

LESSON PLAN

Saving and Investing

Introduce the advantages and disadvantages of common savings and investment vehicles, and show the short- and long-term effects of various savings and investment choices.

Learning Objective(s):

- List and prioritize some of your short- and long-term budget goals
- List and explain some of the advantages of saving money
- Understand the concept of “pay yourself first” and list some ways to encourage this habit
- List and explain the differences among the most common saving methods
- Understand the advantages and disadvantages of popular investment vehicles
- Understand what investment fraud is, and list some of the ways you can protect yourself against investment swindlers

Target Group:

- **Grade 7 – Grade 8**

Lesson Excerpt:

Saving just \$500 a day will result in more than \$180,000 in a year. Small amounts saved and invested can easily grow into larger sums. However, a person must start to save.

This lesson provides students with a basic knowledge of saving and investing. The process starts with setting financial goals. Next, a commitment to saving is discussed.

Various savings plans are available to consumers. These include regular savings accounts, and certificates of deposit (CD). Then, students will analyze factors to consider when selecting a savings account. These include interest rates, fees, balance requirements.

Investing takes saving one step further in a person’s financial plan. Bonds, stocks, mutual funds, real estate, and retirement accounts are covered in the next section of this lesson.

Finally, students are made aware of potential investment frauds. The variety of these swindles increases each year as con artists look for new opportunities to separate people from their money.

Students' Activities:

1-1 Setting and Prioritizing Your Financial Goals

- Have students complete the “Setting Financial Goals” worksheet. If your students don’t have enough income to complete this exercise, give them a theoretical income to work with.
- Ask students to share some of their goals with the class, including estimated cost, target date, and the amount they would need to save each week to meet their goal.
- Discuss and reemphasize the importance of goal setting and planning.
- Have students prioritize the goals they identified.

1-2 Calculating Interest

- Have students complete the “Calculating Interest” worksheet.
- Review the answers and, as needed, show the calculations on the board.
- Reemphasize how the interest rate and the method of calculation can affect how much their money grows.

1-3 Selecting Mutual Funds

- Review types of mutual funds.
- Have students complete this exercise.
- Ask students to explain their answers.

1-4 Test Your Knowledge of Saving and Investing

- Have students complete this exercise.
- Discuss their answers.

1-5 Lesson Quiz

1-1 Set Financial Goals

1. Why save?

- To reach financial goals
- In case of an emergency
- To have the option of taking advantage of unforeseen opportunities

2. Why set goals?

- Give direction for making plans and taking actions

3. Set and prioritize your financial goals

- The goal-setting process
- Short-term goals (1–4 weeks)
- Medium-term goals (2–12 months)
- Long-range goals (1 year or longer)

1-2 Pay Yourself First

1. Why?

- To make a habit of saving money to reach your financial goals

2. What it takes

- Commitment
- Discipline
- Delayed gratification

3. Ways to do it

- From each paycheck or allowance, deposit a set amount or percentage into your savings account before spending money on anything else.
- At the end of the day, put all your change in a “savings” container. Once a month, deposit the money in a savings account.
- Whenever you get unexpected money, put a portion of it into savings.

4. Remember

- Amount saved isn't as important as getting into the habit.

1-3 Savings Accounts

1. Advantage

- Simplest way to earn interest while keeping money readily accessible

2. Passbook and statement accounts

1-4 Other Saving Methods

1. Certificates of deposit

1-5 How to Calculate Interest

1. Simple
2. Compound
3. Exercise

1-6 Choosing a Savings Account

1. Factors to consider

- Interest rate
- Fees, charges, and penalties
- Balance requirement
- Balance calculation method

1-7 Saving vs. Investing

1. Difference

- Degree of risk
- Rate and stability of return
- Availability of funds for use
- Amount of protection against inflation

1-8 Some Common Investment Vehicles

For each, discuss what it is, how it works, and what its advantages are

1. Bonds

2. Mutual funds

3. Stocks

4. Real estate

5. Retirement plans

1-9 Comparing Savings and Investment Vehicles

1. Review

- Savings accounts
- Bonds
- Mutual funds
- Stocks

2-0 Capital Gains and Losses

1. What they are

- The profit or loss made on an investment

LESSON MATERIAL

Types of Savings Accounts

Passbook Account

- Depositor receives a booklet in which deposits, withdrawals, and interest are recorded.
- Average interest rate is lower at banks and savings and loans than at credit unions.
- Funds are easily accessible.

