

Cornerstone Charter Schools  
**Mathematics Concept Map 6th-8th Grades (DRAFT)**

6th Grade	7th Grade	8th Grade
<p>Multi digit division of whole numbers            Operations with positive rational numbers decimal and fraction division            Least common multiple            Greatest common factor            Integer concepts            Comparison and order of rational numbers            Graphs on the coordinate plane            Ratios and rates            Percentages            Numeric and algebraic expressions            One step equations            Equivalent expressions            Tables, graphs, and equations            Algebra terminology            Distributive property            Solutions and graphs of equations/inequalities            Central tendencies            Data distributions            Area, surface area, and volume            Polygons on the coordinate plane</p>	<p>Operations with rational numbers integers            Proportional relationships            Fraction ratios, unit rates, and percents            Multi step linear expressions with rational coefficients            Numerical and algebraic multi step equations/inequalities using all rational numbers            Different forms of expressions            Estimation strategies            Graphs of inequalities            Random sampling            Measures of center and variability            Theoretical and experimental probability            Compound probability            Area, surface area, and volume (two and three dimensional)            Angle properties            Scale drawings of geometric figures</p>	<p>Operations with rational and irrational numbers            Rational approximations of irrational numbers            Properties of integer exponents            Linear equations in one variable            Linear equations with rational number coefficients            Slope between two distinct points            Square roots and cube roots in equations            Scientific notation            Systems of linear equations            Pythagorean Theorem and its converse            Scatter plots and relationships between bivariate data            Formulas for volumes of cones, cylinders, and spheres            Transformation properties for lines and angles            Transformations, congruency, and similarity of figures            Transformations: two dimensional figure within a coordinate plane            Angle sum and exterior angles of triangles, angles created when parallel lines cut by a transversal and Angle Angle criterion for similar polygons            Define, evaluate, and compare functions            Four representations of functions            Linear function whose graph is a straight line            Linear vs. nonlinear graphs</p>

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