

Internet Activities Guide

The Internet is a dynamic and evolving medium. Web sites are continually updated, added, moved, and deleted. We have done our best to suggest stable sites that complement the *Mathematics with Business Applications* Internet activities. However, such integrity cannot be guaranteed to last. Be sure to visit the sites before assigning the activities to your class. If a site is no longer available, the recommended keywords will likely yield a suitable replacement.

CHAPTER 1—Bringing Home the Bacon

Objective: This activity is designed to give students an opportunity to research a variety of industries and their salary ranges depending on location, as well as give thought to their future career choices.

Suggested Search Words: salary, salary data, salary calculator, cost of living

Suggested Web Sites: www.salaryexpert.com,
<http://salary.monster.com/>,
<http://jobstar.org/tools/salary>

Critical Thinking Questions:

1. Answers will vary depending on the students' research, but this is an opportunity for students to examine how the cost of living affects different areas of the country.
2. This is an opportunity for students to think about correlations between education and career.
3. Answers will vary depending on the students' research.

Extension Exercise: This is an opportunity for students to consider how different employers pay their employees and why. It is also an opportunity for them to think about possible career choices.

CHAPTER 2—A Taxing Situation

Objective: This activity is designed to give students an understanding of the importance of federal income tax.

Suggested Search Words: income tax, Internal Revenue Service, 1040EZ, convicted of tax evasion, white collar crime

Suggested Web Sites: <http://www.irs.gov>,
www.hrblock.com

Critical Thinking Questions:

1. Answers will vary. As a federal crime, tax evasion is considered a serious offense. Penalties can range from fines to prison sentences, depending on the severity of the offense.

2. Answers will vary, but should mention careful and honest tax filing practices, organized recordkeeping, and records of receipts.
3. Answers will vary, but should mention federal programs such as education, health care, and the military.

Extension Exercise: This is an opportunity for students to learn how to file the 1040EZ tax form.

CHAPTER 3—The Cost of Living

Objective: This activity is designed to give students an understanding of how much it costs to maintain a household.

Suggested Search Words: cost of living, buying cars online, utility rates, mortgage calculator, apartments

Suggested Web Sites: www.cars.com,
www.apartments.com

Critical Thinking Questions:

1. Answers will vary according to the students' values and opinions, but could include insurance, automobile maintenance, appliances, property taxes, education, furnishings, restaurant meals, investments, savings, charitable contributions, vacations, and gym memberships.
2. This will give the student an opportunity to devise ways to save money on housing costs.
3. Answers will vary according to the cost of living in the students' particular area of the country.

Extension Exercise: This is an opportunity for students to learn how to save money by using coupons and to see how a little savings can add up over time.

CHAPTER 4—One for the Record Books

Objective: This activity is designed to give students an opportunity to research a variety of recordkeeping software packages and learn about their uses in keeping a checking account balanced.

Suggested Search Words: online banking, checking accounts, bounced checks, personal finance software

Suggested Web Sites: www.quicken.com,
www.microsoft.com/money

Critical Thinking Questions:

1. Answers will vary, but could include the ease of automatic addition and subtraction of input numbers, ease in balancing accounts each month, debt reduction plans, and help setting savings goals.
2. Answers will vary according to the students' values and opinions, but they could learn about the opportunity to open a checking account co-signed by a parent or guardian.
3. Answers will vary, but many financial institutions offer an option for automatic transfer from a savings or other account to cover insufficient funds charges, avoiding all overdrafts and associated fees.

Extension Exercise: This is an opportunity for students to learn the consequences of bouncing a check. Depending on their research, they should find that stiff fees could quickly add up from both financial institutions and merchants.

CHAPTER 5—Saving Face

Objective: This activity is designed to give students an understanding of how a variety of savings accounts work.

