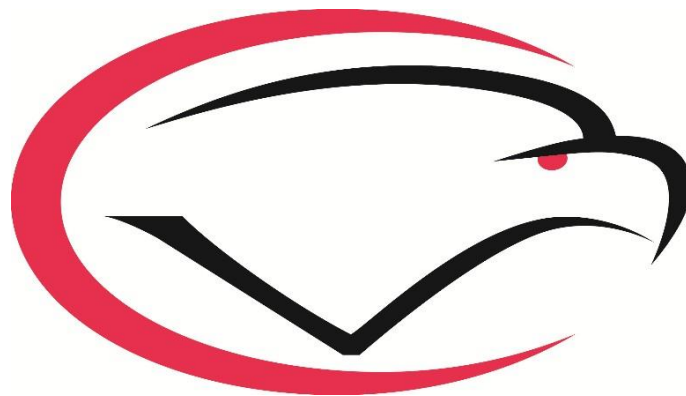


# Secondary Curriculum Maps



Cumberland Valley School District  
Soaring to Greatness, Committed to Excellence

Financial Algebra

---



|  |  |
|--|--|
| <p>Evaluate expressions<br/>Expected value<br/>Exponential functions<br/>Exponential growth and decay<br/>Fractions, decimals and percents<br/>Functions-domain and range<br/>Graphs<br/>Line of best fit<br/>Linear and exponential functions<br/>Linear equations and inequalities<br/>Linear regression<br/>Mean<br/>Measures of central tendency<br/>Order of operations<br/>Parabolas<br/>Percent increase and decrease<br/>Percents and proportions<br/>Piecewise functions<br/>Simple moving averages<br/>Slope-intercept form<br/>Spreadsheets and formulas<br/>Systems of equations</p> |  |
|--|--|

## CVSD Financial Algebra Curriculum Map

| CV Priority Standard/PA Academic Standard   |  |
|---|--|
| CC.2.2.HS.D.7 Create and graph equations or inequalities to describe numbers or relationships   |  |
| Taught in Unit(s)   |  |
| Unit 2: Personal Finance<br>Unit 3: Employment and Taxes<br>Unit 4: Business Finances   |  |
| Explanation/Example of Standard   |  |
| Use multiple variable formulas to solve problems, given values<br>Substitute values for given variables and evaluate their expressions  |  |
| Common Misconceptions   |  |
|   |  |
| Big Idea(s)   | Essential Question(s)  |
| <p>Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms.</p> <p>Patterns exhibit relationships that can be extended, described, and generalized.</p> <p>Relations and functions are mathematical relationships that can be represented and analyzed using words, tables, graphs, and equations.</p> <p>There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.</p> | <p>What long-term and short-term services are available from financial institutions and how can they benefit you?</p> <p>How can having credit (good or bad) impact your personal life?</p> <p>What can you do now to prepare for your retirement?</p> <p>What do you need to know in order to make sound employment decisions?</p> <p>What are your tax paying obligations to the federal, state and local government?</p> <p>How do you read, interpret, and chart stock ownership and transaction data?</p> <p>How do you use statistical analysis to model a business?</p> |
| Assessments   |  |
| See unit map for specific unit common assessments   |  |
| Concepts<br>(what students need to know)  | Skills<br>(what students must be able to do)   |
| Compound interest<br>Credit card usage<br>Evaluate expressions<br>Expected value<br>Exponential equations<br>Graphs<br>Linear and exponential equations<br>Linear equations<br>Linear equations and inequalities<br>Order of operations<br>Parabolas<br>Percent increase and decrease<br>Piecewise functions<br>Ratios and proportions  |  |

|   |  |
|---|--|
| <p>Scatterplots and correlation<br/>Slope intercept form<br/>Spreadsheets and formulas<br/>Systems of equations</p> |  |
|---|--|

## CVSD Financial Algebra Curriculum Map

| CV Priority Standard/PA Academic Standard   |   |
|---|---|
| CC.2.2.HS.D.1 Interpret the structure of expressions to represent a quantity in terms of its context  |   |
| Taught in Unit(s)   |   |
| Unit 1: Consumer Spending<br>Unit 2: Personal Finance<br>Unit 3: Employment and Taxes   |   |
| Explanation/Example of Standard   |   |
| Use the order of operations to express, evaluate, and/or solve problems   |   |
| Common Misconceptions   |   |
|   |   |
| Big Idea(s)   | Essential Question(s)   |
| <p>Families of functions exhibit properties and behaviors that can be recognized across representations. Functions can be transformed, combined, and composed to create new functions in mathematical and real world situations. Mathematical functions are relationships that assign each member of one set (domain) to a unique member of another set (range), and the relationship is recognizable across representations. Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms. Patterns exhibit relationships that can be extended, described, and generalized. Relations and functions are mathematical relationships that can be represented and analyzed using words, tables, graphs, and equations. There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.</p> | <p>How do you determine which car buying/leasing option is best for your financial situation?<br/>How do you use mathematics to model moving, renting, and purchasing a place to live?<br/>What long-term and short-term services are available from financial institutions and how can they benefit you?<br/>How can having credit (good or bad) impact your personal life?<br/>What can you do now to prepare for your retirement?<br/>What do you need to know in order to make sound employment decisions?<br/>What are your tax paying obligations to the federal, state and local government?</p> |
| Assessments   |   |
| See unit map for specific unit common assessments   |   |
| Concepts<br>(what students need to know)  | Skills<br>(what students must be able to do)  |
| <p>Circle (radius, diameter, area, circumference)<br/>Compound interest<br/>Credit card usage<br/>Distance formula<br/>Evaluate expressions<br/>Exponential equations<br/>Linear and exponential equations</p>  |   |

|  |  |
|--|--|
| <p>Order of operations<br/>Percent increase<br/>Area of irregular figures<br/>Spreadsheets and formulas<br/>Systems of equations</p> |  |
|--|--|

