Geometry Syllabus

Mr. Verner, Room 309

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Course Description:

Geometry is not just shapes! This will be a course that develops your abstract and logical reasoning. In addition, you will learn how to defend an argument using critical thinking. DCPS uses the math curriculum Eureka Math, but I will supplement it with outside materials as well. There is ***no textbook*** for this course.

Prerequisite:

Students enrolling in this course must have completed and passed Algebra 1.

Office Hours:

Before school by appointment and during lunch periods thursday and friday.

Class Materials:

Each student is required to have the following materials:

1. 1 inch binder, with tabs and folders to organize units
2. Several no. 2 pencils OR mechanical pencils
3. Color-pencils
4. Erasers (and backup erasers)
5. 1 package of ruled paper
6. Highlighters (at least 3)
7. **Optional** Graphing Calculator (calculators will be provided for in-class use)

Course Topics:

Definitions and Properties – Module 1 *defining Geometric terms precisely, identifying and describing properties of equality*
Lines and Angle Relationships in a Plane – Module 1 *use ruler and protractor precisely, Segment Addition Postulate, Angle Addition Postulate, linear pairs, vertical angles, parallel lines and transversals, Interior Angle Sum Theorem, Exterior Angle Theorem, segment proofs, angle proofs*
Constructions – Module 1 *copy segments and angles, bisect segments and angles, construct perpendicular and parallel lines, construct equilateral triangle, construct square*
Congruence – Module 1 *translations, reflections, rotations, composition of rigid motions in function notation, triangle congruence shortcuts, prove congruence of segments and angles using CPCTC, prove properties of quadrilaterals*
Similarity – Module 2 *dilate figures in a plane, prove similarity using composition of transformations in function notation, Side-Splitter Theorem, Angle Bisector Theorem, prove similarity of triangles using shortcuts*
Trigonometry – Module 2 *sine, cosine, tangent, relationships and identities of trigonometric ratios, special right triangles, solving triangles using inverse trigonometric functions, solve real world problems involving angles of elevation and depression*
Circles – Module 5 *relationships between parts of a circle, radius, diameter, arc, chord, tangent line, area, circumference, inscribed angles, central angles, Thales' Theorem, arc length, converting units between degrees and radians*
Coordinate Geometry – Module 4 *equations of circles, equations of parallel and perpendicular lines through specific points, Distance and Midpoint Formulas*
Volume – Module 3 *cylinders, cones, pyramids, spheres, composite figures, relationships between two and three dimensional figures, Cavalieri's Principle*

Grading Policy:

Type of Grade	Weight
Participation: - Punctuality / Warm Ups - Classroom Participation - Presentations / Collaboration	10%
Practice & Application: - Homework / Classwork - Pop quizzes / Exit Slips	50%
Assessments: - Projects - Quizzes / Tests	40%

DCPS GRADING SCALE

This course follows the official DCPS grading scale:

Grade	Percentage	Grade	Percentage
A	93-100	C	73-76
A-	90-92	C-	70-72
B+	87-89	D+	67-69
B	83-86	D	64-66
B-	80-82	F	63-0
C+	77-79		

*******IMPORTANT*******

DCPS attendance policy dictates that 30 or more unexcused absences in a school year will automatically result in a failure (FA) for the year.

Participation:

It is expected that you attend class, ***arrive on time***, and have all required materials. In addition, all class members are expected to participate actively in class discussions, group work, and presentations. Students earn participation points each class, which will go towards their weekly participation grade. If they do not meet these expectations, they will not earn full participation credit. Notes explaining the reduced scores will appear in Aspen next to the grade.

Practice and Application:

Students will be graded based on mastery of content, rather than completion. Graded work (both homework and classwork) can be corrected and resubmitted to earn back missed points, but only if quality work is done. Unexcused late assignments will not be accepted after the quiz on that content. Late assignments received before the quiz must be complete and may incur a penalty of up to 50%, depending on quality of work. We will be using ALEKS, Delta Math and Khan Academy for homework assignments.

Assessments:

This class is focused on student growth. Students should expect a quiz every week. Some will be short snapshots on current standards, while others will be cumulative, in order to also reinforce previously learned topics and skills. Students should also expect at least one big "test" each advisory – these will also be cumulative.

Each assessment will contain multiple grades and rubrics for each standard being assessed. This means that one quiz will earn multiple grades, one for each standard. Why this is great: as a student progresses through assessments, their score for each standard can increase if they continue to learn and improve their understanding and demonstrate that growth on new quizzes and tests. This will also provide students with specific data to help them tackle the specific standards that they need extra help with.

Make- Up Work:

Students absent when an assignment is due will be expected to submit the assignment on the day of their return. (Students will be notified of any exceptions to this policy.) If a student is in school at any point on a day an assignment is due, the work MUST be turned in that day, even if they missed the class itself. Missed tests will be taken immediately upon a student's return. *No extensions will be granted for quizzes/tests on the basis of a student's absence the class BEFORE a quiz/test.* If a student is absent for an extended period of time or has other extenuating circumstances, the instructor can make appropriate accommodations, if necessary. In ALL cases, it is **the student's responsibility to initiate make-up work**. In the absence of other arrangements, the above deadlines apply at the teacher's discretion.

I have read and understand the policies defined in this syllabus:

_____ _____

(Student Signature) (Parent/Guardian Signature)