

**Correlation of Appendix A: Traditional Pathway of the CCSS  
to CPM Core Connections Algebra**

The following Teacher Guides identify the CCSS standard for each of the lessons in CPM *Core Connections Algebra*.

The standards continue to be implemented, applied, and practiced throughout subsequent lessons.

Chapter 1 Teacher Guide

<b>Section</b>	<b>Lesson</b>	<b>Lesson Objectives</b>	<b>CCSS Standards</b>
1.1	1.1.1	Solving Puzzles in Teams	F-IF.1, F-IF.2
	1.1.2	Investigating the Growth of Patterns	F-IF.7a, F-IF.7e
	1.1.3	Investigating the Graphs of Quadratic Functions	A-REI.10, F-IF.4, F-IF.7a
1.2	1.2.1	Describing a Graph	A-REI.10, F-IF.4, F-IF.7b
	1.2.2	Cube Root and Absolute Value Functions	A-REI.10, F-IF.7b
	1.2.3	Function Machines	F-IF.1, F-IF.2
	1.2.4	Functions	F-IF.1, F-IF.2
	1.2.5	Domain and Range	F-IF.1, F-IF.2, F-IF.5

## Chapter 2 Teacher Guide

Section	Lesson	Lesson Objectives	CCSS Standards
	Appendix (optional)	Representing Expressions	
2.1	2.1.1	Seeing Growth in Linear Representations	F-IF.7a, F-LE.1a, F-LE.2, F-LE.5
	2.1.2	Slope	F-IF.7a, F-LE.1a, F-LE.2, F-LE.5
	2.1.3	Comparing $\Delta y$ and $\Delta x$	F-IF.4, F-IF.7a, F-LE.1a, F-LE.5
	2.1.4	$y = mx + b$ and More on Slope	A-SSE.1a, A-SSE.1b, A-REI.10, F-IF.4, F-IF.7a, F-BF.1a, F-LE.1a, F-LE.2, F-LE.5
2.2	2.2.1	Slope as Motion	A-CED.2, F-IF.4, F-IF.7a, F-BF.1a, F-LE.1b, F-LE.2, F-LE.5
	2.2.2	Rate of Change	N-Q.1, N-Q.2, A-CED.2, F-IF.4, F-IF.6, F-IF.7a, F-IF.7b, F-IF.9, F-BF.1a, F-LE.1b, F-LE.2, F-LE.5
	2.2.3	Equations of Lines in Situations	N-Q.2, A-CED.2, F-IF.4, F-IF.7a, F-BF.1a, F-LE.1b, F-LE.2, F-LE.5
2.3	2.3.1	Finding an Equation Given a Slope and a Point	N-Q.2, A-CED.2, F-IF.4, F-IF.7a, F-BF.1a, F-LE.1b, F-LE.2, F-LE.5
	2.3.2	Finding the Equation of a Line Through Two Points	A-REI.10, F-IF.7a, F-BF.1a, F-LE.2
	Extension Activity (optional)	Finding $y = mx + b$ from Graphs and Tables	

## Chapter 3 Teacher Guide

Section	Lesson	Lesson Objectives	CCSS Standards
3.1	3.1.1	Simplifying Exponential Expressions	A-SSE.3c
	3.1.2	Zero and Negative Exponents	A-SSE.3c
3.2	3.2.1	Equations $\leftrightarrow$ Algebra Tiles	A-REI.1, A-REI.3
	3.2.2	Exploring an Area Model	A-SSE.3a
	3.2.3	Multiplying Binomials and the Distributive Property	A-APR.1
	3.2.4	Using Generic Rectangles to Multiply	A-APR.1
3.3	3.3.1	Solving Equations With Multiplication and Absolute Value	A-REI.1, A-REI.3, (A-REI.3.1)
	3.3.2	Working With Multi-Variable Equations	A-SSE.1a, A-APR.1, A-CED.4, A-REI.3
	3.3.3	Summary of Solving Equations	A-CED.4, A-REI.3

## Chapter 4 Teacher Guide

Section	Lesson	Lesson Objectives	CCSS Standards
4.1	4.1.1	Solving Word Problems by Writing Equations	N-Q.2, A-SSE.1b, A-CED.1, A-REI.6, F-LE.1b
	4.1.2	One Equation or Two?	N-Q.2, A-CED.1, A-CED.2, A-REI.6
4.2	4.2.1	Solving Systems of Equations Using Substitution	A-REI.6
	4.2.2	Making Connections: Systems, Solutions, and Graphs	N-Q.2, A-REI.5, A-REI.6, A-REI.10
	4.2.3	Solving Systems Using Elimination	A-REI.5, A-REI.6
	4.2.4	More Elimination	A-REI.5, A-REI.6
	4.2.5	Choosing a Strategy for Solving Systems	A-REI.5, A-REI.6
4.3	4.3.1	Pulling it all Together	N-Q.1, A-CED.2

