

# PreAlgebra Curriculum Map

## 8<sup>th</sup> Grade

### Unit 1 – Real Numbers and Exponents

#### 1-1 Rational Numbers

CCSS.MATH.CONTENT.8.NS.A.1

#### 1-2 Operations with Rational Numbers

CCSS.MATH.CONTENT.8.NS.A.1

#### 1-3 Converting Fractions and Decimals

CCSS.MATH.CONTENT.8.NS.A.1

#### 1-4 Identifying Irrational Numbers

CCSS.MATH.CONTENT.8.NS.A.2

CCSS.MATH.CONTENT.8.NS.A.1

#### 1-5 Properties of Irrational Numbers

CCSS.MATH.CONTENT.8.NS.A.1

CCSS.MATH.CONTENT.8.NS.A.2

#### 1-6 Comparing and Ordering Irrational Numbers on a Number Line

CCSS.MATH.CONTENT.8.NS.A.2

#### 1-7 Evaluation and Approximation of Square and Cube Roots

CCSS.MATH.CONTENT.8.NS.A.2

CCSS.MATH.CONTENT.8.EE.A.2

#### 1-8 Negative Exponents

CCSS.MATH.CONTENT.8.EE.A.1

**1-9 Negative Exponent Operations**

CCSS.MATH.CONTENT.8.EE.A.1

**1-10 Scientific Notation**

CCSS.MATH.CONTENT.8.EE.A.3

**1-11 Operations with Numbers in Scientific Notation**

CCSS.MATH.CONTENT.8.EE.A.4

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

### **2-1 Expressions with Radicals Exponents**

CCSS.MATH.CONTENT.8.EE.A.2

### **2-2 Expressions with Integer Exponents**

CCSS.MATH.CONTENT.8.EE.A.1

### **2-3 Creating Linear Equations**

CCSS.MATH.CONTENT.8.EE.B.5

CCSS.MATH.CONTENT.8.EE.B.6

### **2-4 Solving Equations with Variables on Both Sides**

CCSS.MATH.CONTENT.8.EE.C.7

CCSS.MATH.CONTENT.8.EE.C.7.B

### **2-5 Solving Equations with Distributive Property**

CCSS.MATH.CONTENT.8.EE.C.7

CCSS.MATH.CONTENT.8.EE.C.7.B

### **2-6 Solving Equations by Combining Like Term**

CCSS.MATH.CONTENT.8.EE.C.7

CCSS.MATH.CONTENT.8.EE.C.7.B

### **2-7 One/Infinite/No solutions of Equation**

CCSS.MATH.CONTENT.8.EE.C.7.A

### **2-8 Solving Exponent Equations**

CCSS.MATH.CONTENT.8.EE.C.7

CCSS.MATH.CONTENT.8.EE.C.7.B

## **Unit 3 – Linear and Functional Relationships**

### **3-1 Intro to Functions/Graphing and Writing a Function Rule**

CCSS.MATH.CONTENT.8.F.A.1

CCSS.MATH.CONTENT.8.F.B.4

CCSS.MATH.CONTENT.8.F.B.5

### **3-2 Graphing Functions**

CCSS.MATH.CONTENT.8.F.A.1

CCSS.MATH.CONTENT.8.F.A.2

CCSS.MATH.CONTENT.8.F.B.5

### **3-3 Linear or Non Linear Functions**

CCSS.MATH.CONTENT.8.F.A.3

CCSS.MATH.CONTENT.8.F.B.5

### **3-4 Exploring Linear Functions**

CCSS.MATH.CONTENT.8.F.A.2

CCSS.MATH.CONTENT.8.F.B.4

CCSS.MATH.CONTENT.8.F.B.5

### **3-5 Equations of Linear Functions**

CCSS.MATH.CONTENT.8.F.A.3

CCSS.MATH.CONTENT.8.F.B.4

### **3-6 Graphs of Linear Functions**

CCSS.MATH.CONTENT.8.F.A.1

CCSS.MATH.CONTENT.8.F.A.2

CCSS.MATH.CONTENT.8.F.A.3

CCSS.MATH.CONTENT.8.F.B.4

CCSS.MATH.CONTENT.8.F.B.5

**3-7 Tables of Linear Functions**

CCSS.MATH.CONTENT.8.F.B.4

CCSS.MATH.CONTENT.8.F.B.5

**3-8 Increasing, Decreasing, Max and Min**

CCSS.MATH.CONTENT.8.F.B.4

CCSS.MATH.CONTENT.8.F.B.5

**3-9 Interpret the Rate of Change**

CCSS.MATH.CONTENT.8.F.A.2

CCSS.MATH.CONTENT.8.F.B.4

CCSS.MATH.CONTENT.8.F.B.5

**3-10 Contextualizing Function Qualities**

CCSS.MATH.CONTENT.8.F.A.1

CCSS.MATH.CONTENT.8.F.A.2

CCSS.MATH.CONTENT.8.F.B.5

**3-11 Sketching a Piecewise Function**

CCSS.MATH.CONTENT.8.F.A.2

CCSS.MATH.CONTENT.8.F.B.4

CCSS.MATH.CONTENT.8.F.B.5

## **Unit 4– Systems of Linear Equations**

### **4-1 Graphing with Slope – Intercept Form**

CCSS.MATH.CONTENT.8.F.A.3

CCSS.MATH.CONTENT.8.EE.C.8.A

CCSS.MATH.CONTENT.8.EE.C.8.C

