The Stock Market Game™ and the Economics and Personal Finance Standards of Learning

The following chart illustrates a number of potential connections between the core lessons of the SMG™ and the Economics and Personal Finance SOLs. There are many other connections that the teacher may desire to add. Email smg@vcu.edu with your suggestions.

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| SOL | CONTENT | SUGGESTED SMG LESSON |
| **EPF.1** | **The student will demonstrate knowledge of basic economic concepts and structures by** |
| EPF.1a | a) describing how consumers, businesses, and government decision-makers face scarcity of resources and must make trade-offs and incur opportunity costs; | What is risk?Buy, Sell or Hold? |
| EPF.1c | c) describing how effective decision making requires comparing the additional costs (marginal costs) and additional benefits (marginal benefits); | What is risk?What is diversification?What is stock?What is a mutual fund?What is a bond?Buy, Sell or Hold?Identifying Ticker Symbols and Interpreting Stock QuotesWhat is a P/E Ratio?Considerations Before Buying on the Margin |
| EPF.1f | f) identifying Adam Smith and describing the characteristics of a market economy. | What is an exchange/market? |
| **EPF.2** | **The student will demonstrate knowledge of the role of producers and consumers in a market economy by** |
| EPF.2a | a) describing how consumers, producers, workers, savers, investors, and citizens respond to incentives; | What is risk?How does money grow over time?Dividends and earningsWhat causes stock prices to rise? |
| EPF.2c | c) identifying the role of entrepreneurs; | What is a company?What is risk?What is diversification? |
| EPF.2d | d) comparing the costs and benefits of different forms of business organization, including sole proprietorship, partnership, corporation, franchise, and cooperative; | What is a company?What is a stock?What is a bond?Dividends and earnings |
| EPF.2g | g) examining how investment in human capital, capital goods, and technology can improve productivity; | What is a stock?What is a bond?What is a mutual fund? |

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| SOL | CONTENT | SUGGESTED SMG LESSON |
| **EPF.3** | **The student demonstrate knowledge of the price system by** |
| EPF.3a | a) examining the laws of supply and demand and the determinants of each; | Learning From the Market (found under “Publications” in “In the Classroom”) |
| EPF.3b | b) explaining how the interaction of supply and demand determines equilibrium price; | Learning From the Market (found under “Publications” in “In the Classroom”) |
| **EPF.4** | **The student will demonstrate knowledge that many factors affect income by** |
|  EPF.4c | c) explaining the relationship between a person’s own human capital and the resulting income potential. | Roles in the Industry  |
| **EPF.5** | **The student will demonstrate knowledge of a nation’s economic goals, including full employment, stable prices, and economic growth by** |
| EPF.5a | a) describing economic indicators, such as gross domestic product (GDP), consumer price index (CPI), and unemployment rate;  | \*Stock market performance is seen as another indicator.What causes stock prices to rise? |
| EPF.5c | c) describing the fluctuations of the business cycle; | What causes stock prices to rise?History of the New York Stock Exchange |
| **EFP.8** | **The student will demonstrate knowledge of the role of government in a market economy by** |
|  EPF.8c  | c) providing examples of government regulation of the market; | Investment Fraud: Wise and Safe Investing |
| **EPF.10** | **The student will develop consumer skills by** |
| EPF.10c | c) describing the steps in making a purchase decision, including the roles of marginal benefit and marginal cost; | Getting Started in The Stock Market GameWhat is diversification?What is risk?Buy, Sell or Hold?Considerations Before Buying on the Margin |
| EPF.10i | i) accessing reliable financial information from a variety of sources; | Identifying Ticker Symbols and Interpreting stock quotes |
| **EPF.17** | **The student will demonstrate knowledge of personal financial planning by**  |
|  EPF.17c | c) examining components and purposes of a personal net worth statement; | How does money grow over time? |
| **EPF.18** | **The student will demonstrate knowledge of investment and savings planning by** |
| EPF.18a | a) comparing the impact of simple interest vs. compound interest on savings. | How does money grow over time? |
| EPF.18b | b) comparing and contrasting investment and savings options; | What is stock?What is a bond?What is a mutual fund?What is risk?What is diversification? |
| EPF.18c | c) explaining costs and income sources for investments; | Considerations Before Buying on MarginDividends and Earnings |

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| SOL | CONTENT | SUGGESTED SMG LESSON |
| EPF.18f | f) describing how the stock market works. | What is stock?Dividends and Earnings |