Suggested Search Words: savings, savings account types, financial planning, credit card debt

Suggested Web Sites: www.wellsfargo.com,
www.unionbank.com,
www.fool.com/credit/credit.htm

Critical Thinking Questions:

1. Answers will vary, but could include saving for an important purchase or long-time goal, saving for emergencies, and saving for retirement.
2. It doesn't make sense to earn, for example, 4 percent interest on money in a savings account while paying up to 20 percent on outstanding credit card debt. With the exception of a mortgage or low-interest auto loan, it always makes the most sense to pay off debt before putting money into a savings account.
3. Answers will vary, but different types of savings programs include traditional savings accounts with minimum balance requirements, certificates of deposit, and money market accounts.

Extension Exercise: The total savings at the end of the year would be \$2,808 (\$2,700 principal plus \$108 interest). This activity is an opportunity for students to learn about interest.

CHAPTER 6—Cash and Carry

Objective: This is an opportunity for students to learn the benefits of comparison shopping by researching price differences on identical items at different retailers.

Suggested Search Words: comparison shop, shop online, sales shopping

Suggested Web Sites: www.smartshop.com,
www.shopping.com, www.target.com,
www.kmart.com, www.amazon.com

Critical Thinking Questions:

1. Answers will vary, but should exhibit a basic understanding of searching out sale items and comparison shopping.
2. Answers will vary depending on the city or state.
3. Answers will vary, but could include convenience of location, higher quality, style, or status.

Extension Exercise: This is an opportunity for students to explore the U.S. Mint Web site and learn about the history of coinage in the United States. The U.S. Treasury at the Bureau of Engraving and Printing in Washington, D.C., creates paper money. More can be learned about paper money at www.ustreas.gov.

CHAPTER 7—Where Credit Is Due

Objective: This activity is designed to give students an opportunity to research the range of credit card offers online and learn that credit must be handled carefully to avoid financial problems.

Suggested Search Words: credit cards, cardholder protection, debit cards

Suggested Web Sites: www.discovercard.com,
www.americanexpress.com, www.mastercard.com,
www.visa.com, www.fool.com/credit/credit.htm

Critical Thinking Questions:

1. Answers will vary, but could include reckless spending, thinking of credit as free money, accruing exorbitant fees by spending over their credit limit, and paying only the minimum balance each month.
2. Answers will vary, but a good credit rating is crucial to being able to make large purchases, such as a home or a car.
3. Answers will vary, but could include being responsible about keeping track of their credit cards, carefully examining monthly statements, and calling the issuer if a card is lost or stolen.

Extension Exercise: This is an opportunity for students to learn the pros of using a debit card instead of credit.

CHAPTER 8—Swimming with Loan Sharks

Objective: The purpose of this activity is for students to learn about the process of payday loans and how these loans can cause more financial problems for people already in trouble.

Suggested Search Words: payday loan, payday loan scam, predatory lending

Suggested Web Sites: www.paydayloan.com, www.paydayloanonline.com

Critical Thinking Questions:

1. Answer will vary, but most payday loan companies require that an applicant be employed at a job for a certain amount of time, make a minimum amount of money before taxes, and have a valid checking account.
2. Answers will vary depending on research, but some sites have an interest rate as high as 800 percent.
3. Consumer groups and state legislatures have argued that payday loan companies take advantage of the working poor by charging exorbitant interest rates.

Extension Exercise: This is an opportunity for students to find out about the number of predatory lenders and see how these aggressive, fraudulent lenders advertise their services to those in financial need. Suggested sites include www.pirg.org/reports/consumer/payday and www.aarp.org/confacts/money/predlend.html.

CHAPTER 9—Deals on Wheels

Objective: This activity is designed to allow students to learn about available options for a new vehicle and how these options can affect the final price.

Suggested Search Words: autos online, online car comparisons

Suggested Web Sites: www.cartalk.com, www.autoweb.com, www.autobytel.com, www.cars.com

Critical Thinking Questions:

1. Answers will vary, but can include the location, economic conditions, the desire for a dealer to make more money, and the types of vehicles sold.
2. Answers will vary.
3. Answers will vary.

Internet Activities Guide (continued)

Extension Exercise: This is an opportunity for students to examine vehicle costs in their area and weigh the pros and cons of buying from a dealer or private owner.