### **4-2 Solving Systems by Graphing**

CCSS.MATH.CONTENT.8.EE.C.8.A

CCSS.MATH.CONTENT.8.EE.C.8.C

### **4-3 Solving Systems Using Substitution**

CCSS.MATH.CONTENT.8.EE.C.8

CCSS.MATH.CONTENT.8.EE.C.8.B

CCSS.MATH.CONTENT.8.EE.C.8.C

### **4-4 Solving Systems Using Elimination**

CCSS.MATH.CONTENT.8.EE.C.8

CCSS.MATH.CONTENT.8.EE.C.8.B

CCSS.MATH.CONTENT.8.EE.C.8.C

### **4-5 Solving Systems via Inspection**

CCSS.MATH.CONTENT.8.EE.C.8.A

CCSS.MATH.CONTENT.8.EE.C.8.B

CCSS.MATH.CONTENT.8.EE.C.8.C

### **4-6 Applications of Systems of Linear Equations**

CCSS.MATH.CONTENT.8.EE.C.8

CCSS.MATH.CONTENT.8.EE.C.8.C

## **Unit 5 – Patterns and Bivariate Data**

**5-1 Constructing Scatter Plots**

CCSS.MATH.CONTENT.8.SP.A.1

CCSS.MATH.CONTENT.8.SP.A.2

CCSS.MATH.CONTENT.8.SP.A.3

**5-2 Analyzing Scatter Plots**

CCSS.MATH.CONTENT.8.SP.A.1

CCSS.MATH.CONTENT.8.SP.A.2

CCSS.MATH.CONTENT.8.SP.A.3

**5-3 Linear or Nonlinear Correlation**

CCSS.MATH.CONTENT.8.SP.A.1

CCSS.MATH.CONTENT.8.SP.A.2

CCSS.MATH.CONTENT.8.SP.A.3

**5-4 The Line of Best Fit**

CCSS.MATH.CONTENT.8.SP.A.1

CCSS.MATH.CONTENT.8.SP.A.2

CCSS.MATH.CONTENT.8.SP.A.3

**5-5 Constructing a Two-Way Tables**

CCSS.MATH.CONTENT.8.SP.A.4

**5-6 Interpret a Two-Way Tables**

CCSS.MATH.CONTENT.8.SP.A.4

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

### **6-1 Identifying Transformations**

CCSS.MATH.CONTENT.8.G.A.1

CCSS.MATH.CONTENT.8.G.A.1.A

CCSS.MATH.CONTENT.8.G.A.1.B

CCSS.MATH.CONTENT.8.G.A.1.C

CCSS.MATH.CONTENT.8.G.A.2

### **6-2 Constructing Rotations/Properties of Rotations**

CCSS.MATH.CONTENT.8.G.A.1

CCSS.MATH.CONTENT.8.G.A.1.A

CCSS.MATH.CONTENT.8.G.A.1.B

CCSS.MATH.CONTENT.8.G.A.1.C

CCSS.MATH.CONTENT.8.G.A.2

CCSS.MATH.CONTENT.8.G.A.3

CCSS.MATH.CONTENT.8.G.A.4

### **6-3 Constructing Reflections/Properties of Reflections**

CCSS.MATH.CONTENT.8.G.A.1

CCSS.MATH.CONTENT.8.G.A.1.A

CCSS.MATH.CONTENT.8.G.A.1.B

CCSS.MATH.CONTENT.8.G.A.1.C

CCSS.MATH.CONTENT.8.G.A.2

CCSS.MATH.CONTENT.8.G.A.3

CCSS.MATH.CONTENT.8.G.A.4

### **6-4 Constructing Translations/Properties of Translations**

CCSS.MATH.CONTENT.8.G.A.1

CCSS.MATH.CONTENT.8.G.A.1.A



CCSS.MATH.CONTENT.8.G.A.1.B

CCSS.MATH.CONTENT.8.G.A.1.C

CCSS.MATH.CONTENT.8.G.A.2

CCSS.MATH.CONTENT.8.G.A.3

CCSS.MATH.CONTENT.8.G.A.4

## **6-5 Constructing Dilatations/Properties of Dilatations**

CCSS.MATH.CONTENT.8.G.A.3

CCSS.MATH.CONTENT.8.G.A.4

## **6-6 Identifying a Series and Determining Congruence or Similarity**

CCSS.MATH.CONTENT.8.G.A.2

CCSS.MATH.CONTENT.8.G.A.4

## **6-7 The Sum of Angles in a Triangle**

CCSS.MATH.CONTENT.8.G.A.4

CCSS.MATH.CONTENT.8.G.A.5

## **6-8 Similar Triangles**

CCSS.MATH.CONTENT.8.G.A.5

## **6-9 Parallel Lines Cut by a Transversal**

CCSS.MATH.CONTENT.8.G.A.5

## **Unit 7 - Geometry**

### **7-1 Pythagorean Theorem and its Converse**

CCSS.MATH.CONTENT.8.G.B.6

### **7-2 2D Applications of Pythagorean Theorem**

CCSS.MATH.CONTENT.8.G.B.7

### **7-3 3D Applications of Pythagorean Theorem**

CCSS.MATH.CONTENT.8.G.B.7

### **7-4 Pythagorean Theorem and Distance Between Points in a Coordinate System**

CCSS.MATH.CONTENT.8.G.B.8

### **7-5 Volume of Cylinders, Cones, and Spheres**

CCSS.MATH.CONTENT.8.G.C.9

### **7-6 Solving for a Missing Dimension**

CCSS.MATH.CONTENT.8.G.C.9

### **7-7 Volume of Composite Shapes**

CCSS.MATH.CONTENT.8.G.C.9