

Investments



Me,
Myself,
My Money



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Myself,
My Money



INTRODUCTION

Investments

Learning Objectives

Lesson 1

Investment Alternatives: Making it on the Street – Wall Street!

- Compare and contrast investment alternatives, such as stocks, bonds, mutual funds, money market accounts, and certificates of deposit.
- Determine risk tolerance levels and explain how investment risk affects investment strategies.
- Identify investment strategies for various life stages.

Lesson 2

Stocks and Bonds: Money for Nothin' and Bucks for Free

- Calculate the cost of purchasing stock, the proceeds from a sale of stock, and the gain or loss on the sale of stock.
- Determine the value of a stock investment after a stock split.
- Calculate dividend income.
- Calculate the interest paid on a bond.
- Determine the total proceeds and the return on a bond investment.



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INTRODUCTION

Learning Standards (grades 9-12)

Business

Connecticut Department of Education

Business and Finance Technology – Business Management

- Evaluate savings and investment options to meet short-term and long-term goals.

Cooperative Work Education

- Compare and contrast strategies for personal finance and risk management.
- Demonstrate the ability to set, monitor and achieve clearly defined goals.

National Business Education Association

Economics & Personal Finance – Saving and Investing

- Describe the advantages and disadvantages of various savings and investing plans.
- Identify risk/reward trade-offs for saving and investing.
- Apply criteria for choosing a savings or investment instrument.
- Explain why a savings and investing plan changes as one proceeds through the life cycle.

Economics & Personal Finance – Personal Decision Making

- Differentiate between types of decisions and identify those for which a formal decision-making process should be used.
- Apply the decision-making process to various types of decisions at different stages of the life cycle.

Computation – Number Relationships and Operations

- Solve problems that involve whole numbers, decimals, and fractions, and use appropriate conversions.
- Solve problems that involve percents, ratios, averages, and proportions and use appropriate conversions.



Investment Alternatives: Making it on the Street – Wall Street!

In order to increase personal wealth, most individuals consider the following investment options: stocks, bonds, certificates of deposit, money market accounts, and mutual funds.

Each type of investment can be categorized according to its risk and the potential return it can provide. Risk is the concern or chance that an investment may lose money and return is the amount or percent by which an investment will change over time.

There is a key relationship between risk and potential return. Generally, the greater the risk associated with an investment, the greater the potential for a high return. However, with increased risk, there is also an increased chance that the investment will lose money. Conversely, the lower the risk associated with an investment, the less the potential for a high return. However, as the risk decreases, so does the chance that an investment will lose money. Thus, when considering different investments, you should evaluate the investment's potential risk and return.

Stocks

Stocks are usually classified as blue-chip stocks, growth stocks, or income stocks. **Blue-chip stocks** are shares of stock of companies that have a history of being profitable; therefore, the market value of the stock usually increases at a steady rate over time. As a result, blue-chip stocks are considered a “low-risk, high-return” investment.

Growth stocks are stocks of companies that are considered “start-up” or new companies, with the potential for significant earnings. However, growth stocks are a more risky investment compared to blue-chip stocks because the company may not have a history of being profitable, or it may take years before the company becomes profitable. Growth stocks are therefore considered a “high-risk, high-return” investment.

Whereas blue-chip stocks and growth stocks offer investors the chance to profit from their investment when the market price of the stock increases in value, **income stocks** offer investors income in the form of dividends. Although the market price of income stocks may not increase over time, shares of income stocks have a history of paying dividends on a regular basis and are therefore considered a “low-risk, low-return” investment.

Bonds

Bonds are issued by companies (called corporate bonds) and governments – local governments, state governments, and the federal government. Bonds issued by local governments are called municipal bonds. Treasury bonds, often called “T-bills,” are issued by the federal government. Bonds issued by local and state governments and the federal government are considered “low-risk” or even “risk-free” because they are backed, or guaranteed, by the government. However, the return on investment is very low.



LESSON 1

Certificate of Deposit

A certificate of deposit, commonly called a “CD,” is a savings account that requires a minimum amount of money to be left on deposit for a stated period of time. Money invested in a CD will earn a specified rate of interest for the time it is on deposit. Usually, the longer the period of time the money is on deposit, the higher the interest rate that will be paid. A certificate of deposit can be withdrawn early; however, a penalty will be assessed.