Statement Account

- Basically the same as a passbook account, except depositor receives monthly statements instead of a passbook.
- Accounts are usually accessible through 24-hour automated teller machines (ATMs).
- Interest rates are the same as passbook account.
- Funds are easily accessible.

Interest-Earning Checking Account

- Combines benefits of checking and savings.
- Depositor earns interest on any unused money in his/her account.

Certificates of Deposit (CDs)

What they are and how they work

- Bank pays a fixed amount of interest for a fixed amount of money during a fixed amount of time.

Benefits

- No risk
- Simple
- No fees
- Offers higher interest rates than savings accounts.

Trade-Offs

- Restricted access to your money
- Withdrawal penalty if cashed before expiration date (penalty might be higher than the interest earned)

How Simple and Compound Interest are calculated

Simple Interest calculation

- **Dollar Amount x Interest rate x Length of Time (in years) = Amount Earned**

Example

- If you had \$100 in a savings account that paid 6% simple interest, during the first year you would earn \$6 in interest.

$$\mathbf{\$100 \times 0.06 \times 1 = \$6}$$

- At the end of two years you would have earned \$12.
- The account would continue to grow at a rate of \$6 per year, despite the accumulated interest.

Compound Interest calculation

- Interest is paid on original amount of deposit, plus any interest earned.

$$\mathbf{(\text{Original } \$ \text{ Amount} + \text{Earned Interest}) \times \text{Interest Rate} \times \text{Length of Time} = \text{Amount Earned}}$$

Example

- If you had \$100 in a savings account that paid 6% interest compounded annually, the first year you would earn \$6.00 in interest.

$$\mathbf{\$100 \times 0.06 \times 1 = \$6}$$

$$\mathbf{\$100 + \$6 = \$106}$$

- With compound interest, the second year you would earn \$6.36 in interest.

The calculation the second year would look like this:

$$\mathbf{\$106 \times 0.06 \times 1 = \$6.36}$$

$$\mathbf{\$106 + 6.36 = \$112.36}$$

Choosing a Savings Account

Factors that determine the dollar yield on an account:

Interest rate (also called rate of return, or annual yield)

- All money earned comes from this factor.

The following factors reduce money earned and can even turn it into a loss:

Fees, charges, and penalties

- Usually based on minimum balance requirements, or transaction fees.

Balance requirements

- Some accounts require a certain balance before paying any interest.
- On money-market accounts, most banks will pay different interest rates for different size balances. (Higher balance earns a higher rate.)

Balance calculation method

- Most calculate daily. Some use average of all daily balances.

Bonds

What they are

■ A bond is an “IOU,” certifying that you loaned money to a government or corporation and outlining the terms of repayment.

How they work

■ Buyer may purchase bond at a discount. The bond has a fixed interest rate for a fixed period of time. When the time is up, the bond is said to have “matured” and the buyer may redeem the bond for the full face value.

Types

Corporate

- Sold by private companies to raise money.
- If company goes bankrupt, bondholders have first claim to the assets, before stockholders.

Municipal

- Issued by any non-federal government.
- Interest paid comes from taxes or from revenues from special projects. Earned interest is exempt from federal income tax.

Federal government

- The safest investment you can make. Even if U.S. government goes bankrupt, it is obligated to repay bonds.

Mutual Funds

What they are

- Professionally managed portfolios made up of stocks, bonds, and other investments.

How they work

- Individuals buy shares, and fund uses money to purchase stocks, bonds, and other investments.
- Profits returned to shareholders monthly, quarterly, or semi-annually in the form of dividends.

Advantages

- Allows small investors to take advantage of professional account management and diversification normally only available to large investors.

Types of mutual funds

Balanced Fund includes a variety of stocks and bonds.

Global Bond Fund has corporate bonds of companies from around the world.

Global Stock Fund has stocks from companies in many parts of the world.

