

Lesson 5

Save and Invest: Stocks—Owning Part of a Company

Lesson Description

This lesson introduces students to information and basic concepts about the stock market. In a bingo game, students become aware of the wide variety of companies that are publicly traded and are included in the Dow Jones Industrial Average. After reading a short selection from *Building Wealth*, components of a typical stock market table are discussed, and students work in pairs to analyze data from a fictitious stock market table. Outside of class, students research companies from the Dow Jones Industrials to create “Investor Information Sheets” that organize and analyze information about the companies.

National Standards in K–12 Personal Finance Education (www.jumpstart.org)

Saving and Investing

Standard 3: Evaluate investment alternatives.

Instructional Objectives

Students will:

- Define capital gains and losses in terms of changing stock prices.
- Compute the return on investment for a stock that pays a dividend.
- Describe factors that affect the market value of a company’s stock.
- Use varied information sources to assess the performance of an individual stock or group of stocks.

Time Required

One 50-minute class period

Materials Required

- Class set of *Building Wealth* books
- Copies of classroom visuals
 - *Visual 1: Companies of the Dow Jones Industrial Average*
 - *Visual 2: Understanding a Stock Table*
- Copy of the following classroom activity, to be used by teacher
 - *Activity 1: Bingo Call Outs*
- Copies of the following handouts for each student
 - *Handout 1: Dow Jones Bingo Card*
 - *Handout 2: Reading a Stock Table*
 - *Handout 3: Stock Market Research*

Procedure

1. Ask students if they have ever been to a farmers market. Who is doing the selling and who is doing the buying? *Growers of the produce are selling and consumers are buying.* Explain to students that a market is a meeting place where buyers and sellers come together to determine prices.
2. Tell students that they will be learning about a different type of market in this lesson—the stock market. Ask them what they can tell you about a stock market. How is it like a farmers market? Lead discussion to cover the following points:
 - A stock market is like a farmers market in that it is a place that buyers and sellers come together to determine prices. Unlike at the farmers market, financial products—stocks—are being bought and sold, not produce.
 - Stock is a share in the ownership of a company, so when you buy stock, you become part owner in that company. (Ask students why they might want to own stocks. *To increase their net worth.*)
 - Most stocks in the U.S. are traded on the New York Stock Exchange and what is commonly called the NASDAQ (National Association of Securities and Dealers Automated Quotations). Ask students what they know about these two exchanges.
 - Trading at the New York Stock Exchange happens in an actual place, a building on Wall Street in New York. (You may wish to access the website of the New York Stock Exchange to show students pictures of the trading floor.)
 - NASDAQ is computer based, so investors access the market from desktop terminals, and the trade is processed by a mainframe computer.
3. Display *Visual 1: Companies of the Dow Jones Industrial Average*. Tell students that the Dow Jones Industrial Average is an indicator of stock market prices based on the share values of 30 of the largest companies traded on the New York Stock Exchange. The Dow is the most widely used indicator to reflect conditions in the stock market. Ask students if they have ever heard of the Dow. If not, ask them to watch the evening news on television and see if the Dow is mentioned. Ask them to report back on when and where they heard the Dow mentioned.
4. To familiarize students with the companies, play Dow Jones Bingo.
 - Distribute *Handout 1: Dow Jones Bingo Card* to each student.
 - Ask students if they recognize any of the companies that make up the average.
 - Have students use ticker symbols from the list of Dow Jones stocks at the bottom of the page to fill in the 24 blank squares on the card. The center square is a free space.
 - Tell students that they will hear a description of companies on the list. When they hear a description that matches a company on their card, they should circle the ticker symbol.
 - Read company descriptions from the list on *Activity 1: Bingo Call Outs*. Read descriptions in a random order. Teacher should mark off descriptions that have been read on the list in order to verify a student's winning card.
 - Students win when they have marked the squares in a horizontal, vertical or diagonal line. (Alternatively, the teacher could elect to play blackout, where all squares would need to be marked for a win.)
5. Have students read the section on stocks and mutual funds in the *Building Wealth* book, pages 14–15. Review and expand on the reading by emphasizing the following points:

