**8th 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**

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| --- | --- | --- | --- |
| **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)**

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| --- | --- | --- | --- |
| **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**

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| --- | --- | --- | --- |
| **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)**

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| --- | --- | --- | --- |
| **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**

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| --- | --- | --- | --- |
| **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**

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| --- | --- | --- | --- |
| **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 |  |  |