Money Market Account

A money market account is a type of savings account that allows you to write a limited number of checks each month. Banks require investors to maintain a minimum balance in money market accounts. If the balance in a money market account falls below the required minimum deposit, the bank can charge a fee or penalty or reduce the interest paid.

Certificates of deposit and money market accounts are considered “low risk, low return” investments because the return (the interest earned) is guaranteed, but the interest rate, or rate of return, is usually lower than that of other investments.

Mutual Fund

A mutual fund is an investment in which the money of many investors is pooled, and the manager of the fund invests in stocks, bonds, and other investments.

A primary advantage of mutual funds is that the investment is diversified based on the composition of the fund. Since investments, such as stocks and bonds, differ according to their risk and return, a mutual fund manager can neutralize the risk of loss and possibly increase the potential for high returns by investing in a variety of assets, such as stocks and bonds, that have different risk and return characteristics.

STOCKS

Public companies are those that trade shares of stock on public exchanges, such as the **New York Stock Exchange (NYSE)** and the **National Association of Securities Dealers And Quotes (NASDAQ)**.

Not all companies sell shares of stock; those that do not are called private or non-public companies.

Each exchange sets minimum requirements – such as number of shares issued, market value, sales or revenue, and assets – a company must meet in order to trade shares of stock. Most new or “start-up” companies begin trading on the NASDAQ because the minimum requirements are less than that of NYSE, and although many of these companies eventually meet the minimum requirements of the NYSE, they remain listed on the NASDAQ. Microsoft is an example.

The **Dow Jones Industrial Average (“the Dow”)** and **Standard & Poor’s 500 Index (“S&P 500”)** are indices that track the movement of stocks traded on the NYSE. The Dow uses 30 blue-chip stocks, while the S&P 500 uses the stock prices of 500 companies. (The editors of *The Wall Street Journal* select the 30 companies in the Dow.)



LESSON 1

Investing Decisions

The decision to invest in bonds, stocks, and other investments depends on your tolerance for risk and your time period for investing. **Risk tolerance** is the degree of uncertainty an investor is willing to accept that an investment may lose money. An investor's tolerance for risk is based on factors such as the investor's age, income, and financial goals. Based on these factors, an investor is characterized as **risk-adverse**, **risk-neutral**, or a **risk-taker**.

Most investors invest in both bonds and stocks. However, their tolerance for risk, financial goals, and time period for investing determine the amount that is invested in stocks and bonds at a particular point in time.

Bonds offer consistent, fixed income while the return on stock investments is unknown. Although stocks offer more opportunity for profit or gain than bonds, stocks also have a greater risk of loss. Therefore, stocks are considered a more risky investment compared to bonds. However, if you are investing for the long-term, stocks are considered the better investment because they offer the opportunity for greater gains. If you are investing for the short-term, bonds are considered the safer investment because they offer consistent, steady income.

DID YOU KNOW?

From 1926 to 2004 the average return (gain) in the stock market was 10.4%, while the return on investments in bonds was 5.4%.

(www.money.cnn.com)



LESSON 1

Activity 1: Risky Business

Answer the following questions and then determine your risk tolerance.

1. If you are on a TV game show and can choose one of the following, which would you take?
 - a. \$10,000 in cash, guaranteed
 - b. A 50% chance at winning \$50,000
 - c. A 25% chance at winning \$100,000
 - d. A 5% chance at winning \$250,000
2. You have saved enough money for your "once-in-a-lifetime" dream vacation. However, two weeks before you leave, you learn that you are going to lose your job. What would you do?
 - a. Cancel the vacation
 - b. Take a shorter, more modest vacation
 - c. Go on the vacation as planned
 - d. Take a longer vacation because this might be your last chance to go on a "first-class" trip
3. You just inherited \$25,000. What would you do with the money?
 - a. Save all of it
 - b. Save most of it and spend the rest
 - c. Spend most of it and save the rest
 - d. Spend all of it
4. Your neighbor, who is one of your best friends, presents you with the opportunity to invest in a new company. If the company is successful, your investment could double or triple. However, if the company is not successful, you could lose your entire investment. Your friend estimates the chance of the company being successful is "50-50." If you had the money, how much would you invest?
 - a. Nothing
 - b. At least one week's pay
 - c. At least one month's pay
 - d. At least six months' pay
5. You are about to start a new job. How much of your pay do you plan to save?
 - a. All of it
 - b. Save most of it and spend the rest
 - c. Spend most of it and save the rest
 - d. Save none of it
6. Assume you won \$100,000 from a lottery ticket. What would you do with your winnings?
 - a. Place all your winnings in a "low-risk, low-return" investment
 - b. Place most of your winnings in a "low-risk, low-return" investment and the remainder in a "high-risk, high-return" investment
 - c. Place most of your winnings in a "high-risk, high-return" investment and the remainder in a "low-risk, low-return" investment
 - d. Place your winnings in a "high-risk, high-return" investment

