



A Way to Wealth: Understanding Interest and Investments

LESSON 18: TEACHERS GUIDE

Many teens invest time and energy in playing a new sport or learning a new instrument, and while it's easy for them to see the return value of such an investment, helping them understand the value of investing their money can be trickier—especially if they're ready to buy a new video game or pair of sneakers. What they may not realize is that investing money from a young age can make a big difference when it comes to building long-term wealth. In this lesson, students will explore simple and compound interest, and discover different methods of investing money.

Topic: Investing and Interest

Time Required: 70 minutes

SUPPLIES:

- Notebooks
- Computers or tablets
- Internet access
- Projector and speakers
- Student activity sheets (2)

PREPARATIONS:

- Copy student activity sheets
- Load the video: "Millionaire in the Making" available at [youtube.com/watch?v=gCTEPzSjvVw](https://www.youtube.com/watch?v=gCTEPzSjvVw)

STUDENT ACTIVITY SHEETS:

Investing Tip Sheet

Students will use this as a reference while completing the **What's My Interest?** activity.

What's My Interest?

Students will calculate how earnings vary based on investment strategies, interest types and interest rates.

LEARNING OBJECTIVES:

Students will...

- Understand how investments can lead to increased wealth
- Comprehend and calculate simple and compound interest
- Explain the role of interest in saving and investing

STANDARDS:

Jump\$tart Standards:

- Saving Standards 2 and 3

National Economics Standards:

- Standard 11: Money and Inflation

Common Core ELA Anchor Standards:

- Speaking and Listening: Comprehension and Collaboration

Common Core Math Standards:

- Numbers and Quantity: Quantities
- Modeling
- Statistics and Probability: Interpreting Categorical and Quantitative Data

Essential Question

“How does interest and investing affect my money?”

Investigate: Interest and Rate of Return

[Time Required: 30 minutes]

1. Begin by asking students: If you could have \$100 right now or \$150 in one year, which would you choose and why? Invite volunteers to share their responses, discussing the factors students considered in making their decision (e.g., current versus future wants and needs). Explain that in our financial lives, waiting often means the opportunity to earn more money.
2. Ask students if they can think of any money management strategies that involve waiting to spend money in order to grow the initial amount. Help students understand that both **saving** and **investing** can earn money because of potential benefits such as **interest** and **rate of return**. Interest is a percentage of money earned on top of money invested, paid as an incentive to keep your money somewhere. Interest is also the percentage we pay on top of the amount borrowed when we take out loans. For example, banks offer interest as an incentive because they want to use your money to provide loans to other people. Rate of return is the amount gained or lost on an investment over time, expressed as a percentage of the initial amount invested, or the **principal**.
3. Help students understand that when determining how to manage their money, it's important to consider the **risks** and rewards involved. For example, savings options such as Certificates of Deposit (CDs) offer **guaranteed interest rates**, making them low-risk; but it can often take a long time for money to grow because the interest rates are lower. Investing options offer higher rates of return, but they can be **variable**, meaning they change over time and can be more of a risk.
4. Distribute the student activity sheet **Investing Tips** and review the investment strategies as a class. Explain the differences between the investments by distinguishing pros, cons and risks of each. Explain that **risk** is intrinsically linked to investing and that, historically, greater risks have reaped greater rewards but have also been subjected to greater losses.



TEACHER'S TIPS

What is the Essential Question?

The Essential Question is designed to “hook” the learner, promote inquiry and engagement with the lesson, and allow students to exercise problem-solving abilities. It addresses a larger concept, does not have a right or wrong answer, and requires higher order thinking skills.

Video Extension:

To help students understand the inherent risks involved in investing, show students a clip highlighting the volatility of the stock market, such as when the Dow dropped 1,000 points in 2010 at youtube.com/watch?v=rDNew69Dkbw&feature=related. Or select a clip from the 2008 stock market crash, such as CNN's video covering the collapse of Lehman Brothers at youtube.com/watch?v=NIBDVH8fRqc. Discuss as a class how the volatility of the stock market accelerates risk and why investors should be aware of potential risks.

5. Help students understand that consumers can buy, sell and trade investments, and that the government regulates these transactions to ensure equality. For example, the U.S. Securities and Exchange Commission works to protect the interests of all parties by maintaining and enforcing regulations to reduce the risk of fraud for consumers. Other accounts, like most checking and savings accounts and Certificates of Deposit (CDs), are insured by the Federal Deposit Insurance Corporation.
6. Next, distribute the **What's My Interest?** activity sheet and explain that different investing strategies offer different types of interest or returns: **simple** or **compound**. Explain that some investment options have **guaranteed interest rates**, while others have **variable rates** that fluctuate. Review the calculations for simple and compound rates on the activity sheet as a class, and then give students ten minutes to complete the activity.
7. Invite volunteers to share their answers, and help students understand their money can grow differently depending on types of interest, rates and strategies. Ask students why potential money growth is important to consider. What kind of return would they want in an investment and why?