- When an investor buys stock, he or she is buying ownership in the company.
 - Stock owners can earn a return in two ways: dividends and capital gains.
 - Dividends are a portion of a company's profit paid to stock owners. Not all companies (even profitable ones) pay dividends.
 - Over time, the price of a stock can rise or fall. If an investor sells the stock for more than the purchase price, the profit is called a capital gain. If the stock is sold for less than the purchase price, the loss is called a capital loss.
 - Every day, millions of shares of stock are bought and sold. The price of the stock at any point is determined by the actions of sellers and buyers.
 - Stocks can be purchased individually or as part of a mutual fund.
6. Display *Visual 2: Understanding a Stock Table*. Tell students that investors need to be informed about a company before purchasing shares of stock. Important information about current stock prices and dividends, along with other information, is found in a stock table published online or in a newspaper. Use the labels on the visual and the following questions to describe the parts of a typical stock table.
- What parts of the stock table would tell an investor about the opportunity to earn dividend income with the purchase of this stock?
Last price, % change, dividend, % yield and the price/earnings ratio
 - What parts of the stock table would tell an investor about the opportunity to earn capital gains with the purchase of this stock?
Last price, previous day closing price, % change, high and low price today, year high and low
7. Distribute *Handout 2: Reading a Stock Table* to each student. Allow students to complete the questions while working in pairs. After groups have completed the questions, review the correct answers using the responses provided.

Closure

8. Review the major concepts from the lesson using the following questions:
- What are the two ways a stock can provide a return for an investor?
Capital gains from increased price or dividends that are paid by the company
 - What is a capital gain or loss from a stock purchase?
The difference between the purchase and the sale price of a share of stock
 - What is a dividend?
A portion of the company's profit that is paid to certain stock owners
 - What is the yield on a stock?
The dividend or capital gain as a percentage of the purchase price
 - Where can an investor find information about a stock?
Answers will vary, but should include newspapers, online news sources and corporate websites

Assessment

9. Use the list of companies on *Visual 1: Companies of the Dow Jones Industrial Average* to remind students of the 30 companies included in the Dow Jones Industrial Average. Distribute *Handout 3: Stock Market Research*. Assign each student two companies from the list and allow them to conduct research outside of class.

Note to teacher: This research could be completed in pairs or groups. In addition, the teacher might consider assigning companies to each student that represent different industries.

Assess student research using the following criteria:

- Does the student include accurate and complete information about the company?
- Is the information about stock performance, including the price graph, complete and accurate?
- In the summary, has the student identified reasonable and relevant considerations about the future growth and profitability of the company?
- Is the information sheet well designed and visually appealing? Does it use appropriate grammar and punctuation?

Note to teacher: For extra credit, allow students to present in front of the class an overview of the company and why it would or would not be a good investment.

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Visual 1: Companies of the Dow Jones Industrial Average

3M Co.	Intel Corp.
Alcoa Inc.	International Business Machines Corp.
American Express Co.	Johnson & Johnson
AT&T Inc.	JPMorgan Chase & Co.
Bank of America Corp.	Kraft Foods Inc.
Boeing Co.	McDonald's Corp.
Caterpillar Inc.	Merck & Co. Inc.
Chevron Corp.	Microsoft Corp.
Cisco Systems Inc.	Pfizer Inc.
Coca-Cola Co.	Procter & Gamble Co.
E.I. DuPont de Nemours & Co.	The Travelers Cos. Inc.
Exxon Mobil Corp.	United Technologies Corp.
General Electric Co.	Verizon Communications Inc.
Hewlett-Packard Co.	Wal-Mart Stores Inc.
Home Depot Inc.	Walt Disney Co.

