

## **Lesson Plan**

### **The Emergency Fund**

#### **Objective**

Teach students the importance of being financially prepared for unexpected expenses by providing tips to ensure they can handle financial obstacles.

Students will be able to:

- Understand the necessity of having an emergency fund
- Develop a plan to create and build their own fund
- Examine alternative account types/financial products for housing their money
- Calculate the future value of their funds
- Create a frugal budget that includes provisions for building the emergency fund

#### **Consumer Math Standards and Benchmarks**

Common Core State Standards Initiative (CCSSI): The CCSSI was developed by the Federal Government in an attempt to standardize learning practices across states and to assist students in being better prepared for college and higher education.

CCSSI Mission Statement: The Common Core State Standards Initiative provides a consistent, clear understanding of what students are expected to learn, so teachers and parents know what they need to do to help them. The standards are designed to be robust and relevant to the real world, reflecting the knowledge and skills that our young people need for success in college and careers. With American students fully prepared for the future, our communities will be best positioned to compete successfully in the global economy.

This lesson corresponds with the eight Standards for Mathematical Practice as published by CCSSI:

#### **Mathematical Practices**

1. Make sense of problems and persevere in solving them
2. Reason abstractly and quantitatively
3. Construct viable arguments and critique the reasoning of others
4. Model with mathematics
5. Use appropriate tools strategically
6. Attend to precision
7. Look for and make use of structure
8. Look for and express regularity in repeated reasoning

#### **Teaching Materials**

- Lesson plan with answer key for student exercise
- Lesson plan content document
- Assessment/evaluation exercise

#### **Lesson Activity**

- Get the attention of students by asking a series of pointed questions:
  - How many of them plan to be wealthy?
  - What are the recurring expenses they expect to have while living their ideal lifestyle?
  - Have they ever estimated how much their lifestyle will cost them each month?
  - How many already live on a budget?

- How many have never experienced living within a budget?
- What do they think are “budget buster” events?
  - Can they provide examples of budget busters?

Introduce “The Emergency Fund” (see attachment)

- Ask students to read the first two pages
- Ask them to review the charts; make sure they can interpret the data
- It can be fun to discuss with students how each person may have different views when it comes to a true emergency
  - Ask students to create a list of questionable emergencies (events that some might see as an emergency, while others see as trivial)
  - See if the group can come to a consensus on true emergencies

How Much is Enough?

- Students should realize that more is better when building and maintaining a budget
- The longer the protection period, the more security the fund will provide. The fund can have one full year’s worth of expenses, or three to six months’ worth.
- It doesn’t matter if you start small, as long as you get started
- A good first goal to set is saving \$1,000.00
- The fund should be somewhat difficult to access, but not too difficult
- Options for housing the emergency fund include safe and liquid investments. Certificate of Deposit (CD) laddering is also an option
  - Discuss CD laddering
    - Staggering terms
    - Staggering balances
    - Staggering both terms and balances. Suggest that every other month a large CD matures. What other ideas do they have?

The Compound Interest Formula

- Even if the fund goes untouched, it will grow on its own
- Compound interest will help the fund grow as time passes and the funds are not used
- The compound interest formula calculates the future value of an investment given an interest rate, the number of times interest is compounded per year, and the time period

$$A = P \left( 1 + \frac{r}{n} \right)^{nt}$$

A = Final balance

P = Principal amount (initial investment)

F = Annual interest rate (as a decimal)

N = Number of times the interest is compounded each year

T = Number of years

An example for using the formula is in the lesson, along with an example for students to try.

Using the formula above:

$$P = 1850$$

$$R = 2.75/100 = 0.0275$$

$$N = 12$$

$$T = 3$$

$$A = 1,850 \left( 1 + \frac{0.0275}{12} \right)^{12 \times 3} = 1,850 (1.00229172)^{36} = 1,850 (1.0858975) = 2008.91$$

### Tips for Building an Emergency Fund

- Nine different suggestions are offered that will help students find extra money they can use to build their emergency fund
- Ask for suggestions to see if any creative ideas are mentioned
- The concept of extra money makes sense once students know what expenses are essential and which are extra
- Show students what a frugal budget looks like, how to create and continually adjust one, and how it can be used to locate opportunities for saving and building an emergency fund

### Exercise on Budgeting

- Essential versus non-essential expenses
  - 11 expenses for Tyler are listed
  - Five of these can be classified as non-essential
    - Movie night
    - Buying lunch
    - Date night
    - Shoe shopping
    - Morning coffee
  - Non-essential expenses are opportunities to find extra money for saving, by reducing expenses or simply eliminating them
  - Remind students that budgeting money for entertainment can be very useful in helping them stick to a budget. A budget that is too restricting can be hard to follow.
- Question one:
  - Adding only essential expenses totals: \$1,720.45 per month. A fully funded, three-month cushion totals: \$5,161.35.
- Question two:
  - As a group, use the provided table to recommend adjustments. Essential expenses should remain unchanged, and non-essential expenses can be reduced or eliminated.
- Question three:
  - Calculate the adjustments to non-essential expenses
- Question four:
  - Divide \$5,161.35 by the savings calculated. This will provide the number of months it would take Tyler to live with the reduced expenses and redirect the savings toward building an emergency fund.
- Question five:
  - Using the formula:

$$\begin{aligned}P &= 5161.35 \\R &= 2.5 \text{ percent} \\N &= 12 \\T &= 1\end{aligned}$$

$$A = 5161.35\left(1 + \frac{0.025}{12}\right)^{12 \times 1} = 5161.35(1.002083)^{12} = 5161.35(1.0252844) = 5291.85$$

### Assessment

- An assessment of the presented material
  - 10 question multiple choice assessment
  - Lesson document should be allowed as a resource, as the assessment utilizes formulas presented in the lesson
- Assessment answer key

Assessment Answer Key

1. A
2. B
3. D
4. C
5. C
6. D
7. D
8. B
9. A
10. C