

## Unit 1: From Market to Mall

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**Reading Skill: Previewing and Predicting** p. 2

**Apply**

Answers will vary. Possible answers:

1. marketplace, mall, bazaar, arcade, agora
2. 2000 BC, 1757 and 1785, 1867, the 1950s, early 2000s, 2008
3. Iraq; Tehran; St. Petersburg; Milan; Minnesota; People's Republic of China; United Arab Emirates; Istanbul; Alberta, Canada; Jakarta, Indonesia
4. encyclopedias and books about historical marketplaces
5. indoor and outdoor markets around the world

**Reading Comprehension** p. 5

1. T (lines 132–136)
2. T (lines 3–5, 140–144)
3. F (lines 19–20) The concept of a regional trade market is at least five thousand years old.
4. T (lines 25–27)
5. F (lines 51–52) The open-air market called the *agora* originally came from Greece.
6. F (lines 38–40) The bazaars of the Middle East are far from uniform, but typically divided into sections.
7. T (lines 71–76)
8. F (lines 90–97) The Galleria Vittorio Emanuele II inspired Gruen's project.

**Vocabulary Activities Step I: Word Level** p. 5

**A**

Answers will vary. Possible answers:

1. traffic light placement, turn lanes
2. prices, décor, menus
3. same books per grade level, condition of books
4. curriculum, teacher salaries, after-school help
5. office space, computers, work ethic
6. lockable doors and windows, mirrors, headlights, seat belts
7. Answers will vary.
8. Answers will vary.

**Vocabulary Activities Step I: Word Level** p. 6

**B**

- |                        |                        |
|------------------------|------------------------|
| 1. Constructing, posed | 4. constructed, region |
| 2. regional, enhanced  | 5. simulate            |
| 3. enhancement         |                        |

**Vocabulary Activities Step I: Word Level**

p. 6

**C**

Answers will vary. Possible answers:

2. the Tri-State in the Northeast of the U.S.
3. Southern Europe
4. Andalusia, Spain
5. Yucatan, Mexico

**Vocabulary Activities Step II: Sentence Level**

p. 7

**D**

Answers will vary. Possible answers:

1. Academic integrity is important because everyone should do his own research and not copy from others.
2. Academic freedom, which allows people to choose the courses they want to study and to debate issues with others freely, is an important right that is not available in all countries.
3. High academic standards ensure students a quality education.
4. My academic community is diverse and that diversity is important to me because it brings new insights and richer discussions.

**Vocabulary Activities Step II: Sentence Level**

p. 7

**E**

Answers will vary. Possible answers:

1. Some modern malls continue to celebrate a range of festivals, but sports events don't usually take place there.
2. The modern mall is constructed similar to the Persian bazaar. There are specialty shops and chain stores that are enclosed in one area. Both are sources of tax revenue. Malls fit in with Islamic town planning requirement because they are enclosed and kept separate from residential areas.
3. Answers will vary.
4. Yes, shopping at a mall is different because you have everything in one place, parking the car doesn't pose any problems, and the weather doesn't usually matter. It is also different because you might know the people who work in the downtown shops, whereas malls have a lot of employee and store turnover.
5. Factors that are fundamental to the design of a mall are the concept of a lot of stores and businesses in one place, uniform parking lots, separation from residential areas, and lots of open space. They are important because they enhance the ease and comfort of shopping. The idea of open space and skylights used in malls today simulate the European arcade of the 18<sup>th</sup> century.

**Vocabulary Activities Step II: Sentence Level**

p. 8

**F**

Answers will vary.

**Reading Skill: Previewing and Predicting** **p. 9**

**Apply**

1. It is about the architects of the Southdale mall in Minnesota and their successes (up to 1956), as well as about some technical and trade publications that write about the group's work.
2. Harry Levine of the Ruder & Finn company wrote the press release.
3. Its purpose is to draw attention to the contributions that Victor Gruen & Associates made to professional architecture.
4. The focus in Reading 1 is the evolution of the shopping mall over time and around the world. The focus in Reading 2 is the specific contributions of the company Victor Gruen & Associates.

**Reading Comprehension** **p. 12**

- |      |      |      |      |
|------|------|------|------|
| 1. F | 3. T | 5. T | 7. F |
| 2. T | 4. F | 6. T | 8. T |

**Vocabulary Activities Step I: Word Level** **p. 12**

**A**

1. Victor Gruen's approach to the Southdale design posed several important questions.
2. How could a shopping center be enhanced to make it more comfortable in all kinds of weather?
3. Why would customers select a shopping center that might be far from home and beyond the range of their usual travel distance?
4. In developing his concept, Gruen also wondered what would cause customers to stay longer in the mall and buy a range of things.
5. He decided that it was more important to couple the energy of the city with the order and cleanliness of the suburbs.

**Vocabulary Activities Step I: Word Level** **p. 13**

**B**

Answers will vary. Possible answers:

- |                         |                         |
|-------------------------|-------------------------|
| 2. nations              | 7. living arrangements  |
| 3. workplace, business  | 8. TV show, best friend |
| 4. research, publishing | 9. marriage             |
| 5. workplace            | 10. sports              |
| 6. workplace            |                         |

**Vocabulary Activities Step I: Word Level** **p. 13**

**C**

- |      |      |      |      |
|------|------|------|------|
| 1. c | 3. g | 5. a | 7. f |
| 2. e | 4. b | 6. d |      |

**Vocabulary Activities Step I: Word Level** p. 14

**D**

- |             |            |                        |
|-------------|------------|------------------------|
| 1. brochure | 3. catalog | 5. booklet             |
| 2. journals | 4. book    | 6. newspaper, magazine |

**Vocabulary Activities Step II: Sentence Level** p. 14–15

**E**

Answers will vary. Examples:

2. The police officer approached the abandoned car slowly.
3. My dad’s feelings approached ecstasy when my mom agreed to marry him.
4. The children approached their parents about getting a puppy.
5. Mike’s approach to life is simple: He avoids all conflicts.
6. What range of prices do new dishwashers have?
7. The catalog shows a wide range of colors for women’s snow boots.
8. The town’s sports fans ranged from teenagers to seniors.
9. Lions that ranged throughout many parts of Africa are now restricted to reserves.
10. My favorite travel company has a range of packages to fit everyone’s budget.

