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# Curriculum Map

## Unit 1 - Foundations of Algebra

**1-1      Variables and Expressions**

CCSS.MATH.CONTENT.HSA.SSE.A.1

CCSS.MATH.CONTENT.HSA.SSE.A.1.A

CCSS.MATH.CONTENT.HSA.SSE.B.3

**1-2      Order of Operations and Evaluating Expressions**

CCSS.MATH.CONTENT.HSN.RN.A.2

CCSS.MATH.CONTENT.HSA.SSE.B.3

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

**1-3      Real Numbers and the Number Line**

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

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

**1-4      Properties of Real Numbers**

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

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

**1-5      Adding and Subtracting Real Numbers**

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

CCSS.MATH.CONTENT.HSA.SSE.B.3

**1-6      Multiplying and Dividing Real Numbers**

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

CCSS.MATH.CONTENT.HSA.SSE.B.3

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# Unit 2 - Solving Equations

### 2-1    Solving One-Step Equations

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

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

CCSS.MATH.CONTENT.HSA.REI.A.1

CCSS.MATH.CONTENT.HSA.REI.A.2

CCSS.MATH.CONTENT.HSA.REI.B.3

### 2-2    Solving Two-Step Equations

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

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

CCSS.MATH.CONTENT.HSA.REI.A.1

CCSS.MATH.CONTENT.HSA.REI.A.2

CCSS.MATH.CONTENT.HSA.REI.B.3

### 2-3    Solving Multi-Step Equations

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

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

CCSS.MATH.CONTENT.HSA.REI.A.1

CCSS.MATH.CONTENT.HSA.REI.A.2

CCSS.MATH.CONTENT.HSA.REI.B.3

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

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

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

CCSS.MATH.CONTENT.HSA.REI.A.1

CCSS.MATH.CONTENT.HSA.REI.A.2

CCSS.MATH.CONTENT.HSA.REI.B.3

## 2-5    Literal Equations and Formulas

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

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

CCSS.MATH.CONTENT.HSA.REI.A.1

CCSS.MATH.CONTENT.HSA.REI.A.2

CCSS.MATH.CONTENT.HSA.REI.B.3

## 2-6    Ratios, Rates, and Conversions

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

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

CCSS.MATH.CONTENT.HSN.Q.A.1

CCSS.MATH.CONTENT.HSN.Q.A.2

CCSS.MATH.CONTENT.HSN.Q.A.3

## 2-7    Solving Proportions

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

## 2-8    Proportions and Similar Figures

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

CCSS.MATH.CONTENT.HSG.SRT.A.2

## 2-9    Percentages

CCSS.MATH.CONTENT.HSF.LE.A.1.C

## 2-10    Change Expressed as a Percent

CCSS.MATH.CONTENT.HSF.IF.C.8.B

CCSS.MATH.CONTENT.HSF.LE.A.1.C

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## Unit 3 - Solving Inequalities

### 3-1 Inequalities and Their Graphs

CCSS.MATH.CONTENT.HSA.CED.A.3

CCSS.MATH.CONTENT.HSA.REI.D.12

### 3-2 Solving Inequalities Using Addition and Subtraction

CCSS.MATH.CONTENT.HSA.REI.B.3

### 3-3 Solving Inequalities Using Multiplication or Division

CCSS.MATH.CONTENT.HSA.REI.B.3

### 3-4 Solving Multi-Step Inequalities

CCSS.MATH.CONTENT.HSA.REI.B.3

### 3-5 Working with Sets

CCSS.MATH.CONTENT.HSA.REI.B.3

### 3-6 Compound Inequalities

CCSS.MATH.CONTENT.HSA.REI.B.3

CCSS.MATH.CONTENT.HSA.REI.D.12

### 3-7 Absolute Value Equations and Inequalities

CCSS.MATH.CONTENT.HSA.REI.B.3

CCSS.MATH.CONTENT.HSA.REI.D.12

### 3-8 Union and Intersection of Sets

CCSS.MATH.CONTENT.HSS.CP.A.1

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## Unit 4 - An Introduction to Functions

### 4-1      Using Graphs to Relate Two Quantities

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

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

CCSS.MATH.CONTENT.HSF.IF.B.4

### 4-2      Patterns and Linear Functions

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

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

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

### 4-3      Patterns and Nonlinear Functions

CCSS.MATH.CONTENT.HSF.LE.A.3

### 4-4      Graphing a Function Rule

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

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

### 4-5      Writing a Function Rule

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

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

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

### 4-6      Formalizing Relations and Functions

CCSS.MATH.CONTENT.HSF.IF.A.1

CCSS.MATH.CONTENT.HSF.IF.A.2

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**4-7**      **Arithmetic Sequences**

CCSS.MATH.CONTENT.HSF.BF.A.2

CCSS.MATH.CONTENT.HSF.LE.A.2

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## Unit 5 - Linear Functions

