Lesson 14: Increasing the Value of Your Money

TOPIC: Financial Markets and Investing

Time: 65 min

Subject Connections:
- English Language Arts
- Math

Supplies:
- Projector (for teacher presentation slides)
- Access to the Internet (optional)

Preparation:
- Make copies of student handout
- Set up projector with presentation slides

Glossary with key vocabulary 11

OVERVIEW:
Helping teens and young adults think long-term is the central goal of this lesson. While students may already see the value in setting aside savings, they may not know how to achieve long-term savings by **investing.** This lesson explores basic concepts young adults need to know about **investment vehicles** and tools needed to create the future they envision for themselves. Using real-world applications, students engage in topics ranging from **diversification** to different types of investments.

OBJECTIVES:
1. Understand how investing helps meet financial goals and build wealth over time
2. Research and evaluate investment vehicles and resources
3. Explain how investments are regulated
4. Explain how investments can be affected by economic and business cycles

INDIVIDUAL HANDOUTS:
- Bucket List
- Investment Products
- What Type of Investor Are You?
- Action Plan*

TEACHER PRESENTATION SLIDES:
- Investment Vehicles (5)
- Investor Considerations

ESSENTIAL QUESTIONS:
- What is an investment?
- How is investing different from savings?
- How do I invest my money?

ASSESSMENT ACTIVITIES:

Pre-Assessment:
- **Handout:** Bucket List

Post-Assessment:
- **Handout:** Investment Products
- **Handout:** What Type of Investor Are You?
- **Handout:** Action Plan

***Money Smart Portfolio Handouts**

Instruction Steps

WARM UP
Bucket List

10 MINUTES

Open the lesson by distributing the ***Bucket List*** handout. Give students time to complete it, and when they are finished, invite volunteers to share ideas from their lists.

Continue the discussion by asking students what financial actions they would need to take in order to pay for the items on their bucket lists.

GUIDED EXPLORATION
Investment Vehicles

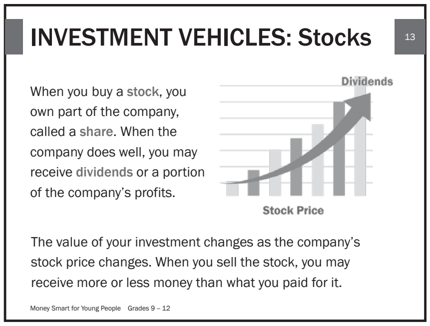
25 MINUTES

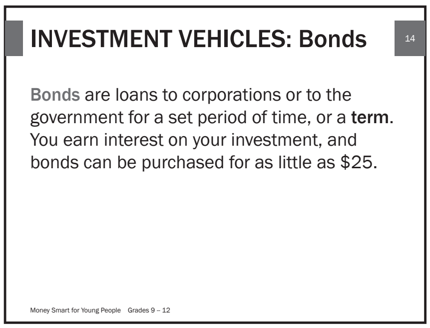
Using students' bucket list items as examples, explain that one strategy to help pay for long-term goals is to invest your money. Ask students whether they know the difference between savings and investing, and invite volunteers to share their thoughts.

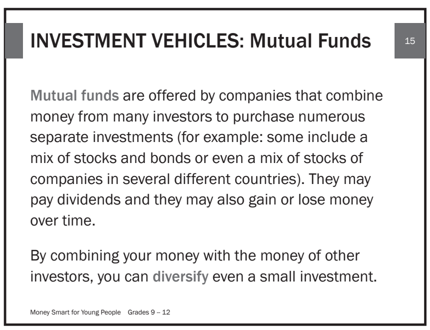
Explain that when you deposit money into a savings account your money is protected because it is federally insured, whereas investments are not. When a person invests money, there is a greater risk of losing it than with a savings account. Tell students that the entire investment can be lost if it doesn't perform well, but that the investment may also earn and grow more than a regular savings account.

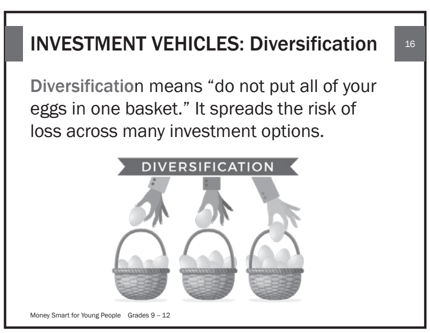
Explain that the higher the **risk**, the higher the reward, or the expected **rate of return** on the investment. In other words, you take the risk that you could lose some or all of your money for the potential of earning a higher return on it than you would obtain keeping it in an insured deposit account. Explain that, although there are risks to investing, investments could increase in value, provide current income, or offer a combination of both.