**Vocabulary Activities Step II: Sentence Level** p. 15–16

**F**

Answers will vary. Examples:

2. Women in their roles as mothers and housewives were usually responsible for cooking family meals because they were not in the workforce. Everyone in the family often helps with cooking or families eat out more often than just on the weekend. This is the case when both parents are in the workforce.
3. In the past, surgery was a crude solution when infection set in, and the results were often very ugly or ended in death. New kinds of medicines help patients avoid surgical procedures such as angioplasty or open-heart surgery.
4. A typical or traditional way to study for a test is to read and review your notes and then take a multiple-choice test. A non-traditional approach is to interview experts on the topic and then write a final essay that summarizes your findings rather than take a test.
5. People take baths or showers at home in bathrooms or private settings. They wear bracelets, necklaces, earrings and rings as body adornments. People go to public bath houses and bathe in group settings. They may wear rings in their noses, navels, and tongues.
6. A traditional method is to set up a stand or a store to sell goods to customers in a mall or other marketplace. Businesses and stores sell their products online, and some websites allow individual people to sell goods.

## Unit 2: Megacities

### Review a Skill: Previewing and Predicting p. 18

The article will be about large cities and regions where a series of large cities are located.

### Reading Comprehension p. 20

1. F (lines 8–9) Regions create economic growth more than nations.
2. F (lines 25–29) No one has collected systematic information about megacities.
3. T (lines 42–43)
4. F (lines 66–69) The biggest Mega in economic terms is the Boston-to-Washington corridor in the U.S.
5. T (lines 88–89)
6. T (lines 113–116)
7. F (lines 59–65) Second cities emerge nearby cities or in the corridors between them.
8. T (lines 48–56)

### Reading Skill: Identifying Main Ideas vs. Supporting Details p. 20–21

#### Apply A

- ✓ Nations don't spur growth as much as dynamic regions
- ✓ The New Megas are the real economic organizing units of the world.
- ✓ The global economy takes shape around perhaps 20 great Megas.

### Reading Skill: Identifying Main Ideas vs. Supporting Details p. 21

#### Apply B

Answers will vary. Possible answers:

Paragraph 2: define New Megas' real sources of global wealth

Paragraph 3: indicate how Megas are determined/recognized

Paragraph 4: describe Megas' disproportionate influence on global economic production

Paragraph 5: describe result when Megas get too big

Paragraph 6: name major Megas in and around the U.S.

Paragraph 7: name major Megas in Europe and Asia

Paragraph 8: discuss importance of Megas in India and China

Paragraph 9: repeat importance of Megas in understanding global economic activity

### Reading Skill: Identifying Main Ideas vs. Supporting Details p. 21

#### Apply C

Answers will vary. Possible answer:

The New Megas are regions in the world that cross national borders and generate the most global economic activity because they attract the most innovative talent.

**Vocabulary Activities Step I: Word Level** **p. 21**

**A**

- |      |      |      |      |
|------|------|------|------|
| 1. c | 3. h | 5. f | 7. d |
| 2. a | 4. b | 6. g | 8. e |

**Vocabulary Activities Step I: Word Level** **p. 22**

**B**

Answers will vary.

**Vocabulary Activities Step I: Word Level** **p. 22–23**

**C**

- |                   |             |            |
|-------------------|-------------|------------|
| 1. communications | 4. network  | 7. rely on |
| 2. global         | 5. migrate  |            |
| 3. define         | 6. survival |            |

**Vocabulary Activities Step I: Word Level** **p. 23**

**D**

Answers will vary. Possible answers:

1. local news program, Internet
2. local electricity company, national energy consumption website
3. vehicle emissions, chemical runoff
4. stimulating environment, free time, music

**Vocabulary Activities Step II: Sentence Level** **p. 23**

**E**

Answers will vary. Possible answers:

1. *Status* here refers to biographical data typically required for legal purposes.
2. *Status* here refers to the prestige or high standing of people in a social hierarchy.
3. *Status* here refers to the condition or progress of a thing, situation, or process.

**Vocabulary Activities Step II: Sentence Level** **p. 24**

**F**

- |                      |               |                |
|----------------------|---------------|----------------|
| 1. relies on         | 4. unreliable | 7. reliability |
| 2. reliable          | 5. relies on  |                |
| 3. reliance, relying | 6. reliably   |                |

Sentences will vary.

**Reading Comprehension**

p. 27

1. T (lines 18–22)
2. F (lines 24–25) Megacities have brought huge environmental and social problems.
3. F (lines 35–40) Returning to the countryside is not an option for modern city dwellers as that would cause its own problems.
4. T (lines 25–27)
5. T (lines 86–88)
6. T (lines 96–99)
7. T (lines 115–117)
8. F (lines 18–22) From next year, the UN Population Division predicts that for the first time in history, more people will live in cities than in the country, and the biggest growth will be in “megacities,” with populations over 10 million.

**Reading Skill: Identifying Main Ideas vs. Supporting Details**

p. 27–28

**Learn**

Answers will vary. Possible answers:

Paragraph 2, Main Idea: Rural-to-urban migration is a global trend.

Supporting detail: In 1900, 10 percent of the population lived in cities.

Supporting detail: Today more people live in cities than in the country.

Paragraph 3, Main Idea: Megacities create environmental and social problems.

Supporting detail: Megacities occupy 2 percent of land but use three quarters of resources.

Supporting detail: Various pollution problems linked to sewage, solid waste, and greenhouse gases.

Paragraph 4, Main Idea: A return to rural living is not really possible.

Supporting detail: Dividing land for individual self-sufficiency would create new natural disasters.

Supporting detail: Cities are actually more efficient for energy production, recycling, and transportation.

Paragraph 5, Main Idea: Government planners are aware of the problems facing megacities and are planning to fix them.

Supporting detail: Two main approaches: more recycling and fewer cars.

Supporting detail: Planners are redesigning cities to integrate work and living areas, thereby increase use of public transport.

Paragraph 6, Main Idea: Many cities already have impressive eco-projects.

Supporting detail: Melbourne’s city council building uses wind turbines and solar cells to generate 85 percent of its electricity.

Supporting detail: Berlin’s parliament uses vegetable oil as an energy source and thereby cut carbon dioxide emissions by 94 percent.

Paragraph 7, Main Idea: Top planning priority is to cut car use.

Supporting detail: Cars require massive networks.

Supporting detail: People should be able to live close to work and public transportation.

Paragraph 8, Main Idea: Shanty towns are a possible ecological model for future cities.

Supporting detail: They're high-density and pedestrianized.

Supporting detail: Their residents recycle waste from big cities.

Paragraph 9, Main Idea: Perhaps we can combine the spontaneously-created shanty town model with a carefully planned infrastructure.

Supporting detail: Cities could retain their advantageous economy of scale.

Supporting detail: Cities could recycle more efficiently and be more flexible for people to live in.

Entire article: Large cities create various ecological problems and challenges, but they also present ecological advantages and possible solutions.

