GEOMETRY
COURSE SYLLABUS

Ms. Bone | hannah.bone@providenceschools.org
Ms. Cruz | shaila.cruz@providenceschools.org

Ms. Hatt | kathryn.hatt@providenceschools.org
Ms. Metts | beatrice.metts@providenceschools.org
Ms.Akkary | nahida.akkary@providenceschools.org

WELCOME!

Welcome back to the PCTA math department and welcome to our new ninth graders! We are looking forward to working with students and their families as we begin yet another unprecedented school year. Google Classroom will be where all of your work and class announcements will be posted. The Remind app is also essential for staying in contact with us. See your individual teacher for the Classroom and Remind codes for your specific class period. If you have any questions or concerns, please reach out and we will be happy to help. We look forward to a great year!

ACADEMIC EXPECTATIONS

Students are to submit their own assignments. Some of the submitted work is computerized and some is non computerized. All submitted work is subject to PPSD and PCTA policies. If a student needs additional time they must seek additional help and may also be scheduled for additional help in accordance with PCTA school policy. If absent, they are still responsible and accountable for the work. Attending school on time and participating in class every day is imperative to your success in this course.

TEXTBOOK & SUPPLIES

This year, we are using a McGraw Hill curriculum called Illustrative Math (IM). Students will have access to the online platform which they can access through Google Classroom. Along with the online component, students will each be getting a student workbook. Additionally, we are asking that all students bring with them to class a pocket folder for their portfolios, a notebook, their Chromebooks, and a pencil or pen.

TOPICS

Unit 1: Constructions & Rigid Transformations
Unit 2: Congruence

Unit 3: Similarity
Unit 4: Right Triangle Trigonometry

Unit 5: Solid Geometry
Unit 6: Coordinate Geometry
Unit 7: Circles

GRADING

45% SummativeAssessments: Mid-Unit (MUA) and End-of-Unit Assessments (EUA) on IM
15% Independent Practice: Practice assignments on IM
40% Portfolio: Classwork, workbook pages, enrichment activities, etc.

TENTATIVE ASSESSMENT SCHEDULE

Unit 1 MUA: Oct. 5	Unit 2 EUA: Dec. 7	Unit 4 EUA: Feb. 17	Unit 6 EUA: May 12
Unit 1 EUA: Oct. 29	Unit 3 EUA: Jan. 21	Unit 5 EUA: March 29	Unit 7 EUA: June 16

QUARTER 1	QUARTER 2	QUARTER 3	QUARTER 4

UNIT 1	UNIT 2	UNIT 4	UNIT 6
HSG-CO.A.1 Know the precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc. **HSG-CO.A.2** Represent transformations in the plane using, e.g., transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give others points as outputs. Compare transformations that preserve distance and angle to those that do not. **HSG-CO.A.3** Given a rectangle, parallelogram, trapezoid, or regular polygon, describe the rotations and reflections that carry it onto itself. **HSG-CO.C.9** Prove theorems about lines and angles. **HSG-CO.D.12** Make formal geometric constructions with a variety of tools and methods (compass, straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.). **HSG-CO.D.13** Construct an equilateral triangle, a square, and a regular hexagon inscribed in a circle.	**HSG-CO.B.8** Explain how the criteria for triangle congruence follow from the definition of congruence in terms of rigid motions. **HSG-CO.C.9** Prove theorems about lines and angles. **HSG-CO.C.10** Prove theorems about triangles. **HSG-CO.C.11** Prove theorems about parallelograms.	**HSG-SRT.B.5** Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures. **HSG-SRT.C.6** Understand that by similarity, side ratios in right triangles are properties of the angles in the triangle, leading to definitions of trigonometric ratios for acute angles. **HSG-SRT.C.8** Use trigonometric ratios and the Pythagorean Theorem to solve right triangles in applied problems. **HSG-MG.A.3** Apply geometric methods to solve design problems. **HSN-Q.A.2** Rewrite expressions involving radicals and rational exponents using the properties of exponents.	**HSG-CO.A.2** Represent transformations in the plane using, e.g., transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not. **HSG-CO.A.5** Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using, e.g., graph paper, tracing paper, or geometry software. Specify a sequence of transformations that will carry a given figure onto another. **HSG-GPE.A.1** Derive the equation of a circle of a given center and radius using the Pythagorean Theorem; complete the square to find the center and radius of a circle given by an equation. **HSG-GPE.B.4** Use coordinates to prove simple geometric theorems algebraically.

UNIT 3	UNIT 5	UNIT 7
HSG-CO.A.2 Represent transformations in the plane using, e.g., transparencies and geometry software; describe transformations as functions that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not. **HSG-CO.C.10** Prove theorems about triangles. **HSG-SRT.A.3** Use properties of similarity to establish the AA criterion for two triangles to be similar. **HSG-MG.A.2** Apply concepts of density based on area and volume in modeling situations. **HSG-MG.A.3** Apply geometric methods to solve design problems.	**HSG-GMD.A.3** Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems. **HSG-MG.A.1** Use geometric shapes, their measures, and their properties to describe objects. **HSG-MG.A.2** Apply concepts of density based on area and volume in modeling situations. **HSG-MG.A.3** Apply geometric methods to solve design problems.	**HSG-CO.C.9** Prove theorems about lines and angles. **HSG-SRT.B.5** Use congruence and similarity criteria for triangles to solve problems and to prove relationships in geometric figures. **HSG-MG.A.3** Apply geometric methods to solve design problems.