**The following lessons are available for the high school level. They can be found in the Teacher Support Center (SMG™ website).**

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| **Lesson Title** | **Lesson Objective** | **Students will be able to:** | **EPF SOLs** |
| **Getting Started in The Stock Market Game** | **This introductory lesson is designed to help students understand how trades are made, how investment strategies are developed and how stock purchase prices are determined in The Stock Market Game™.** | * Understand the purpose of the stock market game and how a team can be successful.
* Log on to their accounts, access research information, and make a first purchase of a stock and/or mutual fund.
* Accurately estimate the cost of purchasing a share of stock, including the fee.
* Reach consensus as a group about their first investment decision.
* Set up and begin to use student SMG Journals.
* Evaluate each team’s first purchase decision based on accessing key information through their account.
 | EPF.10c |
| **How to InvestWrite** | **This lesson helps students prepare for the InvestWrite, national writing competition. The essay questions presented in the InvestWrite lesson, Fact Sheet and Assignment Sheet are practice questions only.**  **For the current InvestWrite competition question go to** [**www.investwrite.org**](http://www.investwrite.org/) | * Identify the main idea/main problem in an *InvestWrite* question
* Write an essay that informs and/or persuades its readers
* Use appropriate grammar, spelling, structure, and language to convey intent
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| **What is a Company?**  | **This lesson compares prominent corporations to help students learn about the many facets of public and private companies.** | * **Identify and describe the terms: company, partnership, and corporation.**
* **Explain the characteristics, advantages and disadvantages of various types of companies.**
* **Explain how companies are formed.**
* **Describe the benefits of forming a business to manufacture and sell a product.**
 | EPF.2cEPF.2d |

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| **Lesson Title** | **Lesson Objective** | **Students will be able to:** | **EPF SOLs** |
| **What is a Stock?**  | In this lesson students will learn how they can own parts of public companies by purchasing shares of their stock. | * Define and give examples of: common stock, investor, risk, public corporation, private company, preferred stock, earnings and dividends.
* Explain why there is risk involved in stock ownership.
* Make decisions as a group on the benefits of investing in stocks verses costs and/or loss of use of capital.
* Calculate gain and loss from sample stock sales.
* Explain the differences between common stock and preferred stock.
* Explain how a company will “go public” by issuing an IPO.
 | EPF.1cEPF.2dEPF.2gEPF.18bEPF.18f |
| **Stockholder Rights and Responsibilities** | This lesson is designed to help students think beyond just the profit and losses associated with stock ownership and trading in The Stock Market Game | * Determine the rights of stockholders in various situations.
* Draw conclusions as to actions individual shareholders can take as responsible corporate owners.
* Define: proxy, annual report.
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| **Identifying Ticker Symbols and Interpreting Stock Quotes**  | **This lesson teaches students how to use stock ticker symbols to locate companies. Students will also learn to read a stock quote.** | * **Identify stocks by both newspaper and ticker symbol.**
* **Determine how to look up a ticker symbol.**
* **Enter purchase orders and/or make a trade on The Stock Market Game website.**
* **Demonstrate the ability to use each of the following terms: share or stock, dividend, P/E ratio, volume or sales, change.**
 | EPF.1cEPF.10i |
| **What is an Exchange/ Market?** | **This lesson discusses the functions of stock exchanges and advantages or disadvantages of listing on one stock exchange over another** | * **Explain the role of exchanges in shaping the market place.**
* **Compare and contrast standard listing requirements for each exchange.**
* **Understand the advantages and disadvantages of listing with the NYSE, NASDAQ and AMEX.**
* **Describe the differences between a dealers market and an auction market.**
* **Draw conclusions as to whether the exchange on which a stock is listed should impact the choices made by SMG teams.**
* **Draw conclusions as to the role technology has played in changing the work and impact of the stock market.**
 | EPF.1f |