**Vocabulary Activities Step I: Word Level** **p. 28**

**A**

- |                  |                   |                 |
|------------------|-------------------|-----------------|
| 1. communicative | 3. communication  | 5. communicate  |
| 2. communicator  | 4. communications | 6. communicable |

**Vocabulary Activities Step I: Word Level** **p. 29**

**B**

- |                   |                  |                          |
|-------------------|------------------|--------------------------|
| 1. defined        | 4. rely, sources | 7. network               |
| 2. status         | 5. survived      | 8. Despite, major, globe |
| 3. communications | 6. extracting    |                          |

**Vocabulary Activities Step I: Word Level** **p. 29**

**C**

Answers will vary. Possible answers:

2. the Nile
3. the tsunami and nuclear plant meltdown in Japan
4. digital photography
5. the eradication of certain diseases

**Vocabulary Activities Step I: Word Level** **p. 30**

**D**

Answers will vary. Possible answers:

1. emergency medical technician (EMT), resident nursing (RN), pre-med
2. environmental science, business
3. accounting, business
4. business, general studies, communications
5. English, communications (emphasis on journalism)
6. English, communications (emphasis on broadcasting)

**Vocabulary Activities Step II: Sentence Level** **p. 31**

**E**

Answers will vary.

**Vocabulary Activities Step II: Sentence Level**

**p. 31**

**F**

1. b. It was difficult for the mayor to maintain a realistic view of the traffic problem after she was in a car accident.
2. a. The students are using a new computer program that depicts city streets and buildings three-dimensionally.
3. c. From the environmental group's point of view, any law allowing cars into the city center should be opposed as unsafe and unhealthy for citizens.

## Unit 3: In the Public Eye

### Reading Skill: Skimming and Making Predictions

p. 34–35

#### Apply

Answers will vary. Possible answers:

I think this article will be about how people feel about public art.

I think this article will be about what constitutes public art and how public art works are approved.

Heading 1: Public art versus Museum Art

Question 1b: Do people think of public art as different from museum art?:

Heading 2: Causes of Controversy

Question 2a: What is the main reason that people don't like some public art?

Question 2b: Is it necessary for people to like art?

Heading 3: Lessons We've Learned

Question 3a: Is the Parthenon an example of public art that people didn't like at first?

Question 3b: Are there other examples of art that is now well received but wasn't initially?

Main idea: Because people encounter public art in daily life, they have opinions about its purpose.

### Reading Comprehension

p. 37–38

1. c                      2. b                      3. a                      4. d                      5. a

### Review a Skill: Identifying Main Ideas vs. Supporting Details

p. 38

Answers will vary. Possible answers:

Public Art Controversies

Paragraph 1, Main Idea: Public art attracts tourists, but causes controversy.

Supporting Detail: Residents were not happy with art.

Supporting Detail: Debate over what to do with art.

Paragraph 2, Main Idea: Cow Parade art is popular, but controversial in some areas.

Supporting Detail: Some people claim they look cheap and in bad taste.

Supporting Detail: Some object to the way they are decorated.

Paragraphs 3 and 4, Main Idea: People in Phoenix, Arizona thought the city was paying too much for a sculpture, but changed their mind when it was completed.

Supporting Detail: Cost \$2.4 million

Supporting Detail: "Her Secret is Patience" has won several awards and has been well received.

Art Attack

Paragraph 1, Main Idea: Most public art controversies are not about the look of the art.

Supporting Detail: What upsets people is location, durability, safety, property values, funding, and traffic.

Paragraph 2, Main Idea: People are more apt to accept art in museums than in public spaces.

Supporting Detail: San Diego rejected boat scraps art project for downtown.

Supporting Detail: Museum is displaying the art, and it has been very successful.

Paragraph 3, Main Idea: Controversy stems from people's concern that artwork doesn't fit in with a place

Supporting Detail: The artwork breaks routines

Supporting Detail: The artwork breaks visual associations with a place

Paragraphs 4 and 5, Main Idea: Art outlives controversy

Supporting Detail: 2,500 years ago, a senator in Athens complained about buildings such as the Parthenon.

Supporting Detail: The Eiffel Tower and Picasso's 1967 Chicago sculpture were both disliked at time. Now they are loved.

Paragraph 6, Main Idea: To reduce controversy, cities can involve public in decision process and have artists integrate into the surroundings. However, art should not be bland.

Supporting Detail: Cities no longer plop art without considering public opinion.

Vocabulary Activities Step I: Word Level

p. 38

A

- |                               |                              |
|-------------------------------|------------------------------|
| 1. e                          | 5. a                         |
| 2. c; to finance ( <i>v</i> ) | 6. f                         |
| 3. g                          | 7. h                         |
| 4. d                          | 8. b; statement ( <i>n</i> ) |

Vocabulary Activities Step I: Word Level

p. 38–39

B

- |              |                    |              |
|--------------|--------------------|--------------|
| 1. momentary | 4. resources       | 7. covers up |
| 2. limit     | 5. problem, repair | 8. selfish   |
| 3. styles    | 6. ongoing         |              |

Vocabulary Activities Step I: Word Level

p. 39

C

- |               |            |              |
|---------------|------------|--------------|
| 1. goals      | 5. topic   | 9. commented |
| 2. criteria   | 6. ethnic  | 10. mutual   |
| 3. policy     | 7. ongoing |              |
| 4. guidelines | 8. funded  |              |

**Vocabulary Activities Step I: Word Level** **p. 40**

**D**

Answers will vary.

**Vocabulary Activities Step II: Sentence Level** **p. 40**

**E**

Answers will vary. Possible answers:

2. Artists from many different ethnic backgrounds participate in the festival; one gallery manager commented she likes to feature artists of diverse backgrounds and works of different media.
3. The festival's Global Arts Forum explores topics that are of mutual interest to the Middle East, North Africa, South Asia and the rest of the world.
4. The festival takes place in the spring, but planning and preparation are ongoing throughout the year.

**Vocabulary Activities Step II: Sentence Level** **p. 41**

**F**

Answers will vary. Possible answers:

1. A new public art display in Shanghai is funded by the Shanghai Cultural Development Foundation and Shanghai Urban Sculpture Committee Office. The exhibit includes over 200 sculptures by 70 artists from around the world.
2. Even people who don't have any funds for artistic entertainment can see the display because it is free.
3. Liu Jianhua, a sculpture professor at Shanghai University, is pleased to see that the government is now providing funding for public art.
4. In the past, Liu commented that there have not been many sculpture displays in town due to insufficient space and funds.
5. If this show is successful, perhaps the government will create an account to generate funds for public art.
6. Government funding would certainly help the city to improve the quality of its public art.

