



# Financial Algebra

## MODULE 13: LESSON GUIDE

This module provides students with a solid foundation in mathematical concepts and skills necessary for understanding and making financial decisions. We explore the use of algebraic equations and functions to model and solve a variety of real-world financial problems.

Topics covered in this module include interest rates, loans, compound growth, stocks and bonds, and net present value. Students will learn about linear and exponential functions and develop critical thinking and problem-solving skills as they work on case studies that require them to apply mathematical concepts to practical life scenarios.

**Time Required:** 3 Hours

### SUPPLIES:

Notebooks  
Projector  
Activity Sheets (Optional)

### ACTIVITIES & ARTICLES

#### ACTIVITIES

- Calculating Exponential Change
- Fractions, Decimals & Tax Dollars
- Percentages & Payroll Taxes
- Writing Exponential Equations

#### ARTICLES

No Linked Articles

### GUIDING QUESTIONS

- How do interest rates affect the cost of loans and investments, and how can we calculate the interest paid or earned on a financial product?
- How can we calculate the net present value of different financial decisions, and how can we use this information to make informed choices?
- How can we use algebraic equations and functions to model and solve financial problems in the real world?
- How can we apply the principles of financial algebra to real-world scenarios?

### ENDURING UNDERSTANDINGS

- Financial decisions involve weighing the costs and benefits of different options, and algebraic equations and functions can be used to model and compare these options.
- Interest rates play a crucial role in the cost of loans and investments, and we can use math to calculate interest rates and compare different financial products.
- The net present value of a financial decision takes into account the time value of money and is a critical factor in making informed financial decisions.
- Financial algebra can be applied to real-world scenarios, such as buying a house, starting a business, or planning for retirement.

### CEE STANDARDS ALIGNMENT

**Earned Income:** 8.5a-c, 8.7a, 12.6a, 12.7a, 12.7c, 12.8b

**Saving:** 8.3a-b, 8.5a-b

**Investing:** 8.7a, 12.8a