Unit 5 OVERVIEW				
SECTION	CORE PROBLEMS	VIDEOS	Lesson Objectives	CCSS Standards
3.2.1	3-70 to 3-72	Checking Solutions to Equations - YouTube	Solving Equations and Checking Solutions	8.EE.7a 8.EE.7b.
3.2.2	3-79 to 3-81(a-c)	One Solution, No Solution, Infinitely Many Solutions - YouTube	Determining the Number of Solutions	8.EE.7a 8.EE.7b.
3.2.3	3-89 to 3-92	Problem Solving with Equations - YouTube	Problem Solving With Equations	8.EE.7b.
3.2.4	3-99, & 3-100		More Solving Equations to Solve Problems	8.EE.7b.
3.2.5	3-107 to 3-111	Solving Equations w Distributive Property - YouTube	Distributive Property Equations	8.EE.7b.
4.1.2	CP: 4-12 to 4-15		Seeing Growth in Different Representations	
4.1.3	CP: 4-22, & 4-23	Connecting Equations, Tables, and Graphs - myMath Universe 1.12.18 - A7 4.1.3 - Connecting Linear Rules and Graphs - YouTube	Connecting Linear Rules and Graphs	8.F.2. 8.F.4.

		1.17.18 - A7 4.1.4 - Y=mx+b - YouTube		
4.1.4	CP: 4-30 to 4-34		*y* = *mx* + *b* Linear graphs using y=mx+b (Parent Guide 4.1.4 thru 4.1.7) Checking the Connections	8.EE.6. 8.F.2. 8.F.4.
4.1.5	CP: 4-42(a & b)	Graphing equation without table - YouTube AC 4.1.6 pt 2 Graphs to Rules / Rules to Graphs - YouTube		8.F.2. 8.F.4.
4.1.6	CP: 4-54 to 4-56		Graphing a Line Without an $x \rightarrow y$ Table	8.F.2. 8.F.4.
4.1.7	CP: 4-64, & 4-65		Completing the Web	8.F.2. 8.F.4.
5.1.1	CP: 5-1 to 5-4		Working with Multi-Variable Equations	Prep for 8.EE.8b
5.1.2	CP: 5-10 to 5-13		Solving Equations with Fractions	8.EE.7b

8th Grade CCSS Standards

8.EE.C.7a

Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successfully transforming the given equation in to simpler forms, until an equivalent equation in the form of $x = a$, $a = a$, or $a = b$ results (where a and b are different numbers).

8.EE.C.7b

Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.

8.F.A.1

Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.

8.F.A.2

Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.*

8.F.A.3

Interpret the equation $y = mx + b$ as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. *For example, the function $A = s^2$ giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4) and (3,9), which are not on a straight line.*

8.F.B.4

Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.

8.EE.B.6

Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation y = mx for a line through the origin and the equation y = mx + b for a line intercepting the vertical axis at b.

8.F.A.2

Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.*

8.F.B.4

Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (*x*, *y*) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.

Mathematical Vocabulary

The following is a list of vocabulary found in this chapter. It is a good idea to make sure you are familiar with these words and to know what they mean. For the words you do not know, refer to the glossary or index. You might also want to add these words to your Toolkit for a way to reference them in the future.

combining like terms	**continuous graph**	**dependent variable**
discrete graph	**Distributive Property**	**evaluate**
independent variable	**Order of Operations**	**parabola**
solution	**term**	**variable**
vertex	**x-intercept**	**y-intercept**

** Please note this is a comprehensive curriculum and will include additional mathematical content and standards. This is *ONLY* an overview of Unit 5.