

Mathematics for Data and Financial Literacy Honors (#1200388)

B.E.S.T. Course Description

Course Title:	Mathematics for Data and Financial Literacy Honors
Course Number:	1200388
Course Information:	<p>In Mathematics for Data and Financial Literacy Honors, instructional time will emphasize five areas:</p> <ol style="list-style-type: none">(1) extending knowledge of ratios, proportions and functions to data and financial contexts;(2) developing understanding of basic economic and accounting principles;(3) determining advantages and disadvantages of credit accounts and short- and long-term loans;(4) developing understanding of planning for the future through investments, insurance and retirement plans and(5) extending knowledge of data analysis to create and evaluate reports and to make predictions. <p><i>All clarifications stated, whether general or specific to Mathematics for Data and Financial Literacy Honors, are expectations for instruction of that benchmark.</i></p> <p>Curricular content for all subjects must integrate critical-thinking, problem-solving, and workforce-literacy skills; communication, reading, and writing skills; mathematics skills; collaboration skills; contextual and applied-learning skills; technology-literacy skills; information and media-literacy skills; and civic-engagement skills.</p>
General Notes:	<p>Honors and Accelerated Level Course Note: Accelerated courses require a greater demand on students through increased academic rigor. Academic rigor is obtained through the application, analysis, evaluation, and creation of complex ideas that are often abstract and multi-faceted. Students are challenged to think and collaborate critically on the content they are learning. Honors level rigor will be achieved by increasing text complexity through text selection, focus on high-level qualitative measures, and complexity of task. Instruction will be structured to give students a deeper understanding of conceptual themes and organization within and across disciplines. Academic rigor is more than simply assigning to students a greater quantity of work.</p> <p>Florida’s Benchmarks for Excellent Student Thinking (B.E.S.T.) Standards This course includes Florida’s B.E.S.T. ELA Expectations (EE) and Mathematical Thinking and Reasoning Standards (MTRs) for students. Florida educators should intentionally embed these standards within the content and their instruction as applicable. For guidance on the implementation of the EEs and MTRs, please visit https://www.cpalms.org/Standards/BEST_Standards.aspx and select the appropriate B.E.S.T. Standards package.</p> <p>English Language Development ELD Standards Special Notes Section: Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate information, ideas and concepts for academic success in the content area of Mathematics. For the given</p>

	<p>level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL’s need for communication and social skills. To access an ELL supporting document which delineates performance definitions and descriptors, please click on the following link: https://cpalmsmediaproduct.blob.core.windows.net/uploads/docs/standards/eld/ma.pdf</p>
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Florida’s Benchmarks for Excellent Student Thinking (B.E.S.T.) Standards: 7 Mathematical Thinking and Reasoning Standards, 48 Mathematics Benchmarks, 6 English Language Arts Benchmarks and 1 English Language Development Benchmark

7 Mathematical Thinking and Reasoning Standards		Textbook Section
MA.K12.MTR.1.1:	<p>Mathematicians who participate in effortful learning both individually and with others:</p> <ul style="list-style-type: none"> ● Analyze the problem in a way that makes sense given the task. ● Ask questions that will help with solving the task. ● Build perseverance by modifying methods as needed while solving a challenging task. ● Stay engaged and maintain a positive mindset when working to solve tasks. ● Help and support each other when attempting a new method or approach. <p>Clarifications: Teachers who encourage students to participate actively in effortful learning both individually and with others:</p> <ul style="list-style-type: none"> ● Cultivate a community of growth mindset learners. ● Foster perseverance in students by choosing tasks that are challenging. ● Develop students’ ability to analyze and problem solve. ● Recognize students’ effort when solving challenging problems. 	Incorporated Throughout
MA.K12.MTR.2.1:	<p>Demonstrate understanding by representing problems in multiple ways.</p> <p>Mathematicians who demonstrate understanding by representing problems in multiple ways:</p> <ul style="list-style-type: none"> ● Build understanding through modeling and using manipulatives. ● Represent solutions to problems in multiple ways using objects, drawings, tables, graphs and equations. ● Progress from modeling problems with objects and drawings to using algorithms and equations. ● Express connections between concepts and representations. ● Choose a representation based on the given context or purpose. <p>Clarifications:</p>	Incorporated Throughout