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| **Lesson Title** | **Lesson Objective** | **Students will be able to:** | **EPF SOLs** |
| **History of the New York Stock Exchange**  | This lesson is intended to give students an overview of the history of the stock market using a time line. The relationship between historical event and market impact is the focus of the lesson. | * Use the Internet to research specific events in the history of the stock market.
* Read for meaning, determine key points, take notes and interpret information presented on line in order to create a written and oral presentation.
* Create a time line displaying key events in the history of the stock market.
* Determine how the highs and lows of the stock market were affected by changes in society and how those events still impact society.
 | EPF.5c |
| **Roles in the Industry**  | In this lesson students will prepare for a visit from a financial industry professional by exploring a few of the careers that exist within the industry | * List the skills and knowledge needed by professionals in the financial services industry.
* Describe the roles, responsibilities and qualifications for careers in financial services.
* Identify positions within the financial services sector that might be of interest to the student for further career exploration.
* Participate in a presentation/discussion.
 | EPF.4c |
| **What is Diversification?**  | **This lesson will teach students how diversification of investments can help reduce risk.**  | * **Create a diversified portfolio selecting stocks from at least six industries.**
* **Conduct Internet research on different investment options and write a summary of their findings and present to the class.**
* **Interpret company and industry charts to determine which investments to make with their SMG teams.**
* **Define diversification, risk tolerance, industry and index.**
 | EPF.1cEPF.2cEPF.10cEPF.18b |
| **What is a Bond?** | This lesson provides students with an introduction to bonds. | * Define the terms: Bond and Investment Grade Bond.
* Identify and define four types of bonds.
* Understand bonds as an investment tool.
 | EPF.1cEPF.2dEPF.2gEPF.18b |
| **What is a Mutual Fund?** | **The aim of this lesson is to explain mutual funds and how can they aid in investment strategies.** | * **Define and identify the characteristics of a mutual fund.**
* **Use the newspaper and Internet to research mutual funds.**
* **Use their research on mutual funds to help determine team investments for the Stock Market Game.**
* **Create and deliver a presentation on mutual funds, their risk and performance.**
 | EPF.1cEPF.2gEPF.18b |