**Vocabulary Activities Step II: Sentence Level** **p. 41**

**G**

Answers will vary. Possible answers:

2. What funds were available for the public art displays on the downtown sidewalks?
3. Do you try to represent more than one ethnic group in public art displays?
4. What is the topic of the abstract piece in Columbus Park?
5. What guidelines does the town follow when deciding which display gets funding?
6. Who makes the final policy decisions?
7. What is the goal of the current arts program director for this year?
8. When will the next ongoing display begin?

**Reading Skill: Skimming and Making Predictions**

p. 42

**Apply**

I think this article will be about whether graffiti should be considered art.

I think this article will be about how street art is a fad that will not be popular forever.

Paragraph 2: What is the definition of street art and graffiti?

Paragraph 3: What is the goal of street art?

Paragraph 4: Where do we see street art?

Paragraph 5: What are the differences between street art and graffiti?

Paragraph 6: What do city councils think about street art and graffiti?

Paragraph 7: What are the consequences of public acceptance of street art?

Paragraph 8: Why has street art evolved from being in the street to on a canvas?

Paragraph 9: What happens when street art becomes mainstream?

Paragraph 10: Why will the popularity of street art decrease?

Main idea: The popularity of street art may be the cause of its disappearance.

p. 44–45

**Reading Comprehension**

1. c                      2. b                      3. c                      4. a                      5. d

**Vocabulary Activities Step I: Word Level**

p. 45–46

**A**

2. mutually                      4. irrational                      6. inspection  
3. rationalize                      5. ethnically                      7. inspect

**Vocabulary Activities Step I: Word Level**

p. 46

**B**

1. Like other kinds of art, public art projects come in many forms, and the resultant goal can be ongoing or temporary art displays.
2. Public art can have a sole author with a unique voice, or many participants with multiple interpretations.
3. A good public art project requires the organizers to establish a policy that includes clearly defined criteria for reviewing proposals and selecting the project.
4. A rational evaluation process should be used even if funds are being used to create a community-based art project, rather than one done by a paid artist.

**Vocabulary Activities Step II: Sentence Level**

p. 47

**C**

Answers will vary. Possible answers:

It is irrational for bureaucrats and political appointees to be in charge of selecting art projects that should receive funding. Most of them don't have the education to rationally select projects. Instead, the rationale for their choices is based on how helpful the art will be to the local economy.

Vocabulary Activities Step II: Sentence Level

**D**

| <b>For</b>  | <b>Against</b>   |
|---|--|
| Children, parents, and grandparents can spend quality time at these exhibits, because they can discuss a mutual experience. | Animals parades do not have any of the criteria that are generally used to decide if something should be considered art.                                   |
| Displays like Cow Parade have successfully achieved their goal of bringing in shoppers to struggling businesses.            | This phenomenon is ongoing, with no end in sight, and as more locations follow the trend, the individual identities of the cities are lost.                |
| Many young artists see animal art displays as a chance to bring their own interpretation of a topic to a wider audience.    | Legislation that funds public art only allow for a certain amount of money each year, so anything spent on a Cow Parade is taken away from legitimate art. |

## Unit 4: Staying Alive

### Reading Comprehension

p. 53

Answers will vary. Possible answers:

2. Children were the most affected because of the drop in deaths from infectious diseases.

3.

| Time Period                        | Change   |
|------------------------------------|--|
| mid-18th to mid-19th century:      | Improved agricultural techniques resulted in better nutrition and economic growth. Emerging public health measures also played a large role.   |
| end of 19th to early 20th century: | The availability of clean water, waste removal, and personal health education led to a reduction in water- and food-borne diseases.  |
| mid-20th century to now:           | From the 1930s to now, is the time of big medicine. It started with vaccination and antibiotics, and has moved on to a variety of expensive and intensive treatments and procedures. |

4. ✓ better nutrition, ✓ clean water, ✓ intense medical treatments, ✓ antibiotics  
 5. An increase in the production of new knowledge and treatments is likely to increase inequality in health outcomes in the short term, but help is on the way, not only for those who receive it first, but eventually for everyone.

### Reading Skill: Interpreting Charts, Graphs, and Tables

p. 53

#### Apply A

1. c                      2. a                      3. b

### Reading Skill: Interpreting Charts, Graphs, and Tables

p. 54

#### Apply B

Answers will vary. Possible answers:

1. Infant mortality is decreasing and would be expected to continue to decrease but at a slower rate.  
 2. 74%; Clean water greatly reduces mortality rate in infants and children and mortality due to typhoid.  
 3. Lowest: least-developed countries; Highest: industrialized countries. Answers will vary.

### Vocabulary Activities Step I: Word Level

p. 54

#### A

1. c                      3. e                      5. b                      7. d  
 2. g                      4. a                      6. h                      8. f

**Vocabulary Activities Step I: Word Level** **p. 54**

**B**

2. radically      3. radical      4. radically      5. radical

**Vocabulary Activities Step I: Word Level** **p. 55**

**C**

Answers will vary.

**Vocabulary Activities Step II: Sentence Level** **p. 55**

**D**

Answers will vary.

**Vocabulary Activities Step II: Sentence Level** **p. 55**

**E**

2. The introduction of a plentiful supply of clean water in major cities accounted for approximately half of the 30 percent decline in urban death rates during the early 1900s.
3. Clean water was definitely one of the most significant causes of rapid health improvements at the beginning of the 20<sup>th</sup> century.
4. Researchers isolated the role of clean water, after they discovered that deaths dropped sharply in cities that filtered their drinking water.

**Vocabulary Activities Step II: Sentence Level** **p. 56**

**F**

1. Clean water was responsible for the approximate reduction of three-quarters of deaths and two-thirds of child mortality in the first 40 years of the 20<sup>th</sup> century.
2. Clean water was responsible for cutting approximately three-quarters of deaths and two-thirds of child mortality in the first 40 years of the 20<sup>th</sup> century.

**Vocabulary Activities Step II: Sentence Level** **p. 56**

**G**

Answers will vary. Possible answers:

- |                      |                  |                |
|----------------------|------------------|----------------|
| a. School            | b. Health center | c. Family      |
| 2 teacher            | 2 doctor         | 2 mother       |
| 1 principal/director | 3 nurse          | 4 me           |
| 3 older students     | 1 patient        | 1 grandparents |
| 5 my class           | 4 technicians    | 5 siblings     |
| 4 new students       | 5 clerks         | 3 father       |

**Reading Comprehension**

p. 59

**A**

1. T (lines 6–7)
2. T (lines 14–17)
3. F (lines 45–50) Variolation first began in Central Asia.
4. T (lines 55–56)
5. F (lines 35–37) There are still problems reaching all of the children worldwide with immunizations.
6. T (lines 85–88)
7. F (lines 99–100) Side effects from vaccines are minor.
8. F (lines 108–109) Immunization is considered among the most cost-effective of health investments.

