**Chapter 7 Similarity**

**Essential Questions:**

* How do you recognize similarity in the real world and create proportions that will allow you to find an unknown value?
* What are the characteristics of similar figures? How do similar figures compare to congruent figures?
* How do you show two triangles are similar?
* How do you determine the scale factor and what does it mean?

**7.1 Ratio and Proportion (G-SRT.1 and G-SRT.6)**

* I can write ratios and simplify them.
* I can use proportions to solve.
* I can describe the difference between a ratio and a proportion.
* I can apply the Cross Product Property to solve proportions.

**7.2 Similar Polygons (G-SRT.1, G-SRT.5, and G-SRT.6)**

* I can define scale factor and describe what it represents in my own words.
* I can identify corresponding sides and corresponding angles of similar figures.
* I can demonstrate that in a pair of similar figures, corresponding angles are congruent (angle measure is preserved) and corresponding sides are proportional.
* I can determine that two figures are similar by verifying that angle measure is preserved and corresponding sides are proportional.
* I can solve for missing measures in similar figures.

**7.3 Showing Triangles are Similar: AA (G-SRT.5 and G-SRT.3)**

* I can conclude and explain that AA similarity is a sufficient condition for two triangles to be similar.
* I can use AA similarity to solve and write a proportion.

**7.4 Showing Triangles are Similar: SSS and SAS (G-SRT.5 and G-SRT.2)**

* I can conclude and explain that SAS and SSS similarity are sufficient conditions for two triangles to be similar.
* I can use SSS and SAS to solve problems (indirect measure, missing sides/angle measures)

**7.5 Proportions and Similar Triangles (G-SRT.5 and G-SRT.2)**

* I can apply the Proportionality Theorem and its converse.
* I can use the Midsegment Theorem, a special case of the Proportionality Theorem.

**7.6 Dilations (G-SRT.1)**

* I can identify and draw a dilation.
* I can determine if a dilation is a reduction or an enlargement.