Lesson 6:

Stocks and Bonds: How Companies Grow

OVERVIEW

Students read together a story on cards about a famous company and its stock. Then they explore bonds in an activity and figure the costs and benefits of using each.

ECONOMICS CONTENT STANDARDS

Standard 1—Scarcity

- **Benchmark 6 for 4th grade:** Whenever a choice is made, something is given up.

Standard 2—Marginal Cost/Benefit

- **Benchmark 2 for 4th grade:** A cost is what you give up when you decide to do something.
- **Benchmark 3 for 4th grade:** A benefit is what satisfies your wants.

Standard 14 : Profit and the Entrepreneur

- **Benchmark 2 for 8th grade:** Entrepreneurs accept the risks in organizing resources to produce goods and services because they hope to earn profits.

PERSONAL FINANCE STANDARDS

Saving and Investing Standards

- **Benchmark 3 for 8th grade:** There is usually a positive relationship between the average annual return on an investment and its risk.
- **Benchmark 8 for 8th grade:** People can buy and sell investments in different ways.

CONCEPTS

Entrepreneurs, risk, reward, stocks, bonds, IPO, businesses, costs, benefits

RELATED SUBJECT AREAS

Mathematics (numbering), art (making stock or bond certificates), language arts (children's literature and grammar), music

OBJECTIVES

The students will:

- Recognizes an entrepreneur as one who takes the risks of setting up a business in hopes of making a profit.
- Understand that people who purchase stock or bonds take a risk in hopes of earning a reward.
- Give examples of ways that companies can get money to finance growth.
- Identify stock as a share of ownership in a corporation.
- Define a bond as a piece of paper that shows a person has agreed to loan money to a company to help pay its bills, and will be repaid at a specified time and interest rate.
- Describe the costs and benefits of borrowing money or selling stock to finance a business.

TIME REQUIRED

One 45 minute class period

MATERIALS

- *Activity 6A: Whose Shoes* – one cardstock copy (Cut the cards apart.)
- *Visual 6B: Getting Money*
- *Activity 6C: Whose Bonds Will You Buy?* – one per group
- *Activity 6D: Classroom signs #1* – cut apart
- *Activity 6E: Classroom signs #2* – cut apart
- *Visual 6F: How to Finance a Business*
- *Activity 6G: Why Stocks and Bonds? (Letter Tiles Puzzle)* – one per student

PROCEDURE

1. One Company Goes Public

a. Remind students that **entrepreneurs** must take a risk when they decide to start a company. Ask students what does the entrepreneur **risk**? *(time and money)*

b. Tell students: Sometimes companies are so successful that they need much more money than the original owner(s) can provide. This lesson is about how companies can get the money to grow.

c. Remind students of these definitions from the previous lesson:

- A **privately held business** is owned by one or more people, and it is not listed on a stock exchange where its stock might be bought and sold by strangers.
- A **publicly traded business** is owned by many people. The ownership of the business is divided into shares. People nearby or far away can buy shares of stock in businesses

that are publicly traded. Most times, these exchanges take place in stock markets.

d. Tell students that you want them to hear the story of some entrepreneurs and the company they started. Explain that the class will read the story together and listen to the things the entrepreneurs did that helped their company grow.

e. Randomly distribute the cards from *Activity 6A: Whose Shoes*? Have students read through their cards in advance to be sure they know all of the words.

f. Tell students to listen carefully to the story and see if they can figure out the name of the company.

g. Have students line themselves up in order of the numbers on their cards. Then have them read the cards aloud to see how a well-known company went public, that is, began selling shares of stock to the public.

h. After the story has been read, ask students if they can guess the company. Accept all input, then give a small prize to the first student who suggested the name of the company: Nike.

i. Discuss the **risks** that these entrepreneurs had to take to create a successful business, and the **rewards** they received. *(Source: http://www.nike.com/nikebiz/media/nike_timeline/nike_timeline.pdf)*

2. Sometimes Companies Sell Stock to Get Money to Grow

a. Display *Visual 6B: Getting Money* and discuss. Ask students: In the story about Nike where did the owners get money to expand their business?
   - First they used their own savings
   - Then they borrowed money
   - Then they went public and sold stock

b. Explain that when stock is first sold, before it is available on a stock exchange, it is called the **Initial Public Offering**, or **IPO**.

c. Tell students: In an IPO in 1980 Nike sold 2,377,000 shares of **stock**. The money from that sale went to help the Nike Company grow. Each of the people who bought those shares became part owners in the Nike Company.

d. For Advanced Classes: Explain the following information to students.

   The initial sale of stock is called an IPO (Initial Public Offering). Direct students to break down the term. Initial—first time; Public—available to all; Offering—the stock is being presented or made available. IPO is just a fancy way of saying that a stock is being offered for sale to the public for the first time. IPOs can be very risky since they are new companies. Amazon and Google were big, fairly recent IPOs, but there are lots of smaller IPOs each year.

   When companies decide to raise money by selling stock, they generally go to a big investment bank. That bank handles the IPO. When the shares are sold to their first owners, it's called the primary market. This is when the company gets its money to grow. When people buy and sell the stock after that, nothing goes to the company. Ownership is just changing hands. This is what is seen when news programs show the floor of the New York Stock Exchange, for example. This is called the secondary market.

3. Sometimes Companies Sell Bonds to Get Money to Grow

a. Explain that the Nike owners might have decided to sell **bonds** instead. Ask the following questions:
   - Have any of you ever heard of bonds?
   - Does anyone know what a loan is?
   - Have any of you ever borrowed money from a parent or friend and had to pay it back with interest?

b. Explain that **bonds** are very much like loans. When a business is selling a bond it is really selling an IOU. It is selling a piece of paper which is a promise to pay the buyer his money back, plus interest at a particular time.

4. Activity: Whose Bond Will You Buy?

a. Divide students into small groups, and direct them to read and complete *Activity 6C: Whose Bonds Will You Buy?* Explain to students that they can choose any bond they want—there is no right answer.

b. Meanwhile, post the signs in *Activity 6D: Classroom signs #1* around the room. When all students have completed the handout, direct them to go stand by the sign of the bond they will buy with the money from their piggy banks.

c. Ask students at each sign, why they made that choice.
   - Mom's bond: *(Possible student answers: I trust my mother to pay me back, and I would get my money back sooner.)* Tell students: So you want to be sure to get your money

back, and you would rather have your money back sooner. One week was better than two weeks or four weeks.

- Brother's Bond: *(Possible student answers: I'm pretty sure my brother will pay me back.)* Ask students why other students didn't buy the brother's bond. *(Possible answers: It wasn't quite as safe as Mom's bond, and I had to wait longer to get the money.)*
- Student's Bond: *(Possible student answers: It sounded like a good business.)* Ask students why other students didn't buy the student's bond. *(Possible student answers: I didn't know him as well. I had to wait longer to get my money back. It sounded risky. The school might take the candy away from him and I might not get my money back at all.)*

d. Summarize: People want three things:

1. They want to buy bonds that are safe.
2. They want to be sure to get their money back plus interest.
3. They want their money back as soon as possible.

e. Ask students: How will riskier business owners such as the brother and the student be able to sell bonds to get money for their businesses? Take their answers.

f. Read the signs from *Activity 6E: Classroom signs #2*, drawing attention to the change in the amount of interest paid. Replace the previous signs with these new signs. Ask students: Suppose these are your choices. What choice will you make? Instruct them to decide which bond to buy now and write it down. Then have students go to the new signs that represent their written choices. Ask if any student changed his or her mind and bought a different bond. Ask why. *(Possible student answer: I was willing to take more risk in order to get more interest—a higher rate of return.)*

g. Summarize: Riskier businesses have to offer higher rates of interest to get investors to buy their bonds.

h. Point out that the investor in this story was buying bonds from people he knew—mother, brother, and student. When you buy real bonds, the seller may be in a faraway company. It is hard to figure out which ones are safe and which ones are risky.

i. Ask: How can you find out whether a movie is good before you go? How can you find out if a book is good before you read it? Discuss ratings that provide information.

j. Explain to students that there are ratings for bonds, too. These ratings sound like grades in school:

Aaa or AAA are the best and safest.

Bbb or BBB are riskier.

Ccc are very risky.

