

# Math Curriculum Map for Foundations of Algebra

	September	October	November	December	January	
Unit Name or Theme	SOLVING EQUATIONS: Using addition and subtraction	SOLVING EQUATIONS: Using multiplication and division	SOLVING EQUATIONS: Using number properties	INTEGERS and ABSOLUTE VALUE	USING EXPONENTS and FRACTIONS	Unit Name or Theme
Enduring Understandings and Performance Indicators	<p>Algebraic expressions are made up of whole numbers and decimals</p> <p>Sums can be estimated and computed</p> <p>Differences can be estimated and computed</p> <p>Equations can be solved among a number of steps</p> <p>Algebraic equations can be used to solve mathematical or real life problems</p>	<p>Products can be estimated and computed</p> <p>Quotients can be estimated and computed</p> <p>Algebraic equations can be used to solve mathematical or real life problems</p>	<p>Algebraic equations can be used to solve mathematical or real life problems</p> <p>Equations can answer questions</p> <p>Properties of operations can be used to generate equivalent expressions</p>	<p>Integers can be compared and ordered</p> <p>Integers can be computed</p> <p>Equations can be solved with integers</p> <p>Rational numbers are points on a number line</p> <p>Absolute value assists in comparisons</p>	<p>Algebraic fractions can be represented with LCM</p> <p>Scientific notations can be documented mathematically</p> <p>Exponential laws can be applied</p> <p>Fractions can be reduced to lowest terms</p>	Enduring Understandings and Performance Indicators
Essential Questions	<p>How can I apply equations to mathematical problem solving?</p> <p>What strategies can I apply to solve algebraic equations?</p> <p>How do I estimate sums?</p> <p>How can I solve a multi-step mathematic or algebraic equation?</p>	<p>What strategies can I apply to solve algebraic equations?</p> <p>How do I estimate and compute products?</p> <p>How do I estimate and compute quotients?</p>	<p>When are algebraic expressions used?</p> <p>What strategies can be used to solve for unknowns in algebraic equations?</p> <p>How can I demonstrate equivalent expressions?</p> <p>How do I apply orders of operations to compute equations?</p> <p>How do I solve two step equations?</p> <p>How do I use two operations in solving two step equations?</p> <p>How can I combine like terms?</p>	<p>What is an integer?</p> <p>How can I compare integers?</p> <p>How can I order integers?</p> <p>What methods or strategies can I use in solving equations using integers?</p> <p>What is absolute value?</p> <p>How can I find absolute value?</p>	<p>How can mathematical situations and problems be represented?</p> <p>What rules apply to the use of exponents?</p> <p>How can I evaluate exponential notation?</p> <p>How do I determine GCF and LCM?</p> <p>How can I reduce fractions?</p>	Essential Questions

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Assessment Strategies Formative & Summative	<p>Quizzes Tests Group projects Paper/pencil class work Homework Heath's Foundations of Algebra</p>	<p>Textbook check-ups Ongoing assessments Homework</p>	<p>Heath's Foundations of Algebra Paper/pencil class work Homework</p>	<p>Heath's Foundations of Algebra Paper/pencil class work Homework</p>	<p>Heath's Foundations of Algebra Paper/pencil class work Homework</p>	Assessment Strategies Formative & Summative
Instructional Skills and Strategies	<p><b>Instructional Skills and Strategies:</b> Write numerical expressions involving whole numbers</p> <p>Write, read and evaluate expressions in which letters stand for numbers</p> <p>Evaluate algebraic equations with whole numbers and decimals</p> <p>Transfer phrases into algebraic expressions</p> <p>Identify parts of an expression using mathematical terms</p> <p>Estimate and compute sums using addition and subtraction of whole numbers and decimals</p> <p>Estimate and compute differences using addition and subtraction of whole numbers and decimals</p> <p>Solve one step equations</p> <p>Write algebraic equations to solve word problems using addition and subtraction</p>	<p><b>Instructional Skills and Strategies:</b> Estimate and compute products using multiplication of whole numbers and decimals</p> <p>Estimate and compute quotients dividing whole numbers and decimals</p> <p>Solve one step equations</p> <p>Write equations to solve word problems using addition and subtraction</p> <p>Use algebraic symbols to represent a problem</p>	<p><b>Instructional Skills and Strategies:</b> Write expressions that record operations with numbers and with letters standing for numbers</p> <p>Apply properties of operations to generate equivalent expressions</p> <p>Identify when two expressions are equivalent</p> <p>Solve real world and mathematical problems by writing and solving equations</p> <p>Compute using the order of operations</p> <p>Demonstrate the relationship between addition and multiplication</p> <p>Solve two step equations</p> <p>Solve two step equations with two operations</p> <p>Combine like terms</p>	<p><b>Instructional Skills and Strategies:</b> Compare integers</p> <p>Order integers</p> <p>Compute equations with integers</p> <p>Solve one and two step equations with integers</p> <p>Recognize absolute value</p> <p>Compare absolute value with order of numbers</p> <p>Rewrite expressions in different forms</p> <p>Represent rational numbers on a number line</p> <p>Recognize opposite signs as indicating locations</p> <p>Order rational numbers</p> <p>Write, interpret and explain order of rational numbers</p>	<p><b>Instructional Skills and Strategies:</b> Identify GCF</p> <p>Identify LCM</p> <p>Reduce fractions to lowest terms</p> <p>Reduce algebraic fractions to lowest terms</p> <p>Find LCM of algebraic fractions</p> <p>Factor prime numbers</p> <p>Write using scientific notation</p> <p>Explore exponent laws</p> <p>Evaluate exponent notation</p>	Instructional Skills and Strategies
Primary Resources	Heath's Foundations of Algebra	Heath's Foundations of Algebra	Heath's Foundations of Algebra	Heath's Foundations of Algebra	Heath's Foundations of Algebra	Primary Resources

# Math Curriculum Map for Foundations of Algebra

Links with CCSS/ NCTM	CCSS 6.EE.1,6.EE.2.bc NCTM Algebra, Problem Solving, Communication, Connection, Representation, Reasoning and Proof	CCSS 6.EE.2 abc, NCTM Algebra, Problem Solving, Communication, Connections, Representation, Reasoning and Proof	CCSS 6.EE.3,6.EE.4, 6.EE.5, 6.EE.7, 6.EE.8, 7.EE.1 NCTM Algebra, Communication, Connections, Representation, Reasoning and Proof	CCSS 6.NS.6, 6.NS.7abcd, 6.NS.8, 7.EE.2, 7.EE.3 NCTM Algebra, Problem Solving, Reasoning and Proof Communication, Connections, Representation	CCSS 7.EE.4, 6.EE.1 NCTM Algebra, Communication, Connections, Representation, Reasoning and Proof	Links with CCSS/NCTM
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