**Reading Comprehension**

p. 60

**B**

2. yellow fever
3. pneumococcal disease
4. hepatitis B, meningitis AC, and pneumococcal disease
5. 26,000
6. under 5

**Review a Skill: Identifying Main Ideas and Supporting Details**

p. 60

Answers will vary. Possible answers:

- I. Benefits of immunizations
  - A. Prevention of diseases saves lives
  - B. Prevention of disease reduces health services costs
- II. Examples of effectiveness
  - A. Natural occurrence of smallpox eradicated by 1977
  - B. Polio infections dropped 99% by 1988
  - C. Measles deaths dropped 78% between 2000 and 2008
- III. Global immunization coverage
  - A. Increased since 1974
  - B. By 2009 DTP3 coverage 82%
  - C. Still not reaching millions of children
- IV. New vaccines since 2002
  - A. Improve health in developing countries
  - B. Incidence of meningitis, rotavirus, and pneumococcal disease fallen
- V. History of vaccinations
  - A. Variolation creates resistance to smallpox
    1. First used in Central Asia 10<sup>th</sup> or 11<sup>th</sup> century
    2. England 1798, first systematic immunization against smallpox
  - B. Pasteur develops rabies vaccine 1885
  - C. many vaccines developed in 20<sup>th</sup> century

- VI. How vaccines work
  - A. Human immune systems recognize foreign bacterium, viruses, or toxins
  - B. White blood cells create an antibody
  - C. Immune systems retain protection from bacterium or virus for a long time
- VII. Effectiveness and safety
  - A. Very effective although none are 100 percent effective
  - B. Safe and rarely have major side effects
- VIII. Cost-effectiveness of immunization
  - A. Considered the most cost-effective health investment
  - B. Latin America and the Caribbean study estimates high life-saving results
- IX. Effort to prevent child deaths is ongoing

**Reading Skill: Interpreting Charts, Graphs, and Tables** p. 60

A

- 1. 27%
- 2. measles
- 3. 280,000

**Reading Skill: Interpreting Charts, Graphs, and Tables** p. 61

B

Charts, graphs, tables, or pie charts will vary. Possible table:

| Polio Outbreaks in West Africa |               |               |
|--------------------------------|---------------|---------------|
| Country                        | Cases in 2008 | Cases in 2009 |
| Nigeria                        | 798           | 388           |
| Côte d'Ivoire                  | 1             | 26            |
| Benin                          | 6             | 20            |
| Mauritania                     | 0             | 13            |
| Sierra Leone                   | 0             | 11            |
| Liberia                        | 0             | 11            |
| Cameroon                       | 0             | 3             |

**Vocabulary Activities Step I: Word Level** p. 61

A

- 1. layers
- 2. approximately
- 3. isolated
- 4. recovered, resolved
- 5. outcome
- 6. assured
- 7. definite
- 8. radical

**Vocabulary Activities Step I: Word Level** p. 62

B

Answers will vary.

**Vocabulary Activities Step I: Word Level**

p. 62

**C**

Answers will vary. Possible answers:

2. Immunization helps national governments resolve the expense of treating major outbreaks of disease and the loss of productivity that comes with these illnesses.
3. Immunization also increases productivity by allowing parents to work instead of resolving to stay home to care for sick children.
4. Six diseases—polio, diphtheria, pertussis, measles, tetanus, and tuberculosis—can be resolved by vaccines for only \$17 per child.
5. Most immunizations cost less than 50 U.S. dollars per healthy life year resolved.

**Vocabulary Activities Step II: Sentence Level**

p. 63

**D**

Answers will vary. Possible answers:

1. Vaccines assure immunity from disease. Thus, the WHO is resolved to use them to eradicate certain illnesses.
2. There has been a definite increase in global immunization coverage. However, many children still have not been reached by vaccines.
3. Vaccines currently under development will save many lives in the future. One vaccine is being developed against rotavirus, which kills approximately 450,000 children each year.
4. Vaccination began in the 10th or 11th century with a process called variolation, in which small amounts of smallpox were introduced through pricking holes in layers of skin.
5. Vaccines use a harmless copy of antigens, virus or bacterium parts that the body can recognize, to create immunity. The antigen triggers the body's immune system to "remember" the antigen, in the same way it would for a person who suffered from the illness and then recovered.
6. One aspect of healthcare that is important to consider is safety. In this area, vaccines are impressive, with few side effects.
7. Society is well compensated for the cost of producing and dispensing vaccines because they are relatively cheap to administer and have a high success rate.

**Vocabulary Activities Step II: Sentence Level**

p. 63

**E**

Answers will vary. Possible answers:

1. There should be compensation for my son's medical bills from whoever is responsible for maintaining the park. The hole shouldn't have been there.
2. If I missed the concert for any reason, I would try to compensate my friend by taking him out for a meal. He spent money that was wasted.
3. I wouldn't feel bad about that, but I would tell my family that I expected a birthday celebration as compensation after we finished the move.

## Unit 5: Bodies in Motion

### Reading Comprehension

p. 68–69

1. T
2. T
3. T
4. F StroMotion™ is not the first photographic technique to cause controversy in sports. The photo finish has been around for decades and has caused huge controversies.
5. T
6. T
7. F StroMotion™ is of great value in viewing summer sports. With winter or summer sports it creates stunning video footage displaying the evolution of an athlete’s movement, technique, execution, and tactics over space and time.
8. F StroMotion™ is exclusively available from Dartfish products and services.
9. T
10. F This technology is used in a variety of sports, but it is particularly dramatic to watch during the Olympics. There, tiny flaws made visible can keep a competitor off the medal stand.

### Reading Skill: Summarizing a Text Using Nontext Elements

p. 69

#### Apply

Answers will vary. Possible answers:

1. Olympian athletes use StroMotion™ to improve their performance. StroMotion has caused some controversy when used in competition judging.
2. With StroMotion™, TV sports viewers can see things they couldn’t see before. StroMotion™ is particularly revealing in sports with aerial maneuvers.
3. The photos illustrate the way any motion can be visually stopped and displayed in viewable stages.  
The photos show how competition in sports such as skiing and plays in football can be slowed down to review. The main idea is that these techniques change how we perceive sports.
4. StroMotion™ is a valuable image enhancement technique that enables performers, spectators, and judges to see more than they can with the unaided eye.

### Vocabulary Activities Step I: Word Level

p. 70

#### A

available  
accessible  
obtainable  
usable

display  
advertise  
show  
exhibit

appreciate  
treasure  
understand  
value

**Vocabulary Activities Step I: Word Level** **p. 70**

**B**

- |                 |                |                |
|-----------------|----------------|----------------|
| 1. appreciation | 3. appreciated | 5. appreciated |
| 2. appreciative | 4. appreciated |                |

**Vocabulary Activities Step I: Word Level** **p. 71**

**C**

Answers will vary.

**Vocabulary Activities Step II: Sentence Level** **p. 71**

**D**

Answers will vary. Possible answers:

- |                            |                             |
|----------------------------|-----------------------------|
| A the value of sleep       | B the taste of chocolate    |
| A the importance of family | C a surprise birthday party |
| B a good joke              | B kindness                  |

**Vocabulary Activities Step II: Sentence Level** **p. 71**

**E**

- |      |      |      |      |
|------|------|------|------|
| 1. c | 2. a | 3. d | 4. b |
|------|------|------|------|

Answers will vary. Example sentences:

Art: The children enjoyed seeing their images in the lake water.

Psychology: As role models for young people, pop stars should maintain a healthy, responsible image.

Business/Marketing: If the company wants to keep its family-oriented image, it should be careful about the products it sells.

Literature: I think that the kite in this poem is an image for fun and freedom.

**Vocabulary Activities Step II: Sentence Level** **p. 72**

**F**

New sentences will vary. Possible answers:

2. f An updated version of this manual is needed because the information in it is old.
3. b I need to see the latest version of the proposal.
4. d Corrections were made in the revised version of the book.
5. a Many newspapers offer electronic versions online.
6. c The original version of the movie is much better than the remake.

**Vocabulary Activities Step II: Sentence Level** **p. 72**

**G**

Answers will vary.

**Vocabulary Activities Step II: Sentence Level**

p. 72

**H**

Answers will vary.

**Reading Comprehension**

p. 75

1. F Stanford hired Muybridge to find out whether during a horse's gallop all four hooves were ever off the ground at the same time.
2. F By 1878, Muybridge had successfully photographed a horse in fast motion and proved that the hooves do all leave the ground at the same time.
3. T
4. T
5. F Edgerton's invention was the basis for the built-in light flash found in nearly every camera today.
6. T
7. T
8. T

**Reading Skill: Summarizing a Text Using Nontext Elements**

p. 76

**Apply**

Answers will vary. Possible answers:

1. Two photographers, Muybridge and Edgerton, paved the way for StroMotion™. Motion sequence and stroboscope photography have been very useful.
2. The photos illustrate the way any motion can be visually stopped and used to see things otherwise unseen by the unaided eye.  
The photos show how this photographic process can reveal information about how things move.
3. StroMotion™ is the product of over a century of experimentation and technological development.

**Review a Skill: Identifying Main Ideas and Supporting Details**

p. 76

Paragraph 1, Main Idea: StroMotion™ helps athletes obtain and study movement.

Supporting Detail: StroMotion™ uses processes and technology developed by Muybridge and Edgerton.

Paragraph 2, Main Idea: In 1872, Leland Stanford sought to settle a debate about whether during a horse's gallop all four hooves were off the ground at the same time.

Supporting Detail: Stanford hired Eadweard Muybridge to photograph the horses.

Paragraph 3, Main Idea: By 1878, Muybridge successfully settled the debate through a series of photographs.

Supporting Detail: Muybridge used 50 cameras to photograph a horse in fast motion.

Supporting Detail: Muybridge proved that the horses' hooves do all leave the ground at the same time, but not as artists had shown.

Paragraph 4: Muybridge used this technique to photograph humans and other animals as well.

Supporting Detail: He photographed athletes in a variety of sports

Supporting Detail: He photographed humans walking downstairs.

Supporting Detail: His work helped inaugurate the modern science of biomechanics.

Paragraph 5: Muybridge is considered to have had crucial influence in movie development.

Supporting Detail: Muybridge's sequence of photos appear to the eye to restore motion.

Supporting Detail: Thomas Edison used Muybridge's work as an inspiration as he worked on motion picture processes.

Paragraph 6: Muybridge's work was applied to photojournalism, biomechanics, and stroboscope.

Supporting Detail: Inventors sought ways to photograph faster and faster motion, eventually moving to stroboscope.

Paragraph 7, Main Idea: A stroboscope makes fast-moving objects appear to be slow-moving.

Supporting Detail: Stroboscopes are used in industry to study rotating machine parts or vibrating strings.

Paragraph 8, Main Idea: The stroboscope was invented by Joseph Plateau to make objects appear slow.

Supporting Detail: It is a rotating disc with evenly spaced openings. It rotates to alternately block and reveal objects.

Supporting Detail: When the speed of the disc is adjusted, the object's movement appears to slow—the "stroboscopic effect"

Paragraph 9, Main Idea: Harold Edgerton of MIT improved on Plateau's idea to create an electronic version of the strobe.

Supporting Detail: The rotating disc was replaced by a special lamp that emits brief and rapid flashes of light.

Supporting Detail: The flash is adjusted to make an object appear stationary.

Paragraph 10, Main Idea: Originally, Edgerton wanted to study the stresses of moving machine parts, but he began using it for other purposes.

Supporting Detail: He produced photographs of bullets in transit, hovering hummingbirds, and falling milk drops.

Supporting Detail: The film was similar to motion picture, but much faster.

Paragraphs 11, 12, and 13. Main Idea: Edgerton's invention led to many of the uses we see today.

Supporting Detail: Some examples are built-in flashes in cameras, strobes in nightclubs, alarm systems, theatrical lighting, and high-visibility navigation lights.

Supporting Detail: Stroboscopes are also used in medicine to view the movement of vocal chords.

Supporting Detail: Strobe technology is also used for underwater scanning at dark depths of the ocean.

Paragraph 13, Main Idea: Edgerton's work is used in both science and art and has led to StroMotion™ used by athletes today.

**Vocabulary Activities Step I: Word Level** **p. 76**

**A**

- |               |               |              |                 |
|---------------|---------------|--------------|-----------------|
| 1. dramatist  | 3. abstract   | 5. dramatic  | 7. transitional |
| 2. transition | 4. visibility | 6. invisible |                 |

**Vocabulary Activities Step I: Word Level** **p. 77**

**B**

- |               |              |                |
|---------------|--------------|----------------|
| <b>expose</b> | <b>hence</b> | <b>restore</b> |
| reveal        | consequently | bring back     |
| show          | therefore    | renovate       |
| uncover       | thus         | revive         |

**Vocabulary Activities Step I: Word Level** **p. 77**

**C**

- |      |      |      |
|------|------|------|
| 1. S | 3. Q | 5. S |
| 2. Q | 4. S | 6. Q |

Answers will vary. Possible answers:

Series: There has been a series of bank robberies in the last two months.