CHAPTER 10—Home Sweet Home

Objective: This is an opportunity for students to learn about differences in mortgage periods and interest rates for buying a home some day.

Suggested Search Words: mortgage calculator, inflation calculator

Suggested Web

Sites: www.interest.com/calculators, www.aier.org/colcalc.html.

Critical Thinking Questions:

1. By choosing a shorter loan period, a homeowner can save hundreds of thousands of dollars on the total cost of buying a home.
2. Answers may vary. Using the mortgage calculator at www.mortgage.interest.com, the total cost for a \$150,000 home purchased with a 30-year loan at 7 percent interest would be \$359,266. A \$150,000 home purchased with a 20-year loan at 7 percent would cost \$279,107.
3. According to the online calculator at the American Institute for Economic Research (<http://www.aier.org/colcalc.html>), a house that sold in 1973 for \$38,000 would sell for roughly \$152,000 in today's dollars.

Extension Exercise: This exercise gives students an opportunity to learn the necessary income levels for securing a \$100,000 or \$200,000 mortgage. Answers will vary depending on the interest calculator the student chooses to use and the amounts entered. According to the mortgage calculator at www.mortgage.interest.com, for example, a person wanting to buy a \$100,000 house with a 30-year mortgage and \$10,000 down payment would need to make about \$35,600 a year. For a \$200,000 house, the same person would need to make about \$73,100 a year.

CHAPTER 11—You Bet Your Life

Objective: This activity is designed to teach students the importance of life insurance and the reasons a person may or may not need coverage at certain stages of life.

Suggested Search Words: insurance, life insurance, insurance calculator

Suggested Web Sites: www.quotesmith.com, www.metlife.com

Critical Thinking Questions:

1. Term life insurance provides protection for a specific period and pays a benefit only if the insured dies during the term of coverage. Initial premiums are usually lower than for permanent insurance, and the insured can purchase higher levels of coverage when it's needed most. Term insurance is good for protecting needs that will disappear in time, such as a mortgage or car loan. Premiums increase, however, as the insured grows older and often become too expensive to continue. This type of policy generally doesn't offer a cash value.
2. Permanent life insurance is just that—permanent. As long as premiums are kept up, the death benefit will be paid. It is intended for long-term use. Costs can be fixed or flexible. A permanent life insurance policy builds up cash value, which can be borrowed against by the insured. The policy's cash value can be turned in for cash or converted into an annuity. Required premium levels, however, may make it difficult to buy adequate protection, and it can cost more than term insurance if not kept long enough.
3. A person in his or her 40s might have different obligations than a person in his or her 70s, such as a spouse who does not work, a mortgage, children, college expenses, and car loans. Life insurance coverage ensures that the head of a household does not leave his or her dependents in debt if deceased. People in their 70s may already own their homes, have no dependents, and have no outstanding debts.

Extension Exercise: Answers will vary depending on the calculator and numbers used. Calculations can be figured using a life insurance calculator such as the one at www.ipipeline.com/quote/e-needs.htm.

CHAPTER 12—Stock in Trade

Objective: This activity is designed to teach students the process of the New York Stock Exchange.

Suggested Search Words: New York Stock Exchange, NYSE, investing, stocks

Suggested Web Sites: www.motleyfool.com, www.nyse.com

Critical Thinking Questions:

1. Answers will vary.
2. The NYSE is regulated to “protect the integrity of the marketplace, member firms, and most importantly, the customer.”
3. To own a seat on the trading floor of the NYSE, a company or individual must be a member firm. Only member firms are permitted to buy and sell on the trading floor. To become a member firm, a company or individual must meet stringent professional standards defined by the Exchange.
4. There are 1,366 seats available.

Extension Exercise: As of this writing, there were 3,000 companies being traded, worth almost \$16 trillion in global market capitalization. Answers for newly listed companies will vary, but some of the oldest listed companies include General Electric, AT&T, Bethlehem Steel, and Sears, Roebuck and Co.

