Milford Public Schools Curriculum Map

Department: Business

Grades: 11-12

Course Name: Personal Finance 2 - Investing

Unit Title: The Stock Market and Stocks

Unit #1

Approximate Duration: 7

The Stock Market and Stocks

Unit Overview: The stock market offers investors the opportunity to purchase a small piece of a company in exchange for incurring the risk of making or losing money on that investment. This unit enables students to learn about the purpose and functions of the stock market. Then, analyze stocks by using data related to specific companies and industries including stock price trends and the risks and rewards of investing in the stock market.

Notes to Teacher. It would be helpful to do a review of savings, investments, stocks and bonds before teaching this unit.

Student Readiness Data Sources:

Learning Goals

Standards:

Apply reliable information and systematic decision making to personal financial decisions.

Standard 2: Find and evaluate financial information from a variety of sources

<u>Standard 4</u>: Make financial decisions by systematically considering alternatives and consequences

> Implement a diversified investment strategy that is compatible with personal goals

Standard 3: Evaluate investment alternatives

Standard 4: Describe how to buy and sell investments

Enduring Understanding(s):

- 1. You cannot invest unless you save.
- 2. Stocks can offer great reward, but is a risky type of investment that takes homework, time, a strategy, and discipline.
- 3. There are many factors to consider when investing in a stock.
- 4. Stocks are a part of a diversified portfolio of long-term investments meant to reach life goals like college, retirement, etc.

Essential Questions:

- 1. How does the stock market function?
- 2. How do you buy and sell a stock through a securities firm?
- 3. How do you analyze data related to the various market indices and stocks?

- 1. The stock market is a term used to describe the many institutions and activities involved in helping people and companies buy and sell stocks.
- 2. There are several "stock markets" the largest in the U.S. being the New York Stock Exchange (NYSE), the Nasdaq Stock Market, and the American Stock Exchange (AMEX). Many countries around the world have their own stock markets.
- 3. Each stock market is its own business that competes for the stocks that trade on their exchange, but work cooperatively.
- 4. Stock is ownership in a corporation.
- 5. An initial public offering (IPO; also known as "Going Public") is a company offering stock to the public in order to raise capital to finance growth for the business.
- 6. A ticker symbol is an abbreviation representing a company's stock.
- 7. A stock broker is the person that takes your buy and sell orders.
- 8. The two main types of stock are common stock and preferred stock.
- 9. Other stock categories include small-cap, mid-cap and large-cap referring to the market capitalization of a company. Blue chip stocks are large well-established companies like stocks in the Dow Jones Industrial.
- 10. Penny stocks are inexpensive stocks on a price basis. Income stocks are those that have higher than average dividends. Growth stocks generally refers to a company's earnings growing faster than the industry average.
- 11. Stock tables can be found in multiple media sources both online and in print. Each section of the stock table should be understood including Company Name, Ticker Symbol, Vol. (Volume), Close, Change, 52-week High, 52-week Low, Dividend, P/E, 12-month return, etc.
- 12. Bull market describes the condition of the stock market, overall, as going up in value. Bear market describes a sluggish or declining overall stock market.
- 13. Market indexes track a basket of stocks. The Dow Industrial Average is made up of 30 "blue chip" stocks. NASDAQ Composite Index is made up of every foreign and domestic common stock listed on the NASDAQ accounting for more than 3,000 stocks. The S&P 500 is most commonly used by professionals to gauge the overall market as this index is made up of 500 of the largest and most widely held stocks. Other indexes include the Russell 2000 and Wilshire 5000.
- 14. Qualitative analysis is a subjective look at the qualities of a company like its acquisitions and management. Quantitative analysis is an analysis of a company's balance sheet and income statement. This includes rations like earnings per share (EPS), Price to earnings ratio (P/E), current ratio, working capital ratio, acid test, book value per share, etc.
- 15. Technical analysis is a methodology for forecasting the direction of prices through the study of past market data (using charts), primarily price and volume.
- 16. Diversification is spreading risk among different types of stocks in different industries. It is also spreading risk among different types of investments.

