Introduction to Investing Note-Taking Guide

	Total Points Earned
61	Total Points Possible
	Percentage

Name____________________

Date____________________

Class____________________

What is Investing?

What is investing?

Characteristics of investing:

Examples of long-term goals to be accomplished by investing:

Rate of Return

Rate of Return:

$\bigcirc \div \bigcirc = \bigcirc$

What is Mandy's Rate of Return? ______________

$\bigcirc \div \bigcirc = \bigcirc$

What is Derek's Rate of Return? ______________

$\bigcirc \div \bigcirc = \bigcirc$

Investment Risk

A rise in ________________

results in

increased ________________.

Risk:

Investment Risk:

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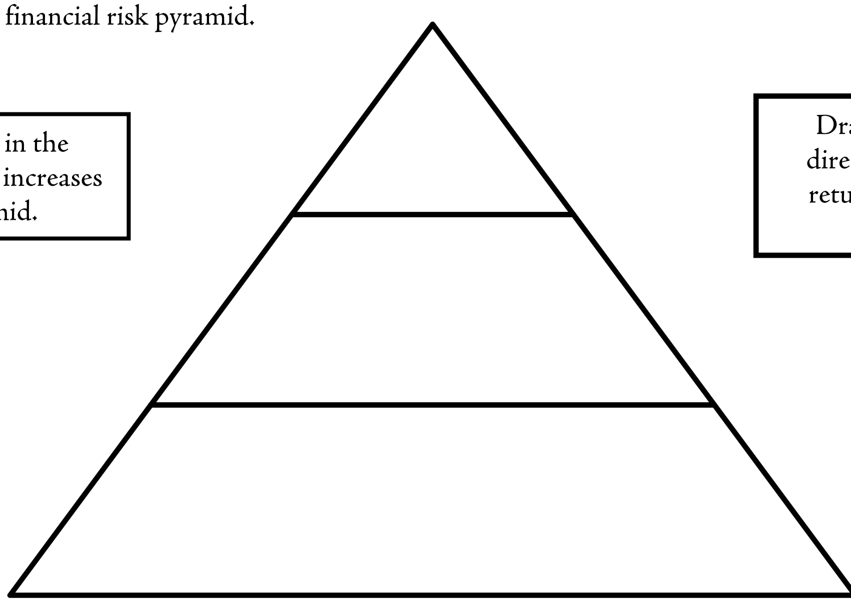
Financial Risk Pyramid

Label each level of the financial risk pyramid.

Draw an arrow in the direction that risk increases on the pyramid.



Draw an arrow in the direction that potential return increases on the pyramid.

Inflation

Inflation:

Inflation Risk:

When should inflation risk be a concern?

Investment Philosophy

Each individual has a tolerance level for the amount of

____

they are willing to take on.

Investment Philosophy:

Divided into three categories:

Portfolio Diversification

Portfolio Diversification:

Creates a collection of investments that will provide

____

with an

________________________.

Assists with:

Referred to as:

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Types of Investment Tools

Record the definition and one characteristic of each investment tool below.

Stocks:

Bonds:

Mutual Funds:

Index Funds:

Real Estate:

Speculative Investments:

Buying and Selling Investments

Full Service General Brokerage Firm

Discount Broker

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Taxation

Explain taxation for investments.

What is a tax-sheltered investment?

What is an employee-sponsored investment account?

Rule of 72

Rule of 72:

What can the "Rule of 72" determine?
1.
2.
3.
4.

Rule of 72 FYI

How long will it take Doug's investment to double? ______

How long will it take for Jessica's balance to double? ______

What interest rate is required for Jacob to double his investment? _______

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Risk versus Return Chart

Directions: Use the Activity 1 and Activity 2 charts to record guesses and winnings from the Risk versus Return activity.

Winnings Chart						
Number of Guesses	6	5	4	3	2	1
Number of Candies Won	0	1	2	5	10	15

Activity 1

Number on Die	1	2	3	4	5	6	Number Rolled	Number of Guesses	Candies Won
Round 1									
Round 2									
Round 3									
Round 4									
Round 5									
Round 6									
Round 7									
Round 8									
Round 9									
Round 10									
							Total:		

Activity 2

Number on Die	1	2	3	4	5	6	Number Rolled	Number of Guesses	Candies Won
Round 1									
Round 2									
Round 3									
Round 4									
Round 5									
Round 6									
Round 7									
Round 8									
Round 9									
Round 10									
							Total:		

Vocabulary Self-Awareness Chart

	Total Points Earned
40	Total Points Possible
	Percentage

Name______________________

Date______________________

Class______________________

Directions: Choose ten words from the vocabulary list below and record them in the first column of the chart. Examine the list of words chosen.

