# Saving, Investing, and Risk Management

## Lesson One: Saving and Investing

Saving only occurs when you choose not to spend all your income. To avoid the temptation to overspend, you need to learn to **"Pay Yourself First" (PYF)**, which means to automatically save a portion of your income for future use.

So, where should your hard-earned savings go? A **financial institution**, such as a bank, credit union, savings and loan, or investment firm, helps people save for the future with simple savings accounts and more complex investments. Putting money into a **savings account** is a safe way to save money. Saving accounts, however, offer low **interest** rates. There are many ways to **invest** to earn higher rates of return. Three common long-term investment types are **stocks**, **mutual funds**, and **bonds.** They allow savers to invest their **principal** and earn, over time, a higher rate of return than money placed in more conservative savings accounts. But stocks and mutual funds are not guaranteed investments. Investors can lose part or all of their money. The value of bonds can erode if interest rates rise. Students, like investors, must learn to gauge **risk** when they decide how to make their savings work for them.

The **opportunity cost** of starting a savings program with income from a summer job may seem challenging. And for those who choose to save, the number of options can be overwhelming. This lesson will introduce you to various methods of saving, such as savings accounts, stocks, and mutual funds.

### Vocabulary

**Bond**
An IOU issued by a company, municipality, or the federal government in exchange for a loan from an investor that will be repaid with a set rate of return.

**Financial institution**
A business that provides money-related services.

**Interest**
A fee received or paid for the use of money.

**Invest**
To commit money to gain a profit or earn interest.

**Mutual fund**
A collection of stocks or bonds of various corporations.

**Opportunity cost**
The next best alternative given up when making a financial choice.

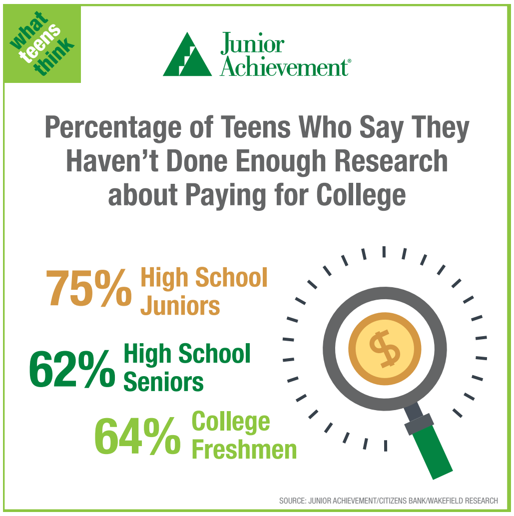
**Pay Yourself First (PYF)**
To automatically save a specified amount from a paycheck for future use.

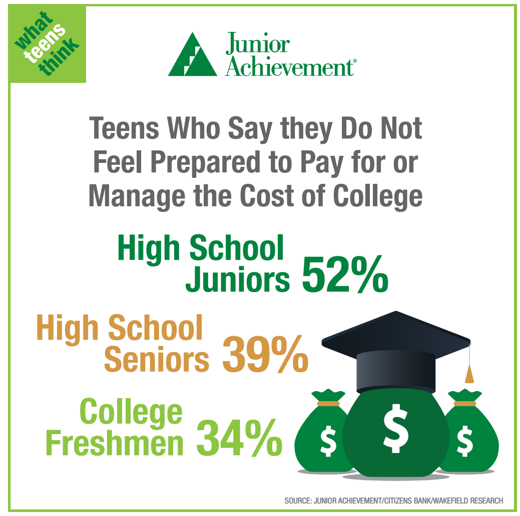
**Principal**
The amount of money originally invested.

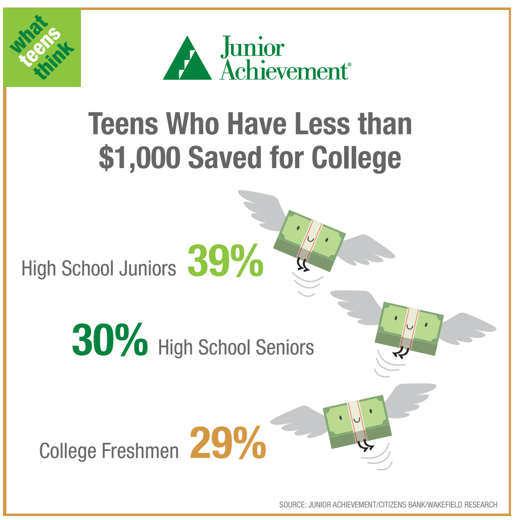
**Risk**
The possibility of financial loss or physical harm.

