BUILDING BLOCKS TEACHER GUIDE

Playing an investment game

Students work in groups to explore real-world scenarios that can affect stock investments.

Learning goals

Big idea

Understanding the basic concept of the stock market and the risks involved can help you become better informed about investing.

Essential questions

- What can make a stock price rise or fall?
- What risks are involved when investing in the stock market?

Objectives

- Learn how various factors or events can affect stock prices
- Understand the importance of considering risk when making investment decisions

NOTE

Please remember to consider your students' accommodations and special needs to ensure that all students are able to participate in a meaningful way.

KEY INFORMATION

Building block:

Financial habits and norms

Financial knowledge and decision-making skills

Grade level: High school (9–12)

Age range: 13–19

Topic: Save and invest (Investing)

School subject: CTE (Career and technical education), English or language arts, Math, Science, Social studies or history

Teaching strategy: Gamification, Simulation

Bloom's Taxonomy level: Understand, Apply

Activity duration: 45–60 minutes

National Standards for Personal Financial Education, 2021
Investing: 8-1, 8-4, 12-1, 12-3, 12-5, 12-9, 12-12

These standards are cumulative, and topics are not repeated in each grade level. This activity may include information students need to understand before exploring this topic in more detail.

What students will do

- Work in groups to review scenarios that may affect an imaginary company's stock price.
- Brainstorm on why they think the stock price rose or fell.
- Reflect on the risks and rewards of stock investing.

Preparing for this activity

- ☐ While it's not necessary, completing the "Investigating investing" activity first may make this one more meaningful.
- ☐ Print copies of all student materials, or prepare for students to access them electronically.
- ☐ Print a single-sided copy of the stock scenarios in this guide and cut it into 14 scenario strips.

What you'll need

THIS TEACHER GUIDE

- **Playing an investment game** (guide)
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STUDENT MATERIALS

- **Playing an investment game** (worksheet)
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- **Scenario strips** (from the stock scenarios section of this guide)

Exploring key financial concepts

Stocks are a type of investment that gives stockholders a share of ownership in a company. According to the U.S. Securities and Exchange Commission, stocks offer investors the greatest potential for growth (capital appreciation) over the long haul. Investors willing to stick with stocks over long periods of time, say 15 years, generally have been rewarded with strong, positive returns. But stock prices move down as well as up. There's no guarantee that the company whose stock you hold will grow and do well, so you can lose the money you invest in stocks.

TIP

Because financial products, terms, and laws change, students should be encouraged to always look for the most up-to-date information.

Many factors can affect a stock's price, both positively and negatively. This includes factors inside the company, such as a faulty product, or situations the company has no control over, such as competition, demand for the company's products, natural disasters, and other factors. Understanding the risks and whether you can afford to take those risks can help you make informed decisions about stock investments.

TIP

It's important to emphasize that all investments, even savings products, have some level of risk. These risks include how readily investors can get their money when they need it; how fast their money will grow; whether they can lose some, all, or in some cases, more than their initial investment; and how inflation, taxes, market conditions, and other external factors may affect the value of their investment.

Teaching this activity

Whole-class introduction

- Ask students to name some things people invest in.
  - Answers may include stocks, real estate, or classic cars.
- Read the "Exploring key financial concepts" section to students.
- Be sure students understand key vocabulary:
  - **Inflation:** Inflation occurs when the prices of goods and services increase over time.
  - **Invest:** To commit money to earn a financial return; the strategic purchase or sale of assets to produce income or capital gains.
  - **Investment:** Something you spend your money on that you expect will earn a financial return.
  - **Risk:** Exposure to danger, harm, or loss.
  - **Stock:** A type of investment that gives people a share of ownership in a company.
  - **Taxes:** Required payments of money to governments, which use the funds to provide public goods and services for the benefit of the community as a whole.

TIP

Visit CFPB's financial education glossary at consumerfinance.gov/financial-education-glossary/.

Group work

- Tell students they'll work in groups to review scenarios that affect the stock of an imaginary company.
- Divide students into seven groups.
- Distribute the "Playing an investment game" worksheet to each student.

- Give each group two scenario strips. Make sure they're face down so students can't see the text.
- Students will turn over the first strip and review the scenario.
- They'll complete the game card on the worksheet for that scenario.
  - As part of this process, they'll brainstorm why they think the stock price rose or fell with each scenario. They'll record their thinking on the game card.
- Students will turn over the second strip and review that scenario.
- They'll complete the game card for that scenario.
  - Again, they'll record their hypotheses on why the stock rose or fell.
- Each group will record their final stock price on the game card.
- Students will then answer the reflection questions on their own.

Wrap-up

- Bring students back together and ask each group to share their final stock price and what happened to cause the price change.
- Identify the team that ended up with the highest stock price and have students explore how that team's experience differed from some of the other teams.
  - Ask students to consider the unpredictability of the scenarios they received and how that relates to the riskiness of stocks.
  - Explain that a stock that "wins" today won't necessarily "win" tomorrow.
- If time allows, ask volunteers to share their answer to the reflection questions.

Optional activity

To help students visualize the ups and downs of stocks, consider drawing a fever chart on the board based on the scenarios. You can use the template below or draw your own.