1. If you are very comfortable with the word, place a "+" (plus sign) in the second column and give a definition and example of the word.
2. If you think you know the word, but are unsure, place a "✓" (check mark) in the third column and give either a definition or example of the word.
3. Place a "-"(minus sign) in the fourth column of words you do not know and leave the definition and example columns blank.

Throughout the lesson, you will be able to add to and revise the vocabulary chart until it is accurately completed.

Vocabulary List			
Bond	Investing	Maturity Date	Rule of 72
Index	Investment Philosophy	Mutual Fund	Speculative Investments
Index Fund	Investment Risk	Portfolio Diversification	Stock
Inflation	Financial Risk Pyramid	Rate of Return	Stockholder or Shareholder
Inflation Risk	Market Price	Risk	Tax-sheltered investments

Vocabulary Word	+	✓	-	Definition	Example

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Vocabulary Word	+	✓	-	Definition	Example

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Investing Math

	Total Points Earned
25	Total Points Possible
	Percentage

Name____________________

Date____________________

Class____________________

Directions: Use the rate of return equation to answer the following questions. Express each answer as a percentage. (1point each)

1. Olivia saved $500 in a Certificate of Deposit for six months. At the end of the six months she had a return of $50. What is Olivia's rate of return?

2. Dean invested $1100 into a bond. When the bond's maturity date was reached five years later, Dean had a total of $1500. What is Dean's rate of return on investment?

3. Matt invested $1500 into a stock of his choice. After two years, he had received $400 in dividends. He sold the stock and received a total of $1600. What is Matt's rate of return on investment?

4. Bella saved $100 per month for 8 months. At the end of eight months, she had a total of $879 in her savings account. What is Bella's rate of return?

5. Bryce has been investing in his employee-sponsored retirement account since he was 23 years old. He is now 65 years old and ready to retire. He has invested a total of $30,000, but the total amount of money in his retirement account is currently $160,000. What is Bryce's rate of return on his retirement investment?

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Directions: Use the "Rule of 72" to answer the following questions.

6. How long will it take the following investments to double? (9 points)
   Round answers to two decimal places.

Investment	Interest Rate	Years to Double
Money Market Mutual Fund	3.1%	
Small Company Stock	12.6%	
3 year Certificate of Deposit	2.8%	
5 year Certificate of Deposit	5.1%	
Large Company Stock	11.3%	
Government Bond	5.3%	
Treasury Bills	3.8%	
Money Market Account	2.6%	
Savings Account	2.3%	

7. Jenny has a $3,000 balance on her credit card with an 18% interest rate. If she makes no payments on her card and no late fees were charged how long will it take for her debt to double? (1 point)

8. What if Jenny's APR was 22% and she makes no payments on her card and no late fees were charged? (1 point)

9. Tanner has invested $500 for college. What interest rate must Tanner earn for his investment to double in 4 years? (1 point)

10. Kari would like to make a down payment on a house. She currently has $7000. What interest rate must Kari receive for her investment to double in 7 years? (1 point)

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11. Mark has invested $300 at age 16 into a money market account earning 6%. How many times will Mark's investment double before age 52? What will his investment be worth? What would Mark's investment be if he had invested at age 28? (3 points)

12. Jackie's parents invested $3000 into a common stock earning 10% when she was born. How many times will Jackie's investment double before age 36? What will her investment be worth? What would Jackie's investment be worth if her parent's had waited to invest until she was age 7? (3 points)

13. Provide a reason why is it valuable to invest early. (1 point)

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	Total Points Earned
26	Total Points Possible
	Percentage

Name_____________________

Date_____________________

Class_____________________

Directions: Define each of the following types of investment tools. (1 point each)

1. Stocks

2. Bonds

3. Mutual funds

4. Index funds

5. Real Estate

6. Speculative Investments

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Directions: Match the following words with the correct definition in order to understand the difference between different type of risk. (1 point each)

A. Financial Risk Pyramid
B. Inflation
C. Inflation risk
D. Investment Risk
E. Risk

7. _____The possibility that an investment will fail to pay the expected return or fail to pay a return at all.

8. _____The rise in the general level of prices.

9. _____ Illustrates the trade-offs between risk and return for a number of saving and investing tools.