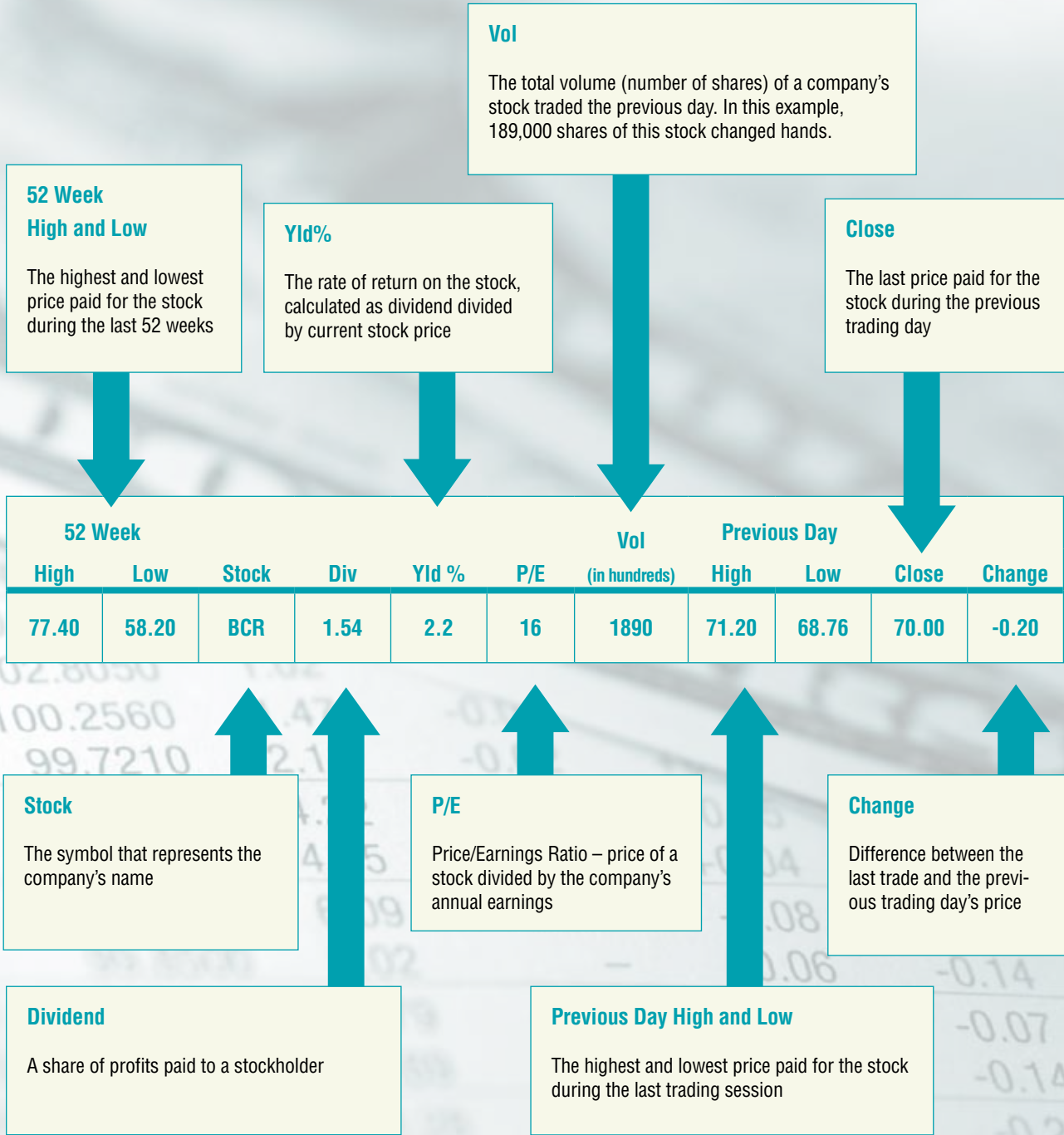
Charles H. Dow first published an industrial stock average on May 26, 1896, and began publishing the average daily in the *Wall Street Journal* on Oct. 7, 1896.

The stocks in the Dow Jones Industrial Average have changed over time. The current list includes 30 companies that are publicly traded and important within their industries.

Source: www.djindexes.com and www.dowjones.com

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Visual 2: Understanding a Stock Table



