**Chapter 4 Triangle Relationships**

**Essential Questions:**

* What do you need to know in order to classify a triangle?
* How can you use the Pythagorean Theorem?

**4.1 Classifying Triangles (G-CO.1)**

* I can classify triangles by their sides and by their angles.
* I can correctly identify, draw, and label an equilateral triangle, an isosceles triangle, and a scalene triangle.
* I can correctly identify, draw, and label an acute, equiangular, obtuse, and right triangle.

**4.2 Angle Measures of Triangles (G-CO.10)**

* I can find angle measures in triangles.
* I can find the unknown angle measure in a triangle using the Triangle Sum Theorem and the Corollary to the Triangle Sum Theorem.
* I can explain and apply the Exterior Angle Theorem.

**4.3 Isosceles and Equilateral Triangles (G-CO.10)**

* I can use properties of isosceles and equilateral triangles.
* I can identify the legs and base of an isosceles triangle.
* I can identify the base angles of a triangle and apply the Base Angles Theorem and the Converse of the Base Angles Theorem.
* I can find unknown side lengths using the Equilateral Theorem and the Equiangular Theorem.

**4.4 The Pythagorean Theorem and the Distance Formula (G-SRT.4)**

* I can apply the Pythagorean Theorem and Distance Formula to find the unknown lengths of a triangle.
* I can explain the Distance Formula and the Pythagorean Theorem.

**4.5 The Converse of the Pythagorean Theorem (G-SRT.4)**

* I can explain and apply the Converse of the Pythagorean Theorem.
* I can verify that a triangle is a right triangle.
* I can classify triangles using the Converse of the Pythagorean Theorem and prove that it is true.

**4.6 Medians of a Triangle (G-CO.1)**

* I can identify the median of a triangle.
* I can draw a median of a triangle and illustrate why it is the median.
* I can draw a centroid, where the medians of a triangle intersect.
* I can find unknown lengths using the medians and centroid.