10. _____ The uncertainty regarding the outcome of a situation of event.

11. _____ The danger that money won't be worth as much in the future as it is today.

Directions: Complete the following questions.

12. What is the purpose of investing? (1 point)

13. What is the relationship between risk and return? (1 point)

14. Describe the concept of investment philosophy. (1 point)

15. Describe the concept of portfolio diversification. (1 point)

16. What is the difference between a full service general brokerage firm and a discount broker? (2 points)

17. What is the "Rule of 72?" (1 point)

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Directions: For the following questions, please indicate if the statement is True or False by writing a T or F on the line. (1 point each)

18. _____ Taxes must be paid on <u>all</u> investment profits in the year the unearned income is received.

19. _____ When focusing on wealth accumulation, the rate of return earned on an investment should be higher than the rate of inflation.

20. _____ An individual's investment philosophy changes throughout their lifetime.

21. _____ Individuals with an aggressive investment philosophy are not willing to take on risk for the potential of higher returns.

22. _____ Portfolio diversification is a method that helps an individual receive the highest return on investment.

23. _____ In order to buy and sell investments (except for real estate and certain speculative investments), an individual needs to utilize a brokerage firm.

24. _____ A full service general brokerage firm can charge lower commission fees than a discount broker.

25. _____ The rule of 72 equation does not include tax deductions.

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Guest Speaker Form

	Total Points Earned
8 (1 point per section)	Total Points Possible
	Percentage

Name______________________

Date______________________

Class______________________

BEFORE	
Name and Title of Speaker:	
Purpose of Visit:	
Possible Discussion Questions:	
DURING	
Information Shared:	
Questions:	**Answers:**
AFTER	
What I learned:	
What I found interesting:	

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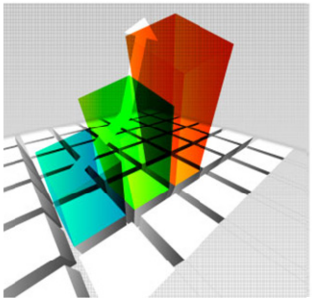


Introduction to Investing

Family Economics and Financial Education

What is Investing?

Savings tools are perfect for developing financial security. However, once a person has accumulated an appropriate amount of liquid assets in savings, they will want to refocus their goals from saving to investing. **Investing** is the purchase of assets with the goal of increasing future income. Investing adds to financial security by increasing wealth and helping an individual reach their desired standard of living. Investments are appropriate for long-term financial goals such as buying a new home, retiring in thirty years, or paying for a child's college education in eighteen years.

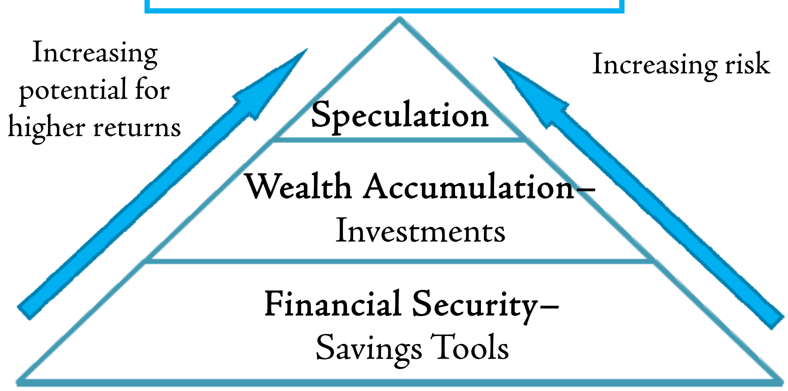
Investment Risk

Investing focuses on wealth accumulation, because the tools used for investing have the potential to earn higher rates of return than savings tools. The **rate of return** is the total return on an investment expressed as a percentage of the amount of money invested.

Total Return ÷ Amount of Money Invested = Rate of Return

It is important to understand that as the potential return on an investment rises, so does the risk involved with the investment. **Risk** is the uncertainty regarding the outcome of a situation or event. When people invest their money, they are dealing specifically with **investment risk**, which is the possibility that an investment will fail to pay the expected return or fail to pay a return at all. In fact, some investments are so risky that an investor could lose the potential return as well as the initial investment. Risk is a trade-off to investing and the potential for high returns; all investments carry some level of risk.

