



MOUNTAIN MONEY ADVENTURES

Teen Camp

Ages
13-19

Teens and Money for Future Education

{ <http://youth.macu.com> }

Mountain America Credit Union knows that it's never too early to start learning critical money management skills. That's why we've put this information together for teachers and educators to use. *Educating today's youth for a better tomorrow.*



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Teens and Money for Future Education

Unit Concept: Students will become aware of savings and investments they can make now to help fund college, trade school or other educational alternatives.

These lessons are designed to compliment your state standards and are based on recommended Standards from the National Council of Teachers of Mathematics:

Content Standards:

Numbers and Operations: Students will be able to perform computations in different ways. Students should be able to explain their method, understand that many methods exist and see the usefulness of methods that are efficient, accurate and general.

Data Analysis and Probability: Students will learn to formulate questions and collect, organize and display relevant data.

Process Standards: Students will see mathematical connections in the rich interplay among mathematical topics, in contexts that relate mathematics to other subjects, and in their own interests and experience.

And from the National Council on Economic Education's National Standards:

Standard 1: Scarcity Productive: Resources are limited. Therefore, people can't have all the goods and services they want; as a result, they must choose some and give up others.

Standard 15: Growth: Students will understand that investment in factories, machinery, new technology and in the health, education and training of people can raise future standards of living.

Standard 12: Role of Interest Rates: Students will understand that interest rates, adjusted for inflation, rise and fall to balance the amount saved with the amount borrowed, which affects the allocation of scarce resources between present and future uses.

Lesson Objectives: Students will learn different methods of saving for future education. They will appreciate the correlation between time and the growth of money.

Brain Warmers:

1. What are some ways that specific skills or education will affect your future?
2. How can you earn and save money to pay for college or a trade school?
3. What are some of the fastest ways for your money to grow?
4. What are the benefits of investing over a long period of time?

Main Points:

- The longer money stays in an interest accruing account, the faster it will grow.
- There are a variety of methods for investing money.
- The choices you make with money management today will affect your ability to make more money in the future.
- The level of education and specific skills you gain can increase your earning power.

Teacher Tips: Before starting on the student hand out, get students to discuss their goals for 5 or 10 years from now. Tell students that the 2006-2007 average cost for a private college was over \$30,000. For public schools it was over \$12,000.

Once you get a feel for their goals and how likely they think it is that they will go on for future education, start discussing savings and investing options.

Student Handout 1

Name _____

Lesson #1: Time Equals Money

There are many ways to save and invest money for college or trade school. Starting early increases the amount of interest you earn, and how quickly your money will grow. Use the chart below to answer the questions that follow.

Methods of Saving/Investing

| | Amount Invested | Interest Rate | Access to Money | Interest Earned | Guaranteed? |
|------------------------------|-----------------|---------------|-----------------|-----------------|-------------|
| Savings Account | 500 | 3% | Yes | 15.00 | Yes |
| CD | 500 | 5.45% | No | 27.45 | Yes |
| Stocks or Mutual Fund | 500 | 8% | Yes | 40 | No |

1) The above chart is based on a simple interest calculation (you're not paid for interest on the money just the principal). According to the chart, which method of investment will earn you the most money in the time period shown?

2) Are there any drawbacks in going with that method?

3) With a CD, or certificate of deposit, the bank or credit union will pay you a slightly higher interest rate for a set period of time, usually 1 to 6 months. However, you can't access your money during that time. What are the benefits and drawbacks of this approach?

Student Handout 2

Lesson #1: Time Equals Money

Name _____

Compound Interest For an 8% Return on Investment (ROI)

| Current Principal | 0 | 0 | 0 |
|--------------------------|----------------|-----------------|-----------------|
| Yearly Deposit | 1300 | 1300 | 1300 |
| Years Invested | 4 | 10 | 20 |
| Total Amount | 6145.27 | 19951.28 | 64235.95 |

The chart above illustrates how time can cost you, or gain you, money. If you start by depositing \$25 a week for one year, and do that every year, at an 8% ROI (typical of a mutual fund), the interest accrues over time.

- 1) How much principal have you invested in the 4 year scenario?
How much interest have you accrued?

- 2) How much principal have you invested in the 10 year scenario?
How much interest have you accrued?

- 3) How much principal have you invested in the 20 year scenario?
How much interest have you accrued?

- 4) What is the difference in the amount of interest earned between 4 and 10 years?

- 5) What is the difference in the amount of interest earned between 10 and 20 years?

- 6) How does the length of time affect an investment?

- 7) Compare the short-term benefits of a 6 month CD to those of a the long-term mutual fund investment above.

Teacher Reference 1

Lesson #1: Time Equals Money

There are many ways to save and invest money for college or trade school. Starting early increases the amount of interest you earn, and how quickly your money will grow. Use the chart below to answer the questions that follow.

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| Stocks or Mutual Fund | 500 | 8% | Yes | 40 | No |

1) The above chart is based on a simple interest calculation (you're not paid for interest on the money just the principal). According to the chart, which method of investment will earn you the most money in the time period shown?

Stocks or mutual funds.

2) Are there any drawbacks in going with that method?

Yes. There is no guarantee of that return. You could even lose money.

3) With a CD, or certificate of deposit, the bank or credit union will pay you a slightly higher interest rate for a set period of time, usually 1 to 6 months. However you can't access your money during that time. What are the benefits and drawbacks of this approach?

For some people, the inability to access funds might help them save. Also, there is very little risk associated with a CD.

If you need the funds for an emergency, you are out of luck. You will need to pay a high fee.

Teacher Reference 2

Lesson #1: Time Equals Money

Compound Interest For an 8% Return on Investment (ROI)

| Current Principal | 0 | 0 | 0 |
|-------------------|---------|----------|----------|
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The chart above illustrates how time can cost you, or gain you, money. If you start by depositing \$25 a week for one year, and do that every year, at an 8% ROI (typical of a mutual fund), the interest accrues over time.

1) How much principal have you invested the 4 year scenario? **5200**

How much interest have you accrued? **945.27**

2) How much principal have you invested the 10 year scenario? **13000**

How much interest have you accrued? **6951.28**

3) How much principal have you invested the 20 year scenario? **26000**

How much interest have you accrued? **38235.95**

4) What is the difference in the amount of interest earned between 4 and 10 years?
6006.01

5) What is the difference in the amount of interest earned between 10 and 20 years?
31284.67

6) How does the length of time affect an investment?

As the interest compounds, you make more money while investing the same amount.

7) Compare the short-term benefits of a 6 month CD to those of a the long-term mutual funds above.

CDs are low risk and can be obtained for a small amount of money. It is a good investment tools for short-term growth. Mutual funds are better for long-term growth. The interest compounds over time. And time allows the stocks to fluctuate with out hurting your investment.