	<p>Teachers who encourage students to demonstrate understanding by representing problems in multiple ways:</p> <ul style="list-style-type: none"> ● Help students make connections between concepts and representations. ● Provide opportunities for students to use manipulatives when investigating concepts. ● Guide students from concrete to pictorial to abstract representations as understanding progresses. ● Show students that various representations can have different purposes and can be useful in different situations. 	
<p>MA.K12.MTR.3.1:</p>	<p>Complete tasks with mathematical fluency.</p> <p>Mathematicians who complete tasks with mathematical fluency:</p> <ul style="list-style-type: none"> ● Select efficient and appropriate methods for solving problems within the given context. ● Maintain flexibility and accuracy while performing procedures and mental calculations. ● Complete tasks accurately and with confidence. ● Adapt procedures to apply them to a new context. ● Use feedback to improve efficiency when performing calculations. <p>Clarifications:</p> <p>Teachers who encourage students to complete tasks with mathematical fluency:</p> <ul style="list-style-type: none"> ● Provide students with the flexibility to solve problems by selecting a procedure that allows them to solve efficiently and accurately. ● Offer multiple opportunities for students to practice efficient and generalizable methods. ● Provide opportunities for students to reflect on the method they used and determine if a more efficient method could have been used. 	<p>Incorporated Throughout</p>
<p>MA.K12.MTR.4.1:</p>	<p>Engage in discussions that reflect on the mathematical thinking of self and others.</p> <p>Mathematicians who engage in discussions that reflect on the mathematical thinking of self and others:</p> <ul style="list-style-type: none"> ● Communicate mathematical ideas, vocabulary and methods effectively. ● Analyze the mathematical thinking of others. ● Compare the efficiency of a method to those expressed by others. ● Recognize errors and suggest how to correctly solve the task. ● Justify results by explaining methods and processes. ● Construct possible arguments based on evidence. <p>Clarifications:</p> <p>Teachers who encourage students to engage in discussions that reflect on the mathematical thinking of self and others:</p> <ul style="list-style-type: none"> ● Establish a culture in which students ask questions of the teacher and their peers, and error is an opportunity for learning. ● Create opportunities for students to discuss their thinking with peers. ● Select, sequence and present student work to advance and deepen understanding of correct and increasingly efficient methods. 	<p>Incorporated Throughout4-1</p>

	<ul style="list-style-type: none"> Develop students' ability to justify methods and compare their responses to the responses of their peers. 	
MA.K12.MTR.5.1:	<p>Use patterns and structure to help understand and connect mathematical concepts.</p> <p>Mathematicians who use patterns and structure to help understand and connect mathematical concepts:</p> <ul style="list-style-type: none"> Focus on relevant details within a problem. Create plans and procedures to logically order events, steps or ideas to solve problems. Decompose a complex problem into manageable parts. Relate previously learned concepts to new concepts. Look for similarities among problems. Connect solutions of problems to more complicated large-scale situations. <p>Clarifications:</p> <p>Teachers who encourage students to use patterns and structure to help understand and connect mathematical concepts:</p> <ul style="list-style-type: none"> Help students recognize the patterns in the world around them and connect these patterns to mathematical concepts. Support students to develop generalizations based on the similarities found among problems. Provide opportunities for students to create plans and procedures to solve problems. Develop students' ability to construct relationships between their current understanding and more sophisticated ways of thinking. 	Incorporated Throughout
MA.K12.MTR.6.1:	<p>Assess the reasonableness of solutions.</p> <p>Mathematicians who assess the reasonableness of solutions:</p> <ul style="list-style-type: none"> Estimate to discover possible solutions. Use benchmark quantities to determine if a solution makes sense. Check calculations when solving problems. Verify possible solutions by explaining the methods used. Evaluate results based on the given context. <p>Clarifications:</p> <p>Teachers who encourage students to assess the reasonableness of solutions:</p> <ul style="list-style-type: none"> Have students estimate or predict solutions prior to solving. Prompt students to continually ask, "Does this solution make sense? How do you know?" Reinforce that students check their work as they progress within and after a task. Strengthen students' ability to verify solutions through justifications. 	Incorporated Throughout