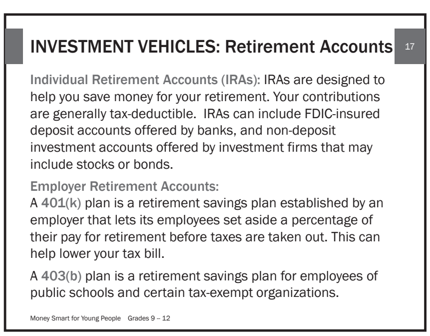
MONEY SMART TIP!
Connect back to Lesson 4, Boost Your Savings, and remind students how their money is protected in financial institutions. Review that FDIC insurance covers all deposit accounts, including checking and savings accounts, money market deposit accounts, and CDs. Help students understand this means that money deposited in insured financial institutions is guaranteed up to the maximum amount allowed by law ($250,000 per depositor, per bank) if the financial institution goes out of business and cannot pay you your money. Likewise, the National Credit Union Administration (NCUA) provides similar insurance coverage at insured credit unions.











Next, display the ***Investment Vehicles*** slides and explain how each type of investment works (detailed definitions for each investment can also be found in the glossary).

Remind students that diversification is a key component of building a strong investment portfolio because it helps minimize the risk of losing money. When you spread money over multiple investments, if you lose money in one investment then you might gain in another, which helps create balanced growth.

Ask students to think about why we save and invest money.

Invite volunteers to share their thoughts, and explain that we save and invest money to achieve goals, have a sense of security (be prepared for financial emergencies), maintain self-esteem, and have control over our financial future.

Grade-Level Modifications:

Beginner: Limit the discussion to one type of investment, such as stocks, and explore the nuances of it before integrating other investment vehicles.

Advanced: Expand the discussion of investment vehicles to include variable annuities and how they combine an insurance product with an investment product. Discuss why variable annuities are often more costly than other investments. Explain that brokers and agents selling variable annuities earn a commission when they sell an annuity. As a result of the commission- based structure, brokers may be motivated to sell you something that isn't in your best financial interest. In addition to exploring variable annuities, expand the discussion of investment vehicles by having your students research exchange-traded funds (ETFs) at **www.sec.gov/answers/etf.htm.**

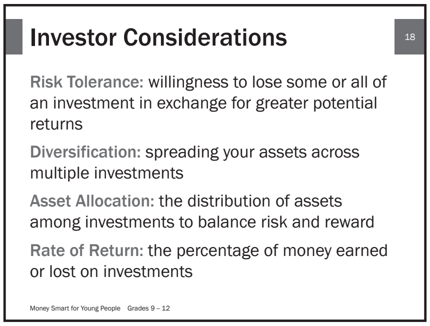
MONEY SMART TIP!
Connect back to Lesson 4, Boost Your Savings, and remind students of the power of earning money with money through interest.

Distribute the ***Investment Products*** handout and have students work in small groups to answer each question. Invite groups to share their answers, and reiterate the differences between investment products available to consumers.

MONEY SMART TIP!
Share and review with the class the guide Saving and Investing for Students from Investor.gov.
http://investor.gov/Saving-and-Investing-Students#.VBmmwmRdVNs

INDEPENDENT EXPLORATION
Investment Choices

20 MINUTES



Note: These activities are more independent than the Guided Exploration activities and may be used as homework assignments, collaborative group work, or independent study.

Remind students that, just like choosing to spend or save money, we also have choices when it comes to investment. We can choose how much money to invest and where to invest it.

Display the ***Investor Considerations*** slide and discuss the different terms with students.

Distribute the ***What Type of Investor Are You?*** handout and show students how to calculate compounding interest using the formula $FV = P (1 + r/n) (nt)$, where FV is future value, P is the principal (the initial deposit or loan amount), r is the annual interest rate, n is the number of times interest is compounded, and t is the number of years money is invested or borrowed.

Alternatively, students may use a compound interest calculator, such as the one available at **Investor.gov**. **www.investor.gov/tools/calculators/compound-interest-calculator#.VBou9yiNZdQ**

Allow students to complete the ***What Type of Investor Are You?*** handout. Ask for volunteers to share their final outcome and reflect on the importance of thinking through our personal comfort with levels of risk, how to distribute our money in investments, and how to weather the ups and downs of investments.

Ask students:

- *What surprised them about this activity?*
- *Did their money grow more or less than expected?*

Grade-Level Modifications:

Beginner: ***Work through the What Type of Investor Are You?*** handout together as a class.

Advanced: Challenge students to work through the ***What Type of Investor Are You?*** handout and calculate the same scenario but compounding monthly and quarterly. Have students compare their results between annual, monthly, and quarterly compounding.

