**Geometry – Unit 6 Plan**

**TRIANGLE CONGRUENCE**

Big Ideas

In Unit 3, we learned about similar triangles.  We learned that similar triangles with a zoom factor of 1 are **congruent** triangles.  In this unit, we will learn more about what makes one triangle congruent to another or not.  Congruence of shapes is an important idea in mathematics and is used in many physical applications.
We will remember the similarity conjectures and theorems: SSS~, AA~, and SAS~ and determine when we can use their congruence duals.

Assessments
Congruence project
Quiz

**Day 1**
Objectives: Students will practice identifying congruent triangles by first determining that the triangles are similar. Students will use their understanding of similarity and congruence to develop triangle congruence shortcuts (SSS ≅, ASA ≅, AAS ≅, HL ≅, and SAS ≅)

Agenda

* Warm up with problem 6-3
* Process problems 6-1 and 6-2
* Lesson 6.1.2

HW - Problems 6-4 to 6-8.

**Day 2**
Objectives: Students will extend their use of flowcharts to document triangle congruence facts.  They will practice identifying pairs of congruent triangles and will contrast congruence arguments with similarity arguments

Agenda

* Warm up with problem 6-28
* Lesson 6.1.3  Introduce two column and paragraph proofs\* as well as flowcharts
* Notes on congruence shortcuts (examples of different proof formats on backside)

HW – Problems 6-14, 6-15, 6-17, 6-27, 6-29

**Day 3**
Objectives

* Students will extend their use of flowcharts to document triangle congruence facts.  They will practice identifying pairs of congruent triangles and will contrast congruence arguments with similarity arguments.

Agenda

* **Quiz 6-1**
* Begin “Triangle Congruence” Project (see attached)
* Goal is to finish proofs and free response as drafts

HW – 6-35, 6-39, 6-40, 6-43

**Day 4**
Objectives

* Finish Triangle Congruence Project

Agenda

* Final Draft of projects
* Posters or other models
* Presentations

HW – 6-45, 6-47, 6-52 (need graph paper)

\*Note: Unit 7.2 & 7.3 to follow with a combined test.