

## **8<sup>th</sup> Grade Math Curriculum Map**

### **Unit 1 – Real Numbers and Exponents (The Number System)**

- 1-1** Rational Numbers
- 1-2** Operations with Rational Numbers
- 1-3** Converting Fractions and Decimals
- 1-4** Identifying Irrational Numbers
- 1-5** Properties of Irrational Numbers
- 1-6** Comparing and Ordering Irrational Numbers on a Number Line
- 1-7** Evaluation and Approximation of Square and Cube Roots
- 1-8** Negative Exponents
- 1-9** Negative Exponent Operations
- 1-10** Scientific Notation
- 1-11** Operations with Numbers in Scientific Notation



## **Unit 2 – Expressions and Equations**

- 2-1** Expressions with Radicals Exponents.
- 2-2** Expressions with Integer Exponents.
- 2-3** Creating Linear Equations
- 2-4** Solving Equations with Variables on Both Sides
- 2-5** Solving Equations with Distributive Property
- 2-6** Solving Equations by Combining Like Term
- 2-7** One/Infinite/No solutions of Equation
- 2-8** Solving Exponent Equations



### **Unit 3 – Linear and Functional Relationships (Functions)**

- 3-1**      Intro to Functions/Graphing and Writing a Function Rule
- 3-2**      Graphing Functions
- 3-3**      Linear or Non Linear Functions
- 3-4**      Exploring Linear Functions
- 3-5**      Equations of Linear Functions
- 3-6**      Graphs of Linear Functions
- 3-7**      Tables of Linear Functions
- 3-8**      Increasing, Decreasing, Max and Min
- 3-9**      Interpret the Rate of Change
- 3-10**     Contextualizing Function Qualities
- 3-11**     Sketching a Piecewise Function



## Unit 4– Systems of Linear Equations

- 4-1 Graphing with Slope – Intercept Form
- 4-2 Solving Systems by Graphing
- 4-3 Solving Systems Using Substitution
- 4-4 Solving Systems Using Elimination
- 4-5 Solving Systems via Inspection
- 4-6 Applications of Systems of Linear Equations

**Unit 5 – Patterns and Bivariate Data (Statistics)**

- 5-1**      Constructing Scatter Plots
- 5-2**      Analyzing Scatter Plots
- 5-3**      Linear or Nonlinear Correlation
- 5-4**      The Line of Best Fit
- 5-5**      Constructing a Two-Way Tables
- 5-6**      Interpret a Two-Way Tables



## **Unit 6 – Congruency and Similarity**

- 6-1** Identifying Transformations
- 6-2** Constructing Rotations/Properties of Rotations
- 6-3** Constructing Reflections/Properties of Reflections
- 6-4** Constructing Translations/Properties of Translations
- 6-5** Constructing Dilatations/Properties of Dilatations
- 6-6** Identifying a Series and Determining Congruence or Similarity
- 6-7** The Sum of Angles in a Triangle
- 6-8** Similar Triangles
- 6-9** Parallel Lines Cut by a Transversal

**Unit 7 - Geometry**

- 7-1**     Pythagorean Theorem and its Converse
- 7-2**     2D Applications of Pythagorean Theorem
- 7-3**     3D Applications of Pythagorean Theorem
- 7-4**     Pythagorean Theorem and Distance Between Points in a Coordinate System
- 7-5**     Volume of Cylinders, Cones, and Spheres
- 7-6**     Solving for a Missing Dimension
- 7-7**     Volume of Composite Shapes