STUDENTS WILL BE ABLE TO:

- Describe the terms associated with the stock market.
- Read and understand an internet stock display.
- Analyze a company's basic financial data.
- Apply their knowledge of stock terms by creating and maintaining a diversified stock portfolio.

Common Misconceptions:

- 1. The stock market will always go up.
- 2. Trading (versus investing) is an easy way to make money.

Evidence of Learning

Performance Task(s):

- 1. Students will participate in The Stock Market Game, an online simulation in which students can buy, sell and sell short stocks, bonds and mutual funds. In groups of 2-3, students will begin the game by creating a portfolio stocks. Students must work together to apply financial concepts covered during "The Stock Market and Stocks" unit. This will also allow students to experience investment transactions while participating in an engaging simulation. Students will be expected to complete objectives based on the content covered during lessons.
- 2. During this unit, students will act as investment bankers. Each student will pick a stock to pitch to the class as an investment idea to clients. This will involve a thorough understanding of the investment chosen including both qualitative and quantitative research and apply investment concepts. Students will have the opportunity to practice and utilize presentation skills while the rest of the class hears the concepts being applied.

Additional Assessments:

Each week students will be assessed by justifying their investment transactions based on content covered by writing a brief narrative. Then, on a scheduled basis, groups will present their investment decisions to the class.

Planning for Learning

Academic Vocabulary:

- Stock Market
- Stock
- Share
- Market Order
- Limit Order

- Market value
- Capital Gain
- Capital Loss
- Dividend
- Annual dividend yield

- Shareholder
- Stockbroker
- Portfolio
- Securities firm
- Dividend
- Dividend Yield
- Annual return
- Transaction cost
- Online trading
- Last price
- Exchanges
- Balance Sheet
- Income Statement

- Stock Index
- Ticker Symbol
- Initial Public Offering
- Price to Earnings Ratio
- Earnings per Share
- Penny Stocks
- Growth Stocks
- Income Stocks
- Market Capitalization
- Volume
- Diversification
- Blue Chip Stocks

Model Lesson/Learning Activities:

- 1. The Stock Market Game Simulation
- 2. Review of savings and savings tools
- 3. How to invest/brokerage account/financial advisor
- 4. Understanding the Stock Market
- 5. Understanding Stocks
- 6. Fundamental Analysis
- 7. Technical Analysis

- > The Stock Market Game http://www.smgww.org/
- One Up on Wall Street By Peter Lynch
- "Tools for Teaching the Stock Market Game" http://valuestockguide.com/tools-for-teaching-the-stock-market-game/
- "Building Your Future: Investing" Lessons http://www.actuarialfoundation.org/pdf/byf-student-book-3.pdf
- "The Basics of Saving and Investing" Lessons http://www.investorprotection.org/downloads/IPT Basics National.pdf
- "The Stock Market" NASDAQ newsletter http://www.vcee.org/pdf/NIE_SMG_supplement.pdf
- "Tips for Investing in Stocks" http://money.cnn.com/magazines/moneymag/money101/lesson5/index.htm
- "NYSE Made Easy" Stock Market lesson http://www.econedlink.org/lessons/index.php?lid=292&type=educator
- "The Secret of Becoming a Millionaire" http://www.treasurydirect.gov/indiv/tools/tools_moneymath.pdf
- ➤ Links to several Stock Market lesson plans, games, etc.

Milford Public Schools Curriculum Unit

Department: Business

Grades: 11-12

Course Number and Name: Personal Finance 2 - Investing

Unit Title: Bonds

Unit #2

Approximate Duration: 2 Weeks

Bonds

Unit Overview: Bonds are a common form of investment used to increase the amount of interest you earn on your money. They are issued by governments or corporations as a way to raise money. Purchasing a bond is essentially lending money to the government or corporation offering people the opportunity to invest in a variety of ways that can generate earnings while providing a great deal of security.

