We will be using this PowerPoint™ in conjunction with lessons we will be doing to increase your understanding of interest. Have you ever been confused about whether interest is good or bad?
Interest: What Does It Mean? Part I
Objectives

- Understand how interest can affect your standard of living
- Learn about tools you can use to help you understand what you are paying or earning in interest
- Make wise life-long choices based on your ability to shop for interest rates

Although we will be doing lessons connecting interest to debt and investments, the goal of this lesson is to help you understand how the choices you make can affect the amount of spendable income you have.
Terms to Know

- Adjusted gross income
- Assets
- Compound interest
- Equity
- Gross pay
- Interest
- Liabilities
- Net pay
- Principal
- Rule of 72
- Simple interest
- Tax deduction
- Tax credit

Teacher note: There are more terms to know on the Word Wall of the lesson. Throughout the lesson, refer to the Word Wall so that students may become familiar with terminology. You may use a site such as wordle.net or tagxedo.com to create a digital word wall.
One of the most important things to understand about obtaining a consumer credit card is its interest rate.

An interest rate is the price you pay for borrowing money. For credit cards, the interest rates are stated as a yearly rate, called the annual percentage rate (APR).

On most cards, you can avoid paying interest on purchases if you pay your balance in full each month. If you obtain a loan, you can reduce the amount of interest you pay by repaying the loan quickly.

Can interest work for your benefit? How? By investing your money in companies and products and saving your money, you can earn interest. Make interest work for you and not against you.
Many parents help their children set up savings accounts at a bank and tell them they will earn interest on the money they save. In this instance, interest sounds like a good thing. Then parents talk about paying interest on debt, and it sounds like it is not a good thing. Interest can be confusing. If it earns you money from an investment, interest increases your spendable income. If you are paying interest on a loan, it decreases your spendable income.

Would you rather have money going in or out of your pocket?
Understanding interest and how much it is really going to cost us can help us change lifestyle habits and make good decisions about when to use high interest credit cards.
Simple Versus Compound Interest

- Simple interest pays interest only on your initial deposit.
- Compound interest pays interest on the earned interest as well as the initial deposit, which means it could earn you more money if you have a long-term investment.

It is good to understand the difference between simple and compounded interest. It can help you make better choices. Simple interest pays only on the initial deposit, while compound interest pays on both the initial investment and the interest accrued on that deposit. If you maintain an investment with compounded interest for a long time, your money can really grow.
The Rule of 72 is a great way to estimate how your investment will grow over time. If you know the interest rate, the Rule of 72 can tell you approximately how many years it will take for your investment to double in value. Simply divide the number 72 by your investment’s expected rate of return (interest rate). Assuming an expected rate of return of 9%, your investment will double in value about every 8 years (72 divided by 9 equals 8).
Rule of 72

- You can divide 72 by the annual rate of interest to figure out how long it will take you to double your money.
- You can also calculate what interest rate you need to double your money by dividing 72 by the number of years in which you wish to double your money.
The Rule of 72 is a great way to estimate how your investment will grow over time.

This video is a bit elementary, but the visuals of the colored cubes should help visual learners understand the concept of the Rule of 72.

How to Teach the Rule of 72 to Children
Teaching Children about the Rule of 72
http://youtu.be/ShwCeTeKWOI
Rule of 72 Scenario

You are an 18-year-old and have been working evenings and weekends at a local restaurant for two years. You have managed to save $4,000.00 of your salary and tips. How long will it take to double your money with an expected rate of return of 12%?

Allow the students time to calculate the answer. Refer to slide 11 for reinforcement of the concept.

Answer: Simply divide the number 72 by the investment’s expected rate of return of 12%. The investment will double in value approximately every 6 years (72 divided by 12 equals 6). By the time this student is 30 years old, the investment will have doubled again to $16,000.00.

How much will the investment be by the time the student is 42? 54? 66?

42-years-old - $64,000.00
54-years-old - $256,000.00
66-years-old - $1,024,000.00

Teacher note: You may stop the slide presentation and proceed with Guided Practice Activity 1.
It is not all about paying interest. When you make an investment, interest is paid to you.

