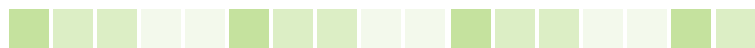


Student Investment Journal–Teacher’s Guide



The My Classroom Economy investment simulator is an easy-to-use means of demonstrating key investment concepts to high school students. In this guide, you’ll also find an expanded version of the investment journal that students should use to develop their understanding of these concepts.

Many teachers have some familiarity with investing topics—but if you’re not one of them, you’re far from alone. For a quick refresher on some basic financial concepts, please see the [investment primer](#) at the end of this guide.

Student Investment Journal with annotations for teachers

Students should be encouraged to respond to the questions in their journals regularly to develop additional insights into investing. Below, we have annotated the journal questions with some discussion points you might use to deepen the conversation.

Throughout the school year, you will track the progress of your investment portfolio. In addition to recording the money your portfolio makes, you can use this journal to get a better understanding of how investing really works. By writing down your thoughts and discussing them in class, you will learn a lot about how to begin investing in real life.

Cycle 1

Why did you choose to open an investment account? If you didn’t open one, why not?

Emphasize how compounding can build wealth over time, and explain that the investors in the class will likely generate the most money for the final, and most rewarding, auction. In addition, elicit some of the reasons a student would choose not to invest. For example, he didn’t have enough money, or she wanted her money available to spend at the upcoming auction. This discussion provides an important opportunity to introduce the concept of delayed gratification.

What asset mix did you select for your portfolio? Why did you pick that one? (If you did not open an account, what asset mix would you have chosen?)

Hold a fruitful discussion about risk versus reward. From the syllabus, the students should have gathered that stock-heavy portfolios have both higher risk and higher potential reward than their bond-heavy counterparts. Consider asking the following question: Would you rather have the potential to earn \$100, but with the risk of losing \$50, or would you rather have the potential to earn \$20 with the risk of losing just \$5?

What can you do to make sure you’ll have money to invest on future Bill Days?

Suggest ways for students to earn and save more money. Some examples include applying for an additional job, starting a small business, or getting bonus money by joining school activities, helping fellow students, or earning good grades.

Cycle 2

In the real world, adults have many bills to pay. Thinking about your parents or other adults in your life, make a list of all of their expenses. Examples could be groceries, gasoline, or cable TV.

Mention some expenses that your students may not have considered. For example: rent or mortgage payments, water and utility bills, internet or phone bills, gifts for birthdays and holidays, landscaping costs, insurance payments, trash removal fees, dependent care, veterinary care for pets.

In the classroom economy, what bills do you have to pay?

Elicit examples: rent, electricity, fines (if applicable), insurance, taxes, purchases at auctions.

Look back at last month's journal entry. Were you able to take any of the actions you listed to save up for investing? If not, what steps can you take to be more successful for next month?

Continue to encourage your students to seek out opportunities to be more involved in the program, earn more money, and feel more accomplished. The more engaged they are in the program, the more successful they will be, and the more they'll enjoy it.

If you invested last month, what was your reaction when you saw your new balance? Describe how your feelings toward investing have changed, if at all.

Discuss the importance of looking at investment as a long-term proposition. Point out that short-term market swings are common and don't indicate what will happen over a long period. In addition, revisit the discussion about risk versus reward. Emphasize that students (and adults) with a low risk tolerance should consider having a heavier mix of bonds in their portfolios so they won't feel as stressed about investing.

Cycle 3

Previously you learned that owning a stock is like being a partial owner in a company. Think of a popular company or one with a product you use frequently. If you were the owner of that business, what actions could you take to help the company grow? What could cause your company to lose value or be less successful?

Well-known companies you might point to include Coca-Cola, McDonald's, Apple, Google, Microsoft, GE, Toyota, and Wells Fargo. Some ways a company can grow include inventing a new product, researching improvements for existing products, finding new markets, or expanding the business to new areas. Risks for a company can include competitors that come up with cheaper or better products, falling demand for the company's products, or outside factors such as natural disasters, a recession, or changes in regulation.

All of your classmates are facing the same financial decisions as you are in the classroom economy. What habits or decisions have you noticed that are helping some of them to succeed?

Discuss the importance of making smart decisions at the auction. Overspending in the auction—just as in the real world—can harm a person's financial well-being. Also, remind your students about the positive effects compounding can have on their investments. Regardless of the current simulator results, emphasize how saving and investing can benefit the students in the long term.