Student Readiness Data Sources:

Learning Goals

Standards: • Apply reliable information and systematic decision making to personal financial decisions

Standard 2: Find and evaluate financial information from a variety of sources

<u>Standard 4</u>: Make financial decisions by systematically considering alternatives and consequences

• Implement a diversified investment strategy that is compatible with personal goals Standard 3: Evaluate investment alternatives

Enduring Understanding(s):

- 1. Bonds are a type of investment that offer a constant rate of return.
- 2. Bonds are less risky than stocks.

Essential Questions:

- How does one differentiate between types of bonds?
- How is investing in bonds a good/appropriate investment in terms of one's personal savings goals?

- 1. A bond is a loan made by an investor to a government or company with the promise that the principal amount borrowed will be repaid, usually with interest at a specific time, usually a year or more.
- 2. Bonds are a slightly riskier alternative for bank savings accounts.
- 3. A bond issuer is the government or company that borrows money.
- 4. A bondholder is the person or company who purchases the bonds.
- 5. Coupons are the interest payment made by the bond issuer to the bond holder.
- 6. Certificates are the documents issued by a government or company that include the name of the issuer, the interest rate and the bond's maturity date.
- 7. Face amount is the amount of money borrowed by the issuer.
- 8. Coupon rate is the annual percentage interest rate on the bond.
- 9. Maturity date is the date by which the issuer must repay the principal borrowed.
- 10. Yield to maturity is the market rate of interest on the bond.
- 11. The relationship between bond prices and bond yields is when bond yields go up, bond prices go down, and when bond yields go down, bond prices go up.
- 12. Fluctuations in bond prices are generally greater from week to week than day to day.
- 13. Types of Bonds:
 - a. Discount bonds, such as Treasury Bills, are purchased at less than face value. Then, at maturity, the bondholder is paid the full face value. There are no incremental interest payments.
 - b. Coupon bonds, issued with interest payment coupons attached, pay interest at specified intervals (quarterly, yearly, etc.), as well as the face value at the maturity date.
 - U.S. Treasury bonds are often considered the safest form of investment. They
 include: savings bonds, Treasury Bills (T-Bills), Treasury Notes, Treasury
 Bonds and Treasury Inflation-Protected Securities (TIPS).
 - d. Municipal bonds are issued by state and local governments. Interest income is often exempt from federal income tax and income tax in the issuing state.
 - e. Corporate bonds are issued either through a representative bank or by the company directly. They are often considered riskier than government-issued bonds and therefore usually pay higher interest rates. High-yield (or "junk") bonds are issued by companies at the highest risk of failure.
- 14. While most bonds are considered safe investments, there is a risk that the issuer will default. There is also inflation risk where the level of inflation outpaces the interest earned.
- 15. Difference between stocks and bonds. When to invest in stocks versus bonds.

STUDENTS WILL BE ABLE TO:

- Describe the terms associated with the bonds.
- Differentiate between different types of bonds.
- Identify the risks of bond investing.

Common Misconceptions:

- 1. There is no risk investing in bonds.
- 2. Stocks always outperform bonds.
- 3. You cannot lose money in bonds.

Evidence of Learning

Performance Task(s):

 Students will be expected to conduct research on two types of bonds on www.Fidelity.com. They will be expected to identify the type of bond, the issuer, the duration, and the interest rate. These bonds will be added to their "Stock Market Game" portfolio.

Additional Assessments:

1. Students will create a bond for Foran High School. Students should justify the amount of money being raised and the interest rate.