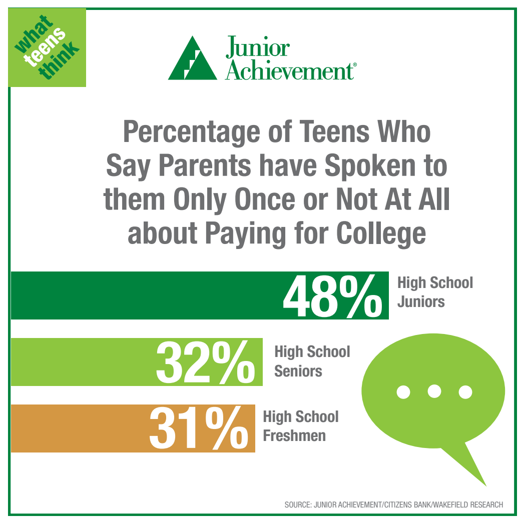
**Savings account**
An interest-bearing account where people put money for future use.

**Stock**
A share of a corporation sold to the public.


what teens think
Junior Achievement
Percentage of Teens Who Say They Haven't Done Enough Research about Paying for College
75% High School Juniors
62% High School Seniors
64% College Freshmen
SOURCE: JUNIOR ACHIEVEMENT/CITIZENS BANK/WAKEFIELD RESEARCH


what teens think
Junior Achievement
Teens Who Say they Do Not Feel Prepared to Pay for or Manage the Cost of College
High School Juniors 52%
High School Seniors 39%
College Freshmen 34%
SOURCE: JUNIOR ACHIEVEMENT/CITIZENS BANK/WAKEFIELD RESEARCH


what teens think
Junior Achievement
Teens Who Have Less than $1,000 Saved for College
High School Juniors 39%
30% High School Seniors
College Freshmen 29%
SOURCE: JUNIOR ACHIEVEMENT/CITIZENS BANK/WAKEFIELD RESEARCH

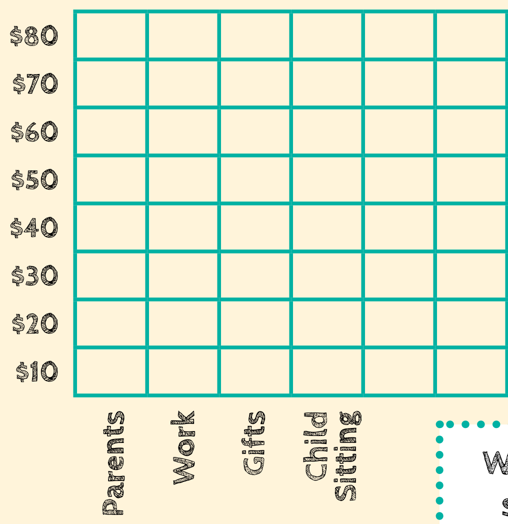

what teens think
Junior Achievement
Percentage of Teens Who Say Parents have Spoken to them Only Once or Not At All about Paying for College
48% High School Juniors
32% High School Seniors
31% High School Freshmen
SOURCE: JUNIOR ACHIEVEMENT/CITIZENS BANK/WAKEFIELD RESEARCH

Notes:

# Doodling for Dollars

What are your goals? Do you want to live on your own someday? Go to college? How much money do you think you'll need? Create a graphic organizer to show what saving looks like for you. Start by writing your savings goal in the center. Complete each square.

To begin, shade in the bar graph to show the money you receive each month. If you don't receive a regular amount, use $50.




Make a pie chart to show how you spend money each month (music, eating out, movies, clothes, etc.).

What are you saving for?

Pay Yourself First. Show how you can save more money (even if it's just a dollar or two).

Where do you keep your money? (piggy bank, credit union, bank)

# Know It All Savings Cards

### Know It All Savings Card

## Savings Accounts and Certificates of Deposit

**Savings accounts** carry low risk because most bank and credit union accounts are insured by the government (Federal Deposit Insurance Corporation, or FDIC, or the National Credit Union Administration, or NCUA) for up to $250,000 per savings account. Savings accounts pay a small interest rate, less than what stocks or mutual funds yield, but you can take your funds out at any time without penalty. Banks also offer **certificates of deposit** (CDs), which are safe and offer higher interest rates than savings accounts. CDs often require that you commit larger amounts of money for longer periods of time.

Low risk

**Keep in mind: Minimum deposits and fees may apply. Early CD withdrawal may incur penalties. The interest earned on saving accounts and CDs is lower than the potential interest on other investments that carry more risk.**

### Know It All Savings Card

## Money Market Accounts

**Money market accounts** are interest-earning accounts offered by FDIC-insured (Federal Deposit Insurance Corporation) financial institutions. Money market accounts usually pay a higher interest rate than savings accounts in exchange for a larger deposit. Accounts may come with check-writing privileges.

Low risk

**Keep in mind: Minimum deposits and fees may apply. Federal regulation limits certain types of withdrawals and transfers from money market accounts to a total of six per monthly statement period.**

# Know It All Savings Cards

Know It All Savings Card

## Bonds

A **bond** is essentially an IOU. The issuer promises to pay the bond buyer a certain sum of money at the end of a stated period, plus interest payments at specific intervals or when the bond matures. A bond fund pools money from many investors. Unlike stocks, bonds do not represent ownership in the corporation, government agency, or utility borrowing the money.

Medium risk

**Keep in mind: Unlike bank savings accounts, bonds aren't insured. Bond buyers could lose some or all of their money, but this is less likely than with stocks. Cashing in before the maturity date could result in the loss of principal (the amount bondholders put in). Bond funds are subject to the rise and fall of interest rates.**

Know It All Savings Card

## Stocks

**Stocks** represent a fractional ownership in a company. Traditionally, they pay higher *average* returns than most any other investment. Stocks are sold in shares, and their prices can change daily. They are long-term investments because they are meant to gain value over a longer period of time (although they can be bought and sold anytime) based on the company's performance. Some companies pay dividends to stockholders based on the company's profits.

Medium to high risk

**Keep in mind: Stock markets go up and down. Stocks are not insured for loss, so stockholders could lose their principal (the amount they put in) and any return.**

Know It All Savings Card

## Mutual Funds

A **mutual fund** is a professionally managed investment with money pooled from shareholders (plus interest earned) to buy a collection of stocks or bonds of various corporations.

Each investor buys shares of the fund that represent partial ownership of the fund's collective holdings. A mutual fund's goals are explained in the fund's published report, called a prospectus. Shareholders can elect to take the money earned (paid as dividends) or reinvest it to buy more shares.

Low to high risk

**Keep in mind: As with stocks, money invested in mutual funds is not insured. Mutual funds can lose value in stock market swings. Fund objectives and fees vary by fund.**

# Tweet

Look over the savings option on your Know It All Savings Card. Briefly summarize its benefits and risks in a 280-character message, and print it below.

Count your characters—280 is tops!

Print your *Know It All Savings Card* title here
(Note: The card title is not part of your tweet.)

__________________________________.

Post your tweet here.



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# Saving, Investing, and Risk Management

## Lesson Two: Managing Risk

Accidents, sickness, weather disasters, and emergencies happen even to the best-prepared. Minimizing **risk** is the main reason people buy **insurance policies.** Insurance policies are legal contracts between companies and insurers that safeguard assets by providing financial compensation in the event of significant accidents, needed medical care, or unfortunate circumstances.

Insurance can:

- Protect individuals and families from unforeseeable health expenses or loss of income.
- Provide money and housing if a home is damaged or destroyed by fire, theft, floods, and other hazards.
- Safeguard savings if the family car is stolen, or from accidents and injury.

If you're old enough to drive, you or your parents pay an annual fee or **premium** for auto insurance. With most insurance, if a policyholder makes a claim, he or she must pay a **deductible** before insurance covers the remaining costs. Health insurers often ask policyholders to pay a portion of their medical costs with a **co-pay** in addition to their deductible.

Did you know? Before determining auto rates, insurance companies will want to know the type of car to be covered, including the make, model, and age of the car; who will be driving (the person's age and driving record); and how the car will be used. First-time drivers may need to provide a recent report card as well. For many types of insurance, premiums are determined by a person's age, health, life habits, and sometimes where they live.

### Vocabulary

**Deductible/co-pay**
Money paid out of pocket before insurance covers the remaining costs.

**Insurance policy**
A contract that outlines coverage plans and protects a person against financial loss or damage.

**Premium**
The amount paid for an insurance policy.

**Risk**
The possibility of financial loss or physical harm.

**Notes:**

# FAFSA 101
## Extension Activity

It's a good idea to keep college debt to a minimum. According to a 2018–19 U.S. News report, the average tuition at an in-state college is $9,717 compared with $35,676 at a private college.