Growth Fund emphasizes companies that are expected to increase in value; also has higher risk.

Income Fund features stock and bonds with high dividends and interest.

Industry Fund invests in stocks of companies in a single industry (such as technology, health care, banking).

Municipal Bond Fund features debt instruments of state and local governments.

Stocks

What they are

- Stock represents ownership of a corporation. Stockholders own a share of the company and are entitled to a share of the profits as well as a vote in how the company is run.

How earnings are made

- Company profits may be divided among shareholders in the form of dividends. Dividends are usually paid quarterly.
- Larger profits can be made through an increase in the value of the stock on the open market.

Advantages

- If the market value goes up, the gain can be considerable.
- Money is easily accessible.

Disadvantages

- If market value goes down, the loss can be considerable.
- Selecting and managing stock often requires study and the help of a good brokerage firm.

Real Estate

Ways to invest

- Buy a house, live in it, and sell it later at a profit.
- Buy income property (such as an apartment house or a commercial building) and rent it.
- Buy land and hold it until it rises in value.

Advantages

- Excellent protection against inflation.

Disadvantages

- Can be difficult to convert into cash.
- A specialized type of investment requiring study and knowledge of business.

Capital Gains: profits from the sale of a capital asset such as stocks, bonds, or real estate. These profits are tax-deferred; you do not have to pay the tax on these profits until the asset is sold.

Long-term capital gains occur on investments held more than 12 months. Short-term capital gains occur on investments held less than 12 months.

Avoiding Investment Fraud

Each year billions of dollars are lost to fraudulent investments. Some of the most common include:

- Illegal pyramids, insider trading, and unlicensed investment brokers
- High-risk stocks and fraudulent securities
- Fraudulent franchises and business opportunities
- Internet services, and high-tech investments promising high profits and minimal risk
- Opportunities to invest in entertainment ventures with promises of guaranteed profits and failure to disclose risk

To protect yourself from becoming a victim of investment fraud, take the following actions:

- Become informed about investments and industries before investing
- Talk with others who have made similar investments
- Obtain information from state and federal regulatory agencies
- Never buy over the phone without first investigating the situation
- Avoid investment opportunities promising large returns in a short amount of time that seem “too good to be true”—they probably are.

LESSON EXERCISES

Setting and Prioritizing your Financial Goals

short-range goal (within 1 month)

Goal: _____	Objective	\$ _____
_____	Estimated Cost	\$ _____
_____	Target Date	\$ _____
_____	Monthly Amount	\$ _____

medium-range goal (2-12 months)

Goal: _____	Objective	\$ _____
_____	Estimated Cost	\$ _____
_____	Target Date	\$ _____
_____	Monthly Amount	\$ _____

long-range goal (more than 1 year)

Goal: _____	Objective	\$ _____
_____	Estimated Cost	\$ _____
_____	Target Date	\$ _____
_____	Monthly Amount	\$ _____

Calculating Interest - Answer Key

Directions

Write the answers to the following questions in the blanks provided. Use the space below each problem to show how you arrived at your answers.

1. If you put \$200 in a savings account that paid 5.5% simple interest each year, how much interest would you earn in five years?

\$55

$$\$200 \times 0.055 = \$11$$

$$\$11 \times 5 = \$55$$

2. If you put \$150 in a savings account that paid 6% compounded yearly, how much interest would you earn in five years?

\$50.73

$$\$150 \times 1.06 = \$159 \text{ (after 1 year)}$$

$$\$159 \times 1.06 = \$168.54 \text{ (after 2 years)}$$

$$\$168.54 \times 1.06 = \$178.65 \text{ (after 3 years)}$$

$$\$178.65 \times 1.06 = \$189.37 \text{ (after 4 years)}$$

$$\$189.37 \times 1.06 = \$200.73 \text{ (after 5 years)}$$

3. If you put \$25 each month into a savings account that paid a simple interest rate of 6.5% each year, how much would you have in your account at the end of two years? **\$639.00**