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LESSON 1

7. Assume you just purchased a new car. How much insurance coverage would you buy?
- The maximum amount possible
 - A large amount, but not the maximum
 - The minimum amount required
 - None at all, if possible

Determine your risk tolerance:

Use the scale below to assign points to your answers, then total your points to assess your tolerance for risk.

Do you agree with the score and the assessment of your tolerance for risk?

Number of "a" answers _____ x 4 points = _____ points

Number of "b" answers _____ x 3 points = _____ points

Number of "c" answers _____ x 2 points = _____ points

Number of "d" answers _____ x 1 point = _____ points

Total Points: _____

Total Points	Risk Tolerance
21 – 28	You have a low tolerance for risk and are considered "risk-adverse."
14 – 20	You have a moderate tolerance for risk and are considered "risk-neutral."
7 – 13	You have a high tolerance for risk and are considered a "risk-taker."

Activity 2: Wall Street Willy

Willy, who is just 10 years old, has inherited money from a great uncle and plans to invest his inheritance in order to pay for college. Willy is considering investing in stocks, bonds, and mutual funds.

- What investment advice would you give Willy when he is 10 years old? Explain your rationale.
- What investment advice would you give Willy when he reaches his early teenage years? Explain your rationale.
- What investment advice would you give Willy when he is 16 and less than two years away from entering college? Explain your rationale.

Activity 3: Andy Allocation

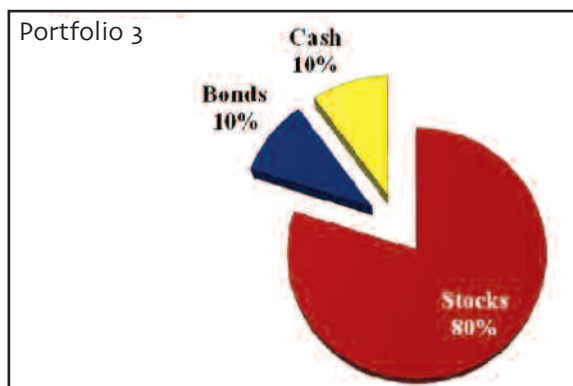
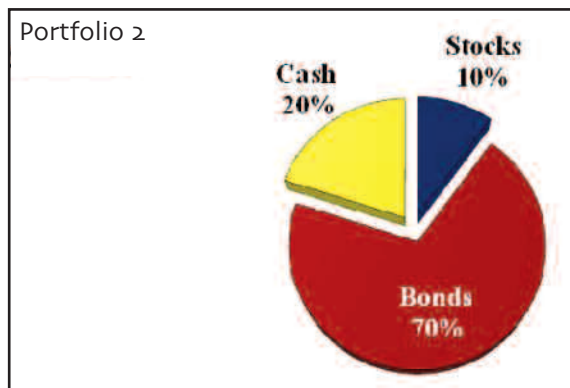
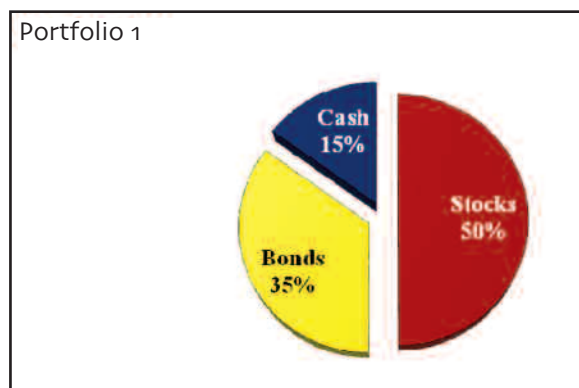
Andy is researching investment options that include stocks, bonds, and money market accounts. Andy is only 25, but is looking to the future to the day he can retire – hopefully at age 65, if his investments pay off.

