

Year At A Glance

Algebra I

1 st Six Weeks	2 nd Six Weeks	3 rd Six Weeks
<ul style="list-style-type: none">➤ Independent and Dependent Variables➤ Determine functional relationships from gathered data➤ Write and describe equations and inequalities➤ Multiple representations of relationships➤ Interpret functional relationships➤ Identify domain and range with continuous and discrete data➤ Collect, organize, interpret and create graphs➤ Make and interpret scatterplots (positive, negative, and no correlation)➤ Use symbols and variables➤ Look for patterns➤ Find specific function values for problem situations➤ Simplify polynomial expressions➤ Transform and solve equations and factor as necessary➤ Use the commutative, associative, and distributive properties➤ Connect equations and functional notation	<ul style="list-style-type: none">➤ Independent / Dependent relationship➤ Gather Record Data➤ Develop the concept of slope as rate of change➤ Develop Rates of Change and Determine Slopes from multiple representations➤ Interpret the meaning of Slopes and Intercepts➤ Determine if given situations can be represented by linear functions➤ Determine Domain and Range➤ Changes in m (slope) and b (y-intercept)➤ Graph or write equations of lines➤ Determine intercepts of linear functions➤ Effects of changing slope and y-intercept➤ Use concrete models, tables, graphs, diagrams , algebraic methods and /or verbal descriptions of linear functions	<ul style="list-style-type: none">➤ Identify and sketch the general forms of linear and quadratic functions➤ Investigate, describe and predict changes in m and b➤ Write and graph equations using two points, a point and slope and/or slope and y-intercept➤ Determine intercepts and zeros of linear functions from multiple representations➤ Interpret and predict changing slope and y-intercept in application problems➤ Solve problems with direct variation to linear functions and proportional change➤ Analyze linear functions and formulate linear equations and inequalities.➤ Solve equations and inequalities using multiple representations and properties of equality.➤ Interpret and determine reasonableness of solutions to linear equations and inequalities.

Year At A Glance

Algebra I

➤ 4 th Six Weeks	5 th Six Weeks	➤ 6 th Six Weeks
<ul style="list-style-type: none"> ➤ Analyze and formulate systems of equations ➤ Solve systems using multiple representations (concrete models, graphs, tables, algebraic methods) ➤ Interpret and determine reasonableness of solutions of systems of linear equations ➤ Use patterns to generate the laws of exponents ➤ Solve problems utilizing the laws of exponents 	<ul style="list-style-type: none"> ➤ Solve Quadratic equations using multiple representations ➤ Utilize roots, zeros, horizontal intercepts to make connections ➤ Analyze data and represent situations involving inverse variation using multiple representations ➤ Analyze data and represent situations involving exponential growth and decay using multiple representations ➤ Determine domain and range for quadratic functions. ➤ Investigate, describe, and predict effects of change in “a” in a quadratic equation ➤ Investigate, describe, and predict effects of change in “c” in a quadratic equation ➤ Analyze graphs of quadratic functions and make reasonable conclusions. 	<ul style="list-style-type: none"> ➤ Review problem solving using rational numbers and making correct choice of operations ➤ Find specific function values ➤ Simplify polynomial expressions ➤ Transform, solve and factor equations ➤ Use commutative, associative and distributive properties ➤ Connect equation notation with function notation ➤ Determine situations as linear or quadratic ➤ Determine domain and range ➤ Solidify fluency of multiple representations ➤ Deepen understanding of the concept of slope as rate of change ➤ Deepen understanding, interpret, and determine slope utilizing multiple representations ➤ Investigate, describe and predict changes in m and b on the graph of $y = mx + b$ ➤ Practice fluency in graphing and writing equations given two points, a point and a slope, or a slope and y-intercept.