

The Bank of Good Habits

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Lesson Plan of the Year Contest, 2010 *First Place*

LESSON DESCRIPTION

In this four-lesson unit, students explore many concepts on saving and investing. Lesson 1 addresses the definition of “wealth” using the video *Building Wealth*. Students learn more about themselves by defining their own financial type as “planner,” “impulsive,” “struggler,” or “denier.” They discuss financial goals, spending, saving, and budgeting and are introduced to compound interest and the “rule of 72.” In Lesson 2, students track their personal expenses and examine types of bank accounts, investments, and the relationship between risk and reward. In Lesson 3, students examine the financial implications of emergency situations by viewing *Katrina’s Classroom*, a DVD (with lesson plans) about young people who experienced Hurricane Katrina in 2005. Lesson 4 affords students the opportunity to participate in an investment simulation and a classroom banking simulation, both of which apply concepts learned throughout the unit. The banking simulation can be continued throughout the school year if desired.

GRADE LEVEL

Grades 7–12. The unit is suitable for classes in civics, economics, consumer science, personal finance, or life management skills.

CONCEPTS

- Budgeting
- Certificate of deposit
- Compound interest
- Diversification
- Dividends
- Financial responsibility
- Individual development account
- Investing
- Risk versus return
- Rule of 72
- Savings accounts
- Stocks, bonds, mutual funds

NATIONAL CONTENT STANDARDS IN ECONOMICS

Council for Economic Education

Standard 4: Role of Incentives

Students will understand that

People respond predictably to positive and negative incentives.

- **Benchmark 1 for 8th grade:** Responses to incentives are predictable because people usually pursue their self-interest.
- **Benchmark 1 for 12th grade:** Acting as consumers, producers, workers, savers, investors, and citizens, people respond to incentives in order to allocate their scarce resources in ways that provide the highest possible returns to them.

Standard 10: Role of Economic Institutions

Students will understand that

- Institutions evolve in market economies to help individuals and groups accomplish their goals. Banks, labor unions, corporations, legal systems, and not-for-profit organizations are examples of important institutions. A different kind of institution, clearly defined and enforced property rights, is essential to a market economy.
- **Benchmark 1 for 8th grade:** Banks and other financial institutions channel funds from savers to borrowers and investors.

National JumpStart Standards and Benchmarks

Financial Responsibility and Decision Making

Overall Competency: Apply reliable information and systematic decision making to personal financial decisions.

Standard 1: Take responsibility for personal financial decisions.

Expectations

- List examples of financial decisions and their possible consequences.
- Identify ways to be a financially responsible young adult.
- Give examples of the benefits of financial responsibility and the costs of financial irresponsibility.
- Explain how individuals demonstrate responsibility for financial well-being over a lifetime.

Standard 4: Make financial decisions by systematically considering alternatives and consequences.

Expectations

- Set measurable short-, medium-, and long-term financial goals.
- Evaluate the results of a financial decision.
- Apply systematic decision making
- Give examples of how decisions made today can affect future opportunities.

Knowledge Statements

- A key to financial well-being is to spend less than you earn.
- Financial choices that people make have benefits, costs, and future consequences.
- Financially responsible individuals accept the fact that they are accountable for their financial futures.
- Attitudes and values affect financial decisions.

Planning and Money Management

Overall Competency: Organize personal finances and use a budget to manage cash flow.

Standard 1: Develop a plan for spending and saving.

Expectations

- Prepare a personal spending diary.
- Discuss the components of a personal budget.
- Explain how to use a budget to manage spending and achieve financial goals.
- Identify changes in personal spending behavior that contribute to wealth-building.

Knowledge Statements

- A budget is a plan for using income productively, including spending, sharing, and setting money aside for future expenses.
- People perform basic financial tasks to manage money.

Saving and Investing

Overall Competency: Implement a diversified investment strategy that is compatible with personal goals.

Standard 3: Evaluate investment alternatives.

Expectations

- List the advantages of investing money with a financial institution.
- Compare investing in individual stocks and bonds with investing in stock or bond mutual funds.
- Discuss common types of investment risk.
- Compare the risks and returns of various investments.
- Identify the appropriate types of investments to achieve the objectives of liquidity, income, and growth.
- Use systematic decision making to select an investment.