CHAPTER 13—The Personnel Touch

Objective: This activity is designed to show students how to do a successful job search using the Web, as well as the range of salaries and benefits offered by different companies.

Suggested Search Words: online job search, unemployment insurance

Suggested Web Sites: www.monster.com, www.hotjobs.com, www.dice.com

Critical Thinking Questions:

1. Answers will vary, but students might agree that the job with the lower salary but good benefits is a much better offer because the benefits are worth more than the difference in salary.
2. Answers will vary, but could include airfare or vehicle transportation costs, airport parking fees, taxis, meals, and lodging. It's usually better for an employer to consider a wide range of candidates for a job opening, regardless of their locale. It would cost the company more if it hired a local person who turned out to be a poor worker than if it hired someone from out of state who turned out to be an excellent worker.
3. Answers will vary, but a current job posting costs \$220 for 30 days at www.hotjobs.com and \$305 for 60 days at www.monster.com.

Internet Activities Guide (continued)

Extension Exercise: This is an opportunity for students to learn how unemployment insurance can help someone who has lost a job through no fault of his or her own. Answers will vary depending on each state's laws, but unemployment benefits are usually based on a percentage of the highest quarterly income the person reported in the past 12 months.

CHAPTER 14—Supply and Demand

Objective: This activity is designed to give students an opportunity to research the relationship between supply and demand of a popular product.

Suggested Search Words: online news, popular toys, toy craze, toy shortage

Suggested Web Sites: www.cnn.com,
www.yahoo.com, www.msnbc.com

Critical Thinking Questions:

1. Answers will vary, but could include such past holiday toy crazes as the Cabbage Patch Doll, Tickle Me Elmo, Pokemon, Furby, PlayStation2, PSP, or iPod.
2. Answers will vary, but should mention that retailers sold units for well over list price because the demand was much higher than the supply and people were willing to pay more.
3. Answers will vary, but should mention lower cost to the consumer because of supply surpassing demand, and the possibility that the manufacturer might have lessened or even stopped production of the item.

Extension Exercise: This is an opportunity for students to learn about the history of product packaging and how it affects sales.

CHAPTER 15—Buying Online

Objective: The purpose of this activity is for students to research the differences between online wholesale retailers and traditional wholesale retailers.

Suggested Search Words: wholesale, bulk, sweatshops

Suggested Web Sites: www.costco.com,
www.samsclub.com, www.target.com,
www.kmart.com,
www.coopamerica.org/programs/sweatshops

Critical Thinking Questions:

1. Answers will vary, but could include the range of items offered and the quantity of items offered.
2. Answers will vary, but students might find a better deal at a traditional chain store. A box set of the *Lord of the Rings* trilogy, for example,

might cost \$28.00 at Target's Web site and \$39.98 for an almost identical boxed set at the Web site for Sam's Club.

3. Answers will vary, but should mention that large chain stores usually offer a vaster selection because of their ability to buy more products and to own and operate their own warehouses.

Extension Exercise: This is an opportunity for students to learn what sweatshops are, how widespread they are throughout the world, and what companies and consumer groups are doing to eliminate them.

CHAPTER 16—Minding Your Own Business

Objective: The purpose of this activity is for students to create a fictional product and analyze its production cost and appropriate mark-up rate.

Suggested Search Words: gross profit, small business calculator

Suggested Web Sites: www.bankrate.com,
www.ebay.com

Critical Thinking Questions:

1. The student would have to sell two items to make enough money to produce a third piece. The mark-up rate based on the selling price is 0.3333 or 33 percent.
2. Online auction sites such as www.ebay.com can allow a person to sell products online.
3. If a small business is successful and growing, a person might consider creating a Web site specifically for the product. A domain name (or URL) must be obtained and a Web site built. There are numerous resources available online to get a person started.

Extension Exercise: This is an opportunity for students to think creatively about Web site possibilities for their fictional product. Domain name availability can be checked using a domain name search on many Web-building sites, such as www.register.com.

CHAPTER 17—Spam I Am

Objective: This activity is designed for students to learn more about ways in which marketing can be used inappropriately.

Suggested Search Words: spam, online marketing, pop-up ads, banner ads

Suggested Web Sites: www.spam.abuse.net,
www.junkbusters.com

Critical Thinking Questions:

1. The most common online marketing methods are unsolicited commercial e-mail, or spam, pop-up windows, pop-under windows, banner ads, animated ads, and splash ads.
2. One percent. This is a much higher response rate than the average spam message usually gets. Research has shown that the average response rate is only 0.16 percent.
3. Yes. Traditional junk-mail advertisers pay a fee to distribute their materials by third-class mail. Spam is like an envelope that arrives with postage due to the recipient, who pays in the form of disk space charges, connect time, and even long-distance Internet connections to transmit and receive junk e-mail. Spam takes advantage of the cooperative nature of the Internet.

Extension Exercise: This is an opportunity for students to become more aware of the amount of marketing they're exposed to and the way marketing influences what they choose to buy.

CHAPTER 18—Taking Stock

Objective: This activity is designed to give students an opportunity to research the availability of various items at www.amazon.com.

Suggested Search Words: Amazon

Suggested Web Sites: www.amazon.com

Critical Thinking Questions:

1. Amazon.com would have 73,000 copies in stock.
2. Amazon.com would have 450 digital cameras in stock.
3. The annual cost of maintaining the inventory would be about \$421,400.

Extension Exercise: This is an opportunity for students to learn about the types of inventory kept in warehouses in their area.

CHAPTER 19—The Price of Power

Objective: This activity is designed to give students an opportunity to research energy costs and ways to be more energy efficient.

Suggested Search Words: energy calculator, energy efficiency, kilowatt-hours

Suggested Web

Sites: www.homeenergysaver.lbl.gov

Critical Thinking Questions:

1. You would use 2 kilowatt-hours of electricity.
2. Answers will vary, but could include adding insulation, installing more energy-efficient windows or appliances, installing a programmable thermostat, and switching to fluorescent bulbs.
3. Demand charge was \$945.10; energy charge was \$454.50; fuel adjustment charge was \$131.25; total cost was \$1,530.85.

Extension Exercise: This is an opportunity for students to look first-hand at how energy use is measured and billed.

CHAPTER 20—Play Ball

Objective: This activity is designed for students to analyze the payroll for a major league baseball team.

Suggested Search Words: major league baseball, baseball salaries

Suggested Web

Sites: <http://cbs.sportsline.com/u/baseball/mlb/salaries>, mlb.com

Critical Thinking Questions:

1. Answers will vary depending on which baseball team the student chooses.
2. Answers will vary depending on which baseball team the student chooses.
3. Answers will vary, but should mention a huge increase in player salaries, which has caused ticket prices to increase. The average player salary has increased 118-fold since 1967, while the Consumer Price Index has only quadrupled in the same period.

Extension Exercise: This is an opportunity for students to learn about union strikes and collective bargaining.

CHAPTER 21—Cooking the Books

Objective: The purpose of this activity is to make students aware of the consequences of illegal accounting practices.

Suggested Search Words: accounting scandal, audits, employee fraud

Suggested Web Sites: www.cnn.com,
www.businessforum.com, businessweek.com

Critical Thinking Questions:

1. Answers will vary depending on which news story is researched.

2. The real cost of goods sold would be \$163,314. The fraudulent cost of goods would be \$145,512, which means the employee could steal \$17,802.
3. Answers will vary, but could include receipts, copies of tax returns, and check registers.

Extension Exercise: This is an opportunity for students to research ways to reduce the risk of employee fraud such as embezzlement. Answers could include monitoring employees, protecting all accounting documents, regular review and revision of accounting processes, and regular internal audits.

CHAPTER 22—Up and Running

Objective: This activity is designed to help students build a first-year budget for a small business.

