Stocks and Mutual Funds

LESSON DESCRIPTION AND BACKGROUND

The students learn about stocks—how stocks are issued, different levels of risk, and differences in possible returns. In studying risk, the students also learn about mutual funds and diversification.

Lesson 14 is correlated with national standards for mathematics and economics, and with personal finance guidelines, as shown in Tables 1-3 in the introductory section of this publication.

ECONOMIC AND PERSONAL FINANCE CONCEPTS

- Capital gains
- Diversification
- Dividend
- Equity
- Mutual funds
- Risk
- Stocks

OBJECTIVES

At the end of this lesson, the student will be able to:

- Explain that **stocks** represent shares of ownership in a corporation.
- Explain the **risk** associated with stock ownership.
- Explain two ways in which stocks provide a return to owners: **capital gains** and **dividends**.
- Define **mutual funds**; identify different types of mutual funds.
- Define **diversification**.

TIME REQUIRED

Two 45-minute class periods

MATERIALS

- A transparency of **Visual 14.1** and **14.2**
- A copy for each student of **Introduction** and **Vocabulary** sections of **Lesson 14** from the *Student Workbook*
- A copy for each student of **Exercise 14.1** from the *Student Workbook*. Distribute copies to the five cast members a day ahead of time (see **Procedure 2**)
- A copy for each student of **Exercise 14.2**, **14.3**, and **14.4** from the *Student Workbook*
- Two small boxes (see **Procedure 20**)
- The financial pages of a newspaper
- Six sheets of poster board
- Art supplies
- Magazines

ADDITIONAL RESOURCES

To download visuals, find related lessons, correlations to state standards, interactives, and more, visit http://fffl.councilforeconed.org/6-8/lesson14

PROCEDURE

1. Distribute a copy of the **Introduction** and **Vocabulary** sections of **Lesson 14** from the *Student Workbook* to each student. Introduce the lesson's focus on stocks and mutual funds and ask the students to read the handout. Explain briefly that some investors put their money into buying stocks. When they buy stocks from a given company, they become part-owners of that company. If the company does well, they will benefit. But if the company does not do well, they may lose some or all of the money they invested. To guard against this risk of loss,

many investors diversify. That means they spread their investments around, buying stock in several companies. In order to diversify, many investors invest in mutual funds.

2. Explain that the lesson will begin with a play that illustrates some main points about investing in stocks. You have arranged for five students to perform a play about two pie companies in competition with one another. Distribute copies of **Exercise 14.1** (the cast members will have received their copies in advance). Invite the other class members to read along with the performance. When the play has been performed, the students should answer the two questions that follow the exercise. Discuss the answers as follows:

a. Why did Perfect Pies become more profitable than Pretty Pies? ***(Perfect Pies bought a crust-making machine and a fruit-slicing machine. These are investments in capital which increase productivity and improve the company's potential to be profitable.)***

b. What will Pretty Pies have to do to compete with Perfect Pies? ***(Pretty Pies will have to invest in capital also.)***

3. Display **Visual 14.1**. Explain that this chart represents an apple pie from Perfect Pies. The pie is divided into 10 slices. It could be divided in other ways, such as two slices or four slices. Why do people divide pies into slices? ***(So that many people can have some.)***

4. Explain that when we slice the pie and give some to others, we are sharing. We are giving people a share of the pie.

5. Explain that this pie chart represents the "value" of Perfect Pies. The company is valued at $10,000, so the pie chart represents $10,000. The owner of the company has decided to slice the company into 10 "shares." She offered one of those shares to Lydia. Ask: How much is each share worth? ***($1,000)*** Write "$1,000" in each slice on the chart.

6. Explain that when other investors began examining Perfect Pies, many of them wanted to buy some shares, too. So the owner kept two shares for herself and sold the remaining seven shares. (Remind the students that Lydia still owns a share.)

7. Explain that as more investors saw the success of Perfect Pies, they also wanted shares. The owner was not willing to sell her last two shares, so the new investors contacted Lydia and the other seven investors and asked to buy their shares. Most of the original investors agreed to sell their shares, but only if the new investors were willing to give them $2,000 for each share. The new investors were willing. Ask the students what these purchases will do to the value of the company. ***(It will increase the value of the company.)***

8. Display **Visual 14.2**. Write "$2,000" in each slice. Explain that each of the shares is now worth $2,000. Ask:

a. How much is the whole company worth? ***(10 shares x $2,000 = $20,000)***

b. Did the number of slices change? ***(No.)***

9. Emphasize the point that the number of slices/shares did not increase. Rather, the entire pie increased. Lay **Visual 14.2** on top of **Visual 14.1** to illustrate the increase in the size of the pie (or draw the circles on the board). Ask:

a. What is each share worth? ***($2,000)***

b. What is Lydia's share worth? ***($2,000)***

c. If Lydia sells her stock now, how much will she receive? ***($2,000)***

d. How much did Lydia pay for the stock? ***($1,000)***

e. In the play, how much did Lydia receive from the pie store owner? ***($1,000 in the second year)***