Andy is presented three investment options (see portfolio charts). Each investment option is for each stage of his life:

- Primary working years (age 25-54),
- Pre-retirement years (age 55-65), and
- Retirement years (age 66 and beyond).

Identify for Andy the investment option that is most appropriate for each life stage, and the risk and return (high, low, or moderate) associated with each option.

Life Stage	Investment Option	Risk	Return
Primary working years (age 25-54)			
Pre-retirement years (age 55-65)			
Retirement years (age 66 and beyond)			



Activity 4: It's Your Money!

Your investment strategy should be based on financial goals, such as paying for college and saving for retirement, and incorporate your tolerance for risk.

Prepare an investment strategy for each stage of your life based on your tolerance for risk that you determined in Activity 1. As you complete the table, remember that bonds offer consistent, fixed income while the return on stock investments is unknown.

Although stocks offer more opportunity for profit or gain than bonds, stocks also have a greater risk of loss. Therefore, stocks are considered a more risky investment compared to bonds. However, if you are investing for the long-term, stocks are considered the better investment because they offer the opportunity for greater gains. If you are investing for the short-term, bonds are considered the safer investment because they offer consistent, steady income.

Investment Options/ Life Stage	Primary working years (age 25-54)	Pre-retirement years (age 55-65)	Retirement years (age 66 and beyond)
% in Stocks			
% in Bonds			
% in Cash			
Total	100%	100%	100%

Activity 5: Knowing the Street – Wall Street

For each of the investment options below, identify the risk and return (high, low, or moderate) associated with each.

Investment	Risk	Return
Blue-Chip Stocks		
Bonds		
Certificates of Deposit		
Growth Stocks		
Income Stocks		
Money Market Accounts		
Mutual Funds		



LESSON 1

Activity 6: Taking Stock

Answer each of the following questions.

1. Growth stocks are:
 - a. Stocks of companies that are considered “start-up” or new companies, with the potential for significant earnings.
 - b. Stocks of companies that have a history of being profitable.
 - c. Stocks of companies that traditionally pay a dividend.

2. Income stocks are:
 - a. Stocks of companies that are considered “start-up” or new companies, with the potential for significant earnings.
 - b. Stocks of companies that have a history of being profitable.
 - c. Stocks of companies that traditionally pay a dividend.

3. Blue-chip stocks are:
 - a. Stocks of companies that are considered “start-up” or new companies, with the potential for significant earnings.
 - b. Stocks of companies that have a history of being profitable.
 - c. Stocks of companies that traditionally pay a dividend.



Stocks and Bonds: Money for Nothin' and Bucks for Free

Companies issue shares of stock and sell bonds in order to raise **capital**, or cash.

Stocks

Shares of stock of a company represent an ownership interest, so when you purchase stock of a company, you are buying a share of the company. Individuals who purchase stock as an investment do so with the hope that the stock price will increase and the shares can be sold at a profit, that the company will pay a cash dividend or issue a stock dividend, or both.

Cash dividends are payments made to shareholders of the company, while **stock dividends** are additional shares of stock that are distributed to shareholders. For example, assume an investor holds 100 shares of stock in ABC Company. If ABC Company pays a cash dividend of \$1 per share, the investor will receive a \$100 dividend payment (100 shares x \$1 cash dividend per share). If ABC Company issues a 10% stock dividend, the investor will receive an additional 10 shares of stock (100 shares x 10% stock dividend).

If the price of a share of stock rises to a level where it is difficult to attract new investors, a company may order a stock split. A stock split results in a reduction in the market price of the stock and an increase in the number of shares. For example, in a "2-for-1" stock split, an investor owning 10 shares of stock with a market price of \$300 per share will now hold 20 shares (10 shares x 2) with a market price of \$150 (\$300/2) per share.