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| **Lesson Title** | **Lesson Objective** | **Students will be able to:** | **EPF SOLs** |
| **What is a P/E Ratio?**  | **In this lesson, students learn that the P/E help determine how much investors will pay for stocks today and that the outcome is that stock prices reflect the market’s best estimate of the company’s future earnings growth.** | * Distinguish between a company`s earnings and its P/E Ratio.
* Use a company`s P/E Ratio to make informed investment decisions.
* Examine companies` P/E ratios and earnings growth rate to determine the risk involved in investing in these companies.
* Calculate PE Ratio
 | EPF.1c |
| **Considerations Before Buying on Margin**  | **In this lesson, students learn about the costs, benefits and risks associated with buying stocks using borrowed money.** | * **Define the terms associated with buying on margin**
* **Decide if they should or should not buy on margin while participating in The Stock Market Game.**
* **Calculate the figures needed to complete a buying on margin chart.**
 | EPF.1cEPF.10cEPF.18c |
| **What is Risk?**  | **After this lesson students will understand that an informed investor must recognize the risks involved with every investment.** | * **Define and illustrate the three major kinds of risk.**
* **Examine companies and determine the risk involved in investing in these companies.**
* **Research two companies and decide the level of risk their Stock Market Game team would take if they invest in these companies.**
* **Write a persuasive letter motivating or discouraging an investor from purchasing stocks in a company they researched.**
* **Solve decimal multiplication problems.**
 | EPF.1aEPF.1cEPF.2aEPF.2cEPF.10cEPF.18b |
| **What Causes Stock Prices to Change?**  | This lesson explores the influences that affect stock prices. | * Analyze and interpret market indices, which influence change in the price of stock.
* Discuss the various ways stock prices are influenced.
* Evaluate the ways investors can be affected by the change in market prices when choosing to buy, sell or hold.
* Interpret charts and graphs to better understand the growth and change in stock prices.
 | EPF.2aEPF.5aEPF.2c |
| **Buy, Sell or Hold?**  | **In this lesson students learn to use key resources to help them determine whether to buy, sell or hold a stock. It includes tips on how to read an annual report and compare a company with others in the same industry.** | * **Draw conclusions on whether to buy, hold, or sell based on group and individual research.**
* **Compare and contrast companies based upon stock market statistical data.**
* **Analyze basic financial data.**
* **Use the Internet to obtain annual reports and research companies across the same industry.**
 | EPF.1aEPF.1cEPF.10c |
| **Lesson Title** | **Lesson Objective** | **Students will be able to:** | **EPF SOLs** |
| **Corporate Actions**  | This lesson provides an overview of some corporate actions that can impact SMG team portfolios.  | * Define each of the terms related to corporate action
* Develop an explanation of each term for the class
* Explain the impact of different corporate actions on investors
* Evaluate scenarios to determine the impact on investor portfolios
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| **What is an Index?**  | By understanding how and why the different indexes (or indices) react to economic trends over time, many investors believe they make better informed investment decisions. | * Define the term: Index
* Explain the purpose of an index and how it can help their SMG team to improve their performance
* Differentiate between different types of indexes
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| **PNC Christmas Price Index**  | **The PNC Christmas Price Index is an index of the current costs of the goods and services listed in the classic holiday song,** The Twelve Days of Christmas**. The purpose of this lesson is to understand the PNC Christmas Price Index as an investment tool.** | * Define the term “index.”
* Use an index as an investor tool.
* Identify trends on the PNC Christmas Price Index and project their impact on the stock market.
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| **How Does Money Grow Over Time?**  | **In this lesson students will learn about types of interest and various savings venues.** | * **Define compound interest and explain the effect of compounding interest on a daily, monthly, quarterly or annual basis.**
* **Investigate various investment and saving opportunities.**
* **Define and demonstrate comprehension of the following terms: saving, investing, Rule of 72, compound interest, and diversification.**
 | EPF.2aEPF.17cEPF.18a |
| **Dividends and Earnings**  | **The aim of this lesson is to teach students how an investor receives a return on a stock purchase.** | * **Draw conclusions as to how to examine a company before making investments.**
* **Describe the factors that influence investment decisions.**
* **Calculate dividends paid out to stockholders.**
* **Calculate net gain/loss for an investor.**
* **Explain the difference between earnings and dividends.**
 | EPF.2aEPF.2dEPF.18c |
| **One Strategy for a Bear Market?**  | This lesson will focus on the concept of short selling and its pros and cons. | * Define short selling and long position.
* Develop successful long and short investment strategies.
* Explain the advantages and disadvantages of short selling.
* Evaluate short selling as an investment strategy.
* Calculate real and potential portfolio changes.
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| **Lesson Title** | **Lesson Objective** | **Students will be able to:** | **EPF SOLs** |
| **How Successful Was My Investment Strategy?**  | This lesson asks students to reflect on the investment decisions their team made during the course of The Stock Market Game. | * Draw supported conclusions as to whether their strategy in preparing their portfolio was successful and what investment changes they might have made to improve portfolio performance.
* Generate a detailed report including support material.
* Deliver a convincing presentation.
* Give and receive constructive criticism.
* Evaluate the work of other team members and other students.
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| **Investment Fraud: Wise and Safe Investing (**Written by the California Department of Corporations ) | In this lesson students will explore the government regulations in place to protect investors. Students will learn about illegal and improper business practices and the penalties for such misconduct. Students will use financial websites and read newspaper articles regarding investment fraud to better understand the regulatory role government plays in the securities and investment industry. They will learn what resources are available to help protect the investor. Students will also analyze companies in their SMG portfolios for any added risk that might exist from improper business activity. | * Learn about the government agencies that regulate finance, investments and lending.
* Learn to research company history before they invest.
* Provide an example of fraud, summarize the case, and present the information to the class
 | EPF.8c |

Podcasts:

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| Title | URL |
| What it means to buy a company’s stock | <http://www.khanacademy.org/finance-economics/core-finance/v/what-it-means-to-buy-a-company-s-stock?playlist=Finance>  |
| Bonds vs. Stocks | <http://www.khanacademy.org/finance-economics/core-finance/v/bonds-vs--stocks>  |
| Shorting Stock | <http://www.khanacademy.org/finance-economics/core-finance/v/shorting-stock>  |
| Shorting Stock 2 | <http://www.khanacademy.org/finance-economics/core-finance/v/shorting-stock-2>  |
| Is short selling bad? | <http://www.khanacademy.org/finance-economics/core-finance/v/is-short-selling-bad>  |

Online Lessons:

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| Lesson Title | URL |
| Here’s Your Chance to Make Millions in the Stock Market – 3 parts (high school) | <http://www.econedlink.org/lessons/index.php?lid=333&type=afterschool> |
| NYSE Made Easy (high) | <http://www.econedlink.org/lessons/index.php?lid=292&type=afterschool> |
| Stock Prices Tumble (middle school) | <http://www.econedlink.org/lessons/index.php?lid=24&type=afterschool> |
| Stock and Bonds: How Companies Grow (elem.) | <http://econ-fun.com/sample_lessons.htm> |

Additional SMG lesson sources:

Learning, Earning and Investing – CEE (earlier version on Virtual Economics 3.0) investing, rule of 62, compound interest, etc.