10. Explain that there are two ways in which stocks may provide a return to their owners. One way is "capital gains." A capital gain is a profit somebody makes when he or she sells a stock (or another asset) for more than he or she paid for it. The other way is through "dividends." A dividend is a portion of a company's profit paid to stockholders. When the pie store owner paid Meredith $1,000, she was paying Meredith a dividend.

11. Explain that shares in Perfect Pies were exchanged directly between the buyer of the stock and the seller. However, stocks are usually bought and sold in the "stock market." The stock market serves an important purpose in our financial system. It provides us with information about the companies whose stock we might want to purchase.

12. Explain that in *The Pie War*, Pretty Pies and Perfect Pies seemed to be identical pie companies, but then something happened to make them different. Remind the students that Pretty Pies and Perfect Pies both received $1,000 from investors, and both were profitable. Perfect Pies took part of its "profit" (rather than paying Lydia $500 in dividends) and bought capital that would make it more efficient in pie production. Pretty Pies used part of its profit to pay a big dividend. Ask:

a. Which company did better in the long run? ***(Perfect Pies.)***

b. Which stock did Kendall buy? ***(Pretty Pies.)***

c. Why did Kendall buy stock in Pretty Pies? ***(Because it paid a large dividend to Meredith.)***

13. Explain that the Pretty Pies stock Kendall purchased is not going to gain in value to the extent that the stock in Perfect Pies will gain. However, Kendall didn't have the right information, so she couldn't make a good decision about which stock to buy.

14. Distribute copies of **Exercise 14.2**; have the students read the exercise and answer the questions posed at the end. When they have completed their work, discuss their answers.

a. Which company's stock did research analysts recommend? ***(Perfect Pies.)***

b. What was it about the Perfect Pies operations that impressed the analysts? ***(Capital investment and the potential for long-term growth.)***

c. What was the signal to other stock purchasers that Perfect Pies was a good investment? ***(Answers will vary. The increase in the price of its stock may have been a favorable sign, suggesting an improved outlook on the future profitability of Perfect Pies.)***

d. What was the signal to other stock purchasers that Pretty Pies was not a good investment? ***(Answers will vary. The stock price did not increase, which may have been an unfavorable sign for Pretty Pies.)***

15. Explain that investors face "risk" when they buy stock. Even a company as smart as Perfect Pies can experience problems. Sometimes companies' managers make mistakes. At other times, companies are hurt by events in the marketplace that are beyond the control of their managers.

16. Distribute copies of **Exercise 14.3** from the *Student Workbook*. Have the students complete the exercise and answer the questions. Discuss students' answers.

Scenario 1

a. If the pie company goes back to making the crusts by hand, will the "supply" of pies increase or decrease? ***(The supply of pies will decrease. One of the reasons for the success of Perfect Pies was the adoption of the pie crust machine. The machine allowed the company to increase the rate at which it produced pies. It increased the company's productivity.)***

b. Is this a problem that can be controlled by management? ***(Yes.)***

Scenario 2

a. If the pie company cannot get apples without worms, will the supply of apple pies increase or decrease? ***(The supply of apple pies will decrease.)***

b. Is this a problem that can be controlled by management? ***(Management cannot control this event. However, it might be able to mitigate the damages by increasing the production of other pie flavors. Some consumers may be willing to substitute.)***

Scenario 3

a. If the Pronly diet becomes popular, what will happen to the "demand" for apple pies? ***(The demand for apple pies will decrease.)***

b. Is this a problem that can be controlled by management? ***(No. However, the company may be able to wait out this fad diet.)***

17. Point out that owning a stock in a particular company can be risky. As an example, although Perfect Pies seems to be successful, various events could derail its progress. A fad diet, worn-out machines, and wormy apples are just three examples.

18. Explain that, for investors, one solution to this problem is to buy stock in several different companies. This is called "diversification." Diversification is the tactic of owning several different assets for the purpose of reducing risk. A fad protein diet may reduce the demand for pie, but at the same time it might increase the demand for meat. So, an investor might reduce his or her risk by owning stock in both the pie company and a meat company.

19. Explain that it takes a great deal of work to diversify by buying many individual stocks. Before they buy, smart investors spend time researching the companies in which they might be interested. They are watchful for events that could have a negative effect on the supply of or demand for products sold by the companies in which they might be interested. The stakes may be high for investors. Mistakes may be costly.

