The Stock Market: What's All the Shouting About?
Dear Teacher or Parent,

Not so long ago, the stock market was a frightening beast faced only by the most daring investors. In recent years, though, vast numbers of average Americans have poured billions of dollars into stocks through mutual funds, market-based retirement funds, and online brokerages.

It can still be a little frightening, though, what with all the shouting going on: screaming headlines in the newspaper, boisterous analysts on TV, investment seminars, radio shows, telephone calls ...

By using this study guide in conjunction with the newspaper, library resources and the Internet, you and your students can filter out the unnecessary noise and understand the stock market as a vital element of finance — global, national, and personal. Of course, we’ve tried to put some fun here, too.

We suggest that you cover all the units before tackling the exercises in the center spread. Two of the activities there call for a two-week “investment” period, but a longer time frame will give students a better feel for market movements.

Speaking of market movements, the gray line that travels through the pages of this guide charts the ups and downs of the Dow Jones average from its inception in 1896 to the dawn of 2000. Note that decades of market gyrations are mere bumps in the road compared to the new heights reached on the last page of this guide. The Dow began the 1990s at 2810 and finished right at 11,500. That’s a 300 percent increase.

The 9/11 tragedy and an economic slowdown interrupted the rise of the Dow, but the stock market still holds the possibility of future riches.

That’s what all the shouting is about.

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Resources:

Stocks and Bonds, Profits and Losses by Elaine Scott

The Plungers and the Peacocks by Dana L. Thomas

Getting Started in Online Investing by David L. Brown and Kassandra Bentley

Investing Online for Dummies by Kathleen Sindell

BusinessWeek Guide to Mutual Funds

Mutual Fund Investor’s Center at www.mfea.com

Los Angeles Times at www.latimes.com

Kiplinger’s Personal Finance Magazine

Charles Schwab & Co. at www.schwab.com

The Online Investor at www.investhelp.com

E*TRADE at www.etrade.com

Yahoo! Financial Glossary at biz.yahoo.com/f/g/g.html

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A Capital Idea

The stock market is like any other market where people gather to buy and sell things. What they’re selling at the stock market, though, isn’t a product; it’s stock — part ownership — in companies that make or sell products (or ideas or services). These companies often need capital, or start-up money, and buyers are willing to give them that money in hopes that the company will succeed and they will share in the profits.

The idea of capital might be easier to understand if you imagine yourself in need of money for your business idea. Consider the following story:

The Prince of Pepperoni

Let’s say that you are a butcher living in New York City 100 years ago. You run a nice shop featuring many meats, but there’s one in particular that’s especially popular: pepperoni. It’s full of flavor and spices, yet not too greasy. Your friends tell you that you should go into the pepperoni business. You’re listening.

You’ve got a winning pepperoni recipe and you’re willing to work long hours, but to start a larger business, you’ll need money to buy more ingredients, a bigger building, and a delivery truck. You need capital. The banks aren’t willing to risk lending you money, and even your buddies don’t want to spot you a loan.

You explain five of your friends that for $100, you’ll sell each of them 10 percent of the business. If you’re successful, so are they: They’ll make back their investment and more. If you fail, they lose their money.

Your friends buy in, and you form a corporation called Prince’s Pepperoni. Business is good, and you share the profits with your investor friends. They each get 10 percent of what’s left after you’ve paid all the bills and upgraded the equipment.

Life is good, but it gets better. On Spring Street, just around the corner from your pepperoni factory, Mr. Lombardi opens America’s first pizzeria. Tomato and cheese taste good on the round bread, but customers want something more. They want your pepperoni! As more pizzeras open, the demand for pepperoni rises, and so do Prince’s profits.

Each year, you earn a salary and 50 percent of the company’s profits. As you consider retiring in 1945, U.S. soldiers return from World War II with a taste for the pizza they ate in Italy. Now, pizza is hot nationwide, and your pepperoni business, they owned shares of the company. The percentage of the yearly profits they received — called dividends — matched the percentage of company shares they owned. If they had chosen to sell their shares after the company became a big success, they would have made a large profit, too.

And remember, making a large profit is why people take risks with stocks. That’s the spirit of speculation.

The Spirit of Speculation

When it comes to the stock market, speculation is a good word to know. One meaning of the word is “intellectual investigation” — that means doing your research before investing money. Speculation also means “taking risks for a chance of large profit.”

Large profit, huh? Now that’s the spirit of speculation, and it’s also the spirit of America. In order for the country to grow, corporations needed capital to launch new industries. Without capital, good ideas, such as a transcontinental railroad, the telephone, or motion pictures, might have remained just ideas. And today, new companies can put new products in stores — or online — because of the spirit of speculation.

Activity

As a class, practice a little speculating of your own. Look at the news stories on the front page, and — even if you don’t know anything about the stock market — speculate about how the news of today might affect how the public views a company. For example, a plane crash might cause people to lose confidence in the airline involved, and its stock price might fall, too.

Activity

You can speculate about the outcome of sporting events. Look in the sports section and try to predict the outcome of upcoming ball games. Share your predictions with the class, along with the method of research you used.
4: THE STOCK MARKET: WHAT’S ALL THE SHOUTING ABOUT?

What is All the Shouting About?

There's a lot of noise surrounding the stock market these days. In fact, if you had a dime for every time somebody talked about the stock market, you wouldn't need to invest your money there. You'd already be rich! It seems as if our nation is obsessed with the mysteries and exciting possibilities of the stock market.

So, what’s all the shouting about? Here are two answers:

Answer No. 1
The rise and fall of stock prices cause people to shout, either for joy or despair. Throughout America's history, fortunes have been made — and lost — in the stock market, causing investors to shout — or, unfortunately, leap — from the rooftops.

At the dawn of the new millennium, about half of all American adults owned stocks; in 1965, only one out of every 10 was a stockholder. Stock ownership doubled between 1990 and 1997, and new investors have been whooping it up ever since.

Think about this: If you had put $1,000 in a popular stock market investment in 1994 and let it grow for five years, the value would have tripled to $3,391.* What if you had invested $10,000? Or $100,000? You'd be shouting, too!

*Vanguard Index Trust 500, 7/1/94 to 6/30/99

Answer No. 2
To find the most shouting — literally — about the stock market, go to the trading floor of a stock exchange, where shares are bought and sold. If you've ever seen traders in action at the New York Stock Exchange on Wall Street, you might think that our nation's financial future rests on the outcome of a shouting match.

It's true that the trading floor is no place for the timid. Sales people — or brokers — scream out numbers and wave their hands. But all that commotion is more chorus than chaos. Brokers at trading posts shout out the price they want for a particular stock and other traders yell back their prices. When two brokers meet in price, it's pure harmony — loud harmony.

Wall Street Way Back
Wall Street is known today as the financial capital of the world. People hear the name and think "stocks." Bonds, though (see sidebar), were the first securities (a general term for stocks and bonds) traded on Wall Street. During the Revolutionary War, the U.S. government issued bonds to pay for the war. Because the value of bonds — just like stocks — can go up or down, they were subject to speculation and trading. Within a few years, stock in a few newly formed banks was also issued, and brokers were regularly buying and selling stocks and bonds in the open air on Wall Street.

Bonds Away!

Stocks aren't the only type of investment. Another is a bond, which is a loan to a company, city, state, or country. When a corporation or government issues, or sells, a bond, they promise each purchaser to pay back the amount of the bond plus interest, a percentage of the bond amount. Interest is the bondholder's profit — a reward for taking a financial risk. There's risk because the corporation might not be able to pay back the loan.

These brokers, acting as agents for investors, earned a commission, or fee, for handling the purchase and sale of securities. In the spirit of cooperation (and exclusion), the brokers formed an association. In May of 1792, 24 brokers signed an agreement under a buttonwood tree on Wall Street, promising to trade only with each other and to charge the same commission to their customers.

As the country grew, so did the association. In 1817, it was named the New York Stock and Exchange Board, later shortened to the New York Stock Exchange (NYSE). When private corporations needed capital to fund a project or a new industry— canals, railroads,
steel mills — they turned to Wall Street.

Extra Exchanges

The NYSE was and is limited to brokers who are members, trading only those securities listed on that exchange, which is also called “The Big Board.” In 1849, another group of brokers who were not members of the NYSE formed their own exchange, the American Stock Exchange (AMEX).

A third — and quite different — national stock exchange was founded in 1971. Called Nasdaq (nazz-dack), it is an automated information network that trades smaller securities over the telephone and on computer screens instead of at a central location. This type of trading is known as over-the-counter trading.

Regional stock exchanges are found in six U.S. cities, and stock exchanges also operate in more than 130 cities outside the United States. But in terms of prestige and capitalization (the combined value of all shares) the NYSE is the largest of the exchanges.

Take a Seat

Just about anybody can buy stocks, but just about everybody has to go through a broker to buy them. The largest stock exchange, the NYSE, has always limited the purchase and sale of securities to members. To get a membership “seat,” individuals must have a vast knowledge of finance and stocks, along with a vast amount of cash. A seat on the NYSE today costs more than $1 million.

Up until 1869, the NYSE was for members only. No visitors or reporters were allowed to witness the day-to-day dealings of members. One group of outsiders was so curious about the Big Board’s transactions, they rented a building adjacent to the exchange and drilled a peephole to keep up with the trading. In 1869, the NYSE became a public marketplace.

Activity

Write a prospectus — a plan for a new business that includes its prospects for success — that you would send to potential investors. The business can be whatever you can imagine yourself doing — yard work, baby-sitting, pet care, buying and selling baseball cards, etc.

Activity

Investors stay on their toes in October; some of the stock market’s biggest gains and losses have occurred in that month. Look at two of the largest one-day gains in the Dow Jones Industrial Average (a measuring stick of the stock market):

- Oct. 21, 1987 from 1,841.01 to 2,027.85
- Oct. 28, 1997 from 7,161.15 to 7,498.32

Figure the percentage increase on those two big days on Wall Street. Which day saw the biggest change? Even more astounding is the increase of the Dow Jones average during the 10 years that separate those days. What is the percentage increase from the opening on Oct. 21, 1987, to the closing on Oct. 28, 1997? Finally, speculate as to why October seems to be a bewitching month for stocks.

Activity

Wall Street is the financial center of the United States; it’s in New York City. The London Stock Exchange is located on Throgmorton Street (rolls right off the tongue, doesn’t it?). What about your city or town? Look at the ads in the business section of the newspaper to discover the financial center of your city (or a big city nearby). Do most stock brokers and financial advisers have their offices on the same street or area? Using the street name, create a title for a newspaper column about stocks and finance in your town.

