

Geometry Syllabus Spring 2019

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Planning 1st Block Planning
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Course description: Geometry provides a foundation in Euclidean Geometry, covers all of the Tennessee state standards for Geometry, and meets our stated school goals. This course covers such topics as angle relationships, the properties of polygons, non-polygons, polyhedral, and non-polyhedral area, volume, construction techniques, and planar transformations. To facilitate learning students may use the interactive computer program Geometer's Sketchpad and Geogebra. In this course, Geometry-related vocabulary will be stressed and critical thinking will be developed through writing conditional logic statements and formal Geometric proofs.

Course prerequisite: Algebra I Credit

Grading Scale: A 100 – 93
B 92 – 85
C 84 – 76
D 75 – 70
F 69 & below

Grading: A student's grade is calculated by taking the total points earned by the student and by dividing the total by the possible total points for that grading period. The final exam and/or TNReady test will also count as a percentage of the final average.

Daily Grades: Daily grades may include bell work, class work, or homework. Point range: 5 – 20

Quiz Grades: Quizzes may be announced or unannounced. Point range: 10 – 50

Test Grades: A test is given every one to two weeks, depending on the content covered. Point range: 60 – 150

Notebook Tests: Notebook tests are given in place of notebook checks. Notebook checks will occur throughout the semester. Point range: 50 - 100

Notebook Requirements:

- You need dividers.
- Loose leaf notebook paper.
- Other instructions will be given in class as to the organization of the notebook.

Grading guidelines:

1. There will be one or more tests given per chapter/unit. Tests will range in point values between 60 – 100 points each. These tests are announced two or more days in advance.

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2. Homework/classwork is assigned almost every day and is not optional. Students' success in mathematics often requires practice in the form of homework. Each homework/classwork assignment is worth 5 – 20 points. All written assignments are to be completed in pencil.
3. Quizzes will be given randomly to check for concept understanding. Quizzes are unannounced and vary in point value. Quizzes are often in the form of an exit ticket. Weekly ACT/EOC assignments may count as quiz grades.
4. Each student is required to keep a Geometry notebook. All notes, examples, homework, class work, quizzes, bell work, and ACT/EOC review should be kept in the notebook. Tests will be kept at school for review for EOC and final exams. The notebook check will be given as a notebook test. The notebook test is unannounced so it is important to keep your notebook organized at all times and to bring it to class every day. Assignment sheets should also be kept in the front of your notebook.
5. At the end of the grading period, grades are calculated in the online grading program. Students and parents are encouraged to use the online grading program to see materials for the course, student progress, and final averages.

Make-up Policy: It is the student's responsibility to find out what he/she missed and to turn it in to the teacher within three days of the date of absence. In case of extended illness or special circumstances, special arrangements may be made for make-up work, but it is the student's responsibility to make such a request before or after class within the three-day window. **Missing assignments for reasons other than absences or special circumstances will be recorded as a zero.** Late work may be accepted but the grade will most likely be lowered based on the number of days the assignment is late. Arrangements for make-up tests should be made with the teacher for assessments missed due to excused absences.

Math Fee: A math fee of \$5 has been approved by the Tullahoma City School Board. The fee will help purchase extra supplies used in class.

Online Grades & Attendance: The online grade book program, Schoology, will be used in the class. It is available to students and parents/guardians to check grades and class period attendance and has 24-hour access. Access information will be sent home. Referring to the THS online grade/attendance program is expected for identifying missing assignments, grades, and attendance.

State Testing: The "Tennessee Ready" Geometry test will be given during school in November/December for the fall and April/May for the spring. The score on the TNReady test will count a percentage of the student's average. Preparation for the test will be ongoing.

Attendance: This is the most important factor in Geometry. When a student is absent, the content missed directly affects their ability to keep up with the material being taught. It is entirely up to the student to learn the missed material. Tutoring may be necessary.

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Backpacks: No backpacks are allowed in class. Students should bring textbook, notebook, pencil, and other supplies to class. Students will NOT be allowed to leave class to retrieve any items. Any backpack in the room will be placed in the hallway; no passes to lockers.

Cell Phones: Each student will be assigned a number for placement of cell phones in an organizer beside the door. Any cell phone seen or heard outside the organizer will be confiscated (NO EXCEPTIONS) and referred to an administrator for disciplinary action.

Procedures and/or Rules:

1. Students will show respect to their teacher and other students at all times. Disrespectful behavior WILL NOT be tolerated. Do not interrupt others. Raise your hand if you have a question. If a visitor comes to the door or a phone call is placed to the room, students are to remain quiet and display courtesy.
2. Arrive to class early and be in your seat, with materials out and ready to start class when the bell rings. If you are tardy, please enter the room quietly and place your excuse on my desk.
3. No Cell Phones. Cell phones are to be placed into the organizer in the numbered space assigned to the student. Please see the above section, "Cell Phones."
4. The teacher dismisses you not the bell. Do not pack up prior to the bell. Students will NOT be allowed to line up at the door and wait for the bell.
5. No food or drinks allowed in the classroom. (Water bottles are allowed as long as they are disposed of in the recycling container.)
6. Please take notes and copy examples.
7. Other classroom procedures will be discussed during the first week of class.
8. School rules apply to this classroom too!