20. Explain that not all investors have the time or the expertise needed to diversify their holdings by researching and investing in several individual stocks. Many of them follow a different approach. Introduce the following activity as a simplified representation of this alternative. Gather a small box, a newspaper, and a pair of scissors. Place the box on your desk. Open a newspaper to the stock report page. Name a stock and say something like, "Hmm, IBM. I think I'll buy 10,000 shares of this." Cut a small chunk out of the paper and place it in the box. Do this four or five times. Each time, mention a blue chip stock such as Boeing Company, McDonald's, Wal-Mart, or Coca-Cola.

21. Explain that you are acting as a fund manager for a mutual fund. A "mutual fund" is a collection of shares of stock from many companies, along with other financial investments and cash. As a "fund manager," you and your advisors pick the stocks and the amount of shares of the stocks to be included in the fund.

22. Explain that your goal as fund manager is to increase the value of the fund. By purchasing many different stocks, you reduce the risk that your fund will lose money; even if some stocks in your fund go down in value, other stocks in your fund may go up.

23. Investors can buy shares in mutual funds. In doing so, they become part-owners of all of the stocks held in the fund. Buying shares in a mutual fund provides instant diversification.

24. Place another small box on your desk. Go through the same procedure as described above—creating another mutual fund—but this time name stocks from smaller companies, such as Nuance Communication, Ladish, Mattson Technology, Arena Pharmaceuticals, or Mueller Industries. Ask the students if they have detected any difference between this fund and the other one. ***(The students most likely will not have heard of the companies in the second fund.)***

25. Explain that the first fund contained all "blue chip stocks." These are stocks in big companies that have been doing a profitable business for a long time. A blue-chip mutual fund is likely, many investors believe, to provide sustained but relatively slow growth. It is regarded as a suitable investment for people who want to receive a regular income from their financial investments, don't want to risk losing large amounts of money, and are satisfied with relatively small, sustained gains in value.

26. Explain that the second fund invested in smaller companies that seem likely to prosper, though how well they actually will do in the future is uncertain. This sort of fund is called a

"growth fund", and it is riskier. It is most suitable for investors who are willing to risk losing some money, while hoping that these small companies will grow and that the stock will increase greatly in value.

27. Explain that there are many different kinds of mutual funds, and that different funds carry different levels of risk. There are overseas growth funds that invest in stocks in foreign companies. There are "green funds" that invest in stocks in businesses whose operations are environmentally friendly. Each mutual fund is designed to meet the investment goals of a particular type of investor.

28. To look further into mutual funds, distribute copies of **Exercise 14.4** from the *Student Workbook* to each student. Separate the students into small groups and have the groups complete the exercise by offering profiles of investors in income funds and growth funds. Discuss the profiles. ***(Discussion points: People who would be wise to choose income funds, and the associated lower level of risk, are those who are nearing retirement or who are already retired and have no way to earn back any losses; people with lower wage levels; and people who have large financial commitments, such as near-term or current college tuition payments. People who could reasonably accept more risk include those who are young and therefore able to make up losses over time; people who earn high salaries; and people who have long time horizons for large financial obligations [such as a college fund for a two-year-old child].)***

CLOSURE

1. Remind the students that stocks offer an investor ownership in a company. As an owner, an investor faces the risk of losing part or all of the investment if the business fails. For that reason, an investor should purchase stocks carefully. If he or she is comfortable with a relatively high level of risk, the investor may want to purchase stock in a small or new company that shows great potential for growth. However, if an investor would rather have slow and steady growth, with less risk of losing his or her initial investment, stocks in stable, large companies would be preferred.

2. Ask the students what the following statement means: "Don't put all your eggs in one basket." The students should recognize that if anybody puts all his eggs in one basket, and the basket falls to the ground, all the eggs will be worthless. The same is true for stocks. It is important for investors to reduce their risk by having a number of diverse stocks. (Explain that diversification can also be accomplished by including other financial instruments, such as bonds and savings accounts, in an investment portfolio.)

