Correlations to McDougal Littell, Algebra 1

Correlated Lesson	Unit	Activity	Description
		Exploring Algebra 1 with The Geometer's Sketchpad	
1.3	3	Order of Operations	Explore how mathematical communication requires agreement on certain rules.
2.2	1	Adding Integers	Add positive and negative integers using a visual model.
2.3	1	Subtracting Integers	Subtract positive and negative integers using a visual model.
2.5	1	Multiple Models of Multiplication	Look at multiplication in four very different ways.
2.6	3	The Distributive Property	A visual model brings the distributive property to life.
2.6	3	The Distributive Property: A Painting Dilemma	A Student Activities Committee project leads to a mathematical principle.
3.1	4	Solving Linear Equations by Balancing	Manipulate a balance model and use it to solve equations.
3.1	4	Solving Linear Equations by Undoing	Use a visual model and inverse operations to solve equations.
3.8	2	Ratio and Proportion	Explore ratios and proportions involving side lengths of rectangles.
4.1	5	Coordinates: The Fly on the Ceiling	Measure coordinates and plot points with the help of a fly on Descartes' ceiling.
4.1	5	The Origin: Center of the World	Work with the origin and negative coordinates, identify the quadrants, and draw figures.
4.4	5	Points Lining Up in the Plane	Find points that satisfy algebraic rules and write rules to describe sets of points.
4.4	5	The Slope of a Line	Explore the relationship between the slope of a line and the points that determine the line.
4.4	5	The Slope Game	Construct and play a game involving lines and slope measurements.
4.4	5	More Slope Games	Acquire an intuitive feel for slope by playing four different games involving slopes.
4.5	6	Direct Variation	Build a geometric model to study direct variation.
4.6	6	The Slope-Intercept Form of a Line	Plot points determined by $y = mx + b$ and construct the resulting line and families of lines. This activity is also available in the **Supplemental Activities** folder using the form $y = a + bx$.
5.1	6	The Slope-Intercept Form of a Line	Plot points determined by $y = mx + b$ and construct the resulting line and families of lines. This activity is also available in the **Supplemental Activities** folder using the form $y = a + bx$.
5.2	6	The Point-Slope Form of a Line	Examine the effect of each constant on the graph of an equation in the form $y = m(x - h) + k$. This activity is also available in the **Supplemental Activities** folder using the form $y = y_1 + b(x - x_1)$.
5.4	6	Lines of Fit	Approximate a line of best fit to a number of data points, and use the line to make an estimate.

Correlated Lesson	Unit	Activity	Description
		Exploring Algebra 1 with The Geometer's Sketchpad	
5.5	6	The Point-Slope Form of a Line	Examine the effect of each constant on the graph of an equation in the form $y = m(x - h) + k$. This activity is also available in the **Supplemental Activities** folder using the form $y = y_1 + b(x - x_1)$.
5.6	6	The Standard Form of a Line	Explore the effects of a, b, and c on the graph of a line expressed in the form $ax + by = c$.
5.7	6	Lines of Fit	Approximate a line of best fit to a number of data points, and use the line to make an estimate.
6.3	4	Solving Compound Inequalities	Substitute many values quickly to solve compound inequalities.
8.1	2	Exponents	Learn principles of exponents by experimenting with repeated multiplication.
8.2	2	Zero and Negative Exponents	Use a visual model to understand the behavior of negative exponents.
8.3	2	Exponents	Learn principles of exponents by experimenting with repeated multiplication.
9.1–2	3	Squares and Square Roots	Explore squares and square roots using virtual dot paper.
9.3	7	Modeling with Quadratic Equations: Where Are the Giant Ants?	Explore issues of scale to better understand quadratic and linear relationships.
10.2	3	The Product of Two Binomials	Use tiles to model multiplication of binomials.
10.2	3	Squaring Binomials	Use dynamic algebra tiles to connect algebraic and geometric squares.
10.5	7	Factoring Trinomials	Factor trinomials using algebra tiles and investigate the role of the coefficients.
10.6	7	Factoring Trinomials	Factor trinomials using algebra tiles and investigate the role of the coefficients.
11.1	2	Ratio and Proportion	Explore ratios and proportions involving side lengths of rectangles.
11.3	6	Inverse Variation	Plot (x, y) points representing an inverse relationship, and then plot a family of curves.
12.1–2	3	Squares and Square Roots	Explore squares and square roots using virtual dot paper.
12.5	5	The Pythagorean Theorem	Verify the Pythagorean theorem using coordinates and develop the distance formula.