Knowledge Statements

- Investments differ in their potential rate of return, liquidity, and level of risk.

- There is usually a positive relationship between the average annual return on an investment and its risk.
- Diversification reduces risk by spreading assets among several types of investments and industry sectors.
- Mutual funds pool investors' deposits to purchase securities.

OBJECTIVES

Students will be able to

- Evaluate their own "financial type."
- Practice the evaluation of various investment choices.
- Determine the difference between necessities and non-necessities while tracking purchases.
- Differentiate between short- and long-term financial goals.
- Analyze investment risks and their tolerance for those risks.
- Demonstrate how to prepare financially for life emergencies.
- Create a personal budget.
- Work cooperatively to determine a financial course of action.
- Determine the costs and benefits of spending now versus saving for later.
- Demonstrate acquisition and mastery of facts and concepts related to responsible budgeting, saving and investing.

TIME REQUIRED

Four 50-minute class periods

MATERIALS

- [*Building Wealth: A Beginner's Guide to Securing Your Financial Future*](#), Federal Reserve Bank of Dallas.
- Class set of companion booklets: *Building Wealth*, Federal Reserve Bank of Dallas (optional, **differentiated instruction accommodation for different student learning types**: *The Building Wealth*

presentation, both on DVD and via the web, utilizes narration and visuals (and visuals both still and in motion) to convey its messages.

- For students who need visuals of longer duration, use the companion booklet to assist them in following the lessons.). Available from www.dallasfed.org
- DVD/CD set: *Katrina's Classroom: Financial Lessons from a Hurricane* and accompanying Teacher CD, Federal Reserve Bank of Atlanta. Available to [order or download](#).
- Computer with capability to play CD/DVDs and/or an active Internet connection. Large monitor or monitor projector for group instruction.
- *Visual 1: Investment Worksheet*
- *Visual 2: Answer to Anagram and Question*
- *Visual 3: Bank Simulation Rules*
- *Activity 1: Rule of 72 quiz*
- *Activity 2: Expenditure Tracking Form*
- *Activity 3: Student Budget*
- *Activity 4: Investment descriptions*
- *Activity 5: Investment worksheet*
- *Activity 6: Bank transaction slips (cut three to a sheet)*

Teacher Resources

- *Appendix A: Rule of 72 quiz key*
- *Appendix B: Investment simulation return on investment*
- *Appendix C: Bank simulation spreadsheet formulas*

PROCEDURE

LESSON 1

1. Ask students to write out their definition of “wealth.” Call for volunteers to explain their definitions and lead a brief discussion about their ideas. Tell students they will be learning about wealth in this unit and how they can build up their own wealth. Tell students to keep their definitions of wealth because they may be asked to revisit them at a future time.
2. Show the video *Building Wealth: A Beginner’s Guide to Securing Your Financial Future*. Start the presentation with the video of Richard Fisher by clicking on his picture on the opening screen. Allow the video to play up to the Ben Franklin quote ending with the words “always pays the best interest,” and then click the CLICK TO START BUILDING WEALTH icon in the lower right-hand corner.
3. Allow the introduction to play up to the words “all these goals are within your reach.” Then click on the BUDGET TO SAVE heading (second from the left in the bar across the top of the screen).
4. Point out to students that setting financial goals is fundamental to building wealth and it is important to have both short-term and long-term goals. Have students formulate two or three short-term and long-term goals. (For those using the *Building Wealth* companion guide, there is a form on page 4). Discuss their choices.
5. Click NEXT. Review the four “financial types”—*planners, strugglers, deniers, and impulsive*—and ask students to think about which type best describes them personally. Ask those who are comfortable discussing their types to do so.
6. Click NEXT for a presentation that illustrates two financial types—Betty, a planner, and Lynne, an impulsive. Discuss the benefits of living within a budget, knowing where money is going, and finding sound ways to increase wealth. (For those using the *Building Wealth* companion guide, see page 5).
7. Click NEXT. Allow the next screen to play, pausing the playback at “... how much money I make and how I’m spending it.” Tell students to look at the chart behind Lynne and examine her day-to-day spending. (The chart is also on page 10 in the *Building Wealth* companion guide) Ask students whether they think the expenditures are of equal importance. [*Responses will vary and students will likely talk about “luxuries” and “necessities”*]. Ask students if they can classify the items into “more important” and “less important.” Point out that such categories are usually subjective and, although people may not agree with each other’s decisions, what is really important is that individuals prioritize their own preferences. Ask students to suggest less expensive alternatives for some items (*for example, instead of buying the paper each day, get a subscription; eat breakfast at home; pack a lunch; bring a soft drink*).
8. Click NEXT. After introduction of the spending tracker sheet (page 7 in the *Building Wealth* companion guide) let students know that they will be given a spending tracker sheet at the end of the day as an assignment. Click NEXT.
9. Note that Lynne’s goal is to save \$125 per month. Scroll down to the expenses portion of the spreadsheet (page 8 in the *Building Wealth* companion guide). Ask the students to brainstorm how Lynne could reduce expenses in some of these categories. [*Possible responses include consolidating trips in the car to save gas; saving electricity/gas/water by conserving; eliminating credit card interest by paying down balances and reducing expenditures; buying clothes less often; checking out consignment shops to save money; for cable and internet, reducing the number of TVs hooked up and downgrading the package or dropping some premium channels; for the telephone, reducing long distance calls, dropping expensive feature packages; for insurance, shopping around for the best rates; for meals out and*