## Chapter 5 Teacher Guide

Section	Lesson	Lesson Objectives	CCSS Standards
5.1	5.1.1	Representing Exponential Growth	N-Q.2, F-LE.1c
	5.1.2	Rebound Ratios	F-LE.1c
	5.1.3	The Bouncing Ball and Exponential Decay	F-IF.7e, F-LE.1c
5.2	5.2.1	Generating and Investigating Sequences	F-BF.2, F-LE.2
	5.2.2	Generalizing Arithmetic Sequences	F-IF.3, F-BF.2, F-LE.2
	5.2.3	Recursive Sequences	F-IF.3, F-BF.2, F-LE.2
5.3	5.3.1	Patterns of Growth in Tables and Graphs	F-IF.6, F-LE.1a, F-LE.3
	5.3.2	Using Multipliers to Solve Problems	F-LE.1c, F-LE.2
	5.3.3	Comparing Sequences to Functions	F-IF.3

## Chapter 6 Teacher Guide

Section	Lesson	Lesson Title	CCSS Standards
6.1	6.1.1	Line of Best Fit	N-Q.1, S-ID.6a, S-ID.6c, S-ID.7
	6.1.2	Residuals	N-Q.1, S-ID.6a, S-ID.6c
	6.1.3	Upper and Lower Bounds	N-Q.1, N-Q.3, S-ID.6a, S-ID.6c
	6.1.4	Least Squares Regression Line	N-Q.1, S-ID.6a, S-ID.6c
6.2	6.2.1	Residual Plots	N-Q.1, S-ID.6a, S-ID.6b
	6.2.2	Correlation	N-Q.1, S-ID.6a, S-ID.8
	6.2.3	Association is Not Causation	N-Q.1, S-ID.6a, S-ID.9
	6.2.4	Interpreting Correlation in Context	N-Q.1, S-ID.6a, S-ID.8
	6.2.5	Curved Best-Fit Models	N-Q.1, S-ID.6a

## Chapter 7 Teacher Guide

Section	Lesson	Lesson Objectives	CCSS Standards
7.1	7.1.1	Investigating $y = b^x$	F-IF.4, F-IF.7e
	7.1.2	Multiple Representations of Exponential Functions	A-CED.1, A-CED.2, F-IF.6, F-IF.7e, F-IF.8b, F-LE.1c, F-LE.2, F-LE.5
	7.1.3	More Applications of Exponential Growth	A-SSE.1b, A-CED.1, A-CED.2, F-IF.6, F-IF.7b, F-IF.7e, F-IF.8b, F-LE.1a, F-LE.1c, F-LE.2, F-LE.5
	7.1.4	Exponential Decay	A-SSE.3c, A-CED.1, A-CED.2, F-IF.7e, F-IF.8b, F-LE.1c, F-LE.2, F-LE.5
	7.1.5	Graph to Equation	A-CED.1, A-CED.2, F-IF.4, F-IF.5, F-IF.7b, F-IF.7e, F-IF.8b, F-LE.1c, F-LE.2, F-LE.5
	7.1.6	Completing the Multiple Representations Web	N-Q.1, N-Q.2, A-CED.1, A-CED.2, F-IF.4, F-IF.5, F-IF.7e, F-IF.8b, F-IF.9, F-LE.1c, F-LE.2, F-LE.5
7.2	7.2.1	Curve Fitting and Fractional Exponents	N-RN.1, N-RN.2, F-IF.5, F-BF.1a, F-LE.2
	7.2.2	More Curve Fitting	A-REI.10, F-IF.7e, F-BF.1a, F-LE.2
	7.2.3	Solving a System of Exponential Functions Graphically	N-Q.2, F-IF.7e, F-BF.1a, F-LE.1c

