

Unit Plan Template

UNIT: Basics, Proofs, and Parallel and Perpendicular Lines TIME FRAME: 2 Months

TEACHER: Mark Gardella

Unit Summary and Rationale:

Prove geometric theorems

Unit Standards: Teachers should list the standards to be addressed within the unit.

HSG-CO.A.1, HSG-CO.D.12, HSG-GPE.B.7, HSG-MG.A.1, HSG-CO.C.9, HSG-CO.C.10, HSG-CO.C.11, HSG-STR.B.4, HSG-GPE.B.5, HSG-GPE.B.6

Learning Tasks: Teachers list the various tasks students will engage in throughout the unit. (Content) – Should be separated by Reading Tasks, Writing Tasks, Discussion Tasks, and Language/Vocabulary Tasks.

Practice Worksheet A and B
Puzzle Worksheets
Whiteboard review activity
Basic Skills Review WS

Skills: These are what the students need to be able to do in relation to the tasks. These skills are translated statements from the standards and represent measurable verbs, instructional targets, and descriptors for the sake of consistency across teachers in the same content area and grade level.

- use point, line, and distance along a line to give a precise definition of
 - angle;
 - perpendicular line (two lines are perpendicular if an angle formed by the two lines at the point of intersection is a right angle);
 - parallel lines (distinct lines that have no point in common);
 - and line segment.
- construct and explain proofs of theorems about lines and angles including:
 - vertical angles are congruent;
 - congruence of alternate interior angles;
 - congruence of corresponding angles; and points on a perpendicular bisector of a line segment are exactly those equidistant from the segment's endpoints.
- prove the slope criteria for parallel lines (parallel lines have equivalent slopes)
- prove the slope criteria for perpendicular lines (the product of the slopes of perpendicular lines equals -1).

● solve problems using the slope criteria for parallel and perpendicular lines.

Key Terms / Vocabulary:

Point, line, plane, collinear points, coplanar points, line segment, end points, ray, intersection, postulate, coordinate, distance, congruent segments, midpoint, segment bisector, angle, vertex, measure of an angle, acute angle, right angle, obtuse angle, straight angle, congruent angles, angle bisector, complementary angles, supplementary angles, adjacent angles, linear pair, vertical angles, perpendicular lines, proof, theorem, parallel lines, transversal, corresponding angles, alternate interior angles, alternate exterior angles, consecutive interior angles, perpendicular bisector

Assessments: List types of assessments that will be used throughout the course of the unit. *If you do not have assessments for this unit, they should be created before moving on to the lesson design* (Label Assessments as Diagnostic, Formative, or Summative)

- 1.1-1.3 Quiz
- Chapter 1 Test
- 2.1-2.3 Quiz
- Chapter 2 Test
- 3.1-3.3 Quiz
- Chapter 3 Test

Learning Activities: Any agreed upon activities/lesson plans can be listed here.

- Independent work
- Group work

Resources / Text Selections: (generated by both teacher and student?) Teachers will list the titles/genres for study:

Big Ideas worksheets and online assignments

Additional Notes: