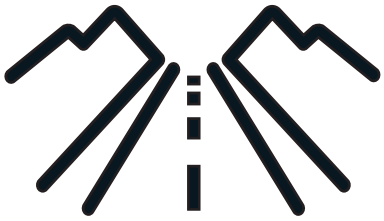


Lesson 15: Road to Retirement

TOPIC: Retirement Planning

Time: 70 min

Subject Connections:
- English Language Arts
- Math
- Social Studies

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:
Although retirement may seem a distant future for many high school students, this lesson demonstrates why thinking about retirement now means building retirement savings and securing one's future. Students research and compare different retirement plans, and assess how retirement savings are built through different retirement options, such as **Traditional** and **Roth IRAs** and **401(k)'s** and **403(b)'s**.

OBJECTIVES:
1. Explain how long-term retirement savings through investing builds wealth
2. Identify differences in retirement planning strategies
3. Create a retirement plan
4. Understand Social Security benefits

INDIVIDUAL HANDOUTS:
- Retirement Trivia
- On the Road to Retirement
- Plan It!*

TEACHER PRESENTATION SLIDES:
- Money Grows
- Retirement Vehicles: Where to Save?
- Retirement Vehicles: Where to Save if Self-Employed?

ESSENTIAL QUESTIONS:
- Why do I need to think about retirement now?
- How do I make sure I have enough for my future?
- How does someone become a millionaire?

ASSESSMENT ACTIVITIES:
Pre-Assessment:
- **Slide:** Money Grows

Post-Assessment:
- **Handout:** Retirement Trivia
- **Handout:** On the Road to Retirement

***Money Smart Portfolio Handouts**

Instruction Steps

WARM UP
A Day In The Life Of A Millionaire

10 MINUTES

Begin the lesson by asking students to imagine what it would be like to be a millionaire when they retire:

- *What would you do?*
- *What would you buy?*
- *Where would you go?*

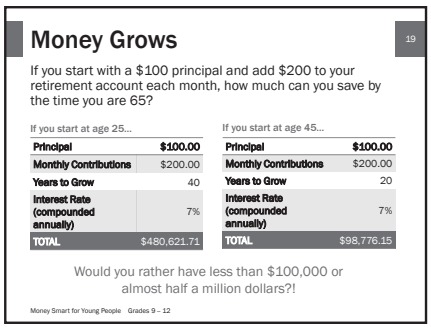
Invite volunteers to share their responses. Explain that it may seem like an unattainable goal, but many people become millionaires over time by saving and investing wisely.

Help students understand that it is a misconception that you have to start out rich or become famous to be a millionaire. With a well-developed financial plan and self-discipline to save and invest regularly over the course of your life, your money has the chance to grow in big ways.

MONEY SMART TIP!
Share with students "everyday" millionaires, those individuals who are not famous actors, businesspeople, or athletes, but rather average citizens working hard and saving hard. For example: share with students an article in the news or watch a short video compilation of "everyday" millionaires, such as *How These Average Joes Retired Millionaires* (3.5 minutes) at **http://finance.yahoo.com/blogs/daily-ticker/how-these-average-joes-retired-millionaires-142631833.html.**

GUIDED EXPLORATION
Retirement Vehicles

25 MINUTES


Money Grows

19

If you start with a $100 principal and add $200 to your retirement account each month, how much can you save by the time you are 65?

If you start at age 25...		If you start at age 45...	
Principal	$100.00	Principal	$100.00
Monthly Contributions	$200.00	Monthly Contributions	$200.00
Years to Grow	40	Years to Grow	20
Interest Rate (compounded annually)	7%	Interest Rate (compounded annually)	7%
TOTAL	$480,621.71	TOTAL	$98,776.15

Would you rather have less than $100,000 or almost half a million dollars?!

Money Smart for Young People Grades 9 – 12

Next, display the ***Money Grows*** slide and review the power of compound interest observed in each example. Encourage students to reflect on the difference between starting at age 25 versus 45.

Ask students: *Why has the money grown so much more in the first example?*

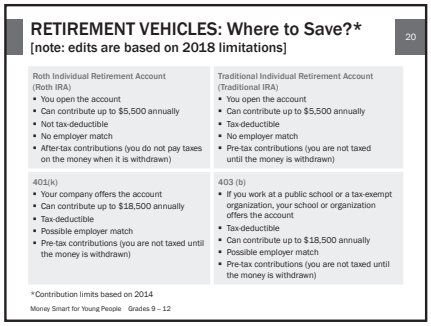
Help students understand that, even though both scenarios contribute $200 a month, the ability to start at a younger age means that you maximize the opportunity to compound interest over a longer period of time, resulting in a higher balance than if you contribute the same monthly amount later in life.

Grade Level Modifications:

Beginner: Spend time circling back to Lesson 4, *Boost Your Savings*, and Lesson 14, *Increasing the Value of Your Money,* to review the power of compounding interest over time.