Explain to one of your family members what you are learning about investing. What are two things that this family member did not realize about investing before your conversation?

If you have students who are unable to talk with a family member, offer to speak with them after class, or suggest they talk with another teacher or adult they are comfortable with.

Cycle 4

Partner with a classmate who chose a different asset mix than you did. Compare your returns and discuss the following topics:

- Why did each of you choose the asset mix that you did?
Discuss the impact of risk tolerance when selecting an asset mix.
- If you could change your mix, what would you change it to and why?
Discuss how a changing time horizon—the length of time before the money is needed—may affect someone’s risk tolerance. For example, if you are saving for a vacation you’re planning to take five years from now, you can take on more risk than if the vacation is in a few months.
- Aside from your asset mix, what else is affecting the value of your portfolio?
Explain how not only the amount someone invests but also how early he or she invests it can affect the overall results.

Earlier you learned that owning a bond is similar to lending someone your money and charging them interest.

- Have you ever lent money to a friend or family member before?
Explain that loans are important in many people’s lives. Point out typical things people borrow for: mortgage, car, college, wedding, or credit card loans.
- If you have lent someone money, were you fully repaid? How long did it take for you to get your money back?
Ask students to think about a situation in which someone borrows money from them and a long time passes without the loan being repaid. Discuss the possibility of someone paying interest for a loan. For example, if you lent someone \$20, could you ask them to pay you back a little more, say \$21?
- What factors should you consider before lending someone your money?
Use the following key points in your discussion: The more time someone has to pay you back, the more risk you incur that you will not receive your money. On the other hand, the more income your borrower has, whether it is through a job or an allowance or some other source, the more likely he or she is to pay you back. How does the person’s reputation affect your thinking about the chance of getting repaid?
Following this discussion, make connections for the students regarding bonds. In particular, discuss the risks and rewards associated with bonds of varying maturity dates and credit ratings.

Cycle 5

Has there been a month when you couldn’t pay all of your bills? If so, what steps can you take to keep this from happening again?

Continue to encourage your students to use all the money-making options in the classroom economy. However, the main goal of this question is to help them realize the value of having a “safety net”—an emergency fund. Encourage students to identify the minimum amount they need each month (e.g., \$1,200) and to always keep that in their account in case one month doesn’t go so well.

List some things you have chosen to bid on at the auction. Has saving for it been easy or difficult? Why?

Discuss the concept of supply and demand. Talk to the students about how the fluctuations in auction prices reflect the number of students who are interested in purchasing each item. Discuss the importance of comparison shopping and avoiding some of the pitfalls of consumerism.

What grade would you give yourself for your investment portfolio right now? What will you do differently in the months to come? What will you do the same way?

Discuss how key decisions are affecting the students' financial results. For example, those who invested early and did not overspend at the auction are likely to be doing better.

Cycle 6

How many items have you purchased at the auctions so far this year? Are you happy about all of those purchases, or do you wish you had saved your money?

Discuss the concept of real value. It is important for students to begin to consider the value of items they intend to purchase before they buy them.

How has the balance in your investment account changed throughout the year?

Revisit the risks and rewards associated with stocks and bonds. Reinforce to students the importance of choosing an asset mix that matches their risk tolerance.

If you could start over, would you invest more money, less money, or about the same amount?

Hold a fruitful discussion about time horizon and the decisions people need to make based upon when they will need their money.

Cycle 7

Have you been focused on saving for auctions or on investing for your end-of-year rewards? Has your focus changed at all during the year?

Continue to discuss how a savings goal and time horizon can influence financial decisions.

Do you feel that you have a safety net for future months?

Remind your students about the importance of establishing an emergency fund. Discuss real-world events that may cause someone to use an emergency fund. Examples include losing a job, having a car break down, or incurring unexpected medical bills.

So far this year you have seen how the markets can cause your money to grow—and also to decline. How did you feel when you saw your account grow? How did you feel when you saw it decline?

Explain that emotional reactions to changes in an account balance are natural. Point out that in the real world, unlike the classroom economy, investors are able to alter their asset mix in response to market swings. Then ask the students to think about whether doing that is wise, now that they know how changeable the markets can be. If they could make portfolio changes based on emotions, how could they be sure their decisions would prove right? History shows that a properly diversified portfolio and a strong savings rate (12%–15% of annual salary) are the wisest plan for most investors.

