

Math 8 Curriculum Map and I Can Statements 2013 – 2014

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Unit 1: Numbers Review A		Core Alignment : Pre-requisite Skills, 8.NS.1, 8.NS.2
	Concept & Assignment	I Can...
1	Whole Numbers Place Value 1 – 2	Identify the place value of a whole number
2	Decimals Place Value 1 – 2	Identify the place value of a decimal
3	Rounding Whole Numbers	Round a whole number to the nearest place value
4	Rounding Decimals	Round a decimal to the nearest place value
5	Comparing Whole Numbers	Compare and order whole numbers
6	Comparing Decimals (Unit 1 Quiz)	Compare and order decimals
7 – 8	Unit 1 Review / Unit 1 Test	

Unit 2: Numbers Review B		Core Alignment : Pre-requisite Skills, 8.NS.1, 8.NS.2
	Concept & Assignment	I Can...
1	Reducing Fractions- Equivalent Fractions	Reduce fractions into their lowest terms Create equivalent fractions
2	Changing Improper Fractions into Mixed Numbers Changing Mixed Numbers into Improper Fractions	Change an improper fraction into a mixed number Change a mixed number into an improper fraction
3	Comparing Fractions	Compare and order fractions
4	Comparing Negative Integers	Compare and order negative integers
5	Absolute Value 1 – 2 (Unit 2 Quiz)	Find the absolute value of a number and compare absolute value
6 – 7	Unit 2 Review / Unit 2 Test	
8	“Donald Duck in Mathematic Land”	

Unit 3: Exponents, Scientific Notation, & Square Roots		Core Alignment : 8.NS.2, 8.EE.2, 8.EE.3
	Concept & Assignment	I Can...
1	Changing Exponents into Standard & Exponential Form Solving Exponents	Change exponents into standard and exponential form Solve Exponents
2	Changing Numbers into Scientific Notation	Change numbers into scientific notation
3	Changing Scientific Notation into Standard Form	Change scientific notation into standard form
4	Squaring a Number Square Roots on the Number Line (Unit 3 Quiz)	Write a number using square root Place a square root on a number line
5	Finding the Square Root of a Number Finding the Number of a Square Root	Write the square root of a number Write the number for a perfect square
6 – 7	Unit 3 Review / Unit 3 Test	

Unit 4: Classifying Numbers		Core Alignment : 8.NS.1, 8.NS.2
	Concept & Assignment	I Can...
1	Classifying Decimals Classifying Square Roots	Classify a decimal as repeating or non-repeating or terminating Identify square roots as rational or irrational
2	Classifying Numbers (Unit 4 Quiz)	Classify a number as natural, whole
3	Writing Rational and Irrational Numbers on a Number Line	I can write rational and irrational numbers on a number line
4 – 5	Unit 4 Review/ Unit 4 Test	

Unit 5: Operations Review		Core Alignment : Pre-requisite Skills, 8.EE.1
	Concept & Assignment	I Can...
1	Add, Subtract, Multiply, Divide Whole Numbers Add, Subtract, Multiply, Divide Decimals and Integers	Add, subtract, multiply, and divide whole numbers, decimals, and integers
2	Add, Subtract, Multiply, Divide Fractions & Mixed Numbers Add Subtract, Multiply, and Divide Absolute Value	Add, subtract, multiply, and divide fractions, mixed numbers and absolute value
3	Negative Exponents Solving Negative Exponents and Zero Exponents	Solve problems with negative and zero exponents
4	Adding and Subtracting Problems with Exponents	Add and subtract problems with exponents
5	Multiplying Two Powers with the Same Base Multiplying Powers w/ Different Bases and Same Exponents	Multiply powers with the same base different bases, but with the same exponents
6	Powers of Powers (Unit 5 Quiz)	Multiply powers with the same bases, but with different exponents
7	Dividing Powers 1 – 2	Divide powers with the same base, but with different exponents
8	Exponent Rules Mix 1 – 2	Identify an exponent rule and apply that rule to solve a problem
9 – 10	Unit 5 Review /Unit 5 Test	

Unit 6: Order of Operations		Core Alignment : Pre-requisite Skills
	Concept & Assignment	I Can...
1	Order of Operations 1 & Corrections	Use the order of operations to solve math problems
2	Order of Operations 2 & Corrections	Use the order of operations to solve math problems
3	Order of Operations 3 & Corrections	Use the order of operations to solve math problems
4	Order of Operations 4 & Corrections	Use the order of operations to solve math problems
5	Order of Operations 5 & Corrections	Use the order of operations to solve math problems
6	Order of Operations 6 & Corrections	Use the order of operations to solve math problems
7	Order of Operations 7 & Corrections	Use the order of operations to solve math problems
8	Order of Operations 8 & Corrections (Unit 6 Quiz)	Use the order of operations to solve math problems
9 – 10	Unit 6 Review /Unit 6 Test	