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Activity 1: Bingo Call Outs

Ticker Symbol	Company Description	Used in Game
MMM	3M Co. is based in St. Paul, Minn., and produces a variety of products including Scotch tape and Post-It Notes.	
AA	Alcoa Inc. produces a wide range of aluminum products and is active in mining, refining, smelting, fabricating and recycling.	
AXP	American Express Co. is best known for its flagship green charge card. It is a global financial services and travel company.	
T	AT&T Inc. provides a variety of telecommunications services worldwide, including wireless communications, local and long-distance services, Internet and broadband, as well as directory advertising and publishing.	
BAC	Bank of America Corp. is a bank holding company. Through its subsidiaries it provides a wide range of financial services and products for consumers, small businesses and corporations.	
BA	The Boeing Co. designs, develops and manufactures commercial jetliners and military aircraft.	
CAT	Caterpillar Inc. manufactures and sells construction, mining and forestry machinery. It also produces engines and has a financial services division.	
CVX	Chevron Corp. is an energy company with fully integrated petroleum operations, chemicals operations, mining operations of coal and other minerals, power generation and energy services.	
CSCO	Cisco Systems, Inc. produces Internet-based networking products and provides services related to those products. It was started by scientists from Stanford University.	
KO	Coca-Cola is the world’s largest beverage company. It manufactures, distributes and markets soft drink concentrates and syrups, water, juices, teas and other beverages in over 200 countries.	
DD	E.I. DuPont de Nemours & Co. (DuPont) is a science and technology company with products and services for agriculture, nutrition, electronics, communications, safety and protection, home and construction, transportation and apparel.	
XOM	Exxon Mobil Corp. is the world’s largest oil and gas company. The company explores for crude oil and natural gas, manufactures petroleum products and transports and sells crude oil, natural gas and petroleum products.	
GE	General Electric Co. has a variety of businesses including technology and energy infrastructure, as well as consumer and industrial services. It also owns NBC Universal.	
HPQ	Hewlett-Packard Co. manufactures and sells information technology products and services to businesses and consumers worldwide. The company’s products include computers and printers.	
HD	The Home Depot Inc. is a home-improvement retailer. It operates more than 2,200 full-service, warehouse-style stores that sell building materials, home improvement and lawn and garden products.	

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Activity 1: Bingo Call Outs

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Ticker Symbol	Company Description	Used in Game
INTC	Intel Corp. produces semiconductor chips, boards and other products that are integral to computers, servers and other electronic products.	
IBM	International Business Machines Corp. (IBM) is an information technology company that offers technology and business services, as well as system architecture and financing.	
JNJ	Johnson & Johnson develops, manufactures and sells products in the health care field. Consumer products, pharmaceutical products and medical devices and diagnostics form the core of its business.	
JPM	JPMorgan Chase & Co. is a global financial services firm that offers investment banking, financial services for consumers, small business and commercial banking, financial transaction processing, asset management and private equity.	
KFT	Kraft Foods Inc. is an international food company that owns familiar brand names like Oscar Mayer and Oreo, as well as its namesake line of cheeses.	
MCD	McDonald's Corp. has more than 30,000 quick-service restaurants in more than 100 countries. Items on the menu include the Big Mac, the Quarter-Pounder and the Egg McMuffin.	
MRK	Merck & Co. Inc. is a global pharmaceutical company that was established in 1891. It discovers, develops, manufactures and markets vaccines and medicines.	
MSFT	Microsoft Corp. developed the Windows operating system and the Office suite of productivity software. This company also makes the Xbox.	
PFE	Pfizer Inc. is a research-based, global pharmaceutical company that develops, manufactures and markets prescription medicines for humans and animals.	
PG	Procter & Gamble Co. makes and sells consumer products in 180 countries around the world. Its brands include Tide, Gillette, Duracell and Crest.	
TRV	The Travelers Cos. Inc. provides a wide variety of insurance products and services through its subsidiaries. Customers around the world include businesses and individuals.	
UTX	United Technologies Corp. is a conglomerate that provides high-tech products and services to the building systems and aerospace industries. Among its six brands are Otis (elevators), Carrier (air conditioning) and Sikorsky (helicopters).	
VZ	Verizon Communications Inc. provides communication services both domestically through its wireless network and internationally with voice, Internet, broadband, long distance and other services.	
WMT	Wal-Mart Stores Inc. is the largest retailer in the world. From its headquarters in Arkansas, it operates its namesake discount stores and supercenters, as well as Sam's Clubs.	
DIS	Walt Disney Co. owns the rights to some of the most famous characters ever created. It operates amusement parks, makes and distributes movies and owns television networks including ABC and ESPN.	

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Handout 1: Dow Jones Bingo Card

B	I	N	G	O

Use the symbols of the companies listed below to fill in the squares on your bingo card.