Bonds rated D are usually worthless.

k. Grades tell about a student's work in the past. Sometimes people look at those grades and make predictions about how a student will perform in the future. Bond ratings are based on a company's past performance and whether analysts (people who study that company) predict the company will do well or poorly.

l. Tell students about this example:

Wall Street Journal, May 2006: Moody's threatened to lower GM's bond ratings to Caa because they believed the company was taking on too much debt. With a lower bond rating, GM bonds would appear riskier to investors; thus GM would have to pay a higher interest rate to get investors to buy their bonds. Only time will tell whether these bonds were good investments.

5. Others Sell Bonds, Too

a. Explain to students that they may want to buy the bonds that businesses sell or they may want to buy bonds issued by government agencies or other groups. For example:

- School districts sometimes sell bonds to build new schools.
- The Virginia Housing Development Authority (VHDA) sells bonds to raise money to make loans to lower income people who want to buy homes.
- The US Government sells bonds when it spends more money running the government than it collects in taxes.

b. Ask students which of these they think is safest? *(Answer: Most people would say that US Government bonds are the safest because they have the "full faith and credit" of the US government behind them. Because they are so safe, the government doesn't have to pay a very high rate of interest to sell them.)*

6. Stocks or Bonds: Costs and Benefits

a. Tell students: In the Nike story no mention was made of bonds, but they might have sold bonds to raise money to grow. How would that have worked?

b. Explain as follows: A company might sell a bond for $1,000. They agree to pay the $1,000 back in a specified period of time; for example, it might be a $1,000 bond to be paid back in 5 years, 10 years or 20 years. They promise to pay a certain rate of interest. Bonds are like loans and must be paid whether the company is profitable or not.

c. Display *Visual 6F: How to Finance a Business*. Remind students that when companies are making decisions, they need to consider the **costs** and **benefits** of their alternatives. Review definitions to be sure that students understand that *benefits* are the advantages or good things and *costs* are the disadvantages or bad things or things given up.

d. Have students make suggestions for the entries on the chart or use the information on the chart below to explain.

	Benefits	**Costs**
Use Own Savings <u>or</u> Retained Earnings	• You don't have to make an application for a loan or get approval. • You don't have to pay interest.	• You don't have your money to use for something else.
Borrow Money <u>or</u> Sell Bonds	• You get the money to grow. • You still own the business and can make all of the decisions. • You don't have any shareholders to share your profits with.	• Even if you don't make money in your business, you will have to pay back the borrowed money or bond plus interest.
Sell Stock	• You get the money that you need to expand. • If your business isn't profitable, you don't have a loan or bond waiting to be paid. • The shareholders took the risk with you and they know they only get dividends when the company is profitable.	• If your company makes lots of profits, you will need to share them with the shareholders. • Also, because you aren't the only owner now, you can't always do what you want to do. Shareholders who are unhappy with what you do can sell their stock, and that can push down the share price.

e. Summarize: Why do companies choose to sell stocks or bonds? *(Answer: in order to get money to grow.)* Explain: There are some advantages to stock and some advantages to bonds. Businesses weigh their costs and benefits and make the choice that is best for them.

CLOSURE

Review concepts brought out in the lesson activities by asking the following questions.

1. What are some ways small companies can get money to expand their business? *(They can use money they have saved; they can use company profits; they can get a loan; or they can sell stocks or bonds.)*
2. What is an Initial Public Offering (IPO)? *(An IPO is the first time that stock is sold, before it is traded on a stock exchange.)*
3. What is a benefit or advantage of selling bonds? *(You get the money you need, but you don't have to share the business. You can still make all of the decisions and keep all of the profits.)*
4. What is a cost or disadvantage for selling bonds? *(You have to pay back the amount of the bond plus interest, whether or not your business is successful.)*
5. What is a benefit or advantage of selling stock? *(You get the money that you need to expand, but if your business isn't profitable, you don't have to pay money back. The shareholders do not expect dividends unless the company makes a profit.)*
6. What is a cost or disadvantage for selling stock? *(You must share the business with shareholders, including profits, decisions, and ownership.)*

ASSESSMENT

Have students write two paragraphs:

1. one paragraph describing how bonds work.
2. another paragraph describing the differences between stocks and bonds.