Unit 7: Algebraic Expressions

Core Alignment : 8.EE.7

	Concept & Assignment	I Can...
1	Identifying Coefficients, Constants, Variables and Terms	Identify coefficients, constants, variables, and terms
2	Like and Unlike Terms - Simplifying Variable Expressions 1	Identify like and unlike terms
3	Simplifying Variable Expressions 2 – 3	Simplify variable expressions
4	Evaluating Variable Expressions 1 – 2	Evaluate and solve variable expressions
5	Evaluating Variable Expressions 3	Evaluate and solve variable expressions
6	Evaluating Variable Expressions 4 (Unit 7 Quiz)	Evaluate and solve variable expressions using the distributive property
7	Equivalent Expressions 1 – 2	Solve a variable expression and determine if it is an equivalent expression
8 – 9	Unit 7 Review /Unit 7 Test	

Unit 8: Rules of Exponents A

Core Alignment : 8.EE.1

	Concept & Assignment	I Can...
1	Zero and Negative Exponents 1 - 2	Apply the rule of zero and negative exponents
2	Simplifying Algebraic Expressions - Product of Powers 1	Simplify algebraic expressions by applying the rule of exponents for the product of powers
3	Simplifying Algebraic Expressions - Product of Powers 2 – 3	Simplify algebraic expressions by applying the rule of exponents for the product of powers
4	Simplifying Algebraic Expressions - Power of Powers 1	Simplify algebraic expressions by applying the rule of exponents for the power of powers
5	Simplifying Algebraic Expressions - Power of Powers 2 – 3	Simplify algebraic expressions by applying the rule of exponents for the power of powers
6	Simplifying Algebraic Expressions - Power of Products 1 – 2	Simplify algebraic expressions by applying the rule of exponents for the power of products
7	Simplifying Algebraic Expressions - Power of Products 3 – 4	Simplify algebraic expressions by applying the rule of exponents for the power of products
8	Finish Work (Unit 8 Quiz)	
9 – 10	Unit 8 Review /Unit 8 Test	

Unit 9: Rules of Exponents B

Core Alignment : 8.EE.1

	Concept & Assignment	I Can...
1	Zero and Negative Exponents Review Simplifying Algebraic Expressions: Quotient of Powers 1	Use the rules of exponents
2	Simplifying Algebraic Expressions: Quotient of Powers 2 – 3	Simplify algebraic expressions by applying the rule of exponents for quotient of powers
3	Simplifying Algebraic Expressions: Power of a Quotient 1 – 2	Simplify algebraic expressions by applying the rule of exponents for power of a quotient
4	Simplifying Algebraic Expressions: Power of a Quotient 3	Simplify algebraic expressions by applying the rule of exponents for power of a quotient
5	Finish Work (Unit 9 Quiz)	
6 – 7	Unit 9 Review /Unit 9 Test	

Unit 10: One Step Variable Equations

Core Alignment : 8.EE.7

	Concept & Assignment	I Can...
1	Solving One Step Variable Equations 1 – 2	Solve one step variable equations
2	Solving One Step Variable Equations 3 – 4 (Unit 10 Quiz)	Solve one step variable equations
3	Solving One Step Variable Equations with Fractions 1 – 2	Solve one step variable equations
4 – 5	Unit 10 Review /Unit 10 Test	

Unit 11: Multiple Step Variable Equations

Core Alignment : 8.EE.7

	Concept & Assignment	I Can...
1	Solving Multiple Step Variable Equations 1 – 2	Solve Multiple Step Variable Equations
2	Solving Multiple Step Variable Equations 3 – 4	Solve Multiple Step Variable Equations
3	Solving Multiple Step Variable Equations 5	Solve Multiple Step Variable Equations
4	Solving Multiple Step Variable Equations 6	Solve Multiple Step Variable Equations
5	Solving Multiple Step Variable Equations 7 (Unit 11 Quiz)	Solve Multiple Step Variable Equations
6	Solving Multiple Step Variable Equations 8 – 9	Solve Multiple Step Variable Equations
7	Solving Multiple Step Variable Equations 10	Solve Multiple Step Variable Equations
8	Solving Multiple Step Variable Equations 11	Solve Multiple Step Variable Equations
9	Solving Multiple Step Variable Equations 12	Solve Multiple Step Variable Equations
10	Solving Multiple Step Variable Equations 13 – 14	Solve Multiple Step Variable Equations
11-13	Unit 11 Review A /Unit 11 Review B /Unit 11 Test	

Unit 12: Ratio, Proportion and Percent

Core Alignment : Pre-requisite Skills, 8.EE.5

	Concept & Assignment	I Can...
1	Writing Ratios 1 – 2 Solving Proportions - Checking Proportions	Write a ratio Solve and check proportions
2	Percent Ratios 1 – 2	Set up and solve percent ratios
3	Percent Ratios 3 – 4	Set up and solve percent ratios
4	Finding Discount Prices 1 – 4	Find discount prices using a proportion
5	Percent Increase or Decrease 1 – 4 (Unit 12 Quiz)	Find discount prices using a proportion
6	Converting Percent's, Decimals, and Fractions 1 – 2	Covert percent's decimals, and fractions
7 – 8	Unit 12 Review /Unit 12 Test	