Activity

Entrepreneurs who develop a product or service that fills a need stand a good chance of securing capital. Find a news story that describes a problem, then write down a description of a product that would solve that problem. Share your idea with the class.

Activity

Two animals are often associated with the stock market: bulls and bears. Find a news story that uses these animals to describe investor behavior. As a class, develop a definition of each.
Are you ready to play the market? Get ready, get set — STOP!
Before you twitch another brain cell, let’s get one thing straight. Although the phrase “playing the market” is commonly used, using real money to buy stocks is no game. It’s serious business.

It’s hard to avoid the term, though, because like a game, investing in the stock market will produce a winning or losing result. “Playing” the stock market, however, is quite different from playing a game of chess or volleyball. Money lost through a bad investment is money that can never be used for college, car insurance, or groceries.

**Shout It Out**
The floor of the stock exchange is a loud chorus of orchestrated chaos, but more and more, stock transactions — buying and selling — take place with only the hum of a computer. To understand the stock market, though, you should know how stocks are traded through the open outcry method, a polite way to say SHOUTING!

Trading stocks by open outcry began at the NYSE in the early 1800s. The president of the exchange would call out the names of each stock, and members would shout out their bid (they would buy the stock for, say, $14 a share) or their offer (they would sell the same stock for $14.50 a share), now called an ask. Once buyer and seller agreed on a price, a deal was struck, and ownership of stock shares traded hands.

**They’re at the Post**
In the early days of the NYSE, there were only about 30 stocks listed on the Big Board. Today, there are more than 3,000 companies listed. Instead of one small shouting match, there is a series of shouting matches on the floor at 17 trading posts. There, brokers called specialists serve as auctioneers to floor brokers who are trying to get the best prices for their customers.

At each trading post, the specialist handles more than 150 stocks. He sets the price of each stock at the start of trading and then gives quotes, or current prices, to floor brokers. The brokers have gone to that post because a customer wants to buy or sell a specific stock. There are also computer screens showing price information at each post.

The shouting starts when a floor broker learns the current price range of a stock he’s trying to sell; he shouts out his asking price and the number of shares he’s selling. A broker wanting to buy at that price might shout that she’ll “take it.” The trade is then entered into the NYSE’s Market Data System.

**Predicting the futures**
If you think the NYSE is hectic, you should visit the Chicago Board of Trade, where traders sell futures, which are contracts for commodities (goods bought or sold for delivery at a later date). Traders bargain for what they believe will be a good price in future months for oats, soybean oil, and even pork bellies. In addition to computers and the open outcry system, the traders use other forms of communication:

- **body language** — Traders stand at various points in the pits (trading areas) depending on what month they’re focusing on.
- **hand signals** — To make their shouts better understood, a trader holds up fingers to show the price and quantity of his offer. If he’s selling, his palm faces outward; if he’s buying, his palm is turned inward.
- **shouting** — In this open outcry system, buyers call out the price first, and then the quantity; sellers shout quantity first, then price.

**Phone It In**
That’s the way big, institutional orders are traded: loud and in person. If your Aunt Natalie calls her local stock broker to sell 100 shares of Gap Inc., it’s likely that her sale will be conducted...
by computer at the trading post that handles Gap stock. Most smaller transactions on the NYSE — and all Nasdaq Stock Market trades — are handled electronically.

Aunt Natalie can place a market order and sell her stock at the current price, or she can place a limit order by specifying a target price. An order to buy that’s GTC, or good till canceled, keeps her limit order “alive” for 120 days. Limit orders can be used when buying stock, too.

All orders — big or small, shouted out or keyed into a computer — are carried out by brokers who have a seat on the NYSE or work for a brokerage house, an investment company, that owns a seat.

**The Price Is Right**

The price of a stock is determined by supply and demand — good ol’ supply and demand. The phrase is as common as “cats and dogs,” but what does it mean?

Imagine that you’re on a camping trip with friends. The group’s dinner falls into the campfire and burns, and you’re all about to go to bed hungry. Just then, a friend pulls out a Nutrageous bar from his backpack.

Supply and demand: The supply is very low — one candy bar. Demand, however, is extremely high. If you and your hungry friends bid for the bar, do you think the price would be high or low? On the other hand, there are lots of sticks in the woods where you’re camping; the supply is high. Who wants to eat sticks, though? The demand is low, and so is the price.

The law of supply and demand works the same in any marketplace, including the stock market. The demand for a company’s stock (which is in limited supply) will change as people become more or less “hungry” for that stock.

### Your Personal Stock Report

Every day, the newspaper carries detailed reports of market trading from the day before. It has been that way since 1815, when the New York City newspapers began carrying stock tables.

Most newspapers give instructions for reading the stock tables, and the type of information varies from paper to paper. Here’s what an entry in a stock table might look like for the previous day’s trading:

<table>
<thead>
<tr>
<th>52-week High</th>
<th>52-week Low</th>
<th>Stock</th>
<th>Div</th>
<th>%</th>
<th>Yld</th>
<th>P/E</th>
<th>100s</th>
<th>Sales High</th>
<th>Low</th>
<th>Last</th>
<th>Chg</th>
</tr>
</thead>
<tbody>
<tr>
<td>56.87</td>
<td>40.51</td>
<td>XYZ</td>
<td>.92</td>
<td>1.7</td>
<td>16</td>
<td>3452</td>
<td>55</td>
<td>53.82</td>
<td>54</td>
<td>+.48</td>
<td></td>
</tr>
</tbody>
</table>

Don’t worry — it won’t take long to learn the language. Here’s a translation:

**52-week High/Low:** Under these heading is the range in price of the stock. They are listed as points, but they’re really dollars and cents. Knowing the stock’s recent history helps put the current price in perspective.