<p>MA.K12.MTR.7.1:</p>	<p>Apply mathematics to real-world contexts.</p> <p>Mathematicians who apply mathematics to real-world contexts:</p> <ul style="list-style-type: none"> ● Connect mathematical concepts to everyday experiences. ● Use models and methods to understand, represent and solve problems. ● Perform investigations to gather data or determine if a method is appropriate. • Redesign models and methods to improve accuracy or efficiency. <p>Clarifications:</p> <p>Teachers who encourage students to apply mathematics to real-world contexts:</p> <ul style="list-style-type: none"> ● Provide opportunities for students to create models, both concrete and abstract, and perform investigations. ● Challenge students to question the accuracy of their models and methods. ● Support students as they validate conclusions by comparing them to the given situation. ● Indicate how various concepts can be applied to other disciplines. 	<p>Incorporated Throughout</p>
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<p>48 Mathematics Benchmarks</p>	<p>Textbook Section</p>
<p>MA.912.AR.1.1:</p> <p>Identify and interpret parts of an equation or expression that represent a quantity in terms of a mathematical or real-world context, including viewing one or more of its parts as a single entity.</p> <p>Clarifications:</p> <p><i>Clarification 1:</i> Parts of an expression include factors, terms, constants, coefficients and variables.</p> <p><i>Clarification 2:</i> Within the Mathematics for Data and Financial Literacy course, problem types focus on money and business.</p>	<p>2-3, 2-4, 2-5, 2-7, 2-8, 3-2, 3-3, 3-4</p>
<p>MA.912.AR.1.2:</p> <p>Rearrange equations or formulas to isolate a quantity of interest.</p> <p>Clarifications:</p> <p><i>Clarification 1:</i> Instruction includes using formulas for temperature, perimeter, area and volume; using equations for linear (standard, slope-intercept and point-slope forms) and quadratic (standard, factored and vertex forms) functions.</p> <p><i>Clarification 2:</i> Within the Mathematics for Data and Financial Literacy course, problem types focus on money and business.</p>	<p>2-3, 2-8, 9-4</p>
<p>MA.912.AR.2.5:</p> <p>Solve and graph mathematical and real-world problems that are modeled with linear functions. Interpret key features and determine constraints in terms of the context.</p> <p>Clarifications:</p> <p><i>Clarification 1:</i> Key features are limited to domain, range, intercepts and rate of change.</p> <p><i>Clarification 2:</i> Instruction includes the use of standard form, slope-intercept form and point-slope form.</p> <p><i>Clarification 3:</i> Instruction includes representing the domain, range and constraints with inequality notation,</p>	<p>4-5, 4-7, 9-3, 9-4, 9-5</p>