The purpose of a stock split is to increase the marketability of the stock – entice investors to buy shares of stock in the company – by lowering the price per share. Notice that when a stock split occurs, the value of the investment immediately after the split does not change. For example:

	<u>Number of Shares</u>	x	<u>Market Price per Share</u>	=	<u>Total Value</u>
Before the stock split	10		\$300		\$3,000
After the stock split	20		\$150		\$3,000

DID YOU KNOW?

Stock tables, such as those printed in newspapers, list company names alphabetically in abbreviated form and the prior day's closing stock price, as well as the stock's yearly high and low price.

Investors are required to report and pay taxes on cash dividends received.



LESSON 2

If the market price of the stock increases after the stock split, investors will see the total value of their investment increase without having to invest additional money. For example, if, after the stock split, the stock price rises to \$200 per share, the total value of the investment will increase to \$4,000 (20 shares x \$200 per share).

Bonds

Bonds are a type of loan that companies and governments use to raise money. The “issuer” of the bond is called the borrower and the “bondholder” is the lender or the investor.

When companies and governments issue a bond, investors lend the company or government a stated sum of money for a period of time. In return, the bondholder or investor will receive periodic payments of interest over time. In addition, the company or government must also pay the bondholder or investor the initial amount of the investment when the bond becomes due.

A bond contains four elements: (1) the face value; (2) an interest rate, often called the coupon rate; (3) the term or maturity, usually expressed in years; and, (4) the number of times interest is paid per year.

Annual interest paid on a bond is based on the face value of the bond and the interest rate or coupon rate. For example, a bond with a face value of \$1,000 and a 10% coupon rate will pay interest of \$100 per year ($\$1,000 \times 10\%$). If interest is paid annually, the investor will receive one payment of \$100 per year; however, if interest is paid semi-annually (twice per year), the bondholder will receive two payments of \$50 per year.



LESSON 2

Activity 1: Sammy Stocks

Sammy Stocks purchased 1,000 shares of Husky Blue, Inc. on January 10th when the market price of the stock was \$25 per share. Sammy's stockbroker, Jonathan, charges a \$100 transaction fee on all stock purchases and sales.

1. What was the total cost to purchase the 1000 shares?
2. On April 20th, the market price of Husky Blue rose to \$50 per share. If Sammy sold all of his shares, what are the cash proceeds Sammy would receive and the gain or loss Sammy would realize from the sale?
3. Assume Sammy did not sell his shares on April 20th, and by August 5th shares of Husky Blue reached \$100 per share and the company announced a 2-for-1 stock split. Calculate the following before the stock split and after the stock split:
 - (a) the number of shares Sammy owns,
 - (b) the market price per share, and
 - (c) the total value of Sammy's investment in Husky Blue.
4. On October 24th, Husky Blue again reached \$100 per share. Calculate the value of Sammy's investment and the gain or loss he would realize if he sold all his shares.
5. Assume Sammy did not sell his shares on October 24th, and on December 10th the shares of Husky Blue were selling at \$10. Calculate the value of Sammy's investment in Husky Blue and the gain or loss he would realize if he sold all of his shares.
6. Assume Sammy did not sell his shares on December 10th and that Husky Blue paid all shareholders a cash dividend of \$1.50 per share on December 31st. What amount will Husky Blue pay Sammy? Is Sammy required to report this amount on his income tax return?



LESSON 2

Activity 2: Bobbi Bonds

On April 1st, 2009, Bobbi Bonds purchased a \$10,000 bond from Husky Blue. According to the terms of the bond, which matures in 10 years, Husky Blue will pay Bobbi 5% interest annually.

1. What is the face value of the bond?
2. What is the bond's coupon rate?
3. What amount of interest will Bobbi receive each year and over the life of the bond?
4. What is the maturity date of the bond?
5. What amount will Bobbi receive from Husky Blue when the bond matures?
6. What are the total proceeds Bobbi receives from investing in Husky Blue?
7. What is the return, or profit, Bobbi earns from investing in Husky Blue?