Financial Risk Pyramid



The **financial risk pyramid** illustrates the trade-offs between risk and return for a number of saving and investing tools. Savings tools are on the first level of the financial risk pyramid, because they are free of the risk of losing the amount of principal invested. However, the trade-off is receiving low interest rates and little return on the money in those accounts. In order to begin accumulating wealth, wise financial managers would not keep all of their money in savings tools.

When focusing on wealth accumulation, the rate of return earned on an investment should be higher than the rate of inflation. **Inflation** is the rise in the general level of prices. If an individual has money invested at a 2% interest rate, and the inflation rate is 2%, the individual's wealth will not increase. In fact, after taxes they will actually be losing money. This is known as **inflation risk,** or the danger that money won't be worth as much in the future as it is today. However, inflation risk should not be a concern with savings since the goal of savings is to provide <u>current</u> financial security. Inflation risk should only be a concern with long-term investments, such as saving for retirement in 30 years.

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The potential for financial gain is what motivates people to accept higher amounts of risk. The greater the risk a person is willing to make on an investment, the greater the potential return will be. However, each individual has his or her own tolerance level for the amount of risk they are willing to take on. This is known as an **investment philosophy**, or an individual's general approach to investment risk. Investment philosophy's are generally divided into three main categories: conservative, moderate, and aggressive. Individuals with an aggressive investment philosophy will be willing to take on more risk for the potential of higher returns and therefore, will want to invest in tools higher up the financial risk pyramid. Individuals with a conservative investment philosophy will want to invest in tools lower on the risk pyramid. An individual's investment philosophy will most likely change over the course of their lifetime.

Portfolio diversification is a method to assist with investment risk reduction. **Portfolio diversification** reduces risk by spreading investment money among a wide array of investment tools. Every investment tool has its ups and downs, and chances are if one investment is losing money, another investment will be earning a return. The goal of portfolio diversification is to create a collection of investments that will provide an acceptable return with an acceptable exposure to risk.

The act of portfolio diversification is referred to as "building a portfolio."

Types of Investment Tools

Stocks

When an individual buys a stock, they are buying ownership in a company. Therefore, **stock** is a share of ownership in a company, and the owner of the stock is called the **stockholder** or **shareholder.** The amount of stock purchased determines how much of the company a stockholder owns. However, usually a stockholder owns only a very small part of the company. If the company makes a profit, then the stockholder receives a part of that profit as their return. This is called a **dividend**, which is the share of profits distributed in cash. However, if the company does not make a profit, the stockholder might not receive a dividend.

Dividends are not the only type of return an investor can receive from owning stock. Stockholders expect that the market price of the stock will increase. The **market price** is the current price that a buyer is willing to pay for stock. Therefore, if a stockholder is able to sell their stocks for a market price higher then what they paid, they will receive a return. However, if the company performs really poorly or goes out of business, the stockholder could lose part or all of their initial investment, depending on the market price at which they were able to sell their stocks. This risk is balanced by the potential for a high return, in the form of dividends and market price, if the company does really well. Historically, stocks have performed well, earning an average rate of return over 10% over the last 40 years.

Bonds

A **bond** is a form of lending to a company or the government (city, state, or federal). It is a type of debt that an organization issues to investors for a specified amount of time, similar to a loan. When an individual purchases a bond, they are lending money to an organization in return for a set interest rate. The company or the government entity pays annual interest to the investor until the maturity date is reached. The **maturity date** is the specified time in the future when the principal (or initial investment) amount of the bond is repaid to the bondholder. Bonds are less risky than stocks but also do not have the potential to earn as much money as a stock.

Mutual Funds

A **mutual fund** is created when a company combines the funds of many different investors and then invests that money in a diversified portfolio of stocks and bonds. The investors then receive a portion of the total return from the portfolio. Mutual funds reduce investment risk by helping people diversify their portfolio. Mutual funds save investors time, because they no longer have to choose individual stocks and bonds themselves. Instead, a group of mutual fund managers constantly evaluate which stocks and bonds to buy and sell. Since a lot of time is spent managing the investment portfolio, mutual fund fees can be very high. There are many different types of mutual funds. The amount of fees charged depends on the type of mutual fund and the company that offers it.

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Index Funds

An **index fund** is a mutual fund that was designed to reduce fees by investing in the stocks and bonds that make up an index. An **index** is a group of similar stocks and bonds. The Standard and Poor 500 is an index that includes the 500 largest companies that sell stock. The Wilshire 5000 index includes all of the companies in the United States that sell stock. There are also indexes that track companies within a specific sector, such as technology, energy, or finance. If the entire index goes up, then the fund will make money. By buying and holding a specific set of stocks and bonds, index funds require very little management compared to mutual funds and can charge lower fees.