	<p>interval notation or set-builder notation.</p> <p><i>Clarification 4:</i> Within the Algebra 1 course, notations for domain, range and constraints are limited to inequality and set-builder.</p> <p><i>Clarification 5:</i> Within the Mathematics for Data and Financial Literacy course, problem types focus on money and business.</p>	
MA.912.AR.3.8:	<p>Solve and graph mathematical and real-world problems that are modeled with quadratic functions. Interpret key features and determine constraints in terms of the context.</p> <p>Clarifications:</p> <p><i>Clarification 1:</i> Key features are limited to domain; range; intercepts; intervals where the function is increasing, decreasing, positive or negative; end behavior; vertex; and symmetry.</p> <p><i>Clarification 2:</i> Instruction includes the use of standard form, factored form and vertex form.</p> <p><i>Clarification 3:</i> Instruction includes representing the domain, range and constraints with inequality notation, interval notation or set-builder notation.</p> <p><i>Clarification 4:</i> Within the Algebra 1 course, notations for domain, range and constraints are limited to inequality and set-builder.</p>	9-5, 9-7
MA.912.AR.5.7:	<p>Solve and graph mathematical and real-world problems that are modeled with exponential functions. Interpret key features and determine constraints in terms of the context.</p> <p>Clarifications:</p> <p><i>Clarification 1:</i> Key features are limited to domain; range; intercepts; intervals where the function is increasing, decreasing, positive or negative; constant percent rate of change; end behavior and asymptotes.</p> <p><i>Clarification 2:</i> Instruction includes representing the domain, range and constraints with inequality notation, interval notation or set-builder notation.</p> <p><i>Clarification 3:</i> Instruction includes understanding that when the logarithm of the dependent variable is taken and graphed, the exponential function will be transformed into a linear function.</p> <p><i>Clarification 4:</i> Within the Mathematics for Data and Financial Literacy course, problem types focus on money and business.</p>	2-5, 3-4, 4-6 Supplement
MA.912.AR.9.10:	<p>Solve and graph mathematical and real-world problems that are modeled with piecewise functions. Interpret key features and determine constraints in terms of the context.</p> <p>Clarifications:</p> <p><i>Clarification 1:</i> Key features are limited to domain, range, intercepts, asymptotes and end behavior.</p> <p><i>Clarification 2:</i> Instruction includes representing the domain, range and constraints with inequality notation, interval notation or set-builder notation.</p>	4-1, 5-1, 5-3, 5-5, 6-2, 11-2
MA.912.AR.10.1:	Given a mathematical or real-world context, write and solve problems involving arithmetic sequences.	2-3, 3-1, 4-5
MA.912.AR.10.2:	Given a mathematical or real-world context, write and solve problems involving geometric sequences.	4-6, 5-2
MA.912.DP.1.2:	Interpret data distributions represented in various ways. State whether the data is numerical or categorical, whether it is univariate or bivariate and interpret the different components and quantities in the display.	4-2, 7-1, 8-3, 8-4, 9-7, 10-5, “You Write the

	<p>Clarifications: <i>Clarification 1:</i> Within the Probability and Statistics course, instruction includes the use of spreadsheets and technology.</p>	Story” in end of chapter assessments
MA.912.DP.2.4:	<p>Fit a linear function to bivariate numerical data that suggests a linear association and interpret the slope and y-intercept of the model. Use the model to solve real-world problems in terms of the context of the data.</p> <p>Clarifications: <i>Clarification 1:</i> Instruction includes fitting a linear function both informally and formally with the use of technology. <i>Clarification 2:</i> Problems include making a prediction or extrapolation, inside and outside the range of the data, based on the equation of the line of fit.</p>	7-1, 8-4
MA.912.DP.2.8:	<p>Fit a quadratic function to bivariate numerical data that suggests a quadratic association and interpret any intercepts or the vertex of the model. Use the model to solve real-world problems in terms of the context of the data.</p> <p>Clarifications: <i>Clarification 1:</i> Problems include making a prediction or extrapolation, inside and outside the range of the data, based on the equation of the line of fit.</p>	8-4
MA.912.DP.2.9:	<p>Fit an exponential function to bivariate numerical data that suggests an exponential association. Use the model to solve real-world problems in terms of the context of the data.</p> <p>Clarifications: <i>Clarification 1:</i> Instruction focuses on determining whether an exponential model is appropriate by taking the logarithm of the dependent variable using spreadsheets and other technology. <i>Clarification 2:</i> Instruction includes determining whether the transformed scatterplot has an appropriate line of best fit, and interpreting the y-intercept and slope of the line of best fit. <i>Clarification 3:</i> Problems include making a prediction or extrapolation, inside and outside the range of the data, based on the equation of the line of fit.</p>	4-6
MA.912.DP.3.1:	<p>Construct a two-way frequency table summarizing bivariate categorical data. Interpret joint and marginal frequencies and determine possible associations in terms of a real-world context.</p>	supplement
MA.912.DP.3.2:	<p>Given marginal and conditional relative frequencies, construct a two-way relative frequency table summarizing categorical bivariate data.</p> <p>Clarifications: <i>Clarification 1:</i> Construction includes cases where not all frequencies are given but enough are provided to be able to construct a two-way relative frequency table. <i>Clarification 2:</i> Instruction includes the use of a tree diagram when calculating relative frequencies to construct tables.</p>	supplement
MA.912.DP.3.3:	<p>Given a two-way relative frequency table or segmented bar graph summarizing categorical bivariate data, interpret joint, marginal and conditional relative frequencies in terms of a real-world context.</p>	supplement