Cycle 8

Partner with someone who chose a different asset mix from yours. You'll see a difference in the way your portfolios performed.

- Discuss why each of you chose your original asset mix.
- Do you have more or less money than your partner?
- Which of you experienced greater swings in performance?

If this process were to begin again tomorrow, would you choose a different asset mix?

- . . . at the beginning, when you first chose?
- . . . if you could have changed your mind halfway through?
- Would you have chosen your partner's asset mix? Why?

Continue to emphasize that asset mix plays the primary role in determining a portfolio's risk and long-term performance. Make sure the students now recognize that stocks are more volatile, and thus have a wider range of returns, than bonds. Ideally, they will realize that it is generally wise to select a stock-heavy portfolio when there is a long time horizon and to increase the bond allocation as the time horizon shortens.

Investment primer

Investing need not be complicated. It's basically a matter of putting your money in a position to earn more money. This means not only saving some of your earnings but also taking some reasonable risks with your savings to get the potential for higher returns. Following are a few basic investing principles that can help you accumulate the money you need for your long-term goals.

Risk versus reward

This is a fundamental truth of investing: To earn more reward, you need to take on more risk.

Why are risk and reward so closely linked? Because given a choice of investments that pay the same amount, everyone will choose whichever is least risky. To attract any money, the riskier investment has to offer a bigger potential payoff.

In investing, the risk is real. When you make a risky investment, you really may not get all your money back. That's why investors have to do careful thinking about how they allocate their money between riskier investments—which carry the most potential reward—and less-risky ones, which pay less but offer more confidence that the money will be there if it's needed.

Asset classes

Investors typically build a portfolio using a mix of stocks, bonds, and cash investments. Here are the characteristics of these three asset classes and the roles they can play in a portfolio:

- Stocks represent shares of ownership in a particular company. Historically, stocks have provided higher long-term returns than bonds or cash, but in shorter periods they have been much more risky. Over the long run, stocks have typically gained an average of about 10% a year.* That has helped stock investors to stay well ahead of inflation, which has averaged more than 3% a year. But to enjoy such long-term returns, investors have had to brace themselves for sharp declines from time to time—sometimes for extended periods. What makes stocks so volatile is that they are directly linked to the fortunes of individual companies. A company's value can change for many reasons, including some that have nothing to do with the company itself.
- Bonds are, in essence, loans to a government or company. Compared to stocks, they have provided lower long-term returns—an average of about 6% a year—but their returns usually have been less volatile. Investors typically invest in bonds for two reasons: to get interest income and to offset some of the ups and downs of stock investing.
- Cash investments include bank certificates of deposit and other accounts that hold ready money. Historically they have provided lower returns than stocks and bonds—an average of about 4% a year—but with little or no fluctuation in price. All, or nearly all, of the return from cash investments consists of interest. Investors typically use cash investments to stash money that they want to have on hand for emergencies or that they'll need to cover a big expense in the next year or two.

For the classroom economy, we focus on investing in stocks and bonds.

*Based on returns from 1926 to 2011. Sources: U.S. stock market returns are represented by the Standard & Poor's 90 from 1926 to March 3, 1957; the S&P 500 Index from March 4, 1957, to 1974; the Dow Jones Wilshire 5000 Index from 1975 to April 22, 2005; and the MSCI US Broad Market Index thereafter. U.S. bond market returns are represented by the S&P High Grade Corporate Index from 1926 to 1968; the Citigroup High Grade Index from 1969 to 1972; the Lehman Brothers U.S. Long Credit AA Index from 1973 to 1975; the Barclays Capital U.S. Aggregate Bond Index from 1976 to 2009; and the Barclays Capital U.S. Aggregate Float Adjusted Index thereafter.

Getting started

Becoming a practiced investor may be easier than you think. You've probably already mastered the first important step—saving up some of your earnings so you have money to invest. Next you need to consider your financial goals, your tolerance for risk, and your time horizon.

- **Financial goals:** Think about what you want to do with your money and when you'll need it. You may want to save for retirement, a child's education, or a new home. You may also have shorter-term aims, such as paying for a bigger car or a trip to Europe next summer.
- **Risk tolerance:** Now that you have defined your goals—especially the longer-term ones—think about your reaction to the risks of investing. Emotions matter when you create a long-term investment plan. Would you lose sleep if one of your investments declined a large amount in one day? You're more likely to stick with a plan that fits your investment personality.
- **Time horizon:** For each of your goals, how much time do you have before you'll need the money? This is important because your investments will rise and fall in value throughout the time you own them. The longer your time horizon, the greater your ability to ride out the ups and downs of the markets. Thus, for your longer-term goals, you can more reasonably select investments whose values fluctuate in the short term in hopes of earning greater returns over time.