entertainment, cutting back, using coupons; and eliminating or cutting back on miscellaneous daily expenses such as bank charges and fees.] Suggest to students that they develop the habit of taking something out of their paychecks and putting it into savings before they spend. Click the SAVE AND INVEST bar near the top of the page.

10. Play introduction and disclaimer, and discuss the terms and the advice. Click NEXT. For this section on compound interest, pause the presentation (button on the upper left) when the red curve appears and the narration says “in a shoebox and doesn’t earn any interest.” Ask students if they see a pattern to the curves. [*With the exception of the shoebox, they all rise more sharply the further right they go.*] Note that the total cash saved is less than \$50,000 but that with even the lowest interest rate shown on the chart money more than doubles after 30 years. Point out to students that although \$50,000 thirty years from now will probably not buy as much as \$50,000 today because of inflation, compound interest can help savers try to keep up with inflation. Click NEXT.
11. Rule of 72 – Using the graphics in the presentation, explain that the rule of 72 helps estimate how an investment will grow over time. Use the calculator to show some examples such as if money is invested at 3 percent, how long will it take to double; if you want to double money in 14 years, what rate of return is required? Introduce the idea that with more doubling opportunities, more money will be available in future years, and that it is never too early to start planning for retirement.
12. Distribute a copy of *Activity 1: Rule of 72 quiz* to each student and ask them to answer the questions.
13. Review *Activity 1*, and discuss the answers as outlined on Teacher Resource, *Appendix A: Key to Rule of 72 quiz*.
14. Distribute *Activity 2: Expenditure Tracking Form* and ask students to begin tracking their expenditures for homework.

LESSON 2

1. Review the homework assignment from Lesson 1 and answer any questions.
2. Return to the *Building Wealth* video and continue the program with the investment section. (See page 11 in the *Building Wealth* companion guide).
3. Point out the direct relationship between risk and return and ensure that students understand that investors who take higher risks want to be compensated for doing so. Click NEXT.
4. Discuss the importance of having specific financial goals with a timeline in mind. Give some examples, such as a video game, an iPad, a car, a house, or a college education, and have students identify whether they are short-term or long-term goals. Generally, short-term goals lie within a one- to 10-year period, and long-term goals are more than 20 years. Have students come up with examples.
5. Tell students that it is also important that they understand “risk tolerance.” Generally, the younger a person, the more financial risk they can tolerate because they have more time to make up any shortfalls. However, they should always consider diversifying to spread investments among various risk levels. Remind them of the old saying “Don’t put all your eggs into one basket.” Click NEXT.
6. Explain the parts of the investment pyramid, and how items at the base of the pyramid—a financial plan and insurance—form a basis on which students can build financial success. Click NEXT.
7. Point out that there are many possibilities when selecting vehicles for saving. Click NEXT.
8. Review the different types of accounts shown—savings, money market, and certificates of deposit. Discuss and point out the major differences. Click NEXT.
9. Tell students that in some areas, individuals whose income is below a certain level may be eligible for an individual development account (IDA). If connected to the Internet, click on the link at the bottom of the screen to show

students the website. (NOTE: For the Atlanta Federal Reserve District, the availability of these programs tends to be concentrated in Louisiana, Mississippi, Tennessee, and Alabama. As of June 2010, there were no such programs available in Georgia or Florida although the website suggests some alternatives for potential savers in those areas without IDAs). Click NEXT.