Planning for Learning

Academic Vocabulary:

- Bond
- Corporate Bond
- U.S. Treasury Bond
- Municipal Bond
- Coupon rate
- Maturity date
- Issuer
- Price
- Holder
- Cost of funds

- Coupons
- Certificates
- Yield to maturity
- Face amount
- Fluctuations
- Inflation
- Inflation Risk
- Default Risk
- Interest

Model Lesson/Learning Activities:

- Understanding Bonds
- > Types of Bonds
- Risks of investing in bonds
- Stocks versus bonds
- ➤ The Stock Market Game Simulation

- ➤ The Stock Market Game http://www.stockmarketgame.org/
- Beating the Street by Peter Lynch; Chapter 4
- "Building Your Future: Investing" Lessons http://www.actuarialfoundation.org/pdf/byf-student-book-3.pdf
- "Bond Investing Basics" http://money.cnn.com/magazines/moneymag/money101/lesson7/

- ➤ "Buy a Bond, James!: A Lesson on U.S. Savings Bonds" http://www.econedlink.org/lessons/index.php?lid=385&type=student
- "What is a bond?" WSJ http://guides.wsj.com/personal-finance/investing/what-is-a-bond/

Milford Public Schools Curriculum Unit

Department: Business

Grades: 11-12

Course Number and Name: Personal Finance 2 - Investing

Unit Title: Mutual Funds

Unit #3

Approximate Duration: 3 Weeks

Mutual Funds and Exchange Traded Funds

Unit Overview: When investing, it is important to have a wide range of assets and to select them wisely; one commonly-purchased asset is the mutual fund and exchange traded funds (ETF). This chapter will discuss various types of mutual funds and ETFs, and the costs and benefits associated with each. In addition, you'll see how the ability to calculate costs and potential returns can assist you in making smart investment decisions.

Notes to Teacher.

Student Readiness Data Sources:

Learning Goals

Standards: <u>Standard 2:</u> Find and evaluate financial information from a variety of sources <u>Standard 4:</u> Make financial decisions by systematically considering alternatives and consequences

• Use appropriate and cost-effective risk management strategies

Standard 1: Identify common types of risk and basic risk management methods

• Implement a diversified investment strategy that is compatible with personal goals

Standard 3: Evaluate investment alternatives

Standard 4: Describe how to buy and sell investments

Enduring Understanding(s):

• Mutual funds and ETFs are excellent vehicles for diversification.

Essential Questions:

How do you differentiate between mutual funds and types of mutual funds?

- What are the administrative cost of owning mutual funds?
- What is the difference between mutual funds and ETFs?

- 1. A mutual fund invests the pooled money of its shareholders in various types of investments.
- 2. The shares in a mutual funds are priced by dividing the current market value of investments owned by the mutual funds by the number of mutual fund shares. As the value of the securities in the fund goes up or down, the value of each share changes accordingly.
- 3. Benefits of mutual fund for the beginning investor include:
 - a. Diversification
 - b. Professional management
 - c. Liquidity
 - d. Often low cost shares
- 4. There are more than 8,000 different mutual funds available on the open market.
- 5. Investors should know the objective of the fund, what securities the fund owns, the level of risk, its earnings record, and the investment manager.
- 6. Mutual fund shares and ETFs trade like stock.
- 7. The Net Asset Value (NAV) of a mutual fund indicates its value or price per share.
- 8. The two most common types of mutual funds are equity funds and bond funds. Balanced funds are a hybrid of both.
- 9. Types of mutual funds:
 - a. Equity growth funds
 - b. Equity value funds
 - c. Aggressive equity funds
 - d. S&P 500 Index Funds
 - e. International Equity Funds
 - f. U.S. Government Fund
 - g. Fixed Income Fund
 - h. High Yield Fund
 - i. International Fixed Income Fund
- 10. Index funds track indexes, or broad baskets of different securities.
- 11. Load funds charge a sales commission; no load funds do not. When a sales commision is paid upon purchasing a mutual fund, it is called a front-end load. A back-end load is when a commission is paid when you sell. No-load funds involve no commission paid. 12(b)-1 fee is a fee that covers the sales and marketing expenses involved in marketing expenses in operating the fund.
- 12. Mutual fund family is a group of funds managed by the same company such as Vanguard and Fidelity.
- 13. ETFs are a cross between mutual funds index funds and stocks.
- 14. ETFs trade just like stocks throughout the trading day.
- 15. Benefits ETFs:
 - a. Liquidable
 - b. Low minimum investment (as low as the price for one share)
 - c. Low fees
- 16. ETFs are used to gain exposure to sectors without having to pick individual stocks.

