Unit 8: Finance

Content Area: **Mathematics**
Course(s): **Algebra 3CP**
Time Period: **Semester 2**
Length: **5 weeks**
Status: **Published**

Unit Description

In this unit, students develop the mathematical knowledge and practical problem-solving skills necessary to make informed financial and economic decisions in everyday life. Through the application of mathematical modeling, functions, equations, inequalities, and quantitative reasoning, students explore real-world scenarios involving budgeting, personal finance, loans, credit cards, interest rates, savings, and consumer decision-making. Students learn to select appropriate mathematical tools and techniques to solve problems with an appropriate degree of precision while analyzing financial situations that impact their daily lives and future goals.

Standards

MA.12.4.2.12 D.2	Choose appropriate tools and techniques to achieve the specified degree of precision and error needed in a situation.
MA.12.4.3.12 C	Modeling
MA.12.4.3.12 C.1	Use functions to model real-world phenomena and solve problems that involve varying quantities.
MA.12.4.3.12 C.1.7	Applications in mathematics, biology, and economics (including compound interest)
MA.12.4.3.12 D.2	Select and use appropriate methods to solve equations and inequalities.
MA.12.4.5 B.2	Communicate their mathematical thinking coherently and clearly to peers, teachers, and others, both orally and in writing.
MA.12.4.5 C.3	Recognize that mathematics is used in a variety of contexts outside of mathematics.
MA.12.4.5 C.4	Apply mathematics in practical situations and in other disciplines.

Enduring Understandings

Students will understant that:

- We use mathematics on a regular basis to help us get through the necessities of our life.
- Understanding monetary decisions and what we pay off in the long run will help us make monetrary decisions in real life situations.
- Math helps us balance a budget and allows us to decided where we want to spend our money and time.
- We can learn to use mathematics to help us make decisions that affect different aspects of our life. (travel, home, car, food, and miscellaneous)

Essential Questions

How can mathematics be applied to financial and economic situations?

How can students use mathematics to balance a monthly budget?

What real life situations will students need math skills to live within their means?

Knowledge and Skills

- balance a monthly budget based off of a job they choose.
- use mathematics to help them understand interest rate and finance relating to the real world.
- relate all of topics to the real world.
- calculate interest rate on credit cards and loans.
- plan a vacation on a strict budget for two people.
- work together in making financial decisions to relate it to the real world.

Transfer Goals

Use the skillset built in this unit to better understand financial obligations in college and life.

Mathematical reasoning can be applied to careers and personal finance.

Resources

Intermediate Algebra with Applications 5/6th ed by Aufmann/Barker/Lockwood

Online resources which include, but are not limited to: Desmos Graphing Calculator, Class Kick, Delta Math, Khan Academy, and CK-12 Foundation's Algebra 2 with Trigonometry Concepts by CK-12/Gloag/ Rawley, last modified April 12, 2024