



Planned Course: Algebra I	Course Number: M304	Department: Math	
Unit: Linear Functions (4)	Grade Level: 7 - 12		
Estimated Time: 1 course	Level/Track: Keystone Algebra I	Date Approved: 08/22/2016	
PA Academic Standards	Core Concepts (in question format) • Skills/Knowledge	Activities/Strategies/Study Skills (identify some activities as remedial or enrichment activities)	Assessments (include types and topics)

<p>Algebra I Keystone Module 2 – Linear Functions and Data Organizations</p> <p>Assessment Anchor: Functions</p> <p>PA Core Standards: CC.2.2.8.C.1 Define, evaluate, and compare functions. CC.2.2.8.C.2 Use concepts of functions to model relationships between quantities. CC.2.2.HS.C.1 Use the concept and notation of functions to interpret and apply them in terms of their context. CC.2.2.HS.C.2 Graph and analyze functions and use their properties to make connections between the different representations. CC.2.2.HS.C.3 Write functions or sequences that model relationships between two quantities. CC.2.4.HS.B.2 Summarize, represent, and interpret data on two categorical and quantitative variables. CC.2.1.HS.F.3 Apply quantitative reasoning to choose and interpret units and scales in formulas, graphs, and data displays. CC.2.1.HS.F.4 Use units as a way to understand problems and to guide the solution of multi-step problems. CC.2.2.8.B.2 Understand the connections between proportional relationships, lines, and linear equations.</p>	<ul style="list-style-type: none"> ▶ How can you represent and describe functions? ▶ What information does the equation of a line give you? <ul style="list-style-type: none"> • 4-2 Find x- and y-intercepts and interpret their meanings in real-world situations. • 4-2 Use x- and y-intercepts to graph lines. • 4-3 Find rates of change and slopes. • 4-3 Relate a constant rate of change to the slope of a line. • 4-4 Find slope by using the slope formula. • 4-6 Write a linear equation in slope-intercept form. • 4-6 Graph a line using slope-intercept form. • 4-7 Graph a line and write a linear equation using point-slope form. • 4-7 Write a linear equation given two points. ▶ How can you make predictions based on a scatter plot? <ul style="list-style-type: none"> • 4-8 Determine a line of best fit for a set of linear data. • 4-8 Determine and interpret the correlation coefficient. 	<ul style="list-style-type: none"> ▶ Warm up exercise ▶ Are You Ready? Intervention and Enrichment ▶ Exercises in book ▶ Keystone preparation resources (Study Island, Finish Line, USA Test Prep, Item Sampler, etc.) ▶ Online tutorial video ▶ MDC lessons ▶ Interleave study guide ▶ Spaced Learning Over Time (SLOT) review 	<ul style="list-style-type: none"> ▶ Quizzes (teacher created) ▶ Summative chapter tests (common) ▶ Quarterly assessments (common) ▶ Graded assignments/projects ▶ Formative assessments (homework, classwork, questioning, exit tickets, etc.)
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<p>CC.2.2.8.C.1 Define, evaluate, and compare functions.</p> <p>CC.2.2.8.C.2 Use concepts of functions to model relationships between quantities.</p> <p>CC.2.2.HS.C.2 Graph and analyze functions and use their properties to make connections between the different representations.</p> <p>CC.2.2.HS.C.3 Write functions or sequences that model relationships between two quantities.</p> <p>CC.2.2.HS.C.4 Interpret the effects transformations have on functions and find the inverses of functions.</p> <p>CC.2.2.HS.C.6 Interpret functions in terms of the situations they model.</p> <p>CC.2.4.HS.B.2 Summarize, represent, and interpret data on two categorical and quantitative variables.</p> <p>Assessment Anchor: Coordinate Geometry</p> <p>PA Core Standards:</p> <p>CC.2.2.8.C.2 Use concepts of functions to model relationships between quantities.</p> <p>CC.2.2.HS.C.1 Use the concept and notation of functions to interpret and apply them in terms of their context.</p> <p>CC.2.2.HS.C.2 Graph and analyze functions and use their properties to make connections between the different representations.</p> <p>CC.2.2.HS.C.3 Write functions or</p>					
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<p>sequences that model relationships between two quantities.</p> <p>CC.2.2.HS.C.5 Construct and compare linear, quadratic, and exponential models to solve problems.</p> <p>CC.2.2.HS.C.6 Interpret functions in terms of the situations they model.</p> <p>CC.2.4.HS.B.1 Summarize, represent, and interpret data on a single count or measurement variable.</p> <p>CC.2.2.HS.C.6 Interpret functions in terms of the situations they model.</p> <p>CC.2.4.8.B.1 Analyze and/or interpret bivariate data displayed in multiple representations.</p> <p>CC.2.4.HS.B.2 Summarize, represent, and interpret data on two categorical and quantitative variables.</p> <p>CC.2.4.HS.B.3 Analyze linear models to make interpretations based on the data.</p>					
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