	<i>Amount of Deposit</i>	<i>Interest Rate</i>	<i>Months on Deposit</i>	<i>Periods/yr</i>	<i>Interest</i>
<i>start of year 1</i>	25	0.065	12	12	1.63
	25	0.065	11	12	1.49
	25	0.065	11	12	1.49
	25	0.065	10	12	1.35
	25	0.065	9	12	1.22
	25	0.065	8	12	1.08
	25	0.065	7	12	0.95
	25	0.065	6	12	0.81
	25	0.065	5	12	0.68
	25	0.065	4	12	0.54
	25	0.065	3	12	0.41
	25	0.065	2	12	0.27
	25	0.065	1	12	0.14
<i>end of year 1</i>	300				

	<i>Amount of Deposit</i>	<i>Interest Rate</i>	<i>Months on Deposit</i>	<i>Periods/yr</i>	<i>Interest</i>
<i>start of year 2</i>	325	0.065	12	12	19.50
	25	0.065	11	12	1.49
	25	0.065	10	12	1.35
	25	0.065	9	12	1.22
	25	0.065	8	12	1.08
	25	0.065	7	12	0.95
	25	0.065	6	12	0.81
	25	0.065	5	12	0.68
	25	0.065	4	12	0.54
	25	0.065	3	12	0.41
	25	0.065	2	12	0.27
	25	0.065	1	12	0.14
<i>end of year 2</i>	600				

4. If you put \$10 each week into a savings account that paid 6% interest compounded yearly, how much money would you have in your account after three years? **\$1,754.80**

Selecting Mutual Funds - Answer Key

Directions

For each of the investment situations below, select the type of mutual fund that would be most appropriate from this list:

Balanced Fund

Income Fund

Global Bond Fund

Industry Fund

Global Stock Fund

Municipal Bond Fund

Growth Fund

Regional Stock Fund

1. A person wants an international mutual fund without the risks associated with stocks.

Global Bond Fund

2. An investor wants tax-exempt income from investments.

Municipal Bond Fund

3. An investor is interested in investing in health-care stocks.

Industry Fund

4. A person wants to invest in stocks from around the world.

Global Stock Fund

5. A person is interested in long-term growth for future financial security.

Growth Fund

6. An investor seeks to buy stock in companies located in Europe.

Regional Stock Fund

7. A retired person desires investment earnings to provide for current living expenses.

Income Fund

8. A person wants to invest in a blend of stocks and bonds.

Balanced Fund

9. An investor wants to invest in debt instruments issued by state and local governments.

Municipal Bond Fund

10. A person expects growth of companies in Latin America.

Regional Stock Fund

Lesson Quiz – Answer Key

True/False

1. A certificate of deposit must be held for a set amount of time such as six months or a year. **T**
2. Compound interest refers to money earned from buying a tax-exempt investment. **F**
3. A share of stock represents ownership in a company. **T**
4. A mutual fund is an investment issued by a state or local government agency. **F**
5. Treasury bonds are a safer investment than real estate. **T**

Multiple Choice

6. The lowest interest rate is usually earned on a:
 - A. money-market account
 - B. passbook account**
 - C. certificate of deposit
 - D. mutual fund
7. The total interest earned on \$100 for two years at 10 percent (compounded annually) would be:
 - A. \$2
 - B. \$21**
 - C. \$11
 - D. \$10
8. Based on the rule of 72, money earning 6 percent would take about _____ years to double.
 - A. 6
 - B. 8
 - C. 9
 - D. 12**
9. An example of a company's debt is a:
 - A. corporate bond**
 - B. share of stock
 - C. mutual fund
 - D. municipal bond
10. The investment with the most risk would be:
 - A. a savings account
 - B. U.S. Treasury bonds
 - C. corporate stocks**
 - D. corporate bonds

Case Application

The Johnson family includes Marv (age 34), Gail (33), Andrew (8), and Molly (4). What are some investment goals that might be appropriate for this family? What types of investments might be used to achieve these goals?

Common investment goals in this situation might be to create an emergency fund, to save for the children's college education, and to save for retirement. The Johnsons might start their saving-investing program with a savings account, or certificates of deposit. Next, they might consider an aggressive stock mutual fund that could give them good long-term growth for the education and retirement funds. All of those are easier to implement with an automatic withdrawal each month from a bank account to the savings account or the investment company.