EXTENSION

- **Read:** <u>The Toothpaste Millionaire</u>. by Jean Merrill (ISBN: 0395960630). Discuss with students the way Rufas, a sixth grade student, made his toothpaste business grow.
- **Read:** <u>Girl Boss</u> by Stacy Kravetz (ISBN: 0965975428). This book on earning money, starting a business, and managing money was written especially for girls.

- **Websites:** Have students visit the U.S. Treasury website, at http://www.publicdebt.treas.gov/sav/sbtimes.htm#Bond and read about government bonds in the section for students called *Learn About Bonds*. Students can click to see, *What Does a Savings Bond Look Like*. Have students design their own versions of government savings bonds. Also on this website, have students explore the *Glossary for Kids* about government bonds. After students have read about government bonds, you can let them go to a Word Search: http://www.publicdebt.treas.gov/sav/sbkwdsch.htm and a Word Scramble: http://www.publicdebt.treas.gov/sav/sbkscram.htm on the same website.

- **Sing:** Teach the students the following song to emphasize how people can save with stocks and bonds. (See page 136 for a transparency.)

Stocks and Bonds

(Tune: *Row, Row, Row Your Boat*)

Bonds, Bonds, Bonds are things
That pay an interest rate.
Gradually, Gradually, Gradually, Gradually,
Growing while you wait.

Stocks, Stocks, Stocks are things
That pay a dividend.
Gradually, Gradually, Gradually, Gradually,
Money you can spend.

Stocks, Stocks, Stocks, they change,
The price goes up or down.
Gradually, Gradually, Gradually, Gradually,
Money goes round and round.

- **Letter Tile Puzzle -** Distribute *Activity 6G: Why Stocks and Bonds?* Have students cut out the letter tiles on the dotted lines. Read the directions to students and explain the clue to help them get started:

  Directions: Cut out and rearrange the letter tiles to reveal a message that is a complete sentence. There are three letters or spaces on each tile. All letter tiles must be used. There is a space after every word. (Clue: The first word, "Companies" is the subject of the sentence. The second word is a verb.)

  If students have trouble getting started, remind them that there will be a space after the first word, "Companies."

  The answer to the puzzle is: *Companies sell stocks or bonds in order to get money to grow.*

- **A Prospectus:** Explain the following information to students. When companies go public with an IPO, they issue a prospectus which tells the potential stock buyer all about the company, including the potential risks. The warnings are even printed in red to be sure that people see them. Because of the red printing, these warnings are sometimes called "red herrings."

  Tell students: Now you can write a prospectus for your company. Tell what product you plan to make, how you plan to produce it, and where you plan to sell it. Tell why you think you will make a profit. Then tell the things that might go wrong which could keep you from earning a profit. Print these in red.

Activity 6A: Whose Shoes? (page 1)

Card #1: In 1962, Phil Knight studied the athletic shoe business for a college research paper. What he learned made him think he could make money by importing athletic shoes from Japan. At that time, most athletic shoes were made in Germany.	**Card #2:** When he graduated, he went to Japan and talked to a shoe manufacturer. He pretended he had a company and made up the name "Blue Ribbon Sports."
Card #3: He persuaded them to let him import their Tiger brand shoes. In December 1963, he imported 200 pairs.	**Card #4:** In 1964, Knight partnered with his University of Oregon running coach, Bill Bowerman. Each one of them put $500 into the business.
Card #5: Knight worked as an accountant during the week and sold shoes from the trunk of his car at track meets on the weekends.	**Card #6:** Coach Bowerman began designing new shoes.
Card #7: In 1965, they hired their first full-time employee. Jeff Johnson, who had been a competitor in track, became their salesman.	**Card #8:** In 1966, Johnson opened a store selling their shoes.

Activity 6A: Whose Shoes? (page 2)

Card #9: In 1967, the two owners, Bowerman and Knight, changed from a partnership form of business when they incorporated as BRS, Inc.	**Card #10:** By 1969, the company needed so much of his time that Knight left his job as Assistant Professor of Business Administration at Portland State University.
Card #11: In 1970, Coach Bowerman tried something new. He poured some liquid rubber on his wife's waffle iron in an experiment trying to create a new kind of shoe sole.	**Card #12:** In 1971, Knight hired Carolyn Davidson, a college classmate to design a logo for the company. They paid her $35.
Card #13: In 1971, salesman Jeff Johnson had a dream about the Greek goddess of victory. They took her name for the name of the company. The name they had been thinking of was "Dimension 6."	**Card #14:** Also in 1971, they needed money to expand. They had trouble getting a loan so the Bank of Tokyo helped them find a lender.
Card #15: In 1973, track record-holder Steve Prefontaine began wearing their shoes in races. Other runners began to try their shoes too.	**Card #16:** In 1974, they launched the shoe with that rubber sole. It was called the "Waffle Trainer" and it became the most popular training shoe in the U.S.