	<p>Clarifications: <i>Clarification 1:</i> Instruction includes problems involving false positive and false negatives.</p>	
MA.912.DP.3.4:	Given a relative frequency table, construct and interpret a segmented bar graph.	supplement
MA.912.DP.5.11:	<p>Evaluate reports based on data from diverse media, print and digital resources by interpreting graphs and tables; evaluating data-based arguments; determining whether a valid sampling method was used; or interpreting provided statistics.</p> <p>Clarifications: <i>Clarification 1:</i> Instruction includes determining whether or not data displays could be misleading.</p>	7-1, 8-2, 8-3, 8-4, 9-1
MA.912.F.1.2:	<p>Given a function represented in function notation, evaluate the function for an input in its domain. For a real-world context, interpret the output.</p> <p>Clarifications: <i>Clarification 1:</i> Problems include simple functions in two-variables, such as $f(x,y)=3x-2y$. <i>Clarification 2:</i> Within the Algebra 1 course, functions are limited to one-variable such as $f(x)=3x$.</p>	4-1, 5-1, 5-2, 5-3, 5-5, 6-2
MA.912.F.3.2:	<p>Given a mathematical or real-world context, combine two or more functions, limited to linear, quadratic, exponential and polynomial, using arithmetic operations. When appropriate, include domain restrictions for the new function.</p> <p>Clarifications: <i>Clarification 1:</i> Instruction includes representing domain restrictions with inequality notation, interval notation or set-builder notation. <i>Clarification 2:</i> Within the Mathematics for Data and Financial Literacy course, problem types focus on money and business.</p>	9-4, 9-5, 9-6, 9-7
MA.912.FL.1.1:	<p>Extend previous knowledge of operations of fractions, percentages and decimals to solve real-world problems involving money and business.</p> <p>Clarifications: <i>Clarification 1:</i> Problems include discounts, markups, simple interest, tax, tips, fees, percent increase, percent decrease and percent error.</p>	2-1, 2-2, 2-5, 3-1, 3-2, 3-3, 3-5, 4-1, 5-1, 5-2, 6-3, 6-4, 6-5, 7-1, 7-3, 7-4, 7-5
MA.912.FL.1.2:	Extend previous knowledge of ratios and proportional relationships to solve real-world problems involving money and business.	4-7, 5-1, 5-2, 5-5
MA.912.FL.1.3:	Solve real-world problems involving weighted averages using spreadsheets and other technology.	supplement
MA.912.FL.2.1:	<p>Given assets and liabilities, calculate net worth using spreadsheets and other technology.</p> <p>Clarifications: <i>Clarification 1:</i> Instruction includes net worth for a business and for an individual. <i>Clarification 2:</i> Instruction includes understanding the difference between a capital asset and a liquid asset. <i>Clarification 3:</i> Instruction includes displaying net worth over time in a table or graph.</p>	2-1, 2-2, 11-4