What is an investment?
Do you have a savings account? If so, how much interest are you earning from it?
Savings institutions, which have long been available to consumers, include commercial banks, mutual savings banks, savings and loan institutions and credit unions. When shopping for a place to deposit savings, factors such as the following should be considered:

- The interest rate paid – The higher the rate of interest, the faster savings grow.
- The method used to calculate interest – For example, is interest calculated on the average daily balance or the lowest balance during the period?
- How often interest is compounded (interest earned is added to the total and new interest calculated) – The more frequently savings are compounded, the faster they grow.
- Policies and requirements of the institution – Is there a minimum balance which must be maintained? What charges are assessed for account services?
- Liquidity or ease of converting savings into immediate cash – Can money be withdrawn at any time? Is there a penalty for withdrawal under certain conditions?
- Safety of the funds – To protect savings, the account should be insured, preferably by a federal agency, such as Federal Deposit Insurance Corporation (FDIC).
There are many diverse selections when it comes to saving and investing your money. Understanding your options will help you make more knowledgeable choices. Study the two-page table to acquaint yourself with different savings and investing strategies.

If there were no safe place to deposit money, where would individuals, businesses and the government store their money? How would this impact the money supply and exchange of goods and services?

When you deposit money in a savings account, what benefit do you receive? What benefits do other consumers and businesses receive from your deposits?

Practical Money Skills for Life
To help consumers and students of all ages learn the essentials of personal finance, Visa has partnered with leading consumer advocates, educators and financial institutions to develop the Practical Money Skills program.
Before You Invest

- Have accessible credit
- Invest in a variety of investments from different institutions
- Set a reasonable budget
- Start and continue a savings program

Funds put into business, real estate, stocks, bonds or some other enterprise for the purpose of making an income or profit are called **investments**. There are several types of investments you can make, but not all investments are wise investments for a particular individual. Investment involves risk, and the greater the opportunity for high return, the greater the risk for investment loss. The relationship between risk and return potential is often represented as a pyramid. Low-risk investments make up the broad foundation of the pyramid; higher-risk investments may be added in smaller amounts toward the top of the pyramid. When choosing an investment, you should take the time to evaluate and research the investment in addition to evaluating your personal financial status and tolerance for risk.

It is recommended that you place money in investments only after taking basic financial steps such as the following:
Set a reasonable budget considering your income and stay within those limits. The only way to grow financially is to take in more money than you spend.
Start and continue a savings program to build up funds for emergencies, unexpected needs and unplanned purchases. Additional savings can then be accumulated for investments.
Have accessible credit, such as credit cards, to use in financial emergencies.
Have insurance to protect assets and current lifestyle in the event of a disaster or shortcoming.

Some different types of investments include stocks, bonds, mutual funds, money markets and real estate. It makes sense to invest in a variety of investments from different institutions rather than in only one type, such as all stocks in one corporation. This is called **diversification**. Knowing about various types of investments can help you determine the best investment route for your financial situation.
Interest you pay is working against you because it reduces the amount of money you can spend on other things. Interest earned on investments works for you because it increases the money you can spend on other things.

Let’s compare how interest can work for us.
Often, consumers don’t have the money in their checking, savings or investment accounts to purchase goods or services they might need. In this situation, the consumer can use credit. Credit is receiving money, goods or services now, with the promise to repay in the future.

Examples of credit include credit cards, automobile loans, mortgage loans (loans to buy housing) and other personal loans. The borrower agrees to pay the creditor the amount of the loan or credit (the principal) at some future time, plus interest. The amount is referred to as debt until the borrower repays the creditor.

The person, business or financial institution that gives or extends the credit is the creditor. The person receiving the credit is the borrower.
Ask the students and discuss their responses.

The average U.S. household credit card debt stands at $15,191.00, the result of a small number of deeply indebted households forcing up the numbers. Based on an analysis of Federal Reserve statistics and other government data, the average household owes $7,087.00 on their cards; looking only at indebted households, the average outstanding balance rises to $15,191.00.
Here are statistics, trends, studies and methodology behind the average U.S. household as of April 2014:

**U.S. household consumer debt profile:**

- Average credit card debt: $15,191.00
- Average mortgage debt: $154,365.00
- Average student loan debt: $33,607.00

Do you know how much your family has in debt?
Why is this important for a family to know?
In total, American consumers owe:

- $11.68 trillion in debt, an increase of 3.7% from last year
- $854.2 billion in credit card debt
- $8.15 trillion in mortgages
- $1.115 trillion in student loans, an increase of 13.9% from last year

Part of what we own in debt is called interest. When you use a credit card or owe money to a financial institution, the institution will charge you a percentage to use its money.
Ask the students and discuss their responses.
Advantages of Using Credit

- Permits immediate consumption
- Enables purchase of items not otherwise affordable
- Helps with emergencies
- Allows consumers to take advantage of sales or special promotions
Advantages of Using Credit

• Helpful when making travel reservations
• Facilitates ordering by mail or Internet
• May be used to finance education
• Offers convenience
Disadvantages of Using Credit

- Causes embarrassment over debt
- Enables impulse buying
- Fuels the temptation to overspend
- If improperly used, can lead to serious problems
- Increases risk of identity theft
- Leads to insecurity/unhappiness

How is using credit costly? How does it tie up future income? The answer is interest!

Are there additional disadvantages of using credit?

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Disadvantages of Using Credit

- Is costly
- Leaves many unsatisfied wants
- Reduces financial flexibility in personal money management
- Causes tension and/or family friction
- Ties up future income
- Causes worry over money

Have financial problems ever caused tension or friction in your family?

Are there additional disadvantages of using credit?
Most people are going to pay interest to buy some of the expensive items they want and need. Reducing the amount of interest you pay can increase your spendable income.

- Avoid applying for too many credit cards.
- Consider the length of the loan for installment credit.
- Lenders will offer lower interest rates to people who have higher credit scores. You can improve your credit score by making payments on time.
- Make sure your credit history is A+.
- Make sure you read the fine print on your credit applications.
- On credit cards, you can reduce the length of your loan by paying more than the minimum payment, which reduces the amount of interest you will pay.
- Shop around for the lowest rate of interest.
- The shorter the loan period, the less interest you pay. If you can manage a larger payment in your budget, go for fewer years.
- The larger the percentage, the more it will cost you, so you want to find the lowest interest rate possible for the long term. Do not be taken in by low introductory rates that increase.
- Use credit cards for emergencies only and pay off your balance as quickly as possible.
Tools to Use to Determine Interest Amounts

There are many tools to help you determine interest rates and amounts:
- A calculator
- Computer spreadsheets
- Interest calculators
- Your brain

You do not have to be a math whiz to understand some basic concepts concerning credit. Yes, we are going to do some financial math assignments to help you come to conclusions about how much interest you pay when you use credit. Too many people sign credit card agreements without even looking at the interest rate or understanding what that means in terms of what they will be paying when they charge. Keep in mind, credit is not all bad because large items may not be affordable without it, but understanding how we can minimize the interest we pay means more money we have to spend on other things we want.

You can find all kinds of tools to help you. Your brain is a great tool and should always be implemented when using other tools. Asking yourself, “Does this make sense?” might help your recognize errors you make when using calculators and spreadsheets.
We are going to go to work using some of these tools. We will look at the overview of the projects we will be doing.
Using Your Brain and a Calculator

- The activities Is Your Interest Working for You? and How Money Grows it will help you picture how money grows through compounding over a period of years.

You will:
- Use a calculator to calculate interest and evaluate if this is interest that adds to your spendable income or takes away from your spendable income.

Teacher note: You may stop the slide presentation and proceed with Guided Practice Activity 2.
QUESTIONS:
Interest: What Does It Mean? Part I

References and Resources

Images:
Microsoft Clip Art: Used with permission from Microsoft.

Textbooks:

Websites:
- BankRate
  Use our calculators to finesse your monthly budget, compare borrowing costs and plan for your future. See our full list of calculator and decision tools.
- Board of Governors of the Federal Reserve System
  Consumer guides on interest rates and credit card information.
- Creditcards.com
  The set of calculators on the website are designed to help you find answers to your financial questions.
- Federal Deposit Insurance Corporation (FDIC)
  Preserves and promotes public confidence in the U.S. financial system by insuring deposits in banks and thrift institutions for all insured accounts, by identifying, monitoring, and addressing risks to the deposit insurance funds, and by limiting the effect on the economy and the financial system when a bank or thrift institution fails.

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References and Resources

- Federal Reserve.gov
  Sample of a Credit Card
  http://www.federalreserve.gov/creditcard/flash/offerflash.html

- Myarmyonesource.com
  Debt Payoff Calculator

- MyMoney.gov
  Save and invest your money.
  http://www.mymoney.gov/save-invest/Pages/saveandinvest.aspx

- Practical Money Skills for Life
  To help consumers and students of all ages learn the essentials of personal finance, Visa has partnered with leading consumer advocates, educators and financial institutions to develop the Practical Money Skills program.

- Videos:
  - Khan Academy
    Introduction to Mortgage Loans
    https://www.khanacademy.org/science/core-finance/housing/mortgages-tutorial/v/introduction-to-mortgage-loans
  - How to Teach the Rule of 72 to Children
    Teaching Children about the Rule of 72
    http://youtu.be/ShwCeTeKWOI

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