### 5-1  Rate of Change and Slope

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

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

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

CCSS.MATH.CONTENT.HSF.IF.B.6

CCSS.MATH.CONTENT.HSF.LE.B.5

### 5-2  Direct Variation

CCSS.MATH.CONTENT.HSF.IF.B.4

CCSS.MATH.CONTENT.HSF.LE.A.1.A

CCSS.MATH.CONTENT.HSF.LE.A.3

### 5-3  Slope-Intercept Form

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

CCSS.MATH.CONTENT.HSF.BF.A.1.A

CCSS.MATH.CONTENT.HSF.BF.A.1.B

CCSS.MATH.CONTENT.HSF.LE.B.5

### 5-4  Point-Slope Form

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

CCSS.MATH.CONTENT.HSF.BF.A.1.B

CCSS.MATH.CONTENT.HSF.LE.B.5

### 5-5  Standard Form

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

CCSS.MATH.CONTENT.HSF.BF.A.1.B

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## Unit 6 - Systems of Equations and Inequalities

**6-1    Solving Systems by Graphing**

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

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

CCSS.MATH.CONTENT.HSA.REI.C.6

CCSS.MATH.CONTENT.HSA.REI.D.11

**6-2    Solving Systems Using Substitution**

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

CCSS.MATH.CONTENT.HSA.REI.C.5

CCSS.MATH.CONTENT.HSA.REI.C.6

**6-3    Solving Systems Using Elimination**

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

CCSS.MATH.CONTENT.HSA.REI.C.5

CCSS.MATH.CONTENT.HSA.REI.C.6

**6-4    Applications of Linear Systems**

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

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

CCSS.MATH.CONTENT.HSA.REI.C.6

**6-5    Linear Inequalities**

CCSS.MATH.CONTENT.HSA.REI.B.3

CCSS.MATH.CONTENT.HSA.REI.D.12

**6-6    Systems of Linear Inequalities**

CCSS.MATH.CONTENT.HSA.REI.D.12

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## Unit 7 - Exponents and Exponential Functions

### 7-1    Zero and Negative Exponents

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

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

### 7-2    Multiplying Powers with the Same Base

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

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

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

CCSS.MATH.CONTENT.HSN.RN.B.3

### 7-3    More Multiplication Properties of Exponents

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

CCSS.MATH.CONTENT.HSN.RN.B.3

### 7-4    Division Properties of Exponents

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

### 7-5    Rational Exponents and Radicals

CCSS.MATH.CONTENT.HSN.RN.A.1

CCSS.MATH.CONTENT.HSN.RN.A.2

### 7-6    Exponential Functions

CCSS.MATH.CONTENT.HSF.IF.C.7.E

CCSS.MATH.CONTENT.HSA.CED.A.1

CCSS.MATH.CONTENT.HSF.BF.A.1.B

CCSS.MATH.CONTENT.HSF.LE.A.1

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## Unit 8 - Polynomials and Factoring