MA.912.FL.2.2:	Solve real-world problems involving profits, costs and revenues using spreadsheets and other technology. Clarifications: <i>Clarification 1:</i> Instruction includes the connection to data. <i>Clarification 2:</i> Instruction includes displaying profits and costs over time in a table or graph and using the graph to predict profits. <i>Clarification 3:</i> Problems include maximizing profits, maximizing revenues and minimizing costs.	9-4, 9-5, 9-7, 9-8, 9-9
MA.912.FL.2.3:	Explain how consumer price index (CPI), gross domestic product (GDP), stock indices, unemployment rate and trade deficit are calculated. Interpret their value in terms of the context. Clarifications: <i>Clarification 1:</i> Instruction includes the understanding that quantities are based on data and may include measurement error.	5-4, 8-2, 8-3, 8-5, 10-3, supplement
MA.912.FL.2.4:	Given current exchange rates, convert between currencies. Solve real-world problems involving exchange rates. Clarifications: <i>Clarification 1:</i> Instruction includes taking into account various fees, such as conversion fee, foreign transaction fee and dynamic concurrency conversion fee.	4-7, supplement
MA.912.FL.2.5:	Develop budgets that fit within various incomes using spreadsheets and other technology. Clarifications: <i>Clarification 1:</i> Instruction includes budgets for a business and for an individual. <i>Clarification 2:</i> Instruction includes taking into account various cash management strategies, such as checking and savings accounts, and how inflation may affect these strategies.	2-1, 2-2, 2-5, 11-1, 11-2, 11-3, 11-4
MA.912.FL.2.6:	Given a real-world scenario, complete and calculate federal income tax using spreadsheets and other technology. Clarifications: <i>Clarification 1:</i> Instruction includes understanding the difference between standardized deductions and itemized deductions. <i>Clarification 2:</i> Instruction includes the connection to piecewise linear functions with slopes relating to the marginal tax rates.	6-1, 6-2, 6-3, 6-4, 6-5
MA.912.FL.3.1:	Compare simple, compound and continuously compounded interest over time. Clarifications: <i>Clarification 1:</i> Instruction includes taking into consideration the annual percentage rate (APR) when comparing simple and compound interest.	2-4, 2-5, 2-6, 2-7, 2-8
MA.912.FL.3.2:	Solve real-world problems involving simple, compound and continuously compounded interest. Clarifications: <i>Clarification 1:</i> Within the Algebra 1 course, interest is limited to simple and compound.	2-3, 2-4, 2-5, 2-6, 2-7, 2-8, 7-4, 7-5, 10-1, 10-5

MA.912.FL.3.3:	Solve real-world problems involving present value and future value of money.	2-7, 2-8
MA.912.FL.3.5:	Compare the advantages and disadvantages of using cash versus personal financing options. Clarifications: <i>Clarification 1:</i> Instruction includes advantages and disadvantages for a business and for an individual. <i>Clarification 2:</i> Personal financing options include debit cards, credit cards, installment plans and loans.	3-1, 3-2, 3-3, 3-4, 3-5, 3-6, 3-7
MA.912.FL.3.6:	Calculate the finance charges and total amount due on a bill using various forms of credit using estimation, spreadsheets and other technology. Clarifications: <i>Clarification 1:</i> Instruction includes how annual percentage rate (APR) and periodic rate are calculated per month and the connection between the two percentages.	3-1, 3-2, 3-4, 3-5, 3-6, 3-7, 7-3, 7-4, 7-5
MA.912.FL.3.7:	Compare the advantages and disadvantages of different types of student loans by manipulating a variety of variables and calculating the total cost using spreadsheets and other technology. Clarifications: <i>Clarification 1:</i> Instruction includes students researching the latest information on different student loan options. <i>Clarification 2:</i> Instruction includes comparing subsidized (Stafford), unsubsidized, direct unsubsidized and PLUS loans. <i>Clarification 3:</i> Instruction includes considering different repayment plans, including deferred payments and forbearance. <i>Clarification 4:</i> Instruction includes how interest on student loans may affect one's income taxes.	3-3, 6-5
MA.912.FL.3.8:	Calculate using spreadsheets and other technology the total cost of purchasing consumer durables over time given different monthly payments, down payments, financing options and fees.	3-1, 3-2, 3-4, 3-5, 3-6, 3-7, 6-5
MA.912.FL.3.9:	Compare the advantages and disadvantages of different types of mortgage loans by manipulating a variety of variables and calculating fees and total cost using spreadsheets and other technology. Clarifications: <i>Clarification 1:</i> Instruction includes understanding various considerations that qualify a buyer for a loan, such as Debt-to-Income ratio. <i>Clarification 2:</i> Fees include discount prices, origination fee, maximum brokerage fee on a net or gross loan, documentary stamps and prorated expenses. <i>Clarification 3:</i> Instruction includes a cost comparison between a higher interest rate and fewer mortgage points versus a lower interest rate and more mortgage points. <i>Clarification 4:</i> Instruction includes a cost comparison between the length of the mortgage loan, such as 30-year versus 15-year. <i>Clarification 5:</i> Instruction includes adjustable rate loans, tax implications and equity for mortgages.	7-3, 7-4, 7-5
MA.912.FL.3.10:	Analyze credit scores qualitatively. Explain how short-term and long-term purchases, including deferred	3-1