Instructor's Solutions

Lesson 1, Activity 1: Risky Business

Answer the following questions and then determine your risk tolerance. **Responses will vary.**

1. If you are on a TV game show and can choose one of the following, which would you take?
 - a. \$10,000 in cash, guaranteed
 - b. A 50% chance at winning \$50,000
 - c. A 25% chance at winning \$100,000
 - d. A 5% chance at winning \$250,000
2. You have saved enough money for your "once-in-a-lifetime" dream vacation. However, two weeks before you leave, you learn that you are going to lose your job. What would you do?
 - a. Cancel the vacation
 - b. Take a shorter, more modest vacation
 - c. Go on the vacation as planned
 - d. Take a longer vacation because this might be your last chance to go on a "first-class" trip
3. You just inherited \$25,000. What would you do with the money?
 - a. Save all of it
 - b. Save most of it and spend the rest
 - c. Spend most of it and save the rest
 - d. Spend all of it
4. Your neighbor, who is one of your best friends, presents you with the opportunity to invest in a new company. If the company is successful, your investment could double or triple. However, if the company is not successful, you could lose your entire investment. Your friend estimates the chance of the company being successful is "50-50." If you had the money, how much would you invest?
 - a. Nothing
 - b. At least one week's pay
 - c. At least one month's pay
 - d. At least six months' pay
5. You are about to start a new job. How much of your pay do you plan to save?
 - a. All of it
 - b. Save most of it and spend the rest
 - c. Spend most of it and save the rest
 - d. Save none of it
6. Assume you won \$100,000 from a lottery ticket. What would you do with your winnings?
 - a. Place all your winnings in a "low-risk, low-return" investment
 - b. Place most of your winnings in a "low-risk, low-return" investment and the remainder in a "high-risk, high-return" investment
 - c. Place most of your winnings in a "high-risk, high-return" investment and the remainder in a "low-risk, low-return" investment
 - d. Place your winnings in a "high-risk, high-return" investment

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7. Assume you just purchased a new car. How much insurance coverage would you buy?
 - a. The maximum amount possible
 - b. A large amount, but not the maximum
 - c. The minimum amount required
 - d. None at all, if possible

Determine your risk tolerance:

Use the scale below to assign points to your answers, then total your points to assess your tolerance for risk.

Do you agree with the score and the assessment of your tolerance for risk?

Number of "a" answers _____ x 4 points = _____ points
 Number of "b" answers _____ x 3 points = _____ points
 Number of "c" answers _____ x 2 points = _____ points
 Number of "d" answers _____ x 1 point = _____ points

Total Points: _____

Total Points	Risk Tolerance
21 – 28	You have a low tolerance for risk and are considered "risk-adverse."
14 – 20	You have a moderate tolerance for risk and are considered "risk-neutral."
7 – 13	You have a high tolerance for risk and are considered a "risk-taker."

Lesson 1, Activity 2: Wall Street Willy

Willy, who is just 10 years old, has inherited money from a great uncle and plans to invest his inheritance in order to pay for college. Willy is considering investing in stocks, bonds, and mutual funds.

1. What investment advice would you give Willy when he is 10 years old? Explain your rationale.

Consider investing most of his inheritance in stocks. Willy has approximately eight years before he begins college and stocks historically return the greatest amount over the long term.

2. What investment advice would you give Willy when he reaches his early teenage years? Explain your rationale.

Consider investing most of his inheritance in mutual funds. Although mutual funds may not offer as high a return as stock, mutual funds can neutralize the risk of loss.

3. What investment advice would you give Willy when he is 16 and less than two years away from entering college? Explain your rationale.

Consider investing most of his inheritance in bonds, including U.S. Treasury bonds. Although bonds offer a low rate of return, bonds are also low risk investments, especially Treasury Bills.



