| **Concept** | **Competencies** | **Grade Level Vocabulary** |
| --- | --- | --- |
| **Ratios, Proportions and Percent** | Compute unit rates associated with ratios of fractions.  Recognize and represent proportional relationships between quantities.  Use proportional relationships to solve multistep ratio and percent problems.  (CC.2.1.7.D.1) | **Ratios and Proportional Relationships**  unit rates, ratios, proportional relationships, proportions, constant of proportionality, complex fractions  proportion, ratio, proportional relationships, percent, simple interest rate, principal, tax, discount, markup, markdown, gratuity, commissions, fees, percent of error  **The Number System**  rational numbers, integers, additive inverse  **Expressions and Equations**  coefficients, like terms, distributive property, factor  numeric expressions, algebraic expressions, maximum, minimum  **Geometry**  scale drawing, dimensions, scale factor, plane sections, right rectangular prism, right rectangular pyramids, parallel, perpendicular, scalene triangle, obtuse triangle, equilateral triangle  area, surface area, and volume inscribed, circumference, radius, diameter, pi, ∏, supplementary, vertical,adjacent, complementary, pyramids, face, base  **Statistics and Probability**  random sampling, population, representative sample, inferences  variation/variability distribution, measures of center, measures of variability  sample spaces |
| **Rational Numbers** | Solve real-world and mathematical problems involving the four operations with rational numbers.  (CC.2.1.7.E.1) |
| **Algebraic expressions and equations** | Model and solve real world and mathematical problems using multiple representations such as algebraic, graphical and using tables  Solve multi-step equations or inequalities with one variable.  Solve and interpret multi-step real life and mathematical problems posed with positive and negative rational numbers.  Apply properties of operations to generate equivalent expressions. (CC.2.2.7.B.1)  (CC.2.2.7.B.3) |
| **Area, surface area, volume, angle measure, circumference**  **Geometric figures** | Use properties of angle types and properties of angles formed when two parallel lines are cut by a transversal line to solve problems.  Solve problems involving area and circumference of a circle(s).  Solve mathematical problems involving area, volume and surface area of two- and three-dimensional objects.  (CC.2.3.7.A.1)  Solve problems involving scale drawings of geometric figures.  Apply the properties of all types of triangles based on angle and side measure including the triangle inequality theorem.  Describe the two-dimensional figures that result from slicing three-dimensional figures.  (CC.2.3.7.A.2) |
| **Data, distributions and random sampling**  **Probability** | Draw inferences about two populations based on random sampling concepts.  Determine and approximate relative frequencies and probabilities of events.  Find the probability of a simple event, including the probability of a simple event not occurring.  Draw informal comparative inferences about two populations using measures of center and measures of variability.  (CC.2.4.7.B.1)  (CC.2.4.7.B.2)  Find probabilities of independent compound events.  Predict the approximate relative frequency given the probability.  (CC.2.4.7.B.3) |