Additionally, have students analyze how investments can be affected by economic and business cycles. Connect back to Lesson 13, *The Policy of Personal Choice*, to discuss fluctuations in the economy.

MONEY SMART TIP!

Introduce students to the time value of money and show them that one dollar today is worth more than one dollar tomorrow because it earns interest. The longer you are able to invest your one dollar, the more time it has to earn interest.

WRAP UP
Action Plan

10 MINUTES

Close the lesson by handing out the ***Action Plan*** worksheet and allowing students time to complete it. Invite volunteers to share their action plans with the class and close the discussion by emphasizing the importance of building a plan to reach financial goals, not just for savings and spending but also for long-term investments.

Extended Exploration

Note: Use the following ideas to extend financial literacy concepts throughout the school year within core content areas through English Language Arts, Math, Social Studies and Economics, and Technology activities, projects, and discussions. Duration of activities will vary.

ENGLISH LANGUAGE ARTS

Writing Prompts:

What do you think makes a good investment, and why?
For example: what level of risk and reward are you comfortable with? Do you think it is better to put money in risky investments that can pay big rewards or invest conservatively with mild risks and rewards? Explain your reasoning.

In what ways should the stock market be regulated? For example: how should issues of fraud or illegal trading be addressed?

Suggested Readings:

3 Investors Confess: What I've Learned from the Ups and Downs of the Stock Market by Forbes magazine: An article on the lessons learned in the stock market, told through the perspectives of three investors.
www.forbes.com/sites/learnvest/2013/11/19/3-investors-confess-what-ive-learned-from-the-ups-and-downs-of-the-stock-market/#708257f49e0e

The Motley Fool Investment Guide for Teens: A how-to book for teen investors. (ISBN: 0743525566)

Millennials: Bonds Aren't Just for Old People by Nasdaq: An article exploring how bonds are useful tools in many life stages.
www.nasdaq.com/article/millennials-bonds-arent-just-for-old-people1-cm391645

Compound Interest: The Most Powerful Force in the Universe? by CBS News: An overview of the power of compound interest.
www.cbsnews.com/news/compound-interest-the-most-powerful-force-in-the-universe

MATHEMATICS

Activity/Project Ideas:

Have students compare investments and calculate how long it will take to double an investment with different interest rates.

Challenge students to use exponential functions to calculate compound interest over different amounts of time.

SOCIAL STUDIES AND ECONOMICS

Discussion Topics:

Examine how investments are a source of income and explore how economic policies influence rates of return. For example: read about how inflation and employment levels can influence broader economic conditions at
www.federalreserve.gov/faqs/money_12856.htm.

Activity/Project Ideas:

Have students research historical stock market crashes, such as the stock market crash of 1929, the dot-com bubble of 2000, and the financial crisis of 2008, and discuss the reasons and outcomes.

Have students complete a simulation in which they practice buying and selling stocks, such as *The Stock Market Game* at
www.stockmarketgame.org.

Engage students in current events topics about the stock market by having them read a daily piece of investment news, such as articles posted on the Nasdaq website.
www.nasdaq.com

TECHNOLOGY

Online Resources:

Investor.gov by the U.S. Securities and Exchange Commission: A comprehensive website with information on investment markets, how to invest, researching and managing investments, and how investing fits in with life events.
http://investor.gov/

The Stock Market Game: An online game that allows students to simulate actions in the stock market.
www.stockmarketgame.org

Activity/Project Ideas:

Have students follow the stock market for a set period of time and record their observations in spreadsheet software. Challenge students to graph the ups and downs of specific stocks and analyze historic stock behaviors.

Classroom activities from the Consumer Financial Protection Bureau (CFPB)

The CFPB has developed a set of classroom activities to help teachers develop and support the building blocks of financial capability in their students. Each activity is designed to be completed within a single class period and includes a teacher guide and supporting student material. Some specific activities that are relevant to this lesson include:

*C*omparing saving and investing	Students explore the differences between saving and investing and answer questions about which of the two financial strategies they'd choose to address different financial goals. **www.consumerfinance.gov/practitioner-resources/youth-financial-education/teach/activities/comparing-saving-investing**
Comparing stock investments	Students learn how calculating capital gains and capital losses can help them evaluate stock investments. **www.consumerfinance.gov/practitioner-resources/youth-financial-education/teach/activities/comparing-stock-investments**
Discovering the benefits of investing early	Students use an online calculator and answer questions to learn about the value of investing early. **www.consumerfinance.gov/practitioner-resources/youth-financial-education/teach/activities/discovering-benefits-investing-early**
Playing the investment game	Students work in groups to explore real-world scenarios that can affect stock investments. **www.consumerfinance.gov/practitioner-resources/youth-financial-education/teach/activities/playing-investment-game**

Answer Key

Student Handout 1:	***You're in Charge!*** Answers will vary. Use handout to assess
Student Handout 1:	***Bucket List.*** Answers will vary. Use handout to assess student ability to articulate goals.