## Chapter 8 Teacher Guide

Section	Lesson	Lesson Objectives	CCSS Standards
8.1	8.1.1	Introduction to Factoring Quadratics	A-SSE.3a
	8.1.2	Factoring with Generic Rectangles	A-SSE.3a
	8.1.3	Factoring with Special Cases	A-SSE.3a
	8.1.4	Factoring Completely	A-SSE.2, A-SSE.3a
	8.1.5	Factoring Shortcuts	A-SSE.2, A-SSE.3a
8.2	8.2.1	Multiple Representations for Quadratic Functions	N-Q.1, A-SSE.3a, A-CED.2, F-IF.4, F-IF.5, F-IF.7a, F-IF.8a, F-IF.9, F-BF.1a, (F-LE.6)
	8.2.2	Zero Product Property	A-SSE.3a, A-CED.2, A-REI.4b, F-IF.8a, F-BF.1a
	8.2.3	More Ways To Find the $x$ -Intercepts	A-SSE.3a, A-CED.2, A-REI.4b, F-IF.4, F-IF.7a, F-IF.8a, F-BF.1a
	8.2.4	Completing the Quadratic Web	A-SSE.3a, A-CED.2, F-IF.4, F-IF.7a, F-IF.8a, F-IF.9, F-BF.1a
	8.2.5	Completing the Square	A-SSE.1b, A-SSE.3b, A-REI.4a, F-IF.7a, F-IF.8a

## Chapter 9 Teacher Guide

Section	Lesson	Lesson Objectives	CCSS Standards
9.1	9.1.1	Solving Quadratic Equations	A-SSE.3b, A-REI.4a, A-REI.4b
	9.1.2	Introduction to the Quadratic Formula	A-REI.4a, A-REI.4b
	9.1.3	More Solving Quadratic Equations	A-CED.1, A-CED.2, A-REI.4a, A-REI.4b, F-IF.8a, (F-LE.6)
	9.1.4	Choosing a Strategy	A-CED.1, A-CED.2, A-REI.4a, A-REI.4b, F-IF.8a, (F-LE.6)
9.2	9.2.1	Solving Linear, One-Variable Inequalities	A-CED.1, A-REI.3
	9.2.2	More Solving Inequalities	N-Q.2, A-CED.1, A-REI.3
9.3	9.3.1	Graphing Two-Variable Inequalities	A-REI.10, A-REI.12, A-CED.3
	9.3.2	Graphing Linear and Non-Linear Inequalities	N-Q.2, A-CED.3, A-REI.12
9.4	9.4.1	Systems of Inequalities	A-REI.12
	9.4.2	More Systems of Inequalities	N-Q.2, A-CED.3, A-REI.12
	9.4.3	Applying Inequalities to Solve Problems	N-Q.2, A-CED.3, A-REI.12

## Chapter 10 Teacher Guide

Section	Lesson	Lesson Objectives	CCSS Standards
10.1	10.1.1	Association in Two-Way Tables	S-ID.5
10.2	10.2.1	Solving by Rewriting	A-SSE.3c, A-REI.3
	10.2.2	Fraction Busters	A-REI.1, A-REI.3
	10.2.3	Multiple Methods for Solving Equations	A-SSE.1b, A-REI.1
	10.2.4	Determining the Number of Solutions	A-REI.4b
	10.2.5	Deriving the Quadratic Formula and the Number System	N-RN.3, A-REI.4a, A-REI.4b
	10.2.6	More Solving and an Application	A-SSE.1b, A-REI.1, A-REI.3, (A-REI.3.1), A-REI.4b, (F-LE.6)
10.3	10.3.1	Intersection of Two Functions	A-REI.7, A-REI.11
	10.3.2	Number of Parabola Intersections	A-REI.7, A-REI.11
	10.3.3	Solving Quadratic and Absolute Value Inequalities	A-REI.3, (A-REI.3.1)

## Chapter 11 Teacher Guide

Section	Lesson	Lesson Objectives	CCSS Standards
11.1	11.1.1	Transforming Functions	F-IF.1, F-IF.7a, F-BF.3
	11.1.2	Inverse Functions	F-BF.4a
11.2	11.2.1	Investigating Data Representation	S-ID.1, S-ID.3
	11.2.2	Comparing Data	S-ID.1, S-ID.2, S-ID.3
	11.2.3	Standard Deviation	S-ID.1, S-ID.2, S-ID.3
11.3	11.3.1	Using a Best-Fit Line to Make a Prediction	S-ID.6a, S-ID.6b, S-ID.6c, S-ID.7, S-ID.8
	11.3.2	Relation Treasure Hunt	F-IF.5
	11.3.3	Investigating a Complex Function	F-IF.5
	11.3.4	Using Algebra to Find a Maximum	N-Q.2, N-Q.3, A-SSE.3a, A-CED.1, A-CED.3, F-IF.4
	11.3.5	Exponential Functions and Linear Inequalities	N-Q.2, N-Q.3, A-CED.1, A-CED.3, F-IF.4, F-IF.8b, F-LE.1a, F-LE.1c, F-LE.2, F-LE.5