STUDENTS WILL BE ABLE TO:

- Identify types of mutual funds.
- Differentiate between mutual funds and ETFs.

Common Misconceptions:

Evidence of Learning

Performance Task(s):

- Students will work in teams to create a mutual fund portfolio based on a given type of mutual fund.. Students will create a fund prospectus.
- Students will write an article for the Wall Street Journal explaining their preference between investments in an ETF versus a mutual fund.

Additional Assessments:

Planning for Learning

Academic Vocabulary:

- Mutual fund
- Bond Fund
- Equity Fund
- Exchange Traded Fund
- Net investment
- Asset
- Mutual fund share
- Mutual Fund Family
- Net asset value
- Asset mix

- Load Funds
- Front-end load
- Back-end load
- No load
- Mutual Fund Prospectus

Model Lesson/Learning Activities:

- Understanding mutual funds
- ➤ Understanding ETFs
- Comparing mutual funds to ETFs

- "Beating the Street" By Peter Lynch
- "StockLinkU" simulation lesson ideas www.stocklinku.com/resources/Lesson_Ideas.docx
- "What are Mutual Funds?" Lesson http://www.econedlink.org/interactives/tools/lei-lesson7/1-56183-570-2_07.pdf
- "Basics of investing in mutual funds" Lesson http://money.cnn.com/magazines/moneymag/money101/lesson6/
- > Multiple lessons for this unit in this link

http://www.vcee.org/Teacher_Material

- "Understanding Mutual Funds" http://content.moneyinstructor.com/780/understanding-mutual-funds.html
- "Investing in Equity Mutual Funds" Lesson http://www.saveandinvest.org/web/groups/foundation/@foundation/documents/foundation/p118406.pdf
- "What Is a Mutual Fund and How Does It Work?" Lesson http://bobbrinker.educatedinvestor.com/fss/learningCenter/article.html?cn=Investing%2 0in%20Mutual%20Funds&tn=Investing%20in%20Mutual%20Funds&aid=1253901749 &template=
- "Diversification and Risk"-SmartBoard Lesson http://www.stlouisfed.org/education_resources/assets/lesson_plans/Diversification_Risk.pdf
- ➤ Investment Opportunities in Mutual Funds and Exchange-Traded Funds http://education-portal.com/academy/lesson/investment-opportunities-in-mutual-funds-and-exchange-traded-funds.html#lesson

Milford Public Schools Curriculum Unit

Department: Business

Grades: 11-12

Course Number and Name: Personal Finance 2 - Investing

Unit Title: Asset Allocation & Risk

Unit #4

Approximate Duration: 3 Weeks

Asset Allocation & Risk

Unit Overview: When investing, great consideration should be given to know how much you can afford to risk and what types of investments pose the highest risks. In this unit, students will learn about the types of risk for each type of investment as well as their individual risk tolerance. By studying long-term trends and learning how financial markets change, students will gain a greater understanding of why spreading your money among a range of investments is important. Students will be introduced to constructing a balanced, diversified portfolio and investing strategies.

Notes to Teacher.

Student Readiness Data Sources:

Learning Goals

Standards: • Apply reliable information and systematic decision making to personal financial decisions

Standard 2: Find and evaluate financial information from a variety of sources

<u>Standard 4:</u> Make financial decisions by systematically considering alternatives and consequences

Use appropriate and cost-effective risk management strategies

Standard 1: Identify common types of risk and basic risk management methods

• Implement a diversified investment strategy that is compatible with personal goals

Standard 3: Evaluate investment alternatives

Enduring Understanding(s):

• Asset allocation involves dividing an investment portfolio among different asset categories, such as stocks, bonds, and cash.