Student Handout 2: ***Investment Products***

1. What type of investment does Olivia have?
   Bonds
2. What type of investment does Ian have?
   Stocks
3. What type of investment does Anna have?
   Retirement account
4. What type of investments does Rujul work with?
   Mutual funds

Student Handout 3: ***What Type of Investor Are You?***

Aggressive:
You're 25 now...How much is your investment worth today?
$9,254.65

When you're 50... How much money do you have after the five years?
$76,700.65

From 55 to 65...How much is your balance at age 65?
$165,590.95

Conservative:
I'll invest some, and save some. Here's how much I will invest:
Answers will vary.

You're 25 now...How much is your investment worth today?
Answers will vary.

When you're 50... How much money do you have after the five years?
Answers will vary.

From 55 to 65...How much is your balance at age 65?
Answers will vary.

Student Handout 4: ***Action Plan.***
Answers will vary.
Use handout to assess student ability to connect long-term goals with long-term investing strategies.

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BUCKET LIST

Name: ____________________

What are the experiences, adventures, and accomplishments you want to achieve in your life? If you had unlimited money and time, what would you do?

Write your top ten bucket list items below!

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

Lesson 14: Increasing the Value of Your Money

INVESTMENT PRODUCTS

Name: ______________________________

Read the scenarios below and then identify the type of investment in each story.

1. Olivia received an electronic investment gift from her grandmother through **www.TreasuryDirect.gov** that was purchased for $25. Her grandmother told her the investment was a loan to the government and that she could collect her repayment and interest at the end of the term.
   What type of investment does Olivia have?

2. Ian bought a share in his favorite company last year, and he periodically receives dividends or a portion of the company's profits.
   What type of investment does Ian have?

3. Anna's new employer offers her the opportunity to set aside a percentage of pay to invest for retirement.
   What type of investment does Anna have?

4. Rujul works for a company that combines money from many different investors in order to purchase numerous separate investments.
   What type of investments does Rujul work with?

Lesson 14: Increasing the Value of Your Money

WHAT TYPE OF INVESTOR ARE YOU

Name: ______________________________

You're 18 years old and you have just inherited $5,000! What will you do with it? First, decide your risk tolerance. Select Aggressive if you can handle the ups and downs of the market or Conservative if you prefer less volatility. Use the formula for compounding interest annually and follow the prompts for your path to see what happens to your $5,000 from age 18 to 65.

Compound Interest Formula $FV = P (1 + r/n) (nt)$

	AGGRESSIVE	CONSERVATIVE
Risk Tolerance ↓	Go big, or go home! I'll invest all **$5,000.**	I'll invest some and save some. Here's how much I will invest:
Asset Allocation ↓	Put it all in stocks and let's see what happens!	Diversify me, please! Give me a mix of stocks and bonds.
Steady Growth ↓	You're 25 now, and your money is growing fast. For the past eight years, you have been earning an annual return of 8% on your investments. **How much is your investment worth today?**	You're 25 now, and your money is growing steadily. For the past eight years, you have been earning an annual return of 4% on your investments. **How much is your investment worth today?**
Holding Steady ↓	From age 25 to 30 the market holds steady and your investment is still bringing in an 8% return.	From age 25 to 30 the market holds steady and your investment is still bringing in a 4% return.
Down It Falls ↓	When you're 50, the market drops slightly and you're earning a 2% return. The market lasts five years. **How much money do you have after the five years?**	When you're 50, the market drops, and now you're earning 3%. The market low lasts five years. **How much money do you have after the five years?**
STOP AND THINK…You'll be nearing retirement soon and you just weathered a down market. Should you adjust your risk level? Why or why not?		
How Did You Do?	From age 55 to 65 you're earning a steady 8% return. **How much is your balance at age 65?**	From age 55 to 65 you're earning a steady 4% return. **How much is your balance at age 65?**

Lesson 14: Increasing the Value of Your Money

ACTION PLAN

Name: ______________________________

Review your bucket list created in the first activity and pick your top three favorite choices. Next, consider at what age you want to achieve your bucket list item and then what investment actions you can take today to start financially planning to make your dream a reality.

WE SAVE AND INVEST TO...

- Achieve goals
- Have feelings of security (be prepared for financial emergencies)
- Maintain self-esteem
- Have control over our financial future

Bucket List Goal	Age You Want to Accomplish This Goal?	What Investment Strategies Can You Use to Reach the Goal?
1.		
2.		
3.		