**Stock:** The name of the company. You might get the whole name, an abbreviation, or the **ticker symbol**, three or more capital letters. XYZ, by the way, is a fictitious company.

**Div:** The dividend is a share of the company’s annual profit (in this case, 92 cents per share) that stockholders receive. A company’s board of directors decides whether to pay a dividend or direct profits back into the company.

**Yld %:** The yield is the rate of return, the profit compared to the price of a share. To figure the yield, divide the dividend by the share price and multiply by 100.

**P/E:** The price/earnings ratio shows the relationship between the cost of the stock and the company’s earnings. Some people use P/Es when comparing stocks. The P/E ratio is calculated by dividing the share price by the earnings per share.

**Sales 100s:** The number of shares traded during the day, also called volume. Heavily traded stocks might soon change in value. Multiply the listed figure by 100 to get the actual number.

**High:** The highest price per share paid during the session, or day.

**Low:** The lowest price paid during the session.

**Last:** The price at the end of the day, sometimes called the close. XYZ closed at $54 per share.

**Chg:** The change in price per share from the day before. XYZ closed “up” 48 cents a share.

**ACTIVITY**

Turn to the stocks tables in the newspaper and find the stocks with the biggest gain, the biggest loss, and the highest volume for the day. Can you find news stories that might explain the action on these stocks? Discuss as a class.

### ACTIVITY

Stock prices are reported in decimals, but up until a few years ago, fractions were used. Is it easier to add and subtract fractions or decimals? Turn to the stock tables and find closing prices for IBM, Coca-Cola, Heinz, and Wal-Mart, along with the “change.” Convert the decimals to fractions — to the nearest 16th — and express the prices in the old format. As a class, discuss how a such a major change in quoting stock prices would affect Wall Street traders, companies, and stockholders.

Does your newspaper list prices for commodities futures? A lot of money is at stake at guessing the price of goods several months down the road. Beside each of the following commodities, write down the type of news you’d look for in the newspaper to help you predict future prices, and then discuss your answers:

- wheat_____________________
- coffee_____________________
- orange juice________________
- cattle_____________________
- heating oil_________________
In the 1990s, millions of Americans made loads of money in the market when stock values skyrocketed. To Stocks Rock! Rock! At other times, though, investments might drop like a rock. How do you stay on top?

Like any other skill, success in the stock market takes understanding and practice. In this study guide, you’re learning how the stock market works — now you have a chance to practice.

### Saving for a Rainy — or Sunny — Day

Get into groups of three or four and work through this exercise together. Be sure you each fill out a worksheet, though. You’ll need a die, and a scientific calculator will come in handy. Good luck!

#### What do you want to be when you grow up?

- **your profession**

#### How much do you earn?

- **Roll the die twice to determine your annual salary.
  - For example, a roll of 3 followed by a roll of 4 means a $34,000 salary.**

- **$ your salary**

#### How much will you save?

- **Roll the die and add it to 10. That’s the percentage of how much you’ll set aside this year for investing.
  - For example, a roll of 2 — added to 10 — means that you’ll save 12% (.12 in decimals) of this year’s salary. Multiply your salary by the percentage to calculate the amount of money you’ll invest.**

- **$ amount invested**

#### How will you invest, and what’s the return?

- **Roll the die once to determine the type of investment you will make (see chart); write the type of investment on the first line below. Roll the die again to calculate the rate of return for that particular investment.**

  - **For example, if you roll a 4, the type of investment will be a CD, and next roll a 2, your rate of return will be (9 - 2) 7% (.07 in decimals).**

- **Roll the die once more to determine the rate of return for that particular investment.**

  - **For example, if you roll a 4, the type of investment will be a CD, and next roll a 2, your rate of return will be (9 - 2) 7% (.07 in decimals).**

- **% rate of return**

- **type of investment**

- **$ amount invested**

- **Roll the die once more to determine the rate of return for that particular investment.**

- **% rate of return**

- **type of investment**

- **$ amount invested**

#### How big is your savings ‘nest egg’ from just one lump-sum investment?

- **Use your answers from the previous questions to work this formula. For “rate of return,” convert the percentage to a decimal, and add 1. For example, a 9% rate of return is expressed 1.09: your original investment (1) plus 9% (.09). To calculate compounded savings, you’ll use “years of growth” as an exponent (see page 11).**

- **Here’s the formula: A x (R)^Y**

  - **A = amount invested**
  - **R = rate of return**
  - **Y = years of growth**

- **$ compounded savings**

- **Whew!**
The Color of Money

People use all kinds of systems to pick stocks. Some investors think they can make better investment choices than stockbrokers and mutual fund managers. Others rely on a broker or fund manager to handle their investments. Let’s do a class experiment:

Divide the class into four groups — Blue, Green, Yellow, Red — and for two weeks, each group will track 10 stocks (or as many stocks as there are group members) listed on the NYSE:

• **Blue Group** will select stocks based on recommendations made in the newspaper or magazines in the library.

• **Green Group** will select its stocks by taping to the wall the financial section with stock listings. Each member in the group will pick a stock, pin-the-tail-on-the-donkey style: Blindfolded with outstretched pencil in hand, walk toward the newspaper until you have picked — or poked — a stock with your pencil. Pick/poke all 10 stocks this way.

• **Yellow Group** will select their stocks based on personal experience. If a group member thinks that McDonald’s sales — and stock price — will increase because of their new menu, put McDonald’s on your list. If you think Reebok shoes are becoming more popular than before, put Reebok on your list.

• **Red Group** will open the newspaper to the NYSE stock listings. Each group member will go to the letter of the alphabet that matches the first letter of their first name, and count down as many stocks as their birth date. For example, Sammy, born on June 11, will look for the eleventh stock listed under “S.”

Teams will “buy” one share of each stock and total their investment for a starting point. Teams can track the daily price of their stocks on a chart, and at the end of two weeks, compare the results. For a reference point, the class can compare the group’s progress to that of the Standard & Poor's 500 or the Dow Jones Industrial Average found in your newspaper’s daily financial section.

At the end of the experiment, write a newspaper advice column on your method of picking stocks, along with an analysis of the results.

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**Invest 5% $10 Trade 10% per share $100,000 BUY! SELL! There’s (Investment) Safety In Numbers**

Investment clubs are formed by groups of friends, students, or co-workers who pool their money to invest in stocks. Divide the class into groups of five or six and start your own investment clubs.

First things first: Your club needs a name. Talk first, though, to see if your group has a common investment strategy or goal (slow and steady, big risk-takers, etc.). Agree on a name, a one-sentence investment strategy, and a list of rules. You can also design a club logo, select club colors, and maybe create a secret handshake.

For the next two weeks, your investment club will be locked in competition with the other clubs, making imaginary investments. Here are the rules:

• You have $100,000 to invest; you must invest 95 percent of it.

• Pick no more than 12 stocks, no fewer than five.

• Invest no more than $20,000 in any one stock.

• After one week, you can sell off stocks and buy new ones — once.

• Each member is responsible for selecting at least one stock based on information gained from the newspaper, such as a news story about an industry or advice from a financial writer.

• At the end of two weeks, share your results with the class.
Two Sons, Two Daughters, and College Tuition — A Modern Fairy Tale

An old man had two sons, and each son had a 3-year-old daughter. As the old man approached death, he took each son aside. To one he said, “I’m leaving you $10,000. Save it to pay for your daughter’s college education.” To the other son, he said, “I’m leaving you $10,000. Invest it to pay for your daughter’s college education.”

In the old man’s mind, he had told both sons the same thing. But telling one to “save” and the other to “invest” had different consequences.

The son who was told to save the money did just that: He kept it under his mattress. After 15 years, his daughter was ready for college, and the $10,000 paid for one year of tuition.

The other son also obeyed his father. Instead of keeping the money under a mattress, though, he invested in a mattress company. The stock’s value grew an average of 12 percent a year. When his daughter was ready for college, the stock sold for $54,735.65 and paid for four years of college and a car.*

Moral: When you get old, be careful what you say.

* Taxes and commissions are not included; this is a fairy tale.

Back to reality. Here’s the real moral of the story: Beyond the noise of the stock market, people’s lives are affected by how they treat their money. After you’ve read this unit, you’ll never look at your piggy bank the same way.

Set a Goal

As the national focus on the stock market has increased, we are flooded with expert advice in newspapers and magazines and on TV and radio. A newcomer to stocks and investing can become overloaded with choices, promises, and warnings. Before you listen to anyone else (well, after you read this guide), listen to yourself when you answer these questions:

- What am I saving for?
- How much will it take?
- When will I need it?

Your answers are your investment goals, and they are likely to change with time. Right now, you might want to save for a CD player, a pickup, or college. In a few years, you might use your investments as a down payment for a house. And then there’s retirement ...

Warning!

Let’s be clear, here. While saving money is the villain in the tale of two sons, it is actually a good and necessary thing. After all, you can’t invest money until you first save some whenever you get paid or receive a gift. Once saving money becomes a habit, you can start investing. Remember: Saving is wise, but investing is wiser.

Warning! Part II

As with anything else in life, there are no guarantees in the stock market, including a 12 percent return as in the story above. Many people who save money choose not to invest in the stock market because of the risk involved — they might lose 12 percent. Other people are willing to assume some risk because of the possible reward: getting rich. In general, the higher the potential payoff, the higher the risk.

There are three sides of risk to consider.

Personality: Some people are comfortable with putting their life’s savings in wild schemes that will either make them very rich or very broke. Other people think even burying their money in the back yard isn’t safe — earthquakes, you know. Before you make any investment, make sure you understand the risk of losing some or all of your money and stay within your comfort zone.

Need: What you plan to do with money might determine how much risk you can afford to take. Simply put, don’t take chances with money you can’t afford to lose. It’s OK to risk your hard-earned money in the market, but make sure you can pay all your bills first.

Time: In most cases, the longer you have before you need to cash in an investment, the more risk you can take in the stock market. Over long periods of time, stocks have consistently outperformed — returned more money...
than — any other type of investment. In the story above, the father who invested knew that the value of the mattress stock would rise and fall, but he was willing to risk that, over time, his investment choice would pay off.