3. Ask the following questions.

- What are stocks? ***(Stocks are shares of ownership in a business.)***
- Why are stocks called equities? ***(The word equity means ownership, and stocks represent ownership in a corporation.)***
- What are the risks associated with stock ownership? ***(There is no guarantee of a return on your investment. The price of the stock could go up or down or gain more slowly than other financial investments gain. The company could go bankrupt, and in that case the stockholder would probably lose his or her entire investment.)***
- What are the returns for stocks? ***(Dividends and capital gains.)***

ASSESSMENT

Write a one-page paper explaining what stocks are, the risk associated with stock ownership and ways to reduce this risk. ***(Students should define stocks as shares of ownership, explain that stocks can decline in value over fairly long periods of time, and discuss diversification and mutual funds as ways to reduce risk.)***

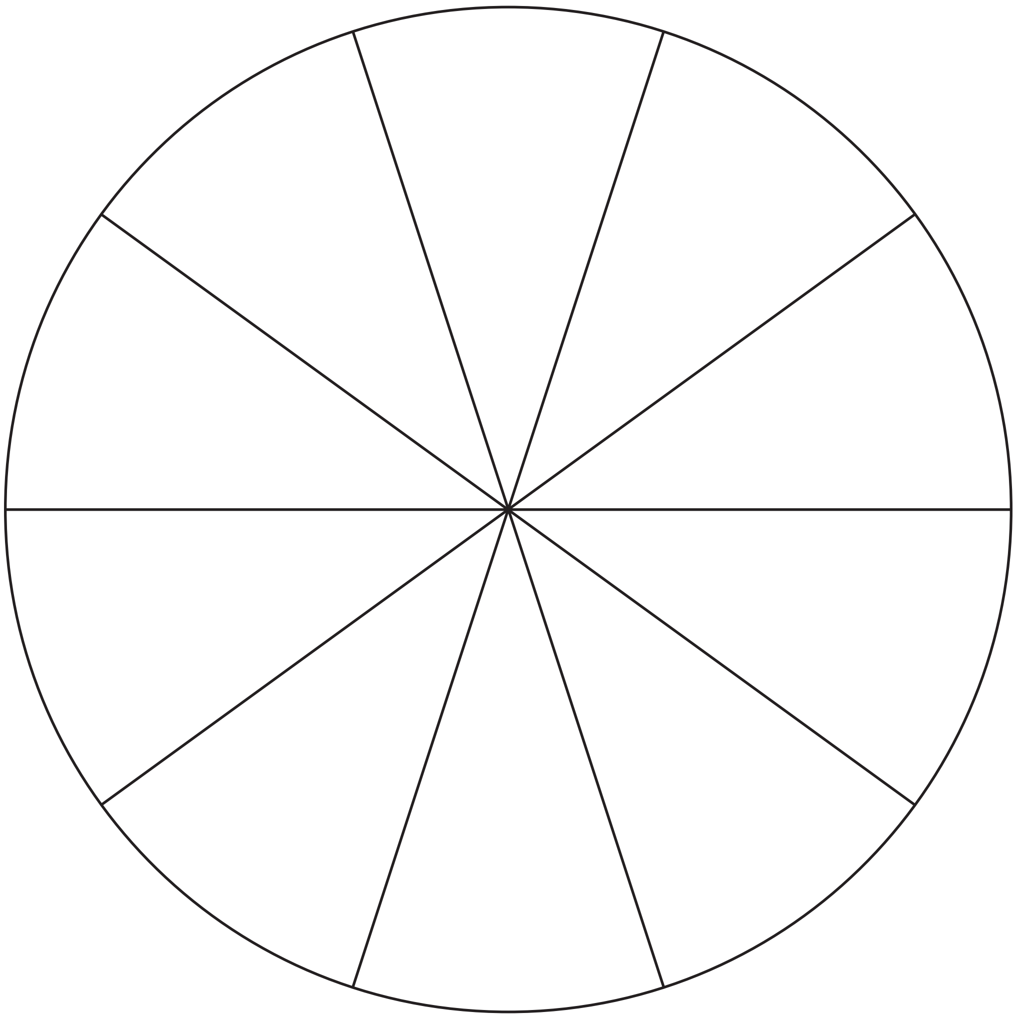
EXTENSION

1. Explain that education offers many different areas of study. Students may study math, history, language arts, science, and other subject areas. Ask the students to consider what their adult lives would be like if all they learned in school were math. Explain that there is diversity in the education they receive. Education provides an analogy for the importance of diversity in investments.

2. Place the students in six groups. Tell them that they are to present an analogy of a diversified stock portfolio in collage form or in a drawing. Be sure that the students understand what an analogy is ***(a comparison between two things, based on a correspondence or partial similarity)***. Provide the students with poster boards, magazines, and art supplies. Assign two groups each of the following topics: education, diet, and exercise. An education poster or drawing could depict a person's limited opportunities or abilities if he or she has studied only one subject area. A diet poster or collage could contain pictures of many types of foods representing a diversified diet that helps people remain healthy. An exercise poster or collage could include a depiction of what a person would look like if he or she only performed leg exercises at the gym.

3. Have the members of each group make an oral presentation of their analogy, explaining why a diversified stock portfolio is important for financial health and well-being.

A Pie Chart



Building a Bigger Pie