10. Play the introduction to tools for investing. This section is addressed on pages 12–15 in the *Building Wealth* companion guide. Note that after the initial introduction in the video, there are eight screens of information on various types of investments, ranging from bonds to stocks to mutual funds. These screens do not have narration. Accordingly, the following questions for students are suggested:

- Why would a corporation borrow money by selling bonds? [*To pay for new equipment or construction of factories/stores; to be able to afford a new shipment of raw materials the company will use to increase the amount of product it can manufacture; to hire additional workers who need to be paid each week even though the profits from the work they do may not come to the company for several months*]
- How would a corporation expect to pay back the money to a bond holder? [*From the profits earned as a result of the expansion funded by the loan.*]
- Why would a municipality (a city, county or state) borrow money by selling bonds? [*Usually for large construction projects such as roadways, buildings, or stadiums.*]
- How would a municipality expect to pay back the money to a bond holder? [*With tax revenue, road tolls, rents or user fees.*]
- How would a bond issuer with a low financial rating convince investors to buy its bonds? [*By offering a higher interest rate.*]
- If you buy a 10-year bond, how long do you have to wait to get your money back?

[It depends: some bonds pay a lump sum at maturity, some pay little by little over the term of the bond, and some allow the sale of the bond to another investor before the full term is up (if you do this, you cannot expect to receive the full value you would have if you had held the bond to maturity; otherwise no one would want to buy it).]

- Why might an investor want to buy a U.S. Savings Bond or a Treasury Bond instead of a corporate bond? [*Since the government backs its bonds, they are considered a safer investment. If a corporation goes bankrupt before the maturity date of the bond, you might not get back all your money.*]
- Would you expect the interest rate on a Treasury bond to be higher or lower than the rate on a corporate bond? [*Probably lower; since it is a safer investment, lower risk usually means lower return.*]
- Other than safety, why might an investor gladly accept a lower rate of return by buying a Treasury bond rather than a corporate bond? [*The income you receive from a Treasury bond is tax-free.*]
- What is the difference between a bondholder and a stockholder? [*A stockholder is a part owner of the company; a bondholder is someone to whom the company owes money.*]
- What are the two ways an investor can profit from buying stocks? [*Receiving dividend payments and selling the stock after its price has increased.*]
- What is the difference between buying stocks and buying shares of a mutual fund? [*There are several answers. Stockholders purchase shares in one company at a time while mutual fund shareholders are investing in multiple stocks with each payment. Your investment in one company's stock may or may not increase depending on the fortunes of that one company; mutual fund investors spread their risk over several different companies.*]

Once you pay for shares of stock the company cannot ask you for any additional money, but investors in mutual funds may have to pay yearly fees to the fund's management.]

- What should be done before purchasing bonds, stocks, or shares of mutual funds? [*Seek out information about the investment.*]

11. Homework assignment: Students should continue tracking their own expenditures using their *Activity 2* sheets.

LESSON 3

1. Review and discuss the results of the students' expense tracking exercises to date. Ask students if any spending patterns have emerged. Are they surprised at the results of their tracking? Are they planning any changes in their spending to stay within their incomes?
2. Ask students to write out or describe verbally an emergency expenditure that either they or a family member has had to make. How did they deal with the experience? Discuss responses, guiding students toward the conclusion that it is wise to set aside money for the unexpected.
3. Ask students to think back to a local, state or national emergency in the recent past such as a flood, fire, tornado, or hurricane. Remind students of the devastation facing the people of the coastal areas of Louisiana and Mississippi in August, 2005 as Hurricane Katrina targeted that area of the country. Tell them they will now see and hear from young people who experienced Hurricane Katrina.
4. Play Lesson 4 – “Back to School” from the *Katrina's Classroom* DVD. In addition to the questions posed at the end of the video segment, pose some supplemental questions to stimulate student discussion:
 - Jamie purchased several outfits for school shortly before Katrina struck. How might this have adversely affected her ability to handle an emergency? [*Possible answers: Spending money on clothes meant she had*

less money left in her pocket to spend on emergency needs. If she had overspent on the clothes, counting on earning more money part-time during the school year, she would have been out both the money and the opportunity to continue earning.]

