Chapter 3: Parallel and Perpendicular Lines

Content Area: **Math**
Course(s):   **Geometry CP, Geometry A, Geometry H**
Time Period: **Marking Period 1**
Length: **12 Days**
Status: **Published**

Unit Introduction

Standards

MA.G-CO.A.1	Know 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.
MA.G-CO.C.9	Prove theorems about lines and angles.
MA.G-CO.C.10	Prove theorems about triangles.
MA.G-CO.D.12	Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometric software, etc.).
MA.G-MG.A.3	Apply geometric methods to solve design problems (e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios).

Essential Questions

- How do you prove that two lines are parallel?

- What is the sum of the measures of the angles of a triangle?

Content

- 3.1 Lines and Angles

- 3.2 Properties of Parallel Lines

- 3.3 Proving Lines Parallel

- 3.4 Parallel and Perpendicular Lines

- 3.5 Parallel Lines and Triangles

- 3.6 Constructing Parallel and Perpendicular Lines

Skills

- Construct parallel and perpendicular lines

- Determine whether two lines are parallel

- Identfiy relationships between figures in space
- Identify angles formed by two lines and a transversal.
- Prove theorems about parallel lines
- Relate parallel and perpendicular lines
- Relate parallel and perpendicular lines
- Use properties of parallel lines to find angle measures