## CVSD Financial Algebra Curriculum Map

| CV Priority Standard/PA Academic Standard   |  |
|---|--|
| CC.2.2.HS.C.5 Construct and compare linear, quadratic, and exponential models to solve problems   |  |
| Taught in Unit(s)   |  |
| Unit 1: Consumer Spending<br>Unit 2: Personal Finance<br>Unit 3: Employment and Taxes<br>Unit 4: Business Finances  |  |
| Explanation/Example of Standard   |  |
| Analyze equations and their graphs on the coordinate plane<br>Identify domain, range, and other properties of functions in relation to applicable problems  |  |
| Common Misconceptions   |  |
|   |  |
| Big Idea(s)   | Essential Question(s)  |
| <p>Families of functions exhibit properties and behaviors that can be recognized across representations. Functions can be transformed, combined, and composed to create new functions in mathematical and real world situations. Mathematical functions are relationships that assign each member of one set (domain) to a unique member of another set (range), and the relationship is recognizable across representations. Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms. Patterns exhibit relationships that can be extended, described, and generalized. Relations and functions are mathematical relationships that can be represented and analyzed using words, tables, graphs, and equations. There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.</p> | <p>How do you determine which car buying/leasing option is best for your financial situation?<br/>           How do you use mathematics to model moving, renting, and purchasing a place to live?<br/>           What long-term and short-term services are available from financial institutions and how can they benefit you?<br/>           How can having credit (good or bad) impact your personal life?<br/>           What can you do now to prepare for your retirement?<br/>           What do you need to know in order to make sound employment decisions?<br/>           What are your tax paying obligations to the federal, state and local government?<br/>           How do you read, interpret, and chart stock ownership and transaction data?<br/>           How do you use statistical analysis to model a business?</p> |
| Assessments   |  |
| See unit map for specific unit common assessments   |  |
| Concepts<br>(what students need to know)  | Skills<br>(what students must be able to do)   |
| Compound interest<br>Domain<br>Exponential equations<br>Exponential growth and decay<br>Graphs  |  |



|  |  |
|--|--|
| Line of best fit<br>Linear and exponential equations<br>Linear equations and inequalities<br>Linear regression<br>Measures of central tendency<br>Parabolas<br>Piecewise functions<br>Range<br>Scatterplots and correlation<br>Simple moving averages<br>Slope intercept form<br>Slope-intercept form<br>Spreadsheets and formulas<br>Systems of equations |  |
|--|--|

## CVSD Financial Algebra Curriculum Map

| CV Priority Standard/PA Academic Standard   |  |
|---|--|
| CC.2.2.HS.C.1 Use the concept and notation of functions to interpret and apply them in terms of their content   |  |
| Taught in Unit(s)   |  |
| Unit 1: Consumer Spending<br>Unit 3: Employment and Taxes<br>Unit 4: Business Finances  |  |
| Explanation/Example of Standard   |  |
| Identify the value of each component of a given function<br>Use the $f(x)$ notation in equation writing   |  |
| Common Misconceptions   |  |
|   |  |
| Big Idea(s)   | Essential Question(s)  |
| <p>Families of functions exhibit properties and behaviors that can be recognized across representations. Functions can be transformed, combined, and composed to create new functions in mathematical and real world situations. Mathematical functions are relationships that assign each member of one set (domain) to a unique member of another set (range), and the relationship is recognizable across representations. Numbers, measures, expressions, equations, and inequalities can represent mathematical situations and structures in many equivalent forms. Patterns exhibit relationships that can be extended, described, and generalized. Relations and functions are mathematical relationships that can be represented and analyzed using words, tables, graphs, and equations. There are some mathematical relationships that are always true and these relationships are used as the rules of arithmetic and algebra and are useful for writing equivalent forms of expressions and solving equations and inequalities.</p> | <p>How do you determine which car buying/leasing option is best for your financial situation?<br/>How do you use mathematics to model moving, renting, and purchasing a place to live?<br/>What do you need to know in order to make sound employment decisions?<br/>What are your tax paying obligations to the federal, state and local government?<br/>How do you read, interpret, and chart stock ownership and transaction data?<br/>How do you use statistical analysis to model a business?</p> |
| Assessments   |  |
| See unit map for specific unit common assessments   |  |
| Concepts<br>(what students need to know)  | Skills<br>(what students must be able to do)   |
| <p>Domain<br/>Exponential functions<br/>Exponential growth and decay<br/>Functions-domain and range<br/>Graphs<br/>Line of best fit<br/>Linear equations and inequalities<br/>Linear functions<br/>Linear regression</p>  |  |

|   |  |
|---|--|
| Parabolas<br>Piecewise functions<br>Scatterplots and correlation<br>Slope intercept form<br>Spreadsheets and formulas<br>Systems of equations |  |
|---|--|