Search for Success

One way to reduce your risk and still stay in the hunt for big financial gain is through asset allocation, blending your money in different types of investments. An investor's asset allocation will depend on her risk tolerance and investment time frame.

Stocks hold the most risk, then bonds, and then cash (not cold, hard cash, but money in an easy-access account). Time — and timing — are important because you can't be sure that a stock will be "up" at the moment you need it.

An aggressive investor with a long time frame might be totally invested in stocks. A conservative investor who needs his money in less than four years might keep his money in bonds and cash. An investor in the middle might maintain a blend of 60 percent stocks, 30 percent bonds, and 10 percent cash.

Even within stocks, investors should spread out — or diversify — their investments. Different types of companies — big, little, foreign, domestic — do better or worse during different economic situations. Many experts advise diversifying so that a loss in one stock won't wipe an investor out.

Unlock the Mystery of Compounding

In the story of the two sons, the one who bought stock earned a hefty return on his investment. The value of the stock grew 12 percent a year, remember? But wait:

Twelve percent of $10,000 (the original investment) is $1,200. That amount times 15 — the years of investment — equals $18,000. Added to the original amount, his total should be $28,000, right? So where did the $54,735.65 come from? Out of the air? By magic?

Well, sort of. If you’ve never heard of the magic of compounding, this is it: When an investment grows and that growth — in our story, $1,200 — is reinvested with the original amount, the next year's growth — another 12 percent — will be based on the new and improved amount. So in the second year, he gained 12 percent not on $10,000, but on $11,200. Success builds on success!

How to calculate compounding

If you have a scientific calculator, figuring compound growth is simple. If you don’t, it just takes longer. Let’s figure how $1,000 earning 7 percent interest will grow in eight years:

Growth of 7 percent can be expressed by adding .07 to 1. That’s 1.07.

Next, multiply the original $1,000 times 1.07 eight times (for eight years): $1,000 x 1.07 x 1.07 x 1.07 x 1.07 x 1.07 x 1.07 x 1.07 x 1.07 = 1,718.19.

Another way to express this is $1,000 x (1.07)⁸. That’s when the scientific calculator comes in handy. (Also search for an “exponent calculator” on the Web.)

ACTIVITY

You can measure the percentage a stock gained or lost in one day’s trading by dividing the change in price by the price before the change, and multiply the answer times 100.

For example:

<table>
<thead>
<tr>
<th>stock</th>
<th>close</th>
<th>change</th>
</tr>
</thead>
<tbody>
<tr>
<td>XYZ</td>
<td>20</td>
<td>+1</td>
</tr>
<tr>
<td></td>
<td>+1 ÷ 19 = .053; .053 x 100 = +5.3%</td>
<td></td>
</tr>
<tr>
<td>ZYX</td>
<td>66</td>
<td>-3/4</td>
</tr>
<tr>
<td></td>
<td>-.75 ÷ 66.75 = .011; .011 x 100 = -1.1%</td>
<td></td>
</tr>
</tbody>
</table>

Look in the newspaper for big changes in individual stock prices, calculate the biggest gainers and the biggest losers of the day, and write them down. Remember, the biggest number change isn’t always the biggest percentage change. As a class, compare answers.

In the business section of the newspaper, find stories that mention the performance of individual stocks and the whole market. Then find an advertisement for a bank that lists a rate for a CD (certificate of deposit, a low-risk investment). How does the return on a CD compare to the return on the stocks you found? How do CDs compare to the overall market?

ACTIVITY

Go to the classified ads in the newspaper and find where collectibles (toys, baseball cards, etc.) are offered for sale. Based on the ads and your personal knowledge, which item would you like to buy as an investment — which will rise in value the most? As a class, compare and contrast investing in collectibles and stocks.
The Feeling is Mutual

For decades, big investors in the stock market have maintained a portfolio (collection) of stocks and bonds monitored by either the broker or the investors themselves. It has always been tough for small investors, though, to buy enough shares in enough stocks to keep a well-rounded portfolio and have time to monitor it. What's a small — or busy — investor to do?

Since the 1920s, the answer has become increasingly clear: mutual funds. A mutual fund is a company that combines money from thousands of investors and buys a bunch of securities to achieve specific investment goals.

Each fund's investments are controlled by a manager, which is one reason that mutual funds are popular with people who have neither the time nor the expertise to research market and economic data. Mutual funds are grouped according to how aggressive or conservative they are, along with the type of investments they hold:

**Growth:** Stocks — in mostly well-established companies — with the potential to increase in value over a long time. The emphasis is on increasing the value of each share, not on dividend income.

**Aggressive growth:** Newer companies whose stock can rise — or fall — dramatically. These funds are never a good choice for short-term investors.

**International:** Growth stocks or bonds from countries outside the United States. Most funds specialize in particular countries or regions, and most carry more risk than U.S. funds.

**Global:** Growth stocks or bonds from around the world, including domestic (U.S.) funds.

**Growth and income:** A blend of stocks that provides current income through dividends as well as long-term growth of capital (the original investment).

**Equity Income:** Stocks that provide high dividends. These funds have their ups and downs, but typically perform better over the long term than non-stock investments.

**Specialty or Sector:** Securities of a specific industry or type — health care, technology, precious metals, etc. These funds are often volatile — they might go way up or way down quickly.

**Bond:** Investment grade bonds are classified as long-, short-, or medium-term. They focus on current income, either taxable or non-taxable. These funds are generally safer than equities (stocks), but are not risk-free.

**Money market:** Nearly risk-free investments in U.S. government agencies, banks, corporations, and U.S. treasury bills. While there's no chance that the initial investment will rise in value, investors receive a higher yield (interest payment) than from a bank account.

Stocks funds are also categorized by the size of companies' total worth, or capitalization. They're known as large-, medium-, or small-cap funds. Within each category, investors can choose funds that target growth or income.

Some mutual funds are tied to a specific stock or bond benchmark, a sort of measuring stick called an index. The most well-known indexes include the following:

- Wilshire 5000 Equity Index — the entire U.S. stock market
- Standard & Poor's 500 Composite Stock Price Index — the biggest companies
- Morgan Stanley Capital International Europe, Australasia, Far East Index — international markets
- Lehman Aggregate Bond Index — all U.S. taxable bonds

The managers of index funds don’t try to outguess the market; instead, they seek to mirror the performance of the target index. Buying only index funds, called indexing, has become a popular investment strategy. Vanguard, a leading company in index funds, receives about $150 million from investors every day.

**Are We Having Fund Yet?**

Today, one in every four U.S. households is invested in mutual funds to the tune of $2.8 trillion. And while investing in mutual funds can be less risky and more profitable than picking individual stocks, you still have to choose from more than 7,000 mutual funds! Here are a few tips for new investors:

1. Determine your investment goals. Big bucks or steady income? Six months, six years, or 16 years?
2. Figure out which type of fund — or combination of funds — will best achieve your goals.
3. Find a rating system — online or in an investment magazine — that can help you narrow your investment choices to three or four companies.
4. Call the companies (use their toll-free numbers) and request a prospectus — official description — for each fund you are considering.
5. Read each prospectus to understand the fund’s strategy, policies, and fees. (See “Loading Zone”)
6. Look at the funds’ performance, its percentage change in share price over a set period of time. When comparing funds, make sure to look at the same performance measurements.
Loading Zone

- A **front-end load**, or sales fee, is a percentage — from one to 8.5 — that is deducted from your investment when you purchase shares of a mutual fund.
- A **back-end load** is deducted when you sell your investment.
- **No-load funds**, as the name implies, carry no sales fees.
- **12b-1 fees** are named after a rule allowing funds to charge a small fee to cover promotion costs.
- Operating expenses, or management fees, are charged by all companies, load or no-load, and average about one percent for bond funds and 1.4 percent for stock funds. Index funds charge management fees as low as 0.14 percent because they are not actively managed.
- An expense **ratio** is a measure of all expenses in relation to the fund’s assets. This ratio allows investors to easily compare funds’ overall costs.

The NAVal Academy

Tracking mutual funds in the newspaper is easy and informative. Here’s how to do it:

<table>
<thead>
<tr>
<th>Fund Company</th>
<th>NAV</th>
<th>Offer Price</th>
<th>NAV Chg</th>
<th>Pct return YTD</th>
<th>5-year</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Fund Co.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth</td>
<td>34.23</td>
<td>34.23</td>
<td>+26</td>
<td>+9.8</td>
<td>+36.4</td>
</tr>
<tr>
<td>Idx500</td>
<td>41.87</td>
<td>41.87</td>
<td>+42</td>
<td>+11.1</td>
<td>+27.0</td>
</tr>
<tr>
<td>Another Fund Co.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BluChip p</td>
<td>36.41</td>
<td>38.63</td>
<td>+32</td>
<td>+10.1</td>
<td>+26.4</td>
</tr>
<tr>
<td>Energy</td>
<td>9.91</td>
<td>9.91</td>
<td>…</td>
<td>+26.2</td>
<td>+11.0</td>
</tr>
</tbody>
</table>

1. Find the fund company first; all of its “family members,” or individual funds, are listed beneath it in alphabetical order.
2. NAV stands for “net asset value,” the value of all the securities in the fund divided by the number of shares held by investors. It’s the per-share price.
3. “Offer price” is what you’d pay for a share and it includes any loads. No-load funds’ offer price will be the same as the NAV.
4. This is the per-share change — plus or minus — from the previous day’s trading.
5. Returns — whether your newspaper lists year-to-date (YTD), one-year, three-year, or five-year — are shown as percentage change in the fund’s NAV and assumes that profits were used to buy more shares during that time.
6. Symbols listed after the fund name give information about fees. The symbols will be explained in the newspaper.

**ACTIVITY**

Operating expenses and loads affect your total return. Let’s say a $10,000 investment in the Spain Fund, an actively managed fund, earns 15 percent, and the expense ratio is 3 percent. What payment will you receive? How much was taken out in expenses? Another $10,000 invested in the France Index, which is passively managed, also earned 15 percent, but carries only a 0.2 percent expense ratio. How much bigger is your return? What if the France Index earns only 14 percent? Is your return still higher than the Spain Fund? Check your calculations with the rest of the class.

**ACTIVITY**

A “socially responsible” mutual fund is made up of stocks that people can feel good about owning. Usually, these funds exclude companies that deal with alcohol, tobacco, and gambling. They often include companies that treat the environment and their employees responsibly.

- Divide into small groups and discuss the types of companies in which you would most like to invest, and make a list. You might include companies that have friendly employees or those that support school and community projects. Try to find stock listings for the companies and build your own socially responsible mutual fund.