Sequence: The robbers' behavior always follows the same sequence: They enter a bank on a Sunday, disarm the alarm, cut the electricity and phone lines, and blow open the safe.

**Vocabulary Activities Step I: Word Level** **p. 78**

**D**

Answers will vary. Possible answers:

1. A caterpillar transitions into a butterfly.
2. A teenager experiences transitions associated with physical and emotional development as he or she matures.
3. A small business may experience transitions as the company grows bigger and has to accommodate the needs of more customers and consequently hire more employees.
4. An ambitious worker may experience transitions associated with learning to become a team player rather than someone just out for himself.
5. A senior citizen may go through transitions associated with getting older physically and accommodating health needs.
6. A story someone thinks of could go through many transitions as it is revised and rewritten.

**Vocabulary Activities Step II: Sentence Level** **p. 79**

**E**

Answers will vary. Possible answers:

2. the team lost the game.
3. she was afraid of bees forever after.
4. he got a lot of music training and encouragement at an early age.
5. A = C.

Vocabulary Activities Step II: Sentence Level

p. 79

F

2. Before coming to the city for school, she had never had any exposure to the arts.
3. The businessman had to resign after the newspaper published an exposé about his questionable financial deals.
4. Parents sometimes allow their children to be exposed to contagious diseases, like measles or chicken pox, so that they will be immune to the disease as adults.
5. The hikers who got lost in the mountains died from exposure to the severe weather.
6. Be sure to put sunscreen on any exposed areas so that your skin doesn't burn.
7. At a home design expo, you can get great ideas for decorating your apartment.
8. His clients exposed him as a fraud and told the police about how he sold them nonexistent property.

Vocabulary Activities Step II: Sentence Level

p. 80

G

- |      |      |      |      |
|------|------|------|------|
| 1. N | 3. N | 5. N | 7. P |
| 2. P | 4. P | 6. N | 8. N |

## Unit 6: The Physics of Fun

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**Review a Skill: Skimming and Making Predictions** p. 82

Ferris wheels have become larger and larger and still fascinate people.

**Reading Comprehension** p. 84

1.  F      2.  T      3.  F      4.  F      5.  T

**Reading Skill: Making Inferences** p. 84–85

**Apply**

Answers will vary. Possible answers:

2.  a Each car was attached to its own axel. This meant that the cars would swing slightly as the wheel rotated but they and the people in them would remain upright.
3.  c Burnham believed that the wheel must violate the laws of physics.
4.  b Ferris finally obtained approval from Burnham after other engineers confirmed the soundness of his plans.
5.  d A news report was written about the wheel, indicating that there was public interest in it.

**Vocabulary Activities Step I: Word Level** p. 86

**A**

- |                                      |   |
|--------------------------------------|---|
| 1. <input type="checkbox"/> prior to | 6. <input type="checkbox"/> regulate    |
| 2. <input type="checkbox"/> revised  | 7. <input type="checkbox"/> credit      |
| 3. <input type="checkbox"/> obtain   | 8. <input type="checkbox"/> regulations |
| 4. <input type="checkbox"/> input    | 9. <input type="checkbox"/> violate     |
| 5. <input type="checkbox"/> drafted  | 10. <input type="checkbox"/> revise     |

**Vocabulary Activities Step I: Word Level** p. 87

**B**

Answers will vary.

**Vocabulary Activities Step I: Word Level** p. 87

**C**

Answers will vary.

**Vocabulary Activities Step II: Sentence Level** p. 88

**D**

- |   |  |   |
|---|--|---|
| 1. <input type="checkbox"/> obtained by   | 3. <input type="checkbox"/> regulations on | 5. <input type="checkbox"/> paragraphs of |
| 2. <input type="checkbox"/> credited with | 4. <input type="checkbox"/> input on       |   |

**Vocabulary Activities Step II: Sentence Level**

**p. 88–89**

**E**

Answers will vary. Possible answers:

2. It is not descended from a local tradition, but originated in Central America in the 1970s, when it was developed by scientists to research local plants and wildlife that had been inaccessible prior to that time.
3. As Canopy Tours have developed into tourist attractions in a variety of tropical locales, many businesses have obtained permission to operate them.
4. As the tours increase in popularity, different countries have developed a variety of regulations for safety—some stricter than others—and the Association for Challenge Course Technology helps inform consumers about which tour programs violate these rules.
5. In addition, groups of tour providers have drafted voluntary guidelines with paragraphs detailing regulations for guide training, equipment standards, and safety inspections.

**Vocabulary Activities Step II: Sentence Level**

**p. 89**

**F**

Answers will vary. Possible answers:

2. With maps that use the Mercator Projection, the north-south and east-west angles have the same amount of distortion, which makes land masses far from the equator appear unusually large.
3. Although use of the Mercator Projection has been criticized as distorting shapes, it has been used for many years and is still very popular.
4. Recently, developers in Dubai used the Mercator Projection to distort the shape of the coastline, creating “The World,” a group of man-made islands that look like land masses on a map of the world.
5. Islands representing different countries can be bought by private owners, who can then distort their shapes, creating tourist attractions and amusements.

**Reading Comprehension**

**p. 92**

1. F      2. F      3. T      4. F      5. T

**Reading Skill: Making Inferences**

**p. 92**

**Apply**

Answers will vary. Possible answers:

1. The Pfister study showed that the effect on the head during a roller coaster was similar to the everyday blows one might get while pillow fighting or doing other romping.
2. It can be inferred that people want more and more excitement from rides, and amusement parks are trying to give the customers what they want.
3. Yes, ride operators should be of an age when they are mature and therefore careful and responsible. / No, the regulations are not necessary. It is like other jobs. Teenagers learn how to operate things very quickly.

**Vocabulary Activities Step I: Word Level** **p. 93**

**A**

- |                                  |              |
|----------------------------------|--------------|
| 1. clearly                       | 3. dangerous |
| 2. accepted, structures, serious | 4. review    |

**Vocabulary Activities Step I: Word Level** **p. 93**

**B**

- |                     |                      |
|---------------------|----------------------|
| washing dishes      | making coffee        |
| brushing your teeth | washing clothes      |
| watering the garden | cleaning the floor   |
| answering the phone | mending torn clothes |

**Vocabulary Activities Step I: Word Level** **p. 94**

**C**

Answers will vary. Possible answers:

- |                          |                                 |
|--------------------------|---------------------------------|
| B earn money for working | C get a secondary school degree |
| C stay at home alone     | B open a bank account           |
| N ride the bus alone     | N have an email address         |
| B drive a car            | C watch a violent movie         |
| C get married            | C play on a sports team         |
| C buy cigarettes         |                                 |

**Vocabulary Activities Step I: Word Level** **p. 94**

**D**

- |              |             |             |           |
|--------------|-------------|-------------|-----------|
| 1. input     | 3. brief    | 5. violated | 7. credit |
| 2. paragraph | 4. prior to | 6. revise   |           |

**Vocabulary Activities Step II: Sentence Level** **p. 95**

**E**

Answers will vary.

