a href="https://onenessfamilymoodle.com">https://onenessfamilymoodle.com</a> Select Algebra 1</th>
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Technology
This course uses Moodle, an online space for course materials. Here you will find sources such as practice problems, notes, instructional materials, supplemental readings, assignment/project descriptions, rubrics, and extra instructional resource links, etc. Moodle may also be used for submission of many assignments.
Electronics
No use of headphones, iPods, cell phones, ear buds, or other electronics in classroom, unless otherwise specified by me (i.e. for instructional purposes). When students enter the classroom, all electronic devices must be put away. I reserve the right to remove any disruptions to learning, including but not limited to, students’ cell phones.

Course Units:
The following standards guide the content and instruction of this geometry course.
Geometry Congruence
- Experiment with transformations in the plane.
- Understand congruence in terms of rigid motions.
Build on rigid motions as a familiar starting point for development of concept of geometric proof.
- Prove geometric theorems.
Focus on validity of underlying reasoning while using variety of ways of writing proofs.
- Make geometric constructions. Formalize and explain processes.
Similarity, Right Triangles, and Trigonometry
- Understand similarity in terms of similarity transformations.
- Prove theorems involving similarity.
- Define trigonometric ratios and solve problems involving right triangles.
- Apply trigonometry to general triangles.
Circles
- Understand and apply theorems about circles.
- Find arc lengths and areas of sectors of circles. Radian introduced only as unit of measure.
Expressing Geometric Properties with Equations
- Translate between the geometric description and the equation for a conic section.
- Use coordinates to prove simple geometric theorems algebraically. Include distance formula; relate to Pythagorean theorem.
Geometric Measurement and Dimension
- Explain volume formulas and use them to solve problems.
- Visualize the relation between two-dimensional and three-dimensional objects.
Modeling with Geometry
- Apply geometric concepts in modeling situations.
- Understand independence and conditional probability and use them to interpret data.
Link to data from simulations or experiments
- Use the rules of probability to compute probabilities of compound events in a uniform probability model.
Using Probability to Make Decisions
- Use probability to evaluate outcomes of decisions.

Course Sequence
The course includes several units; the following is an approximate timeline indicating when particular units are taught.
Quarter 1
- Introducing Geometry
- Reasoning in Geometry
Quarter 2
- Triangle Properties
Essential Agreements

- Follow the policies outlined in the student/family handbook, as they all apply to this classroom. You should know what actions are appropriate for a classroom setting and what actions are not.
- Help create a classroom atmosphere of respect. Every individual in this classroom should feel free to express his/her ideas without fear of ridicule or judgment. Respect yourselves, your peers, and your school.
- Be responsible. It is up to you to take charge of your own learning and behavior.
- Come to class prepared. Please bring your folder/notebook, pen/pencil, textbook(s), and completed assignments to class each day.
- Be aware. Before leaving class for the day, make sure you have recorded information regarding homework and long-term assignments as well as other important announcements.
- Actively participate in classroom activities and lessons.
- Be confident. Each of you is capable of achieving great success in this course. Believe in your abilities and your potential to be a successful learner!
- Come talk to me! If you ever have any questions or need help, do not hesitate to stop by and see me. I will be available both before and after school to discuss any issues or questions. We may also set up a time that is convenient for all involved. I can be reached at mike@onenessfamily.org

Here is what you should expect of me:

- To provide you with timely, detailed, and constructive feedback regarding your work.
- To maintain organized grades and classroom materials.
- To respect your ideas, opinions, viewpoints, and needs.
- To provide you with clear directions, rules, and expectations to guide your learning.
- To be available for communication and collaboration with you and your parents/guardians.

Discipline
When the school’s behavior guidelines or agreements are violated, the following general steps are followed:
1. There is communication with the student
2. There is communication with the parent
3. A written record is kept as a marker; and a conference with a parent is set up if necessary
4. A discipline slip serves as a more serious marker
5. Suspension, Expulsion and/or Recommended Withdrawal

Grading Policy
Your grade for this course will be earned based on a variety of assessments including, but not limited to, quizzes, tests, homework, writing assignments, in-class activities, projects, etc. Please make sure you turn in all of your work on time. Submitting late work will significantly impact your grade. Students will not be tested or required to hand in assignments on the day the student returns from school if they were assigned on the day the student was absent. Students shall adhere to deadlines for tests and projects that were
established/assigned prior to the absence. Students have equal to the number of days absent for make-up work, test, assignments, reports, etc., up to a maximum of five (5) days without penalty.

Late Policy:
There will be a 10% deduction from the score of an assignment, when an assignment is submitted late. An assignment is considered late if it is not submitted at the time of collection.

Grading Scale:
A= 90-100 B= 80-89 C= 70-79 D= 60-69 E= 0-59

Academic Honesty
Your grade is a reflection of your skills, knowledge, and understanding of the course content. Therefore, any work that is not your own will not be accepted or assessed. Cheating or plagiarism of any kind will result in a 0% for the assignment. This includes homework, daily-in class assignments, writing assignments projects, quizzes, and tests. Assignments that required you to use additional resources (books, websites, photographs, etc.) must be properly cited to submit with your work.

Attendance
Attendance is important to student success. All work (in-class and homework) must be made up when a student misses school for any reason—including excused trips. Students going on excused trips must get the assignments BEFORE leaving on their trip, and it is due the day they return to school from their trip. It is the expectation of the teacher that she will be notified of the trip at least a week in advance. Students who are absent from class for ANY reason (field trip, vacation, sports, etc.) are responsible for talking with me to find out what they missed. If a student is in school, but misses history class (sport, appointment, etc.), the student MUST see me beforehand to submit that day’s homework and to find out what he/she will be missing in class. If the student doesn’t do this, the assignments given and collected on that day will be considered late. The student will need to arrange to make-up missed assessments. (tests, quizzes, etc.)

Formative & Summative Assessments
Formative Assessments: Formative assessments are those that need to be completed to demonstrate progress and/or the need for additional practice or instruction. Failure to complete formative assessments will be reflected in a student’s overall grade.
Summative Assessments: Summative assessments are those that need to be completed to demonstrate mastery of the subject, content, or skill. Failure to complete summative assessments will be reflected in a student’s overall grade.
The late policy (10% deduction) applies to ALL assessments/assignments, this includes both formative and summative work.
Grade Percentages  Marking period grades are calculated for this course using the following categories and percentages.
Homework: Daily (in-class) Assignments/Activities: 40%
Tests/Quizzes/Exams: 40%
Final Exam: (20%)
This course also includes a final course examination, which is cumulative, encompassing all subjects and topics studied from throughout the course. I am looking forward to a great year! :)