Unit 13: Co-ordinate Plane and Slope

Core Alignment : 8.F.3 , 8.F.4

	Concept & Assignment	I Can...
1	Plotting Points on a Co-ordinate Plane 1 – 4	Plot points on a co-ordinate plane
2	Finding the Slope of a Line 1 – 4	Find the slope of a line from a graph
3	Finding the Slope of a Line 5 – 6	Find the slope of a line with two sets of coordinate points
4	Finding the x and y-intercept 1 – 2 (Unit 13 Quiz)	Find the y and y-intercept using an equation in slope intercept form
5	Graphing Linear Equations 1 – 4	Graph linear equations
6 – 7	Unit 13 Review /Unit 13 Test	

Unit 14 : Introduction to Functions

Core Alignment : 8.F.1

	Concept & Assignment	I Can...
1	Domain and Range 1 – 2	List the domain and range from a set of co-ordinate points
2	Classifying Functions 1 – 2	Classify a relation as a function
3	Classifying Functions 3 – 4 (Unit 14 Quiz)	Check the validity of a functions
4 – 5	Unit 14 Review /Unit 14 Test	

Unit 15: Functions: Equations, Slope, and Rate of Change

Core Alignment : 8.F.2 , 8.F.4

	Concept & Assignment	I Can...
1	Writing Functions in a Table 1 – 2	Write a function in a table of values
2	Identifying and Graphing Linear and Non-linear Functions 1 – 2	Identify and graph linear and non-linear functions
3	Identifying and Graphing Linear and Non-linear Functions 3 – 4	Identify and graph linear and non-linear functions
4	Construct a Function from a Table of Values 1 – 2	Construct a function from a table of values
5	Construct a Function from a Table of Values 3 – 4 (Unit 15 Quiz)	Construct a function from a table of values
6	Finding Slope, y – Intercept, and Rate of Change 1 – 2	Find the slope, y-intercept, and rate of change of a function
7	Finding Slope, y – Intercept, and Rate of Change 3 – 4	Find the slope, y-intercept, and rate of change of a function
8 – 9	Unit 15 Review/ Unit 15 Test	

Unit 16: Translations, Reflections, and Rotations

Core Alignment : 8.G.1, 8.G.2, 8.G.3, 8.G.4

	Concept & Assignment	I Can...
1	Vocabulary and Symbols 1 – 2	Use vocabulary and symbols associated with translations, reflections, and rotations
2	Properties of Translations 1 – 2	Identify and use the properties of translations
3	Properties of Reflections 1 – 2	Identify and use the properties of reflections
4	Properties of Rotations 1 – 2 (Unit 16 Quiz)	Identify and use the properties of rotations
5 – 6	Unit 16 Review/ Unit 16 Test	

Unit 17: Angle Relationships

Core Alignment : 8.G.5

	Concept & Assignment	I Can...
1	Vocabulary and Symbols 1 – 2	Use vocabulary and symbols associated with angles
2	Angle Relationships and Measurement 1 – 2	Apply the properties of angles to find missing measurement in angles
3	Angles, Parallel Lines, and Transversals 1 – 2 (Unit 17 Quiz)	Apply the properties of angles to find missing measurements in angles with transversals
4	Angles, Parallel Lines, and Transversals 3 – 4	Apply the properties of angles to find missing measurements in angles with transversals
5 – 6	Unit 17 Review / Unit 17 Test	

Unit 18: Pythagorean Theorem

Core Alignment : 8.G.6, 8.G.7, 8.G.8

	Concept & Assignment	I Can...
1	Pythagorean Theorem 1 – 2	Find the missing side of a triangle by using the Pythagorean theorem
2	Pythagorean Theorem 3 – 4	Find the missing side of a triangle by using the Pythagorean theorem
3	Pythagorean Theorem 5 – 6	Use the Pythagorean theorem to find the distance between 2 points
4	Pythagorean Theorem 7 – 8 (Unit 18 Quiz)	Use the Pythagorean Theorem to find the distance between two points
5 – 6	Unit 18 Review /Unit 18 Test	

Unit 19: Volume of Cylinders, Cones, and Spheres

Core Alignment : 8.G.9

	Concept & Assignment	I Can...
1	Volume of Cylinders 1 – 2	Find the volume of a cylinder
2	Volume of Cones 1 – 2	Find the volume of a cone
3	Volume of Spheres 1 – 2 (Unit 19 Quiz)	Find the volume of a sphere
4 – 5	Unit 19 Review /Unit 19 Test	

Unit 20: Scatter Plots

Core Alignment : 8.SP.1, 8.SP.2, 8.SP.3, 8.SP.4

	Concept & Assignment	I Can...
1	Interpreting Scatter Plots 1 – 2	Interpret scatter plots by identifying patterns and line of best fit
2	Constructing and Interpreting Scatter Plots 1 – 2	Construct scatter plots from a table of information and interpret scatter plots
3	Constructing and Interpreting Scatter Plots 3 – 4 (Unit 20 Quiz)	Construct scatter plots from a table of information and interpret scatter plots
4	Constructing and Interpreting Scatter Plots 5 – 6	Construct scatter plots from a table of information and interpret scatter plots
5 – 6	Unit 20 Review/ Unit 20 Test	