

Topics in Math: Earning

ESTABLISHED GOALS:		
<u>Competencies:</u> - Students will demonstrate the ability to solve equations, inequalities and systems by applying the properties of equality and rational expressions. - Students will demonstrate the ability to apply functions to solve problems in a variety of contexts by interpreting and analyzing multiple representations of functions. - Students will demonstrate the ability to use mathematics to model real world problems by building and analyzing the appropriate expression, equation, or function. - Students will demonstrate the ability to analyze and summarize text and integrate knowledge to make meaning of discipline-specific materials. - Students will demonstrate the ability to produce coherent and supported writing in order to communicate effectively for a range of discipline-specific tasks, purposes, and audiences. - Students will demonstrate the ability to speak purposefully and effectively by strategically making decisions about content, language use, and discourse style. <u>Content Standards:</u> - A.CED.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. - A.CED.3 Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. - A.REI.10 Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line). - F-IF.1 Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x. The graph of f is the graph of the equation $y = f(x)$. - F-IF.4 For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of	Transfer	
	Students will be able to independently use their learning to make informed decisions about employment.	
	Meaning	
	ENDURING UNDERSTANDINGS Students will understand that... - computing gross pay, deductions, and net pay is important for setting budgets and comparing job opportunities. - taxation rates are based on value, income, and wealth management.	ESSENTIAL QUESTIONS - Is it better to have a fixed income or a variable one? - Is taxation fair?
	Acquisition	
	Students will know... - that in a 401(k) plan, an employee contributes money from each paycheck, and an employer may also make a contribution. - that an earning statement lists gross pay, deductions, and net pay. - that financial literacy provides knowledge needed to be responsible for personal economic well-being. - as consumers, individuals need economic knowledge as a base for making financial decisions impacting short and long term goals throughout one's lifetime. - that taxes vary state by state and even city to city. <u>vocabulary:</u> gross pay, deduction, net pay, commission, exemption	Students will be skilled at... - determining weekly, monthly, and annual salaries - comparing salaries with and without commission - distinguishing the value of benefits as it relates to income - recognizing how take home pay is impacted by W-4 elections. - calculating taxes and refunds - calculating hours and/or sales required to earn a specific gross pay amount. - reading tax tables. - calculating the amount of income withheld for Social Security and Medicare taxes. - calculating an employee's deduction amount for group insurance. - calculating net pay per period. - predicting the job market.

the quantities, and sketch graphs showing key features given a verbal description of the relationship. Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity. • F-IF.5 Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. • F-IF.7 Graph functions expressed symbolically and show key features of the graph, by hand in simple cases and using technology for more complicated cases. • F-IF.C.7a Graph linear functions and show intercepts. • F.LE.5 Interpret the parameters in a linear or exponential function in terms of a context. • MP2 Reason abstractly and quantitatively. • MP4 Model with mathematics. • MP5 Use appropriate tools strategically. • MP7 Look for and make use of structure. • MP8 Look for and express regularity in repeated reasoning.		
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Content Area Literacy Standards	21st Century Skills
• RST.9-10.3 Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text. • RST.9-10.4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to <i>grades 9-10 texts and topics</i>. • RST.9-10.7 Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.	• <i>reason effectively</i> • <i>use systems thinking</i> • <i>solve problems</i> • <i>access and evaluate information</i> • <i>use and manage information</i> • <i>be self-directed learners</i>

Evaluative Criteria	Assessment Evidence
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	PERFORMANCE TASK(S):
	OTHER EVIDENCE:

Summary of Key Learning Events and Instruction		
Science Integration	College, Career, and Civic Life Integration	Technology Integration
District Materials	Distance Learning/Field Trips	Technology Resources