☐ Assignment: Fill in the FAFSA worksheet with information you find at www.fafsa.ed.gov and find out how federal grants and loans work.

What is the Student Aid Deadline for your state? ______________________________

Go to YouTube.com and watch the FAFSA videos about applying for aid.

- Video 1: "Overview of the Financial Aid Process" https://www.youtube.com/watch?v=H_iS7gmQd9o
- Video 2: "How to Fill Out the FAFSA" https://www.youtube.com/watch?v=LK0bbu0y5AM
- Video 3: "After the FAFSA: What Happens Next?" https://www.youtube.com/watch?v=ZursF3MUrPA

Select "Who Gets Aid" at the top of the page.

How can the Federal Student Aid Office help you with college costs?

______________________________

______________________________

______________________________

______________________________

Select "Types of Aid." Based on the information you find, what is the difference between federal and private loans? (For example, the interest rates on federal student loans are generally lower than private loans or credit cards. Also, you can expect to start paying back a federal direct loan six months after you graduate college.)

______________________________

______________________________

______________________________

______________________________

# 2 How Do I Read a Stock Quote?

## Extension Activity

A stock quote contains more information than simply the price per share. A stock quote contains information that helps the investor see at a glance a number of things about the stock.

### Stock Quote Explained

| Previous Close | High/Low | Volume | Change % | 52-Week High | 52-Week Low |
|---|---|---|---|---|---|
| The price of the stock at the close of the previous trading day. | The price range at which the stock has traded throughout a particular day. | Reflects the total number of shares that have been traded throughout the day. | Indicates the difference between the last trade price and what the price was before that. | This is the highest price at which the stock sold over the past 52 weeks (one year). | This is the lowest price at which the stock sold over the past 52 weeks (one year). |

### A Sample Stock Portfolio

| | Previous Close | High | Low | Volume | Change % | 52- Week High | 52- Week Low |
|---|---|---|---|---|---|---|---|
| IBM | 140.49 | 140.70 | 139.02 | 3,648,742 | –0.63% | 162.00 | 105.94 |
| F | 8.70 | 8.67 | 8.48 | 54,102,814 | –2.18% | 12.15 | 7.41 |
| GE | 10.19 | 10.33 | 10.12 | 48,062,093 | 0.29% | 15.59 | 6.66 |
| DWDP | 54.91 | 55.40 | 54.31 | 13,368,269 | –0.13% | 71.93 | 48.89 |
| GM | 38.27 | 37.94 | 36.78 | 11,568,765 | –3.32% | 45.00 | 30.56 |
| GOOGL | 1,202.46 | 1,229.99 | 1,199.59 | 2,074,968 | 1.99% | 1,291.44 | 977.66 |

International Business Machines (IBM), Ford (F), General Electric (GE), Dow Chemical (DWDP), General Motors (GM), Google (GOOGL)

☐ Assignment: Use the information in the table above to fill in the blanks. What questions would you like to ask this portfolio holder? Write two questions you have about the portfolio's holdings on Page 40 and share them with the class.

1. What was the low price of Ford stock (F) for the day?______________________________
2. Was the price higher or lower than the day before? ______________________________
3. What was the 52-week high for Google (GOOGL) stock? ____________________________
4. Which stock had the largest trading volume for the day?____________________________
5. Which stock would you like to own? Why? ____________________________________

______________________________________________________________________

# How Do I Read a Stock Quote?

Extension Activity

Stock portfolio questions:

Stock research notes:

# 3 Back to the Future:
## Teens and Retirement Saving
### Extension Activity

Putting small amounts of money aside for retirement—a time far, far away for teens—is not easy. But to harness the power of compound interest, you may want to consider placing a small portion of each paycheck in a retirement account.

☐ Assignment: For each of the following situations, circle Yes, No, or Maybe to indicate your opinion on whether the following teens should consider putting some of their earned income in a Roth IRA (Individual Retirement Account). Discuss your answers with a partner.

1. Carl, age 16, works part time after school to pay for his phone and his share of the family's car insurance.

   Yes No Maybe

2. Josiah, age 18, makes $100 a week as a summer lifeguard. His grandmother says she will match dollar-for-dollar each contribution he puts into his Roth IRA.

   Yes No Maybe

3. Sara's father wants her to consider how compounding interest plus future dollars can help her save hundreds of thousands of dollars in 20 years. Sara, 18, agrees to use $1,000 of her waitressing income to kick off her account.