Advanced: Challenge students to do their own calculations on how money can grow.

Have students use the compound interest calculator at **www.investor.gov/tools/calculators/compound-interest-calculator** and experiment with different interest rates and years. For example: how much does a principal of $2,000 grow over 30 years with an interest rate of 2 percent, 4 percent, 6 percent, and 8 percent?



Display the ***Retirement Vehicles: Where to Save?*** slide and highlight the similarities and differences among different retirement accounts (definitions for each are also included in the glossary).

Next, share the ***Retirement Vehicles: Where to Save if Self-Employed?*** slide and discuss how options are slightly different if you own a business or earn freelance income.

MONEY SMART TIP!

In addition to discussing retirement vehicles, discuss Social Security and how it plays a role in retirement planning. Connect back to Lesson 6, *Bread-and-Butter,* to discuss taxation, or have students explore the Social Security website at **www.ssa.gov.**

Distribute the ***Retirement Trivia*** handout and challenge students to work independently or in small groups to answer which retirement account each person has.

Review the answers together as a class and close the discussion by helping students understand that, your job, income, and retirement goals may determine the type of retirement account you establish.

Explain that many people consider age 65 to be the ideal retirement age, but retiring at that age may not be possible if one does not save enough. While there is no right way to plan for retirement, since different people use different retirement vehicles, it is important to start young and save diligently throughout the course of your life so that you are able to retire at the age of your choosing.

INDEPENDENT EXPLORATION

On The Road To Retirement

25 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.

Distribute the ***On the Road to Retirement*** handout and allow students time to work through both scenarios either with a partner or in small groups.

MONEY SMART TIP!
Provide students with an online compound interest calculator to complete the *On the Road to Retirement handout,* such as the one found at **Investor.gov**. **www.investor.gov/additional-resources/free-financial-planning-tools/compound-interest-calculator#.VBsXuyiNZdQ**

When students are finished, discuss their results and explain that Jessica's decision to borrow $20,000 from her 401k ended up costing her almost $300,000 in lost income over the course of her life! She also paid immediate fees from early withdrawal and tax payments.

Help students understand that a decision she made at age 30 had a lasting impact on her financial future. Even though she still continued to contribute $250 to her 401k each month, her contributions would have grown dramatically if she chose to leave the $20,000 in her account.

MONEY SMART TIP!
Extend the *On the Road to Retirement* activity by having students write a cause and effect essay based on Jessica's retirement choices.

WRAP UP
Plan It!

10 MINUTES

End the lesson by distributing the ***Plan It!*** handout and allow students time to reflect and write their answers. Invite students to share their plans with the class and use student responses as an opportunity to reiterate the importance of starting early with retirement savings.

MONEY SMART TIP!
Extend the conversation of retirement planning by discussing saving habits and how they can create long-term retirement security. For instance, explore how developing a habit of paying yourself first can lead to sufficient retirement funds.

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:

At what age do you want to retire? What do you think retirement will be like? What would you like to do when you're retired?

How much money do you think you will need in five years? Ten years? Twenty years? Forty years? What actions can you take now to start saving so that you have enough money when you are ready to retire?

Suggested Readings:

Borrowing Against a 401k: Why You Should or Should Not: An overview of outcomes when you borrow against a 401k. **www.fool.com/retirement/401k/2014/09/13/borrowing-against-a-401k-why-you-should-and-should.aspx**

MATHEMATICS

Activity/Project Ideas:

Challenge students to calculate long-term savings with retirement accounts, including variables such as early withdrawal fees, spikes and dips in the market, and frequency and amount of contributions.

SOCIAL STUDIES AND ECONOMICS

Discussion Topics:

Discuss well-known investors such as Warren Buffet and how their personal philosophies on managing money have shaped their long-term investments. Explore, for instance, how Buffet has lived in the same home for more than 50 years despite having an estimated net worth of over $60 billion. How do choices such as spending less than what you have help support long-term savings goals?

Activity/Project Ideas:

Have students research retirement practices around the world. How do people living in other nations plan for retirement? What similarities and differences exist between the United States and other countries in terms of retirement saving?

TECHNOLOGY

Online Resources:

Compound Interest Calculator by **Investor.gov**: An online calculator that calculates compound interest.
www.investor.gov/additional-resources/free-financial-planning-tools/compound-interest-calculator#.VBsXuyiNZdQ

Retirement Calculator by the Financial Industry Regulatory Authority (FINRA): An online calculator used to plan investment strategies.
https://tools.finra.org/retirement_calculator/

My Plan by 360 Degrees of Financial Literacy: A planning guide that lets students pick areas of interest. A detailed list of resources and related articles are presented based on selected goals to guide students in planning for their future.
www.360financialliteracy.org/my360/dashboard

The Truth About Millionaires by The Mint: An online quiz testing students' knowledge of what millionaires are really like.
www.themint.org/teens/the-truth-about-millionaires.html

Activity/Project Ideas:

Have students build their own compound interest calculator using spreadsheet software.