Lesson 1, Activity 3: Andy Allocation

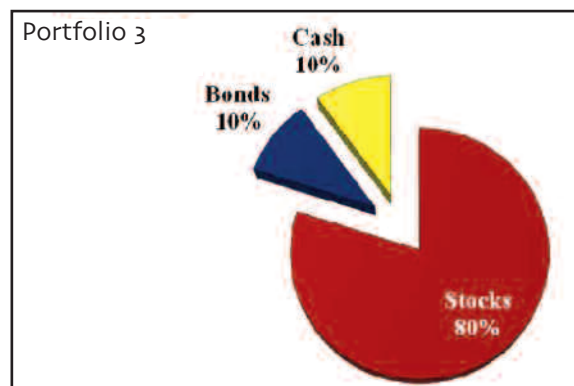
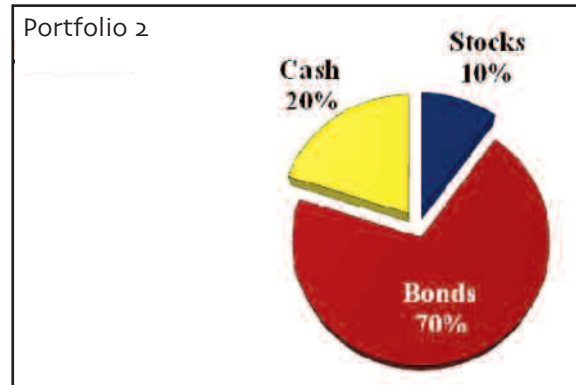
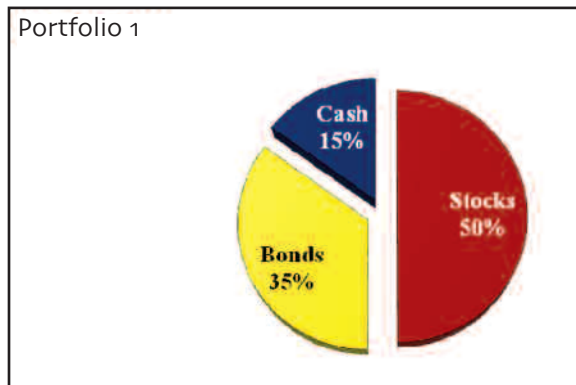
Andy is researching investment options that include stocks, bonds, and money market accounts. Andy is only 25, but is looking to the future to the day he can retire – hopefully at age 65, if his investments pay off.

Andy is presented three investment options (see portfolio charts). Each investment option is for each stage of his life:

- Primary working years (age 25-54),
- Pre-retirement years (age 55-65), and
- Retirement years (age 66 and beyond).

Identify for Andy the investment option that is most appropriate for each life stage, and the risk and return (high, low, or moderate) associated with each option.

Life Stage	Investment Option	Risk	Return
Primary working years (age 25-54)	Portfolio 3	High	High
Pre-retirement years (age 55-65)	Portfolio 1	Moderate	Moderate
Retirement years (age 66 and beyond)	Portfolio 2	Low	Low





Lesson 1, Activity 4: It’s Your Money!

Your investment strategy should be based on financial goals, such as paying for college and saving for retirement, and incorporate your tolerance for risk.

Prepare an investment strategy for each stage of your life based on your tolerance for risk that you determined in Activity 1. As you complete the table, remember that bonds offer consistent, fixed income while the return on stock investments is unknown.

Although stocks offer more opportunity for profit or gain than bonds, stocks also have a greater risk of loss. Therefore, stocks are considered a more risky investment compared to bonds. However, if you are investing for the long-term, stocks are considered the better investment because they offer the opportunity for greater gains. If you are investing for the short-term, bonds are considered the safer investment because they offer consistent, steady income.

Responses will vary. Emphasize to students that there is no single “correct” answer for investing. Each investor’s strategy is based on the time frame or proximity of his or her financial goal and his or her personal tolerance for risk.

Investment Options/ Life Stage	Primary working years (age 25-54)	Pre-retirement years (age 55-65)	Retirement years (age 66 and beyond)
% in Stocks			
% in Bonds			
% in Cash			
Total	100%	100%	100%

Lesson 1, Activity 5: Knowing the Street – Wall Street

For each of the investment options below, identify the risk and return (high, low, or moderate) associated with each.

Investment	Risk	Return
Blue-Chip Stocks	Low	High
Bonds	Low	Low
Certificates of Deposit	Low	Low
Growth Stocks	High	High
Income Stocks	Low	Low
Money Market Accounts	Low	Low
Mutual Funds	Low-to-Moderate	Low-to-Moderate



Lesson 1, Activity 6: Taking Stock

Answer each of the following questions.

1. Growth stocks are:
 - a. **Stocks of companies that are considered start-up or new companies, with the potential for significant earnings.**
2. Income stocks are:
 - c. **Stocks of companies that traditionally pay a dividend.**
3. Blue-chip stocks are:
 - b. **Stocks of companies that have a history of being profitable.**



Lesson 2, Activity 1: Sammy Stocks

Sammy Stocks purchased 1,000 shares of Husky Blue, Inc. on January 10th when the market price of the stock was \$25 per share. Sammy's stockbroker, Jonathan, charges a \$100 transaction fee on all stock purchases and sales.