- In an emergency, what are some ways you could come up with money to spend on things you need that you might not be able to take with you? What are the advantages and disadvantages of each? [*Possible answers: **Cash/currency from bank account:** accepted everywhere, but easily lost/stolen and not easily replaced. **ATM card:** get cash only as needed and PIN protection makes it difficult for someone else to use if it is lost or stolen. But using the card depends on availability of machines and electricity, and fees may be charged for accessing an ATM in a different city or from a different financial institution. **Debit card:** able to use like cash and difficult for unauthorized person to use, but it is important for you to keep track of the balance to avoid spending account down below the minimum required level (possibly triggering fees). **Credit card:** widely accepted and easy to use but can be misused if lost/stolen and all expenditures are essentially loans that must be repaid and are charged a high rate of interest. **Pawning/selling assets:** a way to get quick cash, but likely only pays a small fraction of the value of the asset (and in the case of pawning you will pay a very high rate of interest and you may not be able to get your asset back). **Theft/robbery/illegal activity:** poor risk-to-reward ratio—most banks/stores/victims hold less cash than commonly thought, and there is a high probability of punishment or imprisonment along with a high risk of serious injury.]*
- Do you think saving up for an “emergency fund” is a good idea? How much money do you think should be in the fund? How long

do you believe that amount would last in an emergency situation? [Answers will vary. The teacher or other students may play “devil’s advocate” and question students about their choices.]

5. Distribute *Activity 3: Student Budget*. Have each student draw up a one-month budget using general categories based on the expenses they tracked for homework and the points raised in the classroom discussion. Remind them of the budgeting they saw in the *Building Wealth* lesson the last time the class met.

LESSON 4

1. Ask students to think of some other possible reasons for saving money. If no one suggests “investing,” tell students that it is one important way of building wealth. Point out that although money in a savings account will grow over time, there are additional investment vehicles that students should know about.
2. Divide the class into groups of 3-5 students and tell them they are going to participate in an investment simulation. Explain that their group represents all the students in their grade level at the school. Their goal is to provide a class gift for the school. They have a year to go before they have to make the purchase, and the total price will be \$7,500. Thanks to previous fundraisers, their class has \$5,000 in its account, and they expect to raise another \$1,500 with activities during the year. The plan is to invest the \$5,000 to earn the remaining \$1,000 needed to completely fund their goal.
3. Distribute the handout *Activity 4: Investment Descriptions*, with the five investment options from which they can choose. Review the descriptions with the students along with any terms that may be new to them.
4. Give each team a copy of *Activity 5: Investment Worksheet*. Each team must discuss the pros and cons of the five investment options and decide how they want to invest the \$5,000 before they fill out the form. Teams may allocate the money any way they wish among the five possibilities (subject to any required minimum balances). Use *Visual 1: Investment Worksheet* as a transparency or projection to model how the form should be completed. Teams do not need to invest in all of the five choices, but they must invest the entire \$5,000. Give the teams about 10 minutes to discuss the choices and fill in their forms. Each group should then announce how they allocated the money. If desired, use a board or a projector to post each team’s allocation for the entire class to see.
5. Tell the class that six months have now passed. Announce the percentages listed under “1st Half” in the table in *Appendix B: Investment simulation return on investment*. Students should fill in the percentages in the second blank column of their *Activity 5: Investment Worksheet* forms, and use those figures to calculate the six-month balance on each investment (the principal plus the return).
6. Announce that each team now has the option to reallocate its investment. Using the six-month balance figures, they may now move funds from one account to another. Caution the students that they cannot remove money from the one-year CD without penalty, nor can they invest in another one-year CD unless they are willing to pay the penalty (since they will need the money six months from now). Allow five minutes for the reallocation discussions. If some teams do not re-allocate their funds, they should copy the figures from the “Initial return balance” column into the “Reallocation” column. Have teams announce their allocations again while others listen and “check the math” to make sure there is no multiple counting.
7. After all teams have made their final decisions, announce that another six months have passed. Announce the figures from the “2nd Half” column of the Form 1 table. Have students again copy the percentages and then calculate the total balance. Caution students that for an