Supply List:

Notebook – No smaller than a 1.5" 3-ring binder

Dividers

Ruler

Paper – college or wide rule

Pencils for homework, quizzes, and tests

Highlighter

Colored pens or colored pencils

Protractor

Compass

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Course Calendar

Quarter 1

Weeks 1-3

Basics of Geometry

Standards: G.CO.A.1, G.CO.D.12, G.CO.C.9

Objectives: Students will:

- Learn the definition of basic geometric terms
- Construct congruent line segments and angles with a compass and a straightedge.
- Construct bisectors of line segments and angles with a compass and a straightedge.
- Pre-activity: Find the prime factorization of integers and simplify radical expressions.
- Find the distance and midpoint of line segments given the points and from graphs in a plane.
- Understand the relationship among angle pairs.
- Represent and describe transformations.

Weeks 4-5

Transformations and Symmetry

Standards: G.CO.A.2, G.CO.A.3, G.CO.C.A.4, G.CO.C.A.5

Objectives: Students will:

- Explore translations in the coordinate plane.
- Understand and use vectors to describe and draw translations of figures in a plane.
- Reflect figures with given vertices across specified lines in the coordinate plane.
- Explore the rotation of figures in the coordinate plane.
- Rotate figures in a plane using a ruler and a protractor.
- Identify types of symmetry (rotational or a line of symmetry) of a figure in a plane.

Weeks 6-7

Congruent Figures

Standards: G.CO.B.6, G.CO.B.7

Objectives: Students will:

- Identify the sequence of rigid transformations of a figure in the coordinate plane that maps congruent figures to one another.
- Draw the image of figures in the plane when given a combination of transformations.
- Predict the result of applying the sequence of transformations to a given figure.

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- Use the definition of congruence to determine if two figures in a plane are congruent.
- Identify corresponding parts of congruent figures.
- Apply the properties of congruent figure to find measures of sides and/or angles of congruent figures.

Weeks 8-9 Parallel and Perpendicular Lines and Angles

Standards: G.CO.A.4, G.CO.C.9

Objectives: Students will:

- Explore transversals and the associated angle relationships (vertical angles, supplementary angles, corresponding angles, same-side interior angles, alternate interior angles, alternate exterior angles).
- Prove that two lines are parallel.
- Prove that two lines are perpendicular.
- Write equations of parallel and perpendicular lines.

Quarter 2

Weeks 10-12 Triangle Congruence

Standards: G.CO.B.7, G.CO.B.8, G.CO.C.10

Objectives: Students will:

- Use rules of ASA, SAS, AAS, and SSS to determine whether two triangles are congruent by comparing corresponding parts.
- Write two column proofs to prove theorems about congruent triangles.

Weeks 13-14 Properties of Triangles

Standards: G.CO.C.9

Objectives: Students will:

- Discover the relationship of interior angles of a triangle
- Prove the exterior angle theorem.
- Discover the relationship among the angles and sides of isosceles and equilateral triangles.
- Write two column proofs to prove theorems about congruent triangles.

Weeks 15-16 Similar Triangles

Standards: G.SRT.B.5, G.SRT.C.6

Objectives: Students will:

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- Use the Triangle Proportionality Theorem to find measurements of angles and sides within a triangle.
- Apply the converse of the triangle proportionality theorem.
- Use the geometric means theorem to find unknown segments in a right triangle.

Weeks 17-18 Trigonometry with Right Triangles

Standards: G.SRT.C.6, G.SRT.C.7, G.SRT.C.8

Objectives: Students will:

- Discover relationships about the side lengths and trigonometric ratios in special right triangles.
- Find missing measures of sides and angles using trigonometric ratios.
- Use trigonometric ratios and the Law of Sines and the Law of Cosines to solve problems in real life situations and will recognize when it is appropriate to use each.

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Teacher Comments and Commitment: It is my philosophy that ALL students can learn mathematics. Successful learning of mathematics comes with diligent study, persistence to learn mathematics, and an attitude of perseverance. Though Geometry can be a challenging course of study, with appropriate, best instructional and study practices, good attendance, daily preparation, and effective communication all students can be successful.

Dr. Samantha Stevens

Parent/Guardian & Student Acknowledgement:

I have read and understand the above information.

Parent/Guardian Signature

Date

Parent Contact Information (Cell Phone/ Home): _____

Parent email: _____

Student Signature

Date

Note: This syllabus must be signed and kept inside the student notebook directly behind the assignment sheet at all times. It will also be posted online for future reference.