Big Idea(s) of 3rd nine weeks	**Concept(s) of 3rd nine weeks**	**Competencies of 3rd nine weeks**	**Essential Questions of 3rd nine weeks**
Patterns exhibit relationships that can be extended, described, and generalized. Geometric relationships can be described, analyzed, and classified based on spatial reasoning and/or visualization.	**Students will know:** ● Angle measures ● Angle relationships ● Pythagorean Theorem ● Transformations ● Congruence and Similarity	**Students will be able to:** Determine angles measures by applying different strategies. Determine angle relationships based on geometric figures and lines. Apply the Pythagorean Theorem to determine lengths of sides of triangles and distance. Use transformations to describe what happens to a shape when it is transformed. Apply congruence and similarity to determine how polygons are similar and for indirect measurement. .	How are spatial relationships, including shape and dimension, used to draw, construct, model, and represent real situations or solve Problems? How can geometric properties and theorems be used to describe, model, and analyze situations?

Unit/Chapter/Selection of Study	**Approx. # of weeks - % of time**	**PA Academic Standards**	**Assessment Anchors & Eligible Content**
Geometry Measures of different types of angles Angles of Triangles Angles of Polygons Pythagorean Theorem Distance Formula'	3 weeks	**CC.2.3.8.A.3** Understand and apply the Pythagorean Theorem to solve problems.	M08.C-G.2.1.1 Identify and apply properties of rotations, reflections, and translations. Example: Angle measures are preserved in rotations, reflections, and translations. M08.C-G.2.1.2 Given two congruent figures, describe a sequence of transformations that exhibits the congruence between them. M08.C-G.2.1.3 Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.
Unit/Chapter/Selection of Study	**Approx. # of weeks - % of time**	**PA Academic Standards**	**Assessment Anchors & Eligible Content**
Transformations Translations Reflections Rotations Diliations	2 weeks	**CC.2.3.8.A.1** Apply the concepts of volume of cylinders, cones, and spheres to solve real world and mathematical problems.	M08.C-G.3.1.1 Apply formulas for the volumes of cones, cylinders, and spheres to solve real-world and mathematical problems. Formulas will be provided.

Unit/Chapter/Selection of Study	**Approx. # of weeks - % of time**	**PA Academic Standards**	**Assessment Anchors & Eligible Content**
Congruence and Similarity Congruence and transformations Congruence Statements Similarity of Polygons Similar triangles Indirect Measurement Slope Area and Perimeter of Similar Polygons	4 weeks	**CC.2.3.8.A.1** Apply the concepts of volume of cylinders, cones, and spheres to solve real world and mathematical problems. **CC.2.3.8.A.3** Understand and apply the Pythagorean Theorem to solve problems.	M08.C-G.2.1.1 Identify and apply properties of rotations, reflections, and translations. Example: Angle measures are preserved in rotations, reflections, and translations. M08.C-G.2.1.2 Given two congruent figures, describe a sequence of transformations that exhibits the congruence between them. M08.C-G.2.1.3 Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.