investment that had a negative return during the second six months, they must subtract the return amount from the re-allocation amount to get their balance. Each team should then add the amounts in the “2nd half return amount” column to get its total. Teams that have an ending balance of \$6,000 will have succeeded in meeting their goal. Point out that even if they did not earn the full \$1,000 goal with their investments (and few, if any, teams will) they can make up the difference by charging each class member a very small amount to come up with the total funds needed.

8. Discuss the strategies of each team, both in their initial investments and their reallocations. Point out that “playing it safe” with low-risk investments yielded a low rate of return, requiring a higher per student payment later to raise the total amount needed. Students who switched to the Whizzo stock after the initial run-up will have learned the hard way about the “buy low, sell high” maxim of stock investing. Any team that sold Whizzo after the first six months and put the money into a “safer” investment demonstrated the idea of “locking in your gains” after the big run-up in the price of the stock. Teams who were invested in Tropic Phase during the second half experienced two different ways that stockholders can build wealth: appreciation (or increase) in the stock price and the payment of dividends to shareholders (the distribution of company profits among the owners). Did any teams choose to pull money out of a CD in the hope that the new investment would be successful enough to make up for the penalty? Was this a successful strategy? Ask students if they can figure out the significance of the names of the medical company and the mutual fund. HINT: Tropic Phase is an anagram, and the answer is significant in the medical field; the mutual fund name has mythic significance. The answers are on *Visual 2*.
9. Tell the students that planning purchases and saving money is so important that they should have a way to practice doing it. Display

Visual 3: Bank Simulation—Rules and review the rules with students. Tell them there is now a “bank” with an “account” for each student. The deposits to the account will be based on their grade point average. Distribute a copy of *Activity 6: First Cobra Bank of Government/Economics*, which explains the services and fees for the simulation. (The name of the bank can readily be changed if a school- or local-related name is preferred.) Students are required to buy homework passes in advance. These must be turned in when the homework is due, but the other items can be purchased after the assignment is graded. Students to think about whether they want to buy some items now, or save for a bigger purchase later. At regular intervals during the semester students’ GPA at that time should be multiplied by 100, yielding a three digit number (for example, a 3.56 GPA would give a deposit of 356 points). If desired, allow for interest payments on the accounts. *Optional: Appendix C* lays out the formulas to use in a spreadsheet program that will do the calculations, and interest payments may be changed or eliminated as seen fit. When printing the worksheet to post, hide the name column so the figures (which relate directly to grades) are displayed by ID number only.

10. This simulation can be continued throughout the school year to reinforce the benefits of saving and budgeting.

Assessment

1. Assign a grade for *Activity 5: Investment Worksheet*.
2. Prepare a class presentation on the following: Review the definition of ‘wealth’ that you wrote down on Day 1. Has your definition of wealth changed? Explain why or why not.
3. Write a paragraph or essay summarizing various investment vehicles and, using the vocabulary from the unit, describe which ones you prefer for yourself and why.
4. Write a first-person account of your experience with this unit and whether or not

your personal financial behavior has changed as a result.

5. Create a diagram or poster that describes and explains the relationship between risk and reward.

Author's note

There are several places in this lesson where my students had “Aha!” moments or expressed enthusiasm for what they were doing. Many were amazed by the detail and discipline required to track expenses, budget, and research investments. During the review of the expense tracker exercise, one of my students actually exclaimed “Oh my gosh, I actually *learned* something!”

VISUAL 1 Investment Worksheet

Investment	Investment amount	Initial rate of return (%)	Initial return balance (\$)	Re-allocation	2 nd half rate of return (%)	2 nd half return amount (\$)
Stableville Bank 6-month CD						
Stableville Bank 1-year CD						
Vanaheim Mutual Fund						
Whizzo Technologies Stock						
Tropic Phase Medical Stock						
TOTAL						

VISUAL 2

Answer to Anagram and Questions

Tropic Phase is an anagram of Hippocrates.