Answer Key

Student Handout 1:

Retirement Trivia

1. Meet Lindsey... Which accounts do I have?"
   Roth IRA and 401b
2. Meet Kushal... What type of account do I have?"
   401k
3. Meet Alisha... What type of account do I have?"
   SEP IRA

Student Handout 2: ***On the Road to Retirement***

Jessica is 30 years old now and has been contributing $250 to her 401k each month since she started at age 23. How much is in her 401k at age 30?

$35,337.53

She has been wanting to buy a new truck for a while... Should she do it?

NO!

How much is her account worth now at 40?
$119,750.77

Jessica is 50 now ... How much is her 401k worth today?
$301,992.61

What is the final balance of her account?
$1,039,427.98

YES!

What is her balance at age 40?
$76,572.26

Jessica is 50 now ... How much is her 401k worth today?
$208,773.45

What is the final balance of her account?
$743,721.03

Which path yielded Jessica a higher return? Why is this?
NO! Not borrowing money from her retirement account yielded Jessica a much higher return because the money she would have borrowed had a longer period of time to earn interest and grow.

Student Handout 3: ***Plan It!***

Answers will vary.

Lesson 15: Road to Retirement

RETIREMENT TRIVIA

Name: _____

Read the scenarios below and determine the appropriate retirement account for each.

1. MEET LINDSEY
   "I'm a teacher, and my retirement strategy is to have a mix of after-tax and pretax contributions, so I save my money in two different accounts. One account is offered by my employer and I started the other account on my own. Which accounts do I have?"

2. MEET KUSHAL
   "I'm a manufacturing engineer, and when I first started my job I set up my retirement account so it would automatically put 7% of my income away each pay period. Plus, my company gives me 4% on top of that. What type of account do I have?"

3. MEET ALISHA
   "I'm a freelance graphic designer, and I love what I do! I try to max out my retirement savings at 25% of my net earnings each year. I don't have the benefits of an employer match like I would if I worked for someone else, so I work hard to max out my contributions whenever I can. What type of account do I have?"

Lesson 15: Road to Retirement

ON THE ROAD TO RETIREMENT

Name: _____

Help Jessica see her account change through compounding interest annually at a rate of 8%.

Meet Jessica, a 23-year-old college graduate who just got her first job as a marketing assistant. While her employer offers a 401k, her company doesn't offer matches. But she heard that you should start saving early for later in life, so she's decided to set up her account so $250 is automatically deposited into her 401k each month. She's already started contributing with a **$5,000 principal.**

AGE 30

How much is in her 401k at age 30?

She has been wanting to buy a new truck for a while, and since she feels pretty far ahead with her retirement savings, she is considering borrowing $20,000 from her 401k to help pay for the truck.

SHOULD SHE DO IT?

NO!	**YES!**
AGE 40	
Jessica is 40 now; she decided not to borrow money from her 401k, and instead continued on saving $250 diligently each month for all of her 30s. **How much is her account worth now at 40?**	She didn't realize was that she would have to pay an early-withdrawal penalty of 10% ($2,000) because she was under age 59½, federal income tax of 15% ($4,000), and state income tax of 4% ($800). The $20,000 cost her $6,800 at the time of withdrawal from taxes and penalties! Even though she borrowed money, she maintained the automatic $250 monthly deposit into her 401k. **What is her balance at age 40?**
AGE 50	
She has kept up her savings goal of $250 a month. **How much is her 401k worth today?**	She has kept up her savings goal of $250 a month. **How much is her 401k worth today?**
AGE 65	
She is ready for retirement. She was a diligent saver her whole life and continued to contribute $250 each month. **What is the final balance of her account?**	She is ready for retirement. She was able to keep up with $250 monthly contributions. **What is the final balance of her account?**

Which path yielded Jessica a higher return? **NO!** **or** **YES!**
Why is this?

What amount did Jessica miss out on by withdrawing money at age 30? _____

Lesson 15: Road to Retirement

PLAN IT!

Name: _____

It's never too early to start planning for retirement. In fact, the earlier you plan, the more time your money has to grow! Answer each of the questions below in detail to help launch your plan today.

1. Why is it important to plan for retirement now when you won't be retiring until later?

2. At what age do you think you will start planning for retirement? Why?

3. What types of retirement vehicles might you use to build your retirement savings, and why? (For example: will you search for a job with 401k benefits? Will you open your own Roth IRA?)

4. Once you determine which type of retirement account(s) you will open, how much will you be able to contribute monthly or annually?

5. What can you do today to decrease expenses in order to increase money you can save for your future?