

Inspiring Connections Course 1

8.1.1	I can identify the side lengths and areas of algebra tiles. (EE.A)
8.1.2	I can write an expression that represents a group of algebra tiles. (EE.A)
8.1.3	I can use the Distributive Property to write and identify equivalent expressions. (EE.A)
8.1.4	I can write expressions with variables and numbers to represent the area and perimeter of algebra tiles. (EE.A)
8.1.5	I can identify constants and coefficients in expressions such as $3x+8$. (EE.A) I can combine like terms in expressions such as $4x+5+3x+7$. (EE.A)
8.1.6	I can substitute values for x to evaluate expressions such as $3x^2 + 5x + 7$. (EE.A and NS.B)
8.2.1	I can identify equivalent numerical expressions. (EE.A)
8.2.2	I can write an algebraic expression from a context. (EE.A) I can determine if two algebraic expressions are equivalent. (EE.A)
8.2.3	I can use algebraic expressions to answer questions. (EE.A and EE.B)
8.3.1	I can use substitution to determine if a number makes an equation true. (EE.B)
8.3.2	I can write and evaluate expressions that represent scenarios. (EE.B and EE.C)
8.3.3	I can write an equation that represents a scenario. (EE.B and EE.C)
8.3.4	I can write an inequality statement, such as $x > 42$. (EE.B and EE.C) I can represent a statement of inequality as a set of points on a number line. (EE.B)
9.1.1 **	I can explain what a solution to an equation represents. (EE.B) I can define variables using a “let” statement. (EE.B)
9.1.2 **	I can undo operations to calculate an input. (EE.B)
9.1.3 **	I can identify unknown values in a tape diagram, balanced scale, and area model. (EE.B)
9.1.4 **	I can write and solve multiplication equations, such as $4x = 20$. (EE.B)
9.1.5 **	I can write and solve addition equations, such as $15 + x = 32$. (EE.B)
9.1.6 **	I can write addition inequalities such as $15 + x > 32$. (EE.B) I can interpret solutions to inequalities, such as the solutions to $x > 17$. (EE.B) I can plot solutions to inequalities on a number line. (EE.B)
9.1.7 **	I can use equations to solve real-world problems. (EE.B) I can solve addition inequalities. (EE.B)

** These lessons do not require or suggest Algebra tiles in the Authors' Vision. As needed, use algebra tiles to support these lessons.

Inspiring Connections Course 2

6.2.1	I can use algebra tiles to represent expressions and combine like terms. I can use variables to represent unknown lengths. (EE.A)
6.2.2	I can rewrite expressions using mathematical properties. I can write expressions that represent the area and perimeter of a collection of algebra tiles. (EE.A)
6.2.3	I can use both positive and negative algebra tiles to represent expressions. I can recognize that $-x$ is the opposite of x , and $-x$ can be positive, negative, or zero. (EE.A)
6.2.4	I can identify zero pairs in a collection of algebra tiles. I can rewrite algebraic expressions by removing zero pairs and combining like terms. (EE.A)
6.2.5	I can connect algebraic expressions to movement on a number line. (EE.A)
6.3.1	I can use the Distributive Property to write equivalent expressions. I can use generic rectangles to expand and factor expressions. (EE.A)
6.3.2	I can use mathematical properties to write equivalent expressions. (EE.A)
6.3.3 **	I can make connections between problem contexts and algebraic expressions. (EE.A)
8.2.1	I can use Expression Comparison Mats and algebra tiles to compare algebraic expressions. (EE.B)
8.2.2	I can record my work when comparing expressions built with algebra tiles on an Expression Comparison Mat. (EE.B)
8.2.3	I can write the solution to a comparison that depends on the value of x . (EE.B)
8.3.1	I can solve an equation for x with algebra tiles and check my solution. (EE.B)
8.3.2	I can write the steps to solve an equation without a table. (EE.B)
8.3.3 **	I can use a Guess and Check Table and a labeled diagram to write an equation for a word problem. (EE.B)
8.3.4	I can write and solve equations with rational numbers represented in various contexts. (EE.B)
8.3.5	I can solve inequalities with rational numbers. (EE.B)
8.3.6 **	I can solve equations and inequalities with rational numbers and check my solution. (EE.B)

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Inspiring Connections Course 3

3.2.1	I can use algebra tiles and an Expression Mat to represent algebraic expressions.
3.2.2	I can record my work when rewriting expressions built with algebra tiles on an Expression Mat.
3.2.3	I can describe the tile moves used to solve equations.
3.2.4	I can use algebra tiles to solve equations.
4.2.1	I can check the solution to an equation with substitution. (EE.A)
4.2.2	I can determine if an equation has a solution. (EE.A)
4.2.3	I can determine the number of solutions to an equation. (EE.A) I can solve equations in one variable. (EE.A)
4.2.4	I can solve complicated equations. (EE.A)
4.2.5	I can tell the difference between equations with no solutions, one solution, and infinitely many solutions. (EE.A)
5.2.1 **	I can solve an equation for one variable. (EE.C)
5.2.2 **	I can solve equations that have fraction and decimal constants and coefficients. (EE.C)
5.2.3 **	I can describe and compare graphs of linear equations with different growth rates, m , and different starting values, b . (SP.A)
5.2.4 **	I can interpret a point of intersection in context using a graph and equations. (EE.C)
5.2.5 **	I can write and graph the equation for a trend line in $y = mx + b$ form. (SP.A)
6.1.3 **	I can solve a system of equations algebraically.

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Algebra Tiles Support Videos

[Algebra Tiles - Intro & Mats](#) (Teacher Tutorials)

[Algebra Tiles Introduction](#) (video)

[Algebra Tiles: Legal Simplification Moves](#) (video)

[Algebra Tiles: Using an Expression Mat](#) (video)

[Simplifying Like Terms Using Algebra Tiles](#) (Teacher Tutorials)

[Algebra Tiles: Combining Like Terms Part 1](#) (video)

[Algebra Tiles: Combining Like Terms Part 2](#) (video)

[Algebra Tiles: Combining Like Terms Part 3](#) (video)

[Evaluating Expressions Using Algebra Tiles](#) (Teacher Tutorials)

[Algebra Tiles: Evaluating Expressions Part 1](#) (video)

[Algebra Tiles: Evaluating Expressions Part 2](#) (video)

[Algebra Tiles: Evaluating Expressions Part 3](#) (video)

[Solutions for Linear Equations Using Algebra Tiles](#) (Teacher Tutorials)

[Algebra Tiles: Linear Equation Solutions Part 1](#) (video)

[Algebra Tiles: Linear Equation Solutions Part 2](#) (video)

[Algebra Tiles: Linear Equation Solutions Part 3](#) (video)

[Algebra Tiles: Linear Equation Solutions Part 4 \(Summary\)](#) (video)

Future Courses

[Factoring Quadratics \(Using Diamond Problems\)](#) (video)

[Factoring Quadratics \(Without Using Diamond Problems\)](#) (video)

[Completing the Square](#) (video)

[Polynomial Division without a remainder](#) (video)