   Yes No Maybe

4. John, age 17, believes that $100 saved today can make him a millionaire tomorrow.

   Yes No Maybe

5. Every paycheck that Latisha, 16, earns will go to pay for college. She wants to graduate without any student loan debt.

   Yes No Maybe

6. Devin, 16, can't find the money in his budget to save for the future. His dad suggests that he ask family members to deposit money into his retirement fund instead of giving him gifts.

   Yes No Maybe

# Compound Interest Calculator
## Extension Activity

Compound interest is interest paid on a starting amount, called the principal, plus prior interest. This differs from simple interest in which interest is calculated on the original amount only. With compound interest, you earn interest on the interest that your savings earns. Over time, even a small amount can grow.

Kristie and Josh want to start a savings plan. At age 25, Kristie invests $10,000 at a 5% interest rate that is compounded once a year. Josh also invests $10,000 at 5%, but he waits until he is 35 to start saving. As the table below shows, by giving her investment more time to grow, Kristie accumulates more money by age 45. How much more? What do these results tell us about compound interest?

| Investment Amount | $10,000 | Kristie | | Josh | |
|---|---|---|---|---|---|
| | | Age | Balance | Age | Balance |
| Interest Rate | 5.00% | 25 | $10,000.00 | | |
| | | 26 | $10,500.00 | | |
| | | 27 | $11,025.00 | | |
| | | 28 | $11,576.25 | | |
| | | 29 | $12,155.06 | | |
| | | 30 | $12,762.82 | | |
| | | 31 | $13,400.96 | | |
| | | 32 | $14,071.00 | | |
| | | 33 | $14,774.55 | | |
| | | 34 | $15,513.28 | | |
| | | 35 | $16,288.95 | 35 | $10,000.00 |
| | | 36 | $17,103.39 | 36 | $10,500.00 |
| | | 37 | $17,958.56 | 37 | $11,025.00 |
| | | 38 | $18,856.49 | 38 | $11,576.25 |
| | | 39 | $19,799.32 | 39 | $12,155.06 |
| | | 40 | $20,789.28 | 40 | $12,762.82 |
| | | 41 | $21,828.75 | 41 | $13,400.96 |
| | | 42 | $22,920.18 | 42 | $14,071.00 |
| | | 43 | $24,066.19 | 43 | $14,774.55 |
| | | 44 | $25,269.50 | 44 | $15,513.28 |
| | | 45 | **$26,532.98** | 45 | **$16,288.95** |

# 4 Compound Interest Calculator
## Extension Activity

- [ ] Assignment: Go to www.investor.gov and scroll down to "Financial Planning Tools." Select "Go to Calculator." You will need to determine the amount you want to save each month. Place the amount on your worksheet in the first shaded column. Use the information on your worksheet to fill in the boxes online. Be sure to determine whether you want interest compounded once, twice, or three times a year before calculating your totals online.

## Watch Your Money Grow

| Type | Principal | Monthly Addition | Years to Grow | Interest Rate | Total |
|---|---|---|---|---|---|
| ABB Stock | $1,000 | | 1 year | 5% | |
| Money Market | $5,000 | | 4 years | .50% | |
| EFG Stock | $500 | | 5 years | 7% | |
| Index Mutual Fund (stocks and bonds) | $2,000 | | 20 years | 5% | |
| Global Stock Fund | $10,000 | | 3 years | 8% | |

# Junior Achievement $ave, *USA* Online Lesson

## Extension Activity

## Junior Achievement $ave, *USA* Online Activity Steps

☐ Assignment: Go to www.juniorachievement.org/web/ja-usa/junior-achievement-save-usa. Scroll down to the Upper Elementary/Lower Middle Grades "Risk & Insurance" lesson. Select **Play Online Now**.

- You will view five modules on insurance. A check mark will appear on each icon once the module has been read and/or completed.
- Module 1: Select **Introduction: Risk!** to view the short video, "Life Comes with Risk."
- Module 2: Select **Risk & Insurance** and rate the activity risks from highest to lowest. Read about consequences and what you can do to lessen risk.
- Module 3: Insurance is something you buy just in case you need it. Select **Learning About Insurance**. View the need for insurance and an insurance example. Learn common insurance terms: *beneficiary, claim, deductible, insurance, insurance agent, policy, premium, risk*. Take the **Test Your Knowledge** quiz.
- Module 4: Select **Types of Insurance**. Read about an extended warranty and three types of insurance: vehicle, renters, and health.
- Module 5: Congratulations! You've completed the "Risk & Insurance" lesson.