Suggested Search Words: small business, business plan

Suggested Web Sites: www.sba.gov

Critical Thinking Questions:

1. Answers will vary depending on the business, but could include funds for salaries/wages, rent, equipment, insurance, supplies, marketing, and utilities.
2. Answers will vary depending on the business.
3. Answers will vary depending on the business and location.

Extension Exercise: This is an opportunity for students to evaluate the possible success of a small business in their area.

CHAPTER 23—Those Were the Days

Objective: This activity is designed to allow students to research the effect of inflation on consumer prices historically.

Suggested Search Words: inflation, inflation calculator, consumer price index

Suggested Web Sites: www.westegg.com/inflation, www.jsc.nasa.gov/bu2/inflate.html

Critical Thinking Questions:

1. Answers will vary, but could include big business, which has the power to increase or lower prices, the government, through financial and monetary policies, and consumers, who can influence prices by what they're willing to buy and how much they're willing to pay.
2. Answers will vary, but effects could include a drop in employment, wages, and production to cut costs rather than increasing the price of products.
3. Answers will vary, but could mention the convenience of online shopping, delivery services, and personal shoppers.

Extension Exercise: This is an opportunity for students to look at the connection between inflation and income rates. By using the online calculator, for example, students could determine that labor rates increased 123 percent from 1981 to 2001.

Internet Glossary

acceptable use policy (AUP) A formal, written agreement that sets terms and conditions of Internet use.

bookmark A tool used to mark the address and title of a favorite site so it can be easily selected in the future.

bulletin boards Public areas on the Internet, usually devoted to specific subjects.

chat room A location on the Internet where you have a typed conversation with someone else, like a typed telephone exchange.

communications software Computer programs for communicating on the Internet.

cyberspace A word coined by science fiction writer William Gibson to describe the world inside a computer network.

domain name The name assigned to a specific Web site.

domain name extension The last letters of a domain name that give a clue to what type of organization owns a site, such as .gov for government.

download To transfer information from the Internet into your computer.

e-commerce Electronic commerce, or business conducted over the Internet.

e-mail Short for electronic mail, the most popular means of communication on the Internet.

emoticons Internet expressions and abbreviations used to convey a message, such as :) for smile and lol for laughing out loud.

filtering software Software designed to prevent access to sites predetermined to be inappropriate.

flaming An Internet term for sending rude or insulting messages.

go menu A tool which lists the recent sites visited by someone on the Internet.

history folder A folder that displays a record of Web site searches.

hyper links Electronic cross-references which consist of specially designated words or images that, when selected, take your Web browser to a new Web site or to a different page of the current site.

Internet A giant, worldwide network of interconnected computers.

Internet Service Provider (ISP) A service, such as America Online, that provides access to the Internet, usually for a monthly fee.

listserv An automatic, free mailing list that forwards messages on a certain topic to its subscribers.

mailing list A collection of e-mail addresses all grouped under a certain name.

modem A device that converts the signal from your computer into a message that is able to travel over phone lines and into another computer.

netiquette Appropriate behavior when using the Internet.

newsgroups Public areas on the Internet, usually devoted to specific subjects.

passphrase A means of identifying a user by a series of letters and numbers which only the user knows and which is more secure than a password.

password A means of uniquely identifying a user by a name or word.

plug-ins Software programs, also known as helper applications, that permit access to certain Web sites or allow you to download and use specific types of files.

processor speed The rate at which a computer can turn data into information that you can recognize.

protocol An agreed-upon language computers need to use to communicate.

search engine A kind of card catalog for all the Web sites on the Internet.

software Computer programs.

spam Junk mail sent over the Internet, or junk e-mail.

Uniform Resource Locator (URL) A typed address for a Web site, usually starting with http://.

virus A small program that replicates itself throughout your computer files, causing damage to files and to computer hardware.

Web browser The actual program used to view information and Web sites on the World Wide Web, such as Microsoft Explorer or Netscape Navigator.

Web site A location you can visit on the Internet.

World Wide Web The data found on the Internet, as opposed to the Internet itself.