

RSU #38 CURRICULUM GUIDE HS. MATH: ALGEBRA 1

Unit	Graduation Standard	Outcomes
<p>I <u>Single Variable Statistics</u></p>	<p>9-12 Statistics and Probability</p>	<p>S.ID.1 Represent data with plots on the real number line (dot plots, histograms and box plots)</p> <p>S.ID.2 Use statistics appropriate to the shape of the data distribution to compare centers and spreads of two or more different data sets</p> <p>S.ID.3 Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible outliers</p> <p>S.ID.5 Summarize, interpret, and look for trends in two-way frequency tables</p>
<p>II <u>Linear Equations, Inequalities and Systems</u></p>	<p>9-12 Algebra</p>	<p>A.CED.1 Create equations and inequalities in one variable and solve problems</p> <p>A.CED.2 Create equations in two or more variables and graph on coordinate axes</p> <p>A.CED.3 Interpret solutions of systems of equations or inequalities in a modeling context</p> <p>A.CED.4 Solve literal equations</p> <p>A.REI.1 Explain each step in solving a simple equation, justifying a solution method</p> <p>A.REI.3 Create and solve linear inequalities in one variable</p> <p>A.REI.5 Apply the principles behind the method of elimination when a multiple of the other produces a system with the same</p>

		<p>solutions</p> <p>A.REI.6 Solve systems of linear equations exactly and approximately (eg. with graphs) focusing on pairs of linear equations with two variables</p> <p>A.REI.12 Graph solution sets to a linear inequality or system of inequalities in two variables</p> <p>N.Q.1 Solve problems using dimensional/unit analysis</p>
<u>III Bivariate Statistics</u>	9-12 Statistics and Probability	<p>S.ID.6 Represent data on two quantitative variables on a scatter plot, and describe how the variables are related</p> <p>S.ID.7 Interpret the rate of change and constant term of a line fitted to data in the context of the data</p> <p>S.ID.8 Compute (using technology) and interpret a correlation coefficient of a linear fit</p> <p>S.ID.9 Distinguish between correlation and causation</p>
<u>IV Linear Functions</u>	9-12 Functions	<p>F.IF.1 Explain that a function assigns to each element in the domain exactly one element of the range</p> <p>F.IF.2 Use function notation, evaluate functions for input in their domains, and interpret statements that use function notation in terms of a context</p> <p>F.IF.4 Interpret key features of graphs and tables</p> <p>F.IF.5 Relate the domain of a function to its graph</p> <p>F.IF.6 Calculate and interpret the average rate of change of a function</p> <p>F.IF.7 Graph functions expressed symbolically and show key features of the graph</p> <p>F.IF.7b Graph piecewise-defined functions</p>

		F.BF.4 Rewrite functions in different forms
<u>V Exponential Functions 1</u>	9-12 Functions	<p>F.LE.1 Compare situations that can be modeled with linear functions and exponential functions</p> <p>F.LE.2 Construct linear and exponential functions, given a graph, a description of a relationship, or two input-output pairs.</p> <p>F.LE.3 Observe that over time a quantity increasing exponentially will eventually exceed a quantity increasing linearly</p> <p>F.LE.5 Interpret the parameters in a linear or exponential function in terms of a context</p> <p>F.IF.4 Interpret key features of graphs and tables</p> <p>F.IF.7e Create tables and graphs of exponential functions and explain their behavior in terms of the fundamental growth law</p>