- Use the Y axis for the stock price and draw it so that it accommodates a range of $0 to $300. The starting price is $100.
- On the X axis, mark seven months, one for each group.
- Have a volunteer from each group plot their final stock price on the chart. You can go in any order.
- Then draw a line through the points so students can see how the stock performed over seven months.

Tracking the ups and downs of stocks

Suggested next steps

Consider searching for other CFPB activities that address the topic of investing. Suggested activities include "Calculating rate of return" and "Comparing stock investments".

Measuring student learning

Students' answers on their worksheets and during discussion can give you a sense of their understanding.

This answer guide provides possible answers for the "Playing an investment game" worksheet. **Keep in mind that students' answers may vary.** The important thing is for students to have reasonable justification for their answers.

Answer guide

Scenario	Possible reason(s)
Scenario 1: The company recalls 100,000 gadgets to repair a glitch. The stock price falls $10.	Recalling and repairing the gadgets would increase the company's costs. In addition, potential buyers might decide not to buy the gadget even if the glitch is repaired. These factors could reduce the company's profits.
Scenario 2: The company's gadget sales are higher than expected. The stock price rises $10.	Higher sales often lead to higher profits.
Scenario 3: A rival company launches a competing gadget. The stock price falls $20.	A competing product could cut into sales, which could reduce profits.

Scenario	Possible reason(s)
Scenario 4: A hurricane damages the company's biggest gadget factory. It'll take two months to complete repairs and resume production. The stock price falls $30.	The company will produce fewer gadgets during the repairs, which means sales will be lower than projected. That could reduce profits.
Scenario 5: The company finds a way to cut the cost of making gadgets. The stock price rises $20.	Lower production costs mean the company can make more money on each gadget it sells. That could increase profits.
Scenario 6: The company starts selling gadgets in two new countries. The stock price rises $30.	Finding new places to sell a product usually increases sales. That could increase profits.
Scenario 7: A celebrity is seen using the company's newest gadget. The stock price rises $35.	When celebrities endorse something or are believed to like something, many people want to follow them. That could increase profits.
Scenario 8: The company's chief executive officer is involved in a scandal. The stock price falls $40.	Investors might not want to support companies run by people who behave unethically. In addition, possible management changes might disrupt the company's operations. These factors could lower profits.
Scenario 9: The company comes out with the most popular app of the year. The stock price rises $60.	Popular apps are purchased by many people. This results in increased sales and increased attention. That could increase profits.
Scenario 10: After batteries in the gadget explode, a huge lawsuit is brought against the company. The stock price falls $80.	People might be concerned that the company would lose the lawsuit and have to pay a lot of money. That could lower profits.
Scenario 11: The company is bought by the leading tech company in America. The stock price doubles.	A company's stock price often rises when it's acquired by another company.
Scenario 12: The store chain that usually places the highest orders for the company's gadgets goes out of business. The chain closes 1,000 stores across the country. The stock price falls $30.	The company's gadgets will be sold in fewer stores. This could reduce sales, which could lower profits.
Scenario 13: The company has a plant in another country. A neighboring country invades that country, forcing the company to close the plant. The stock price falls $40.	Political conflict between countries that affects a company's business can also affect its stock price. Closing the plant could reduce sales, which could lower profits.

Scenario	Possible reason(s)
Scenario 14: A revolution happens in a country where the company has two plants. The revolutionaries take control of all privately owned property, including the two plants. The stock price falls $50.	Political instability in a country that affects a company's business can also affect its stock price. Losing the two plants could reduce sales, which could lower profits.

Reflection questions

Answers will vary.

Stock scenarios for the We Make Cool Tech Stuff Inc. company

Print one single-sided copy. Cut scenarios into strips and distribute two to each student group.

Scenario 1

The company recalls 100,000 gadgets to repair a glitch. The stock price falls $10.

Scenario 2

The company's gadget sales are higher than expected. The stock price rises $10.

Scenario 3

A rival company launches a competing gadget. The stock price falls $20.

Scenario 4

A hurricane damages the company's biggest factory. It'll take two months to complete repairs and resume production. The stock price falls $30.

Scenario 5

The company finds a way to cut the cost of making gadgets. The stock price rises $20.

Scenario 6

The company starts selling gadgets in two new countries. The stock price rises $30.

Scenario 7

A celebrity is seen using the company's newest gadget. The stock price rises $35.

Scenario 8

The company's chief executive officer is involved in a scandal. The stock price falls $40.

Scenario 9

The company comes out with the most popular app of the year. The stock price rises $60.

Scenario 10

After batteries in the gadget explode, a huge lawsuit is brought against the company. The stock price falls $80.

Scenario 11

The company is bought by the leading tech company in America. The stock price doubles.

Scenario 12

The store chain that usually places the highest orders for the company's gadgets goes out of business. The chain closes 1,000 stores across the country. The stock price falls $30.

Scenario 13

The company has a plant in another country. A neighboring country invades that country, forcing the company to close the plant. The stock price falls $40.

Scenario 14

A revolution happens in a country where the company has two plants. The revolutionaries take control of all privately owned property, including the two plants. The stock price falls $50.