	<p>payments, may increase or decrease credit scores. Explain how credit scores influence buying power.</p> <p>Clarifications: <i>Clarification 1:</i> Instruction includes how each of the following categories affects a credit score: past payment history, amount of debt, public records information, length of credit history and the number of recent credit inquiries. <i>Clarification 2:</i> Instruction includes how a credit score affects qualification and interest rate for a home mortgage.</p>	
MA.912.FL.3.11:	<p>Given a real-world scenario, establish a plan to pay off debt.</p> <p>Clarifications: <i>Clarification 1:</i> Instruction includes the comparison of different plans to pay off the debt. <i>Clarification 2:</i> Instruction includes pay off plans for a business and for an individual.</p>	3-7, 11-4
MA.912.FL.4.1:	<p>Calculate and compare various options, deductibles and fees for various types of insurance policies using spreadsheets and other technology.</p> <p>Clarifications: <i>Clarification 1:</i> Insurances include medical, car, homeowners, life and rental car. <i>Clarification 2:</i> Instruction includes types of insurance for a business and for an individual.</p>	4-3, 5-4, 7-3, 10-2, 10-4
MA.912.FL.4.2:	<p>Compare the advantages and disadvantages for adding on a one-time warranty to a purchase using spreadsheets and other technology.</p> <p>Clarifications: <i>Clarification 1:</i> Warranties include protection plans from stores, car warranty and home protection plans. <i>Clarification 2:</i> Instruction includes types of warranties for a business and for an individual. <i>Clarification 3:</i> Instruction includes taking into consideration the risk of utilizing or not utilizing a one-time warranty on one or multiple purchases.</p>	supplement
MA.912.FL.4.3:	<p>Compare the advantages and disadvantages of various retirement savings plans using spreadsheets and other technology.</p> <p>Clarifications: <i>Clarification 1:</i> Instruction includes weighing options based on salary and retirement plans from different potential employers. <i>Clarification 2:</i> Instruction includes understanding the need to build one’s own retirement plan when starting a business.</p>	10-1, 10-2, 10-3, 10-4, 10-5
MA.912.FL.4.4:	<p>Collect, organize and interpret data to determine an effective retirement savings plan to meet personal financial goals using spreadsheets and other technology.</p> <p>Clarifications: <i>Clarification 1:</i> Instruction includes students researching the latest information on different retirement options. <i>Clarification 2:</i> Instruction includes the understanding of the relationship between salaries and retirement plans.</p>	10-1, 10-2, 10-3, 10-4, 10-5