Essential Questions:

• What are investment strategies to construct an investment portfolio that maximizes returns on investment?

What are some examples of ways to diversify investments as a means of lowering risk?

- 1. Risk versus Reward.
- 2. **Risk tolerance** is based on a number of factors including investment horizon, age, income status, financial responsibilities, job status, size of investment portfolio, investment knowledge.
- 3. **Risk of default** is when a saver loans money or buys a bond, the borrower might not repay the original amount or the promised interest.
- 4. **Risk of capital loss** is when a saver buys an asset hoping for a capital gain, the market price of the asset can fall, resulting in a capital loss.
- 5. **Risk of inflation** is when a saver earns a rate of return that is less than the rate of inflation, purchasing power is lost.
- Risk of liquidity is when a saver buys an asset for an investment, the asset must be sold to realize the capital gain. Market conditions affect the saver's ability to sell the asset.
- 7. **Dollar cost averaging** is the technique of investing the same fixed dollar amount in an investment at regular intervals over a long period of time.
- 8. The definition of **diversification** is the act of, or the result of, achieving variety. **In finance** and investment planning, **diversification** is a portfolio management strategy combining a variety of assets to reduce the overall risk of an investment portfolio.
- 9. Active versus Passive investing
- 10. Buy and hold strategy Advocated by Benjamin Graham and Warren Buffet.
- 11. Rebalancing your portfolio is a concept that Peter Lynch referred to as "cutting flowers and watering the weeds" (most likely referring to stock investing). But if done correctly, rebalancing forces you to buy certain investments when they are undervalued (cheap) and sell when they are overvalued (expensive).

STUDENTS WILL BE ABLE TO:

- > Identify the risks associated with each type of investment.
- > Create a diversified portfolio of investments.
- Identify basic investing strategies.

Common Misconceptions:

Evidence of Learning

Performance Task(s):

> Students will be given scenarios for which they will have to create an investment portfolio. The portfolio should consider the characteristics of the individual and assumed risk tolerance.

Additional Assessments:

Planning for Learning

Academic Vocabulary:

- Asset Allocation
- Portfolio
- Risk
- Inflation Risk
- Default Risk
- Risk of Capital Loss
- Risk of Liquidity
- Diversification
- Dollar Cost Averaging

- Asset Allocation Model
- Preservation of Capital
- Income Model
- Balanced Model
- Growth Model
- Rebalancing
- Buy and Hold Strategy

Model Lesson/Learning Activities:

- > Understanding the risks of each type of investment
- Beating the Street Page 49; "Designing a Portfolio"
- Understanding investment strategies

- "Asset Allocation and Security Selection" Module http://www.saveandinvest.org/web/groups/foundation/@foundation/documents/foundation/p118403.pdf
- "AAII Asset Allocation Models"-An Educational Resource http://www.aaii.com/asset-allocation
- "Best practices for asset allocation"-Articles http://money.cnn.com/magazines/moneymag/money101/lesson14/
- > "Diversification and Risk"-SmartBoard Lesson

- http://www.stlouisfed.org/education_resources/assets/lesson_plans/Diversification_Risk.pdf
- "Introduction to Risk Analysis" Lesson https://www.project2061.org/publications/rsl/online/GUIDE/CH2/HLPRIS0.PDF
- ➤ "Diversification and Risk"-Interactive WhiteBoard Lesson http://www.federalreserveeducation.org/resources/detail.cfm?r_id=6f4614ae-a70c-42fa -98cb-0f856b6892a5
- "RISKY BUSINESS -- OR NOT!" Lesson http://www.thirteen.org/finance/educators/lesson4.html
- > "Understanding Risk & Return" Lesson http://www.moneyinstructor.com/wsp/riskrw.asp
- ➤ "Asset Allocation: Intro to Diversifying Between Asset Classes" http://beginnersinvest.about.com/od/assetallocation1/a/aa102404.htm