Unit #3: Managing Finances and Budgeting

Content Area: **Math**
Course(s):
Time Period:
Length: **5 weeks**
Status: **Published**

State Mandated Topics Addressed in this Unit

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N/A	N/A

Unit #3: Managing Finances and Budgeting

Learning Objectives

- Objective 1 - For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of 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.★
- Objective 2 - Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. For example, if the function h(n) gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function.★
- Objective 3 - Define appropriate quantities for the purpose of descriptive modeling.
- Objective 4 - Distinguish between situations that can be modeled with linear functions and with exponential functions. Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.
- Objective 5 - Distinguish between situations that can be modeled with linear functions and with exponential functions. Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.
- Objective 6 - Design a personal budget that will help you reach your long-term and short-term financial goals.
- Objective 7 - Explain how you would revise your budget to accommodate changing circumstances.

Essential Skills

- Essential Skill 1 - Sketch a graph using the key features of a function.
- Essential Skill 10 - Distinguish between situations that can be modeled with linear functions and with exponential functions.

- Essential Skill 11 - Recognize situations where one quantity changes at a constant rate relative to another.
- Essential Skill 12 - Distinguish between situations that can be modeled with linear and exponential functions.
- Essential Skill 13 - Recognize situations where a quantity grows or decays by a constant percent rate.
- Essential Skill 14 - Design a personal budget that will help you reach your long-term and short-term financial goals.
- Essential Skill 15 - Construct and use a personal budget plan and evaluate it according to short- and long-term goals.
- Essential Skill 16 - Identify various sources of money for personal spending.
- Essential Skill 17 - Identify ways in which individuals and families obtain financial resources.
- Essential Skill 18 - Define fixed and variable expenses.
- Essential Skill 19 - Categorize and classify expenses as fixed or variable.
- Essential Skill 2 - Interpret key features from a graph or a table of values.
- Essential Skill 20 - Determine discretionary income in a budget plan.
- Essential Skill 21 - Compare a personal budget plan with typical consumer spending as a tool for determining individual financial goals.
- Essential Skill 22 - Describe how income and spending patterns change throughout the life cycle for the typical person or family.
- Essential Skill 3 - • Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.
- Essential Skill 4 - Relate the domain of a function its graph
- Essential Skill 5 - Relate the domain of a function to the quantitative relationship that it describes
- Essential Skill 6 - Calculate the average rate of change of a function from a graph or a function on an interval.
- Essential Skill 7 - Interpret the average rate of change.
- Essential Skill 8 - Estimate the average rate of change from a graph.
- Essential Skill 9 - Define quantities for descriptive modeling problems. (Incorporate appropriate units)

Standards

MATH.9-12.N.Q.A.2	Define appropriate quantities for the purpose of descriptive modeling.
MATH.9-12.F.IF.B.4	For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship.
MATH.9-12.F.IF.B.5	Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes.
MATH.9-12.F.IF.B.6	Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.
MATH.9-12.F.LE.A.1.b	Recognize situations in which one quantity changes at a constant rate per unit interval relative to another.
MATH.9-12.F.LE.A.1.c	Recognize situations in which a quantity grows or decays by a constant percent rate per unit interval relative to another.

PFL.9.1.12.PB.3	Design a personal budget that will help you reach your long-term and short-term financial goals.
PFL.9.1.12.PB.4	Explain how you would revise your budget to accommodate changing circumstances.

Instructional Tasks/Activities

- http://kwhs.wharton.upenn.edu/2015/02/zina-kumoks-top-5-budget-tips/
- https://financialentertainment.org
- https://secure.cfwv.com/images/wv/PDFs/RTS/Facilitators_Guides/Grade_7-12/G9_7-12_MoneyMatters1.pdf

Assessment Procedure

- Classroom Total Participation Technique
- Classwork
- DBQ
- Essay
- Exit Ticket/Entrance Ticket/Do Now
- Journal / Student Reflection
- Kahoot
- Other named in lesson
- Peer Review
- Performance
- Problem Correction
- Project
- Quiz
- Rubric
- Teacher Collected Data
- Teacher Observation
- Test
- Verbal Assessment
- Worksheet

Recommended Technology Activities

- Appropriate Content Specific Online Resource
- Chromebook
- Gimkit
- GoGuardian
- Google Classroom

- Google Docs
- Google Forms
- Google Slides
- Kahoot
- MagicSchool AI
- Other- Specified in Lesson
- Quiziz
- Screencastify

Accommodations & Modifications & Differentiation

Accommodations and Modifications should be used to meet individual needs. Their IEP and 504 plans should be used in addition to the following suggestions.

Gifted and Talented

- Compare & Contrast
- Conferencing
- Debates
- Jigsaw
- Peer Partner Learning
- Problem Solving
- Structured Controversy
- Think, Pair, Share
- Tutorial Groups

Instruction/Materials

- alter format of materials (type/highlight, etc.)
- color code materials
- eliminate answers
- extended time
- extended time
- large print
- modified quiz
- modified test
- Modify Assignments as Needed
- Modify/Repeat/Model directions

- necessary assignments only
- Other (specify in plans)
- other- named in lesson
- provide assistance and cues for transitions
- provide daily assignment list
- read class materials orally
- reduce work load
- shorten assignments
- study guide/outline
- utilize multi-sensory modes to reinforce instruction

Environment

- alter physical room environment
- assign peer tutors/work buddies/note takers
- assign preferential seating
- individualized instruction/small group
- modify student schedule (Describe)
- other- please specify in plans
- provide desktop list/formula

Honors Modifications

Resources

- https://www.ixl.com
- https://www.khanacademy.org/