Vanaheim is the home of one of the two groups of Norse gods.

VISUAL 3

Bank Simulation – Rules

Normal banking hours last five minutes of period

All transactions require a completed slip

Certificates available for delivery next class

You must obtain homework passes in advance
to redeem them

ACTIVITY 1

Rule of 72 Quiz

Directions: Read the following scenario and answer the questions below:

The average investor expects to double money in 16 years. The average life expectancy of anyone turning 18 this year is 77 for males and 81 for females. Assume that you are 18 now. Assume that everyone retires at age 66.

1. Assuming you are 18, how many doubling opportunities would you have for your money in your lifetime, starting today?
2. If you start saving for retirement today, how many doubling opportunities would you have by retirement age?
3. If you wait to begin saving for your retirement until you turn 50, how many doubling opportunities will you have?
4. For each dollar you put away for retirement starting today, how many would you have by the time you turned 66?
5. If you wait until age 50 to start saving, how many dollars would you have by retirement for each dollar put away?
6. Why do you think there is a difference between life expectancy for males and females?

ACTIVITY 3

STUDENT BUDGET

List the income you receive each month.

Allowance	\$ _____
Job (outside your home)	\$ _____
Job (at home)	\$ _____
Gifts	\$ _____
Other income	\$ _____
Total Income	\$ _____

List your regular expenses such as car payments, cell phones or anything else you are held responsible for paying each month

Expense _____	\$ _____
Total Expenses	\$ _____

Now subtract your expenses from your income to see how much you have left for clothes, savings, and entertainment.

Total Income	\$ _____
Total Expenses	-\$ _____
	\$ _____

ACTIVITY 4

Investment Descriptions

Stableville Bank 6-month Certificate of Deposit – This investment is guaranteed to pay interest at an annual rate of 1.0%, and is insured against loss of your investment amount. The minimum deposit is \$500. Money placed in this account is locked in for the full term of six months. Early withdrawal will result in loss of unearned interest plus a penalty of \$100 regardless of the amount placed in the account.

Stableville Bank 1-year Certificate of Deposit – This investment is guaranteed to pay interest at an annual rate of 1.4%, and is insured against loss of your investment amount. The minimum deposit is \$500. Money placed in this account is locked in for the full term of one year. Early withdrawal will result in loss of unearned interest plus a penalty of \$100 regardless of the amount placed in the account.

Vanaheim Mutual Fund – This mutual fund invests in a variety of both “blue chip” and medium-cap stocks, seeking to combine slow-and-steady growth with the larger growth possible from medium sized companies. The minimum investment is \$1000, and the usual management fee is waived by the company for education clients and tax-exempt entities. Money can be withdrawn from the account at any time. This account is not insured; your investment can lose value.

Whizzo Technologies – This corporation has been involved in the technology business for seven years and had its initial stock offering three months ago. The stock price rose 3 percent on the first day it was offered, and the current price represents a 5 percent gain over the original issue price. The company is known for its innovative and “catchy” products. Various industry reports say that the company plans to introduce three new products at four-month intervals over the coming year, but there has been no official confirmation. This stock would be purchased directly from the company without payment of any commissions or fees and can readily be sold on the NASDAQ exchange. The stock does not pay dividends, and there is not enough data to guarantee its future performance.

Tropic Phase Medical – This corporation owns a nationwide network of hospitals, clinics and medical testing facilities. It is large and well-established and has shown a profit over the past several years. They recently sold some bonds to expand its operations and purchase more existing facilities, but the doubts about health care reform have brought uncertainty to its industry. If reforms reduce costs to consumers, then the company’s profits will be reduced, making it difficult for it to repay the principal and interest on these bonds. That would lower the financial rating of the company. This uncertainty has also affected the price of its stock; industry observers are unsure whether the company will be able to turn a profit and maintain its good financial standing. Tropic Phase has occasionally paid dividends to shareholders in the past. This stock would be purchased directly from the company free of any commissions or fees.