Company Name	Symbol	Company Name	Symbol
3M Co.	MMM	Intel Corp.	INTC
Alcoa Inc.	AA	International Business Machines Corp.	IBM
American Express Co.	AXP	Johnson & Johnson	JNJ
AT&T Inc.	T	JPMorgan Chase & Co.	JPM
Bank of America Corp.	BAC	Kraft Foods Inc.	KFT
Boeing Co.	BA	McDonald's Corp.	MCD
Caterpillar Inc.	CAT	Merck & Co. Inc.	MRK
Chevron Corp.	CVX	Microsoft Corp.	MSFT
Cisco Systems Inc.	CSCO	Pfizer Inc.	PFE
Coca-Cola Co.	KO	Procter and Gamble Co.	PG
E.I Dupont de Nemours & Co.	DD	The Travelers Cos. Inc.	TRV
Exxon Mobil Corp.	XOM	United Technologies Corp.	UTX
General Electric Co.	GE	Verizon Communications Inc.	VZ
Hewlett-Packard Co.	HPQ	Wal-Mart Stores Inc.	WMT
Home Depot Inc.	HD	Walt Disney Co.	DIS

Name: _____ Date: _____

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Handout 2: Reading a Stock Table

Company	Last Price	Previous Day Closing Price	% change	Annual Dividend per Share	% Yield
A	\$ 55.50	\$56.05	-0.98%	NA	NA
B	\$14.08	\$13.50	4.30%	\$0.75	5.33%
C	\$34.99	\$38.50	-9.12%	\$0.81	2.31%
D	\$17.25	\$15.65	10.22%	\$0.25	1.45%
E	\$30.69	\$29.85	2.81%	\$2.00	6.52%
F	\$23.19	\$23.15	0.17%	\$1.03	4.44%
G	\$11.00	\$14.90	-26.17%	\$0.10	0.91%
H	\$19.18	\$19.50	-1.64%	NA	NA
I	\$11.78	\$8.50	38.59%	\$0.34	2.89%
J	\$16.15	\$14.80	9.12%	\$0.42	2.60%

1. What stocks have gone down in value (depreciated) since yesterday's close?
2. What stocks have gone up in value (appreciated) since yesterday's close?
3. What stock has depreciated the most since yesterday's close?
4. What stock has appreciated the most since yesterday's close?
5. If you had purchased one share of stock in Company A for \$43.00 several years ago and sold the stock at the last price, would the sale result in a capital gain or a capital loss? How much?

For the next three questions, assume that you own 10 shares of each stock listed above.

6. What is the total value of your portfolio of stocks at the last price listed?
7. What is the total amount of dividend payments that you would receive in one year if dividends are paid at the stated amounts?
8. If you had paid \$1,700 for the stocks in your portfolio and sold them all today at the current price, what is the total amount of your capital gain or loss?

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Handout 2: Reading a Stock Table

Answers

1. What stocks have gone down in value (depreciated) since yesterday's close?
A, C, G, H
2. What stocks have gone up in value (appreciated) since yesterday's close?
B, D, E, F, I, J
3. What stock has depreciated the most since yesterday's close?
G
4. What stock has appreciated the most since yesterday's close?
I
5. If you had purchased one share of stock in Company A for \$43.00 several years ago and sold the stock at the last price, would the sale result in a capital gain or a capital loss? How much?
Capital gain of \$12.50 per share
6. What is the total value of your portfolio of stocks at the last price listed?
\$2,338.10
7. What is the total amount of dividend payments that you would receive in one year if dividends are paid at the stated amounts?
\$57
8. If you had paid \$1,700 for the stocks in your portfolio and sold them all today at the current price, what is the total amount of your capital gain or loss?
\$638.10 capital gain

Name: _____ Date: _____

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Handout 3: Stock Market Research

1. Select two companies from the list of stocks included on the Dow Jones Industrial Average. Write the names of the companies below.
 - a. _____
 - b. _____

2. Use newspapers, corporate websites and online news sources to research information about both of the companies you selected. Information should include:
 - a. Name of company
 - b. Description of the company and its business
 - c. Major products or services that the company produces
 - d. Name of president and CEO (may be the same person) along with other leaders that you feel are important.
 - e. Information about the performance of the stock, including price, dividends and yield over the past year.

3. Create an investor information sheet about both of your companies. Provide information that a person should consider before purchasing stock in the company. The sheet should include:
 - a. Information about the company that you gathered in your research
 - b. Graph of the stock price for the last year
 - c. Major competitors or related companies
 - d. Your assessment of the future prospects for the company (see note)

Note: When you assess the future of the company, consider economic developments that would help the company make profits and grow in coming years. Also, consider threats to the company's future growth or profitability. For instance, does the company produce goods or services that are increasingly popular? Are competitors from around the world threatening the company's market share?