> Index funds are designed to offer high diversification with low fees.

Real Estate

> The home an individual lives in is not considered an investment asset.

Real estate can include any residential or commercial property or land as well as the rights accompanying that land. However, the home an individual or family lives in is not considered an investment asset. Real estate investments include forms of property and land ownership other than a personal home, such as rental units or commercial property. Real estate investing can be risky and more time consuming than other forms of investing, but the opportunity for large returns is high, especially for investors paying high rates of income tax.

Speculative Investments

Futures, options, commercial paper, and collectibles are other forms of investments. These investments are very high on the financial risk pyramid and are referred to as speculative investments. **Speculative investments** have the potential for significant fluctuations in return over a short period of time. These investments are recommended for people with an aggressive investment philosophy and a high level of financial security.

Buying and Selling Investments

In order to buy and sell investments, an individual needs to utilize a brokerage firm (except for real estate and certain speculative investments). There are two different types of brokerage firms: a full service general brokerage firm and a discount broker. Both a full-service and discount broker act as a buying and selling agent for the investor. A full-service general brokerage firm offers the completion of an investment transaction as well as investment advice and one-on-one attention from an employee of the firm, known as a broker. Brokers earn a commission on each investment transaction. The amount of the commission varies between brokerage firms. A discount broker provides limited services to investors. A discount broker only completes orders to buy and sell investments; they do not provide any advice as to which investments to buy and sell. Because of this, discount brokers can charge commissions that are 40 to 60 percent less than general brokerage firms.

- Full-Service General Brokerage Firm
  - Complete investment transactions for individuals
  - Brokers offer advice and one-on-one attention to investors
- Discount Broker
  - Only complete investment transactions
  - Offer no advice to investors, but charge 40-60% less commissions

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Taxation

Investors need to understand how income taxes apply to investments. Since the profits earned on investments are considered to be unearned income, income taxes must be paid on this money. Taxes must be paid on any earnings, such as interest, dividends or price appreciation gained when a stock is purchased at a low price and sold at a higher price. Taxes are due on most investment returns in the year in which the unearned income is received. However, the government tries to encourage certain types of investments by making them tax-sheltered. **Tax-sheltered investments** eliminate, reduce, defer, or adjust the current year tax liability. Tax-sheltered investments can grow faster, because the money that would have gone to the government in taxes can remain in the investment to compound and increase in value. The most common tax-sheltered investments are offered for those who wish to invest in retirement, but there are also tax-sheltered investments available for child/dependent care, education expenses, and health care expenses. Tax-sheltered investments are not tax free. Depending upon the type of account, taxes are either paid when the money is put into the account or when the money is taken out of the account. There are also limits to the amount of money per year that can be invested in a tax-sheltered investment. It is recommended that an individual invest as much money as possible in tax-sheltered investments to maximize the benefits.

Some tax-sheltered investments are sponsored by employers as an added benefit and incentive for employees to invest. Employer-sponsored investment accounts allow employees to reduce their tax liability and make investing automatic. Money invested in employer-sponsored retirement accounts is automatically taken out of an employee's paycheck. Another benefit of employer-sponsored accounts is that employers will sometimes contribute a portion of money to the investment with no additional cost from the employee. Because of the benefits involved with employer-sponsored accounts, it is recommended that a person utilize these investment tools as much as possible if they are offered.

No matter when taxes are paid on an investment, taxes must be considered when determining the expected or actual rate of return on an investment.

Rule of 72

The "**Rule of 72**" allows a person to easily calculate when the future value of an investment will double the principal amount. When 72 is divided by the interest rate, the answer is the number of years it will take the investment to double. It is called the "Rule of 72" because at a 10% interest rate, money doubles every 7.2 years.

72 ÷ Interest Rate = Number of years needed to double the principal investment

The "Rule of 72" can determine:
How many years it will take an investment to double at a given interest rate using compounding interest.
How long it will take debt to double if no payments are made.
The interest rate an investment must earn to double within a specific time period.
How many times money (or debt) will double in a specific time period.

Rule of 72 FYI:
The rule is only an approximation.
The interest rate must remain constant throughout the time of the investment.
The equation does not allow for additional payments to be made to the original amount.
Interest earned is reinvested, creating a compounding interest.
Tax deductions are not included within the equation.