## Self-Determination Vertical Alignment: Math 6-12

## Mathematical Process Standards

The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:


## Personal Financial Literacy

The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:

| 6th Grade <br> 111.26 | 7th Grade <br> 111.27 | 8th Grade <br> 111.28 | Algebra I <br> 111.39 | $\begin{gathered} \text { Algebra II } \\ 111.40 \end{gathered}$ | Geometry <br> 111.41 | Precalculus <br> 111.42 | Math Models 111.43 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14 | 13 | 12 |  |  |  |  |  |
| (A) compare the features and costs of a checking account and a debit card offered by different local financial institutions | (A) calculate the sales tax for a given purchase and calculate income tax for earned wages | (A) solve real-world problems comparing how interest rate and loan length affect the cost of credit |  |  |  |  |  |


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| (B) distinguish between debit cards and credit cards | (B) identify the components of a personal budget, including income; planned savings for college, retirement, and emergencies; taxes; and fixed and variable expenses, and calculate what percentage each category comprises of the total budget | (B) calculate the total cost of repaying a loan, including credit cards and easy access loans, under various rates of interest and over different periods using an online calculator |  |  |  |  |  |
| (C) balance a check register that includes deposits, withdrawals, and transfers | (C) create and organize a financial assets and liabilities record and construct a net worth statement | (C) explain how small amounts of money invested regularly, including money saved for college and retirement, grow over time |  |  |  |  |  |
| (D) explain why it is important to establish a positive credit history | (D) use a family budget estimator to determine the minimum household budget and average hourly wage needed for a family to meet its basic needs in the student's city or another large city nearby | (D) calculate and compare simple interest and compound interest earnings |  |  |  |  |  |
| (E) describe the information in a credit report and how long it is retained | (E) calculate and compare simple interest and compound interest earnings | (E) identify and explain the advantages and disadvantages of different payment methods |  |  |  |  |  |
| (F) describe the value of credit reports to borrowers and to lenders | (F) analyze and compare monetary incentives, including sales, rebates, and coupons | (F) analyze situations to determine if they represent financially responsible decisions and identify the benefits of financial responsibility and the costs of financial irresponsibility |  |  |  |  |  |

[^0]| 6th Grade <br> 111.26 | 7th Grade <br> 111.27 | 8th Grade <br> 111.28 | Algebra I <br> 111.39 | Algebra II <br> 111.40 | Geometry <br> 111.41 | Precalculus <br> 111.42 | Math Models 111.43 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (G) explain various methods to pay for college, including through savings, grants, scholarships, student loans, and work-study |  | (G) estimate the cost of a two-year and four-year college education, including family contribution, and devise a periodic savings plan for accumulating the money needed to contribute to the total cost of attendance for at least the first year of college |  |  |  |  |  |

(H) compare the annual
salary of several
occupations requiring various levels of post secondary education or vocational training and calculate the effects of the different annual alaries on lifetime income

## Mathematical Modeling in Personal Finance: Graphical and Numerical Techniques

The student uses mathematical processes with graphical and numerical techniques to study patterns and analyze data related to personal finance. The student is expected to:


## Mathematical Modeling in Personal Finance: Formulas, Graphs, and Modeling

The student uses mathematical processes with algebraic formulas, graphs, and amortization modeling to solve problems involving credit. The student is expected to:

| 6th Grade <br> 111.26 | 7th Grade <br> 111.27 | 8th Grade <br> 111.28 | Algebra I <br> 111.39 | Algebra II $111.40$ | Geometry <br> 111.41 | Precalculus $111.42$ | Math Models 111.43 |
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|  |  |  |  |  |  |  | 3 |
|  |  |  |  |  |  |  | (B) analyze personal credit options in retail purchasing and compare relative advantages and disadvantages of each option |

## Mathematical Modeling in Personal Finance: Formulas, Techniques, and Graphs

The student uses mathematical processes with algebraic formulas, numerical techniques, and graphs to solve problems related to financial planning. The student is expected to:

| 6th Grade <br> 111.26 | 7th Grade 111.27 | 8th Grade <br> 111.28 | Algebra I <br> 111.39 | Algebra II <br> 111.40 | Geometry <br> 111.41 | Precalculus <br> 111.42 | Math Models <br> 111.43 |
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|  |  |  |  |  |  |  | 4 |
|  |  |  |  |  |  |  | (A) analyze and compare coverage options and rates in insurance |
|  |  |  |  |  |  |  | (B) investigate and compare investment options, including stocks, bonds, annuities, certificates of deposit, and retirement plans |
|  |  |  |  |  |  |  | (C) analyze types of savings options involving simple and compound interest and compare relative advantages of these options |


[^0]:    Continued on next page