ACTIVITY 5

Investment Worksheet

Investment	Investment amount	Initial rate of return (%)	Initial return balance (\$)	Reallocation	2 nd half rate of return (%)	2 nd half return amount (\$)
Stableville Bank 6-month CD						
Stableville Bank 1-year CD						
Vanaheim Mutual Fund						
Whizzo Technologies Stock						
Tropic Phase Medical Stock						
TOTAL						

ACTIVITY 6



FIRST COBRA BANK OF GOVERNMENT/ECONOMICS



**“Bean
Kounterz**



Account Name _____ Class Period _____ Date _____

SERVICE

FEE

- | | |
|---|---|
| <ul style="list-style-type: none"> • Homework Pass – 400 beans • Homework 1-grade up – 500 beans • Homework single-grade “A” – 1500 bns • Single test 1-grade up – 2500 beans | <ul style="list-style-type: none"> • Account Audit – 150 bns (Free if error found) • Class disruption – 300 beans • Detention issued – 750 beans • Referral issued – 1200 beans |
|---|---|



FIRST COBRA BANK OF GOVERNMENT/ECONOMICS



**“Bean
Kounterz**



Account Name _____ Class Period _____ Date _____

SERVICE

FEE

- | | |
|---|---|
| <ul style="list-style-type: none"> • Homework Pass – 400 beans • Homework 1-grade up – 500 beans • Homework single-grade “A” – 1500 bns • Single test 1-grade up – 2500 beans | <ul style="list-style-type: none"> • Account Audit – 150 bns (Free if error found) • Class disruption – 300 beans • Detention issued – 750 beans • Referral issued – 1200 beans |
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- | | |
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|---|---|

APPENDIX A

Rule of 72 Quiz Key

Directions: Read the following scenario and answer the questions below:

The average investor expects to double money in sixteen years. The average life expectancy of anyone turning 18 this year is 77 for males and 81 for females. Assume that you are 18 now. Assume that everyone retires at age 66.

1. Assuming you are 18, how many doubling opportunities would you have for your money in your lifetime, starting today? **Almost 4 for females and 3.7 for males.**
2. If you start saving for retirement today, how many doubling opportunities would you have by retirement age? **Three.**
3. If you wait to begin saving for your retirement until you turn 50, how many doubling opportunities will you have? **One.**
4. For each dollar you put away for retirement starting today, how many would you have by the time you turned 66? **Eight (three doublings)**
5. If you wait until age 50 to start saving, how many dollars would you have by retirement for each dollar put away? **Two (one doubling.)**
6. Why do you think there is a difference between life expectancy for males and females? **Males are more likely to die in accidents; males are more likely to smoke early in life and for longer than females; males are more subject to stress and generally handle it less well than females; females are likely to be more health conscious and seek medical attention more readily than males.**

APPENDIX B

Investment Simulation Return on Investment

Investments	1 st Half Return	2 nd Half Return
6-month CD	0.5%	0.5%
1-year CD	0.7%	0.7%
Vanaheim Mutual Fund	3%	6%
Whizzo Technologies Stock	25%	- 4% (loss)
Tropic Phase Medical Stock	5%	12% plus \$1 for each \$50 invested this half (rounded down – no partial dividend)

APPENDIX C

Spreadsheet headings and formulas (top row from left to right):

Name	Text field
ID#	Text field
Deposit 1	Number field (GPA point value)
Balance	$=(\text{Deposit 1 cell} * 100 - \text{Withdrawal Block 1 cell})$
Deposit 2	Number field (GPA point value)
Balance	$=(\text{Deposit 2 cell} * 100) + ((\text{first Balance cell} - \text{Withdrawal Block 2 cell}) * 1.001 [\text{represents } 0.1\% \text{ interest payment}])$
Deposit 3	Number field (GPA point value)
Balance	$=(\text{Deposit 3 cell} * 100) + ((\text{second Balance cell} - \text{Withdrawal Block 3 cell}) * 1.001 [\text{represents } 0.1\% \text{ interest payment}])$
Deposit 4	Number field (GPA point value)
Balance	$=(\text{Deposit 4 cell} * 100) + ((\text{third Balance cell} - \text{Withdrawal Block 4 cell}) * 1.001 [\text{represents } 0.1\% \text{ interest payment}])$
(withdrawals) Block 1	Number field (point deductions for penalties or purchases)
Block 2	Number field (point deductions for penalties or purchases)
Block 3	Number field (point deductions for penalties or purchases)
Block 4	Number field (point deductions for penalties or purchases)