**Vocabulary Activities Step II: Sentence Level** **p. 95**

**F**

Answers will vary.

**Vocabulary Activities Step II: Sentence Level** **p. 96**

**G**

Answers will vary.

## Unit 7: Mind Wide Open

**Reading Skill: Annotating and Highlighting a Text** p. 98

**Apply**

Annotations will vary.

**Reading Comprehension** p. 101

- |                               |                               |                               |                               |
|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| 1. <input type="checkbox"/> T | 3. <input type="checkbox"/> T | 5. <input type="checkbox"/> F | 7. <input type="checkbox"/> T |
| 2. <input type="checkbox"/> T | 4. <input type="checkbox"/> F | 6. <input type="checkbox"/> T | 8. <input type="checkbox"/> F |

**Reading Skill: Annotating and Highlighting a Text** p. 102

**Apply**

Answers will vary.

**Vocabulary Activities Step I: Word Level** p. 102

**A**

- |                               |                               |                               |                               |
|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| 1. <input type="checkbox"/> d | 2. <input type="checkbox"/> a | 3. <input type="checkbox"/> b | 4. <input type="checkbox"/> c |
|-------------------------------|-------------------------------|-------------------------------|-------------------------------|

Answers will vary. Example answers:

2. documents, photos, music files
3. I attach a lot of importance to listening to people when they talk to me.
4. I attach no importance to the latest shoe fashions.
5. I feel attached to my husband and children.
6. I feel attached to my backpack. I've had it since high school and it's gone a lot of places with me.

**Vocabulary Activities Step I: Word Level** p. 103

**B**

|                |                |               |                    |
|----------------|----------------|---------------|--------------------|
| <b>obvious</b> | <b>trigger</b> | <b>attach</b> | <b>distinctive</b> |
| apparent       | activate       | add           | different          |
| clear          | cause          | adhere        | distinguishing     |
| conspicuous    | spark          | connect       | special            |
| plain          | start          | fasten        | unique             |

**Vocabulary Activities Step II: Sentence Level** p. 103

**C**

Answers will vary. Possible answers:

2. can allow us to better see/understand the workings of the human brain.
3. an experienced and interesting writer who explains difficult concepts very well.
4. the review is positive and says, "This is an entertaining and instructive ride . . ."

**Vocabulary Activities Step II: Sentence Level** **p. 104**

**D**

Answers will vary. Possible questions:

2. What insights might a psychology book reveal about unhappiness?
3. What insights might best friends have into each other?
4. What insights might a veterinarian have into animal behavior?
5. What insights might a babysitter have into family problems?
6. What insights might an anthropologist have into workplace politics?

**Reading Comprehension** **p. 108**

- |      |      |      |      |
|------|------|------|------|
| 1. T | 3. T | 5. F | 7. T |
| 2. F | 4. T | 6. F | 8. T |

**Reading Skill: Annotating and Highlighting a Text** **p. 109**

**Apply**

Answer will vary. Example answer:

According to recent research, out-of-body experiences are not due to paranormal activity. Instead they can be induced by applying mild electric current to specific spots in the brain. The result is generally perceived as unpleasant because the person being evaluated feels there is a ghost figure or other self nearby who seems threatening. The integrity of a person's sense of self can be altered when certain parts of the brain are stimulated by an electric current. The current triggers a sensation that may conflict with other information the body is experiencing. Dr. Blanke believes that the brain tries to make sense of conflicting information about what people are feeling, and that makes them feel they are having an out-of-body experience.

**Vocabulary Activities Step I: Word Level** **p. 109**

**A**

- |            |                     |                   |
|------------|---------------------|-------------------|
| 1. initial | 3. visual, attached | 5. insight        |
| 2. induce  | 4. distinctive      | 6. minor, chapter |

**Vocabulary Activities Step I: Word Level** **p. 110**

**B**

|              |                                     |
|--------------|-------------------------------------|
| <b>round</b> | <b>area of interest or activity</b> |
| ball         | circle                              |
| circle       | domain                              |
| globe        | field                               |
| planet       | zone                                |

**Vocabulary Activities Step I: Word Level** **p. 110**

**C**

- |                        |                    |                 |
|------------------------|--------------------|-----------------|
| 1. spherical objects   | 3. hemispheres     | 5. wider sphere |
| 2. sphere of influence | 4. academic sphere |                 |

**Vocabulary Activities Step I: Word Level** **p. 111**

**D**

Answers will vary. Possible answers:

1. a light bulb that went out: This is minor because it is very easy to get another light bulb and put it in.
2. a paper cut: This is minor because the cut is not deep, and it doesn't bleed.
3. a newspaper thrown in the snow by the carrier: This is minor because the newspaper is usually wrapped in plastic so it can't get wet. You can easily get it out of the snow.
4. Native Americans: They are considered a minority in the United States because they make up a small percentage of the population.

**Vocabulary Activities Step II: Sentence Level** **p. 111**

**E**

Answers will vary. Possible answers:

- |                           |                                      |
|---------------------------|--------------------------------------|
| 1. a good joke            | 4. not having good job opportunities |
| 2. the death of someone   | 5. losing their home                 |
| 3. pressure from a friend | 6. physical and emotional hardship   |

**Vocabulary Activities Step II: Sentence Level** **p. 112**

**F**

Answers will vary. Possible answers:

1. You don't have car insurance, so you'll have to pay for the damage yourself. / You are completely covered by your insurance company.
2. You say something offensive. / Your roommate's parents tell you that they like you.
3. You fail the test and cannot make it up. / The teacher allows you to take it later in the day.
4. Someone is planning to steal your money and hurt you. / There is no one following you. It's just your imagination.

**Vocabulary Activities Step II: Sentence Level** **p. 112**

**G**

Answers will vary. Possible answers:

1. b, c After the earthquake, engineers inspected all campus buildings and found no signs of damage to their structural stability.
2. b The security of the company's computer network may have been undermined by hackers.
3. a, c Academic honesty is essential for building trust between a student and teacher.
4. a, b The financial solidness of the business is based on its investments in a wide variety of related consumer products and on its commitment to customer service