

Foundations of Geometry

Course Title: Foundations of Geometry		YEAR 2020-2021
Location	Room 213	
Instructor	Mrs. Mary Mariacher	
Planning Period	7 th period (12:25 – 1:09) Phone: (724) 662 -5104	Parent Teacher Conferences may be scheduled before school from 7:45 to 8:08 or during the planning period.
Email	mmariacher@mercerc.k12.pa.us	
Prerequisites	Basic math skills (addition, subtraction, multiplication, division) and basic knowledge of algebra are required.	
Description	This course is designed to help the student improve/develop proficiency in math skills in the area of geometry. Students will apply previously learned skills involving numbers and operations and algebraic concepts, to solve real-life geometry problems. Students will also be introduced to writing 2-column proofs. As time permits, students will participate in the senior high restaurant project, calculating menu prices.	
Texts Used	Pacemaker Geometry, First Edition	
Homework Policy and Philosophy	The application of homework within almost every learning activity is a valuable means of reinforcement. Homework will be assigned on a regular basis. It is designed to be a learning activity and an extension of the lesson taught in class. Because it is a learning activity, homework is evaluated primarily on its completeness rather than correctness. However, the instructor reserves the right to change this as needed.	Homework Philosophy "The application of homework within almost every learning activity is a valuable means of reinforcement and evaluation. It is the teacher's role to define such assignments and the responsibility of the students to complete them on time. Parents must also assume their responsibility in regard to student homework; therefore, proper communication between the home and the school are vital in establishing assignments, which can significantly contribute to the overall educational process."
Grading	Grades are based on percentage system and the number of assessments and grades will vary from semester to semester. Evaluations will be in (but not limited to) the following forms: Homework Quizzes Tests In-Class Activities	Academic Integrity "Students caught cheating, plagiarizing, copying homework and/or test, quizzes, and using a paper from the Internet will be given a "0" (zero) on that assignment. In addition, their name will be reported to the office and filed in the event of future violations. Repeated violation could result in removal from class and a non-passing grade."

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<p>72.5 C 69.5 C- 66.5 D+ 62.5 D 59.5 D- Below F</p>	<p>Projects</p> <p>Students are expected to keep all quizzes, tests, and worksheets. These will provide a resource to study for any midterm and/or final exams, and serve as a record in case there is a discrepancy between the expected grade and the one received.</p>	<p>When a student is in jeopardy of failing, a progress report will be sent home. This will occur during the 3rd and 6th weeks in junior high block classes, and any time after the 4th week in other classes.</p>
	<p>Late assignments, other than daily homework, will result in a deduction of one letter grade for each day late. NOTE: assignments listed above not turned in during the class period due will be considered late.</p>	
<p>Classroom Rules</p>	<p>Be on time</p> <p>Come to class prepared every day:</p> <ul style="list-style-type: none"> text book 3-ring binder completed homework assignments pencil <p>Be respectful</p> <p>Participate in class</p> <p>Accept responsibility for your work, words, actions</p> <p>Do your best</p>	<p>Make-Up Work</p> <p>"Students on a pre-approved trip of more than one day will be expected to makeup any work minimally on the second full day upon the student's return up to a maximum of five days. Students are required to get all missed work prior to pre-approved absence.</p> <p>For one day or one period - school related absence (athletics/academic games, etc) - it is the student's responsibility to make up the work upon their return to the classroom. It is recommended that they see the teacher ahead of time to determine what they will miss while they are gone."</p> <p>Late to Class</p> <p>"A student who is late to class will be given a verbal warning on the first offense. Additional offenses will result in a discipline referral to the office."</p>
<p>Required Materials</p>	<p>Students are required to have a 1.5 – 2 inch 3-ring binder, a spiral notebook for homework, paper, and pencil.</p>	
<p>Additional Help</p>	<p>Students who seek additional help should see the instructor during advisory period or during their support class or study hall.</p>	<p>Tutoring</p> <p>Extra Assistance is available on a regular basis during after school hours (Tuesdays, Wednesdays, and Thursdays from 3:30 to 4:15) by contacting the Guidance Office at (724) 662-2272. It is the students' responsibility to seek such tutoring if needed.</p>

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OUTLINE OF MATERIAL COVERED IN THIS CLASS		
# Days	Material Covered During Time Period	Notes
10	Numbers and Operations; Algebraic Concepts Review	Addition, subtraction, multiplication, division of integers; simplifying expressions; solving basic equations with variables; solving open ended problems
14	Chapter 1: Basic Geometric Concepts	points, lines, planes; congruent line segments; midpoint of a line segment
17	Chapter 2: Angles	acute, obtuse, and right angles; complementary and supplementary angles; adding and subtracting angle measures; bisecting angles; using a protractor
10	Chapter 4: Perpendicular and Parallel Lines	perpendicular and parallel lines; alternate and same side interior angles; corresponding angles
18	Chapter 5: Triangles	classifying triangles by angles and by sides; side/angle relationships; congruent triangles; median, altitude, angle bisector
20	Chapter 6: Right Triangles	squares and square roots; Pythagorean Theorem; special right triangles; problem solving with right triangles
17	Chapter 7: Quadrilaterals and Polygons	polygons; parallelograms – rectangle, square, rhombus, trapezoid
12	Chapter 8: Perimeter and Area	perimeter of polygons; area of rectangles, squares, parallelograms, triangles, and trapezoids
20	Chapter 9: Similar Polygons	ratio and proportion; similar polygons; area and perimeter of similar polygons; problem solving using proportions; scale drawings
7	Chapter 10: Circles	circumference and area of circles; arcs, central angles, inscribed angles; tangents, secants, chords; problem solving with circles
10	Chapter 11: Surface Area and Volume	space figures; surface area of prism and cylinder; volume of prism and cylinder; volume of pyramid
10	Chapter 12: Coordinate Geometry and Transformations	finding distance in coordinate plane; slope of a line; parallel and perpendicular lines; translations, reflections, dilations, and rotations in coordinate plane

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5	Restaurant Project	cost to prepare meal, cost per serving, percent markup, setting menu prices
170 days of instruction		

**Length of time spent on each topic is subject to change based on the level of understanding of the topic demonstrated by the students.