**ACTIVITY**

Think of astrological signs as a sort of mutual fund made up of people. Get into small groups and find the horoscope section of the newspaper and read each one. Which sign would be the best investment today? Based on your horoscope, is your stock supposed to rise or fall today?

- In small groups, discuss types of businesses you would want to exclude from any mutual fund. Share your decisions with the rest of the class.
To make money in the stock market, many investors take a “buy and hold” approach, and they might hold onto a stock for years before selling it. After all, in every 20-year period from 1919 to 1998, stocks have outperformed all other types of investments. Other investors use the latest in communication technology and make frequent trades based on market changes, economic news, and rumors. New discoveries, laws, deals, and disasters can all affect stocks dramatically, and traders try to turn information into profit.

Low-tech Lore

After the telegraph was invented in the 1840s, one market adviser combined the new technology with an older form of communication. To get a jump on news from Europe that affected stocks, D.H. Craig would board a U.S.-bound ship in Nova Scotia and read the latest European newspapers. He would then make notes on a piece of tissue paper and send it by carrier pigeon(!) to his associates in Boston. They, in turn, would telegraph the news to Craig’s clients all over America.

Another invention that spread stock news from Wall Street to Main Street was the ticker tape machine. The first tapes were tickered in December of 1867, when a former telegraph operator developed a machine that received each trade by telegraph and recorded it on a strip of paper called a tape. You can see the modern version of this invention scrolling across the bottom of the TV screen on business broadcasts.

Wall Street today relies on technology to process billions of trades every day. As in the past, traders still use state-of-the-art technology to gather information. Telephones, televisions, and computers are all cruising down the information highway, but there’s one big double-wide, double-decker bus that rules the road: the Internet.

Window to the world

Do you remember the story about the investors in the mid-1800s who viewed the action at the NYSE through a peephole? Well, today, anyone with access to the Internet has a peephole through which he can view the financial world — stock prices, advice, industry news, company reports — and make his own trades online.

A note of caution: While it’s one thing to hop on the Internet bus and learn about the stock market online, don’t try to drive it right away. Here are a few Web sites where you can learn the rules of the road:

The basics

These sites are a good place to start if you want to learn more about investing in the stock market:

- New York Stock Exchange (www.nyse.com) — Click on “education.”
- Invest-O-Rama (www.investorama.com)
- The Online Investor (www.investhelp.com)
- Fool School
Research What?

Researching stocks sounds great, but how do you know what to look for? You can develop your own system, but here are a few ideas to get you started. Market Guide Investor, to name one site, lists each of the figures below.

Price to Sales Ratio (PSR): This compares the price of a company’s stock with its sales per share. The lower the number, the more attractive the stock is — look for a figure below 3.

Return on Equity (ROE): This number shows how much your investment is earning. A few years of 20 percent or better is great.

Debt to Equity Ratio: This number lets you compare how much a company owes with how much it has. A figure less that 1 is best; more than 2 is troubling.

Beta: This number measures volatility. The higher the beta, the more the stock moves up and down, and can be very good or very bad.

Price to Earnings Ratio (P/E): Compare a stock’s P/E to the average P/E for the market to see if a company is expected to grow faster or slower than average.

Magazines

You might also find some of these magazines in your school library; all contain information and advice:

- Kiplinger Online (www.kiplinger.com)
- Money (www.pathfinder.com/money)
- Mutual Funds Online (www.mfmag.com)
- Newsweek Online (www.newsweek.com)
- Fortune (www.pathfinder.com/fortune)

Tips, DRIPS, and Blue Chips

Here are sites that offer tools for the advanced trader as well as education pages (where you can learn what a DRIP is):

- Cyberinvest.com (www.cyberinvest.com)
- Wall Street City (www.wallstreetcity.com)
- SmartMoney.com (www.smart-money.com)
- Hoover’s Online (www.hoovers.com)
- Market Guide Investor (www.marketguide.com)
- MSN Investor (www.investor.msn.com)
- Bondsonline (www.bondsonline.com)

If you visited all the sites and read every article and word of advice, you’d suffer a severe case of information overload. That carrier pigeon is looking better all the time, isn’t it?

Cybertrading

The Internet is more than a research tool for investors; it’s also a broker. Since Web-based trading was launched in 1995, investors have been shouting for joy over the lower costs of buying and selling.

What’s all the shouting about? A stock purchase that might carry a $200 commission — sales fee — through a traditional broker can now be made online for $30, $15, or as little as $5.

For an investor who makes a lot of trades, the savings really add up over time. Of course, you need to know what you’re doing.

Discount and deep-discount brokers charge a low commission, as you might guess, but provide limited or no advice. If you need answers and recommendations from a human being, you’ll need to go through a full-service broker, which charges a higher commission.

Here’s important advice: Take all the previous warnings about investing in the stock market and join them with all the warnings you’ve ever heard about buying on the Internet. What have you got? Two big, bright caution lights for any investor. And until you reach legal age, those two caution lights equal red.

The 60-second Shareholder

A new type of investor, called a day trader, takes buying and selling online to a new — and often, dangerous — level. By taking advantage of lower trading costs and improved technology, day traders buy a stock and hold it for only minutes before selling it to earn a small profit. They make dozens of trades a day and hope to make a living through large-volume trading.

While day-trading sounds exciting, studies show it is riskier and usually less successful than the buy-and-hold method.
The Stock Market: What’s All the Shouting About?