

Conceptual Algebra Scope & Sequence

Days May Vary	Unit	Essential Unit Outcomes	Essential/Guiding Questions
12-14	Unit 1: Solving Equations & Inequalities in One Variable	<ul style="list-style-type: none"> ● Solve equations that have one solution, no solution, and infinite solutions. ● Solve all types of first-degree equations and inequalities with one variable. ● Solve equations and inequalities in real-world applications. 	<ul style="list-style-type: none"> ● What does it mean to solve an equation? ● When can equations be applied to real-world situations? ● How do you know when an equation has one solution, no solutions, or infinite solutions? ● How do you know when a situation requires an inequality?
13-15	Unit 2: Linear Equations	<ul style="list-style-type: none"> ● Calculate the slope as rise over run and apply it to real-life situations using rate of change. ● Graph linear equations on the coordinate plane. ● Write equations in the form $y = mx + b$ given critical information. ● Write linear equations to model real-world situations. 	<ul style="list-style-type: none"> ● How do the various forms of a linear equation relate to each other? ● How does the symbolic form relate to the numeric and verbal forms of linear equations?

7-10	Unit 3: Inequalities	<ul style="list-style-type: none"> ● Solve and graph the solution set to one-variable inequalities. ● Graph linear inequalities and applications. 	<ul style="list-style-type: none"> ● How does the graphic form relate to the numeric, symbolic, and verbal forms of linear equations? ● What is ● How does a graph of an inequality relate to its symbolic form?
11-13	Unit 4: Systems of Linear Equations	<ul style="list-style-type: none"> ● Solve systems of linear equations by graphing, substitution, and linear combination. ● Identify systems as the same line, parallel lines, or intersecting lines. ● Use systems of linear equations to solve problems. 	<ul style="list-style-type: none"> ● How can you determine which method of solving a linear system to use? ● What is the relationship between the graphic, symbolic, numeric, and verbal representations of the solution to a system? ● How do you solve word problems with systems?
10-12	Unit 5: Exponents & Polynomials	<ul style="list-style-type: none"> ● Use the properties of exponents to simplify monomial expressions. ● Identify the key parts of polynomials. ● Perform basic operations with polynomials. ● Use polynomials in applications involving geometry. 	<ul style="list-style-type: none"> ● How are the properties of exponents used to simplify expressions? ● What vocabulary is used to describe polynomials? ● How can polynomials be used to represent measures of geometric figures?

9-11	Unit 6: Introduction to Factoring	<ul style="list-style-type: none"> ● Factor by finding a greatest common factor. ● Factor trinomials. ● Factor using various factor patterns and grouping. ● Use the best method to factor a polynomial completely. 	<ul style="list-style-type: none"> ● What does it mean to factor a polynomial? ● What are the various methods used to factor a polynomial? ● How do you completely factor a polynomial?
8-10	Unit 7: Introduction to Exponential & Quadratic Models	<ul style="list-style-type: none"> ● Describe exponential and quadratic functions using tables and graphs. ● Compare linear, exponential, and quadratic functions. 	<ul style="list-style-type: none"> ● What are the key characteristics of exponential and quadratic functions? ● How do you distinguish between linear, exponential, and quadratic functions?