### 8-1      Adding and Subtracting Polynomials

CCSS.MATH.CONTENT.HSA.APR.A.1

### 8-2      Multiplying and Factoring

CCSS.MATH.CONTENT.HSA.APR.A.1

### 8-3      Multiplying Binomials

CCSS.MATH.CONTENT.HSA.APR.A.1

### 8-4      Multiplying Special Cases

CCSS.MATH.CONTENT.HSA.APR.C.4

CCSS.MATH.CONTENT.HSA.SSE.A.2

### 8-5      Factoring $x^2 + bx + c$

CCSS.MATH.CONTENT.HSA.REI.B.4.B

CCSS.MATH.CONTENT.HSF.IF.C.8.A

### 8-6      Factoring $ax^2 + bx + c$

CCSS.MATH.CONTENT.HSA.REI.B.4.B

### 8-7      Factoring Special Cases

CCSS.MATH.CONTENT.HSA.REI.B.4.B

### 8-8      Factoring by Grouping

CCSS.MATH.CONTENT.HSA.REI.B.4.B

# Unit 9 - Quadratic Functions and Equations

## 9-1    Quadratic Graphs and Their Properties

CCSS.MATH.CONTENT.HSF.IF.C.7

CCSS.MATH.CONTENT.HSF.IF.C.7.A

## 9-2    Quadratic Functions

CCSS.MATH.CONTENT.HSA.CED.A.1

CCSS.MATH.CONTENT.HSF.IF.C.7.A

CCSS.MATH.CONTENT.HSF.IF.C.8.A

CCSS.MATH.CONTENT.HSF.IF.C.9

## 9-3    Solving Quadratic Equations

CCSS.MATH.CONTENT.HSA.REI.B.4

CCSS.MATH.CONTENT.HSA.REI.B.4.A

CCSS.MATH.CONTENT.HSA.REI.B.4.B

## 9-4    Factoring to Solve Quadratic Equations

CCSS.MATH.CONTENT.HSF.IF.C.8.A

## 9-5    Completing the Square

CCSS.MATH.CONTENT.HSF.IF.C.8.A

## 9-6    The Quadratic Formula and the Discriminant

CCSS.MATH.CONTENT.HSA.REI.B.4.A

CCSS.MATH.CONTENT.HSA.REI.B.4.B

## 9-7    Linear, Quadratic, and Exponential Models

CCSS.MATH.CONTENT.HSF.LE.A.1

CCSS.MATH.CONTENT.HSF.LE.A.1.A

CCSS.MATH.CONTENT.HSF.LE.A.1.B

CCSS.MATH.CONTENT.HSF.LE.A.1.C

CCSS.MATH.CONTENT.HSF.LE.A.2

CCSS.MATH.CONTENT.HSF.LE.B.5

## 9-8 Systems of Linear and Quadratic Equations

CCSS.MATH.CONTENT.HSA.REI.C.7

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## Unit 10 - Radical Expressions and Equations

### 10-1    Pythagorean Theorem

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

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

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

CCSS.MATH.CONTENT.HSG.SRT.C.8

### 10-2    Simplifying Radicals

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

CCSS.MATH.CONTENT.HSN.RN.A.1

CCSS.MATH.CONTENT.HSN.RN.A.

### 10-3    Operations with Radical Expressions

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

CCSS.MATH.CONTENT.HSN.RN.A.1

CCSS.MATH.CONTENT.HSN.RN.A.2

### 10-4    Solving Radical Equations

CCSS.MATH.CONTENT.HSA.REI.A.2

### 10-5    Graphing Square Root Functions

CCSS.MATH.CONTENT.HSF.IF.A.1

CCSS.MATH.CONTENT.HSF.IF.A.2

CCSS.MATH.CONTENT.HSF.IF.C.7.B

### 10-6    Trigonometric Ratios

CCSS.MATH.CONTENT.HSG.SRT.C.6

CCSS.MATH.CONTENT.HSG.SRT.C.7

CCSS.MATH.CONTENT.HSG.SRT.C.8

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## Unit 11 - Rational Expressions and Functions

### 11-1 Simplifying Rational Expressions

CCSS.MATH.CONTENT.HSA.SSE.A.1

CCSS.MATH.CONTENT.HSA.SSE.A.1.A

CCSS.MATH.CONTENT.HSA.APR.A.1

### 11-2 Multiplying and Dividing Rational Expressions

CCSS.MATH.CONTENT.HSA.APR.A.1

CCSS.MATH.CONTENT.HSA.APR.D.7

### 11-3 Dividing Polynomials

CCSS.MATH.CONTENT.HSA.APR.D.7

CCSS.MATH.CONTENT.HSA.APR.D.6

### 11-4 Adding and Subtracting Rational Expressions

CCSS.MATH.CONTENT.HSA.APR.A.1

CCSS.MATH.CONTENT.HSA.APR.D.7

### 11-5 Solving Rational Expressions

CCSS.MATH.CONTENT.HSA.APR.D.7

### 11-6 Inverse Variation

CCSS.MATH.CONTENT.HSA.SSE.B.3

### 11-7 Graphing Rational Functions

CCSS.MATH.CONTENT.HSF.IF.C.7

CCSS.MATH.CONTENT.HSF.IF.C.7.D

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## Unit 12 - Data Analysis and Probability

**12-1**    **Organizing Data Using Matrices**

CCSS.MATH.CONTENT.HSN.VM.C.6

CCSS.MATH.CONTENT.HSN.VM.C.7

**12-2**    **Frequency and Histograms**

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

CCSS.MATH.CONTENT.HSS.ID.A.1

CCSS.MATH.CONTENT.HSS.ID.B.5

**12-3**    **Measures of Central Tendency and Dispersion**

CCSS.MATH.CONTENT.HSS.ID.A.2

CCSS.MATH.CONTENT.HSS.ID.A.3

CCSS.MATH.CONTENT.HSS.ID.A.4

**12-4**    **Box-and-Whisker Plots**

CCSS.MATH.CONTENT.HSS.ID.A.1

**12-5**    **Samples and Surveys**

CCSS.MATH.CONTENT.HSS.CP.A.1

CCSS.MATH.CONTENT.HSS.IC.B.3

CCSS.MATH.CONTENT.HSS.IC.B.4

**12-6**    **Permutations and Combinations**

CCSS.MATH.CONTENT.HSS.CP.B.9

**12-7**    **Theoretical and Experimental Probability**

CCSS.MATH.CONTENT.HSS.ID.B.5

CCSS.MATH.CONTENT.HSS.ID.B.6

CCSS.MATH.CONTENT.HSS.ID.B.6.A

CCSS.MATH.CONTENT.HSS.ID.B.6.B

CCSS.MATH.CONTENT.HSS.ID.B.6.C

## 12-8    Probability of Compound Events

CCSS.MATH.CONTENT.HSS.ID.C.7

CCSS.MATH.CONTENT.HSS.ID.C.8

CCSS.MATH.CONTENT.HSS.ID.C.9

CCSS.MATH.CONTENT.HSS.MD.B.6

CCSS.MATH.CONTENT.HSS.MD.B.7