	<p><i>Clarification 3:</i> Instruction includes retirement plans from the perspective of a business and of an individual.</p> <p><i>Clarification 4:</i> Instruction includes the comparison of different types of retirement plans, including IRAs, pensions and annuities.</p>	
MA.912.FL.4.5:	<p>Compare different ways that portfolios can be diversified in investments.</p> <p>Clarifications:</p> <p><i>Clarification 1:</i> Instruction includes diversifying a portfolio with different types of stock and diversifying a portfolio by including both stocks and bonds.</p>	8-2, 10-5
MA.912.FL.4.6:	<p>Simulate the purchase of a stock portfolio with a set amount of money, and evaluate its worth over time considering gains, losses and selling, taking into account any associated fees.</p>	8-2, 8-3, 8-4, 8-5, 8-6, 8-7
MA.912.NSO.1.1:	<p>Extend previous understanding of the Laws of Exponents to include rational exponents. Apply the Laws of Exponents to evaluate numerical expressions and generate equivalent numerical expressions involving rational exponents.</p> <p>Clarifications:</p> <p><i>Clarification 1:</i> Instruction includes the use of technology when appropriate.</p> <p><i>Clarification 2:</i> Refer to the K-12 Formulas (Appendix E) for the Laws of Exponents.</p> <p><i>Clarification 3:</i> Instruction includes converting between expressions involving rational exponents and expressions involving radicals.</p> <p><i>Clarification 4:</i> Within the Mathematics for Data and Financial Literacy course, it is not the expectation to generate equivalent numerical expressions.</p>	4-6
MA.912.NSO.1.2:	<p>Generate equivalent algebraic expressions using the properties of exponents.</p>	2-6, 4-6
MA.912.NSO.1.6:	<p>Given a numerical logarithmic expression, evaluate and generate equivalent numerical expressions using the properties of logarithms or exponents.</p> <p>Clarifications:</p> <p><i>Clarification 1:</i> Within the Mathematics for Data and Financial Literacy Honors course, problem types focus on money and business.</p>	3-4, 4-6
MA.912.NSO.1.7:	<p>Given an algebraic logarithmic expression, generate an equivalent algebraic expression using the properties of logarithms or exponents.</p> <p>Clarifications:</p> <p><i>Clarification 1:</i> Within the Mathematics for Data and Financial Literacy Honors course, problem types focus on money and business.</p>	3-9, 4-6

6 English Language Arts Benchmarks and 1 English Language Development Benchmark	Textbook Section
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ELA.K12.EE.1.1:	Cite evidence to explain and justify reasoning. Clarifications: 9-12 Students continue with previous skills and should be aware of existing style guides and the ways in which they differ.	Incorporated Throughout
ELA.K12.EE.2.1:	Read and comprehend grade-level complex texts proficiently. Clarifications: See Text Complexity for grade-level complexity bands and a text complexity rubric.	Incorporated Throughout
ELA.K12.EE.3.1:	Make inferences to support comprehension. Clarifications: Students will make inferences before the words infer or inference are introduced. Kindergarten students will answer questions like “Why is the girl smiling?” or make predictions about what will happen based on the title page. Students will use the terms and apply them in 2nd grade and beyond.	Incorporated Throughout
ELA.K12.EE.4.1:	Use appropriate collaborative techniques and active listening skills when engaging in discussions in a variety of situations. Clarifications: In grades 3-12, students engage in academic conversations discussing claims and justifying their reasoning, refining and applying skills. Students build on ideas, propel the conversation, and support claims and counterclaims with evidence.	Incorporated Throughout
ELA.K12.EE.5.1:	Use the accepted rules governing a specific format to create quality work. Clarifications: Students will incorporate skills learned into work products to produce quality work. For students to incorporate these skills appropriately, they must receive instruction. A 3rd grade student creating a poster board display must have instruction in how to effectively present information to do quality work.	Incorporated Throughout
ELA.K12.EE.6.1:	Use appropriate voice and tone when speaking or writing. Clarifications: In 2nd grade and beyond, students practice appropriate social and academic language to discuss texts.	Incorporated Throughout
ELD.K12.ELL.MA.1:	English language learners communicate information, ideas and concepts necessary for academic success in the content area of Mathematics.	Incorporated Throughout