TEACHER'S TIP

Link to Lesson 21:

For more information on the government's role in investing, and on how to buy and sell investments, check out **Lesson 21**.

Student Preparation: Power of Investing

[Time Required: 15 minutes]

8. Share the video "Millionaire in the Making" available at [youtube.com/watch?v=gCTEPzSjvVw](https://www.youtube.com/watch?v=gCTEPzSjvVw).
9. Ask students to work in groups of four to five and brainstorm why Damon's investing methods are successful. What strategies does he use and why? What factors does he consider when making investments? What advantages does Damon have by starting to invest while young?
10. Invite a member from each group to present their conclusions, and engage the class in a discussion about investing methods. Explain that Damon utilizes several strategies to ensure successful investments, including maintaining a diverse portfolio of stocks in different industries, reading analyst reports to learn more about each stock, selecting companies that match his values and finding investments that offer compound returns.
11. Help students understand that depending on the investment choices they make, the end result can vary drastically. By making wise investment choices and starting at a young age, we can maximize long-term savings and increase wealth over time like Damon. But it's also possible to lose some or all of the money you've invested. For example, the average annual rate of return on the stock market since 1926 is close to 10%. However, in 2009 when our country was experiencing a recession, stocks overall lost 37% of their value for that year.

12. Explain that depending on your stage in life, there are different levels of risk to assess. For example, if you were about to retire, making risky investments wouldn't be wise because you need cash flow to live on while in retirement. In the opposite vain, Damon is young so he is able to take on more risk in his investments because he has time to recoup from any potential losses.

Challenge: Wealth Accumulation

[Time Required: 20 minutes]

13. Next, explain to students that in order to understand how money grows, it helps to visualize growth over time. Ask students to visit the How Much Will My Savings Grow Calculator at practicalmoneyskills.com/resources/financial_calculators/savings_investment/savings_grow or use the projector to display the calculator for students.
14. Have students enter different numbers in the calculator in each of the categories and watch how the amounts change. For example, ask students to begin with a \$50,000 initial balance or deposit, a 6% interest rate or return on savings, and no savings added each year over 25 years. In this circumstance, they would accumulate \$214,593.54 over the next 25 years. Then ask them to increase the investment to 30 years and observe differences in the amounts accumulated. Over 30 years, the same amount with the same interest rate would become \$287,174.56. Part of the reason the amounts increase exponentially over time is that you are earning compound interest—or interest on the interest.
15. Discuss how money growth changes over time and why compound returns are so powerful. Explain that at 35 years with no additional investments, the same \$50,000 at 6% interest compounded would be over \$384,000. If these were simple rather than compound earnings, (meaning you weren't earning interest on your interest), that amount would be just \$105,000.

Reflection

[Time Required: 5 minutes]

Ask students to reflect in their notebooks on what investment strategies they will consider using in the future and what factors will go into their decisions.



TEACHER'S TIP

What is Reflection?

The Reflection part of the class gives students the opportunity to reflect on the bigger-picture meaning of the exercise, and to assimilate and personalize some of the concepts and ideas learned about in the class.



What's My Interest?

LESSON 18: ANSWER KEY 1

| Strategy | Principal | Interest Rate | Time | Interest or Return Type | Interest or Return Earned | Total Value |
|--|-----------|---------------|----------|-------------------------|---------------------------|-----------------|
| Stock | \$10,000 | 3 % | 10 years | Compound | \$3,439 | \$13,439 |
| Mutual Fund (portfolio of stocks & bonds) | \$1,000 | 7 % | 20 years | Compound | \$2,869 | \$3,869 |
| Bond | \$100 | 5 % | 30 years | Simple | \$150 | \$250 |
| Stock | \$700 | 10 % | 1 year | Compound | \$70 | \$770 |
| Bond | \$10,000 | 3 % | 10 years | Simple | \$3,000 | \$13,000 |

1. While it's wise that John is using the \$1,000 to invest in his future, he could get a higher rate of return with a different investment such as mutual funds or stocks. Because John won't need the money for a long time, he could also invest in a longer-term bond that may offer a better interest rate.
2. While both investing options offer the same rate of return, the mutual fund will earn more money over time because the return is compounded annually. However, after one year both investments earn a \$75 return, so it's important to consider the length of investment. After ten years the mutual fund racks up a \$1,061 return while the bond only earns \$750, making the mutual fund a better investment over the long term.