Activity 6A: Whose Shoes? (page 3)

<u>Card #17</u>: In the 1976 Olympics, many athletes wore their shoes.	**<u>Card #18</u>:** They started their own training place for runners in 1977.
<u>Card #19</u>: In 1978, they signed tennis star John McEnroe to endorse their tennis shoes.	**<u>Card #20</u>:** In 1979, they worked with former NASA employee to create air cushions for their shoes.
<u>Card #21</u>: In 1979, they brought a shoe to market with air cushioning. It was called the "Tailwind."	**<u>Card #22</u>:** In 1980, for the first time, a competitor wearing their shoes won an Olympic gold medal.
<u>Card #23</u>: In 1980, their company had grown so large they decided to go public. In an IPO (Initial Public Offering) they sold 2,377,000 shares of stock.	**<u>Card #24</u>:** And the rest is history. What company do you think this story is about?

Visual 6B:

Getting Money

How can a business owner get money to expand?

How can a company get money to grow?

- Use savings or company profits.
- Get a loan.
- Sell bonds.
- Sell stock.

Activity 6C:

Whose Bonds Will You Buy?

Pretend that you have $20 in your piggy bank. Over the weekend, several people want to borrow money from you. Read the stories and decide. Who will you lend your money to?

1. Your Mom is having a garage sale. She needs cash to make change for the day. She will sell you a bond for $20. You will keep the bond for a week and she promises to pay you back $21. You know that she has always paid back her loans. Her credit is very good.

2. Your older brother has a business idea, but he doesn't have any money. (He spent it all on gasoline for his car.) He wants to borrow your money to buy bottled water at a low price at the big warehouse store this weekend. He plans to put the bottles of water on ice in a cooler and take them to the festival in the park next weekend and try to sell them at a higher price. The weather is supposed to be hot, so he thinks he can sell them for $2 each—unless there are lots of other people selling water. If he can't sell them all, he plans to save them and sell them the following weekend at another event. Since he isn't sure how long it will take to sell them all, he will promise to pay you back $21 in four weeks.

3. A student at school, whom you don't know very well, wants to borrow your money to buy candy. He plans to sell this candy at a higher price on the school playground. He believes he can make a lot of money doing this, even though it is against the rules. He promises to pay you back $21 in two weeks.

Discuss these choices in your group. Then each student will decide.

Whose bond will you buy? ___________________________

Activity 6D: Classroom signs #1

Mom's Garage Sale Bond **\$20 repaid with \$1 interest in one week**
Brother's Water Business Bond **\$20 repaid with \$1 interest in four weeks**
Student's Candy Business Bond **\$20 repaid with \$1 interest in two weeks**

Activity 6E: Classroom signs #2

Mom's Garage Sale Bond **$20 repaid with $1 interest in one week**
Brother's Water Business Bond **$20 repaid with $2 interest in four weeks**
Student's Candy Business Bond **$20 repaid with $8 interest in two weeks**

Visual 6F:

How to Finance a Business

	Benefits ☺	Costs ☹
Use Savings <u>or</u> Company Profits		
Get a Loan <u>or</u> Sell Bonds		
Sell Stock		

Activity 6G:

Why Stocks and Bonds?

Letter Tiles Puzzle

gro	et	r t	se
d	ll	rd	mon
pan	o	ond	to
ey		w.	cks
ies	st	s i	Com
n			

Directions: Cut out and rearrange the letter tiles to reveal a message that is a complete sentence. There are three letters or spaces on each tile. All letter tiles must be used. Be sure to put a space after every word. (Clue: The first word, "Companies" is the subject of the sentence. The second word is a verb.)

Copy the answer from the tiles onto these boxes:

Com	pan	ies				

Adventures in the Stock Market

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