1. What was the total cost to purchase the 1000 shares?

$$\text{\$25,100} = [(1,000 \text{ shares} \times \text{\$25}) + \text{\$100 transaction fee}]$$

2. On April 20th, the market price of Husky Blue rose to \$50 per share. If Sammy sold all of his shares, what are the cash proceeds Sammy would receive and the gain or loss Sammy would realize from the sale?

$$\text{\$49,900} = [(1,000 \text{ shares} \times \text{\$50}) - \text{\$100 transaction fee}]$$

$$\text{Gain: } \text{\$24,800} = (\text{\$49,900} - \text{\$25,100})$$

3. Assume Sammy did not sell his shares on April 20th, and by August 5th shares of Husky Blue reached \$100 per share and the company announced a 2-for-1 stock split. Calculate the following before the stock split and after the stock split:

- (a) the number of shares Sammy owns,
- (b) the market price per share, and
- (c) the total value of Sammy's investment in Husky Blue.

	Before the Stock Split	After the Stock Split
Number of shares	1,000 shares	2,000 shares (1,000 shares x 2-for-1)
Market price per share	\$100 per share	\$50 per share (\$100 / 2-for-1)
Total value of the investment	\$100,000 (1,000 shares x \$100 per share)	\$100,000 (2,000 shares x \$50 per share)

4. On October 24th, Husky Blue again reached \$100 per share. Calculate the value of Sammy's investment and the gain or loss he would realize if he sold all his shares.

$$\text{\$200,000} = 2,000 \text{ shares} \times \text{\$100 per share}$$

$$\text{Gain (or Loss)} = \text{Market value} - \text{Cost} - \text{Transaction fee}$$

$$= \text{\$200,000} - \text{\$25,100} - \text{\$100}$$

$$= \text{\$174,800 GAIN}$$

5. Assume Sammy did not sell his shares on October 24th, and on December 10th the shares of Husky Blue were selling at \$10. Calculate the value of Sammy's investment in Husky Blue and the gain or loss he would realize if he sold all of his shares.

$$\text{\$20,000} = 2,000 \text{ shares} \times \text{\$10 per share}$$

$$\text{Gain (or Loss)} = \text{Market value} - \text{Cost} - \text{Transaction fee}$$

$$= \text{\$20,000} - \text{\$25,100} - \text{\$100}$$

$$= \text{\$5,200 LOSS}$$

6. Assume Sammy did not sell his shares on December 10th and that Husky Blue paid all shareholders a cash dividend of \$1.50 per share on December 31st. What amount will Husky Blue pay Sammy? Is Sammy required to report this amount on his income tax return?

$$\text{Dividend} = \text{\$3,000} (2,000 \text{ shares} \times \text{\$1.50 dividend per share})$$

Yes; dividend income is taxable income.



Lesson 2, Activity 2: Bobbi Bonds

On April 1st, 2009, Bobbi Bonds purchased a \$10,000 bond from Husky Blue. According to the terms of the bond, which matures in 10 years, Husky Blue will pay Bobbi 5% interest annually.

1. What is the face value of the bond?

\$10,000

2. What is the bond's coupon rate?

5%

3. What amount of interest will Bobbi receive each year and over the life of the bond?

Interest received per year: \$500 (\$10,000 x 5%)

Interest received over the life of bond: \$5,000 (\$500 per year x 10 years)

4. What is the maturity date of the bond?

March 31st, 2019

5. What amount will Bobbi receive from Husky Blue when the bond matures?

\$10,500 (face value of the bond, \$10,000, plus interest for the last year, \$500)

6. What are the total proceeds Bobbi receives from investing in Husky Blue?

\$15,000 (\$10,000 face value, plus \$5,000 interest)

7. What is the return, or profit, Bobbi earns from investing in Husky Blue?

\$5,000 or 50%. (\$15,000 cash proceeds, less \$10,000 investment; 50% = \$5,000 return / \$10,000 investment.) (Note that the return is equal to the interest earned over the life of the bond.)