Dollar-cost averaging

Investing regularly is a good habit to develop, not just for helping to build wealth, but also for managing the ups and downs of the market. Investing a fixed amount at regular intervals, whether the market is up or down, is a strategy called dollar-cost averaging.

Because the amount you invest is constant, you buy more shares of a given stock (for example) when the price is low and fewer when the price is high. As a result, the average cost of your shares is lower than the average market price per share during the time you are investing.

The table illustrates the simple math behind this concept.

A hypothetical example of dollar-cost averaging

	Investment	Share price	Shares acquired
Month 1	\$100	\$10	10
Month 2	\$100	\$8	12.5
Month 3	\$100	\$5	20
Month 4	\$100	\$10	10
Month 5	\$100	\$8	12.5
TOTAL	\$500		65
Average price paid per share ($\\$500 \div 65$ shares): \$7.69			
Final value of investment ($\\$8 \times 65$ shares): \$520			

However, it's important to remember that dollar-cost averaging cannot eliminate the risks of investing in financial markets. It can't guarantee a profit, and it doesn't offer any special protection when markets decline—your account can still be worth less than when you started. In addition, before you decide to use this strategy, think about your willingness and ability to invest continually—even through periods of market decline—because the advantages of dollar-cost averaging depend on your making regular purchases through thick and thin.

No investment method can guarantee a profit if you sell at the bottom of the market. But if you're a patient investor who contributes a fixed amount of money in regular installments, you can greatly reduce the likelihood that you'll face the kind of loss that would result if the market dropped sharply right after you'd made a large investment.

Other key considerations

As you begin thinking about how to pursue your goals, there are a few other terms to be aware of.

- **Asset mix:** Financial experts agree that people should hold a mix of investments from among the asset classes (stocks, bonds, and cash investments) to help reduce the volatility—the swings in in market value—of a portfolio. That's because diversification spreads the risk around. Poor performance in one area often can be tempered by good performance in another.
- **Rate of return:** Also known as return on investment, or—most commonly—just “return.” The return is the change in value of an investment over a specific time period. Thus, a return can be either positive or negative. “Total return” includes not only the change in the investment's price but also any payments made to the investor, such as interest payments or dividends.
- **Compounding:** Your money can produce astonishing results over time if you're patient and disciplined. The key is the power of compounding, which happens when you reinvest the earnings of your investments. That way you receive new earnings not only on your original investments but on the reinvested amounts—so your money can grow faster and faster as the years roll on.
- **The economy and the markets:** The economy's health and the financial markets are linked, but the connection isn't always clear. In the long term, stock returns are based on corporate earnings and dividends, and bond returns are based on interest payments. In the short term, though, stock prices can move up and down with no apparent basis in economic reality. And bond returns can be influenced by market perceptions of various risks, which may not be on target.

Succeeding as an investor doesn't require a lot of expertise, but it does require planning and discipline. A vital first step is to think through how much you will set aside for investment before you start spending your earnings. There are many ways today for people to set up regular investments—such as employer-sponsored retirement plans and automatic bank transfers—and there are special types of account that can be used for specific goals, such as college savings plans and individual retirement accounts. For many investors, such accounts have tax advantages that can reduce your overall tax burden.

Learn more

You don't need further reading to run the My Classroom Economy investment simulator, but if you want to broaden your knowledge, here are some sources you can draw on to enhance your classroom discussions or to help you plan for your long-term financial future.

Books

- *How a Second Grader Beats Wall Street: Golden Rules Any Investor Can Learn*, Alan Roth
- *Making the Most of Your Money Now*, Jane Bryant Quinn
- *The Most Important Thing: Uncommon Sense for the Thoughtful Investor*, Howard Marks
- *The Only Investment Guide You'll Ever Need*, Andrew Tobias
- *Straight Talk on Investing: What You Need to Know*, Jack Brennan with Marta McCave

Websites

Investor.gov (U.S. Securities and Exchange Commission)
<http://investor.gov/>

Jump\$tart Coalition for Personal Financial Literacy
<http://www.jumpstart.org/>

MyMoney (Financial Literacy and Education Commission)
<http://www.mymoney.gov/>