## Course Description:

Geometry \& Measurement will provide students with *CCR skills in the areas of Algebraic Relationships, Geometric and Spatial Relationships and Measurements. Geometry \& Measurement completes applied mathematics series.

## Big Ideas:

1. Visualization can help you connect properties of real objects with two-dimensional drawings of these objects.
2. Some attributes of geometric figures, such as lengths, areas, volume, and angle measure, are measurable. Units are used to describe these attributes.
3. Two geometric figures are similar when corresponding lengths are proportional and corresponding angles are congruent.
4. Areas of similar figures are proportional to the squares of their corresponding lengths.
5. Volumes of similar figures are proportional to the cubes of their corresponding lengths.

Essential Learner Outcomes:

| ELO \# | Essential Learner Outcome Description | Standard <br> s |
| :---: | :--- | :--- |
| $\mathbf{1}$ | Use coordinates to prove geometric theorems algebraically. | G.GPE.B |
| $\mathbf{2}$ | Apply geometric concepts in modeling situations. | G.MG.A |
| $\mathbf{3}$ | Understand congruence in terms of rigid motions. | G.CO.B |
| $\mathbf{4}$ | Define trigonometric ratios, and solve problems involving right <br> triangles. | G.SRT.C |
| $\mathbf{5}$ | Understand similarity in terms of similarity transformations. | G.SRT.A |
| $\mathbf{6}$ | Experiment with transformations in the plane. | G.CO.A |
| $\mathbf{7}$ | Explain volume formulas and use them to solve problems. | G.GMD.A |
| $\mathbf{8}$ | Visualize relationships between two-dimensional and three- <br> dimensional objects. | G.GMD.B |
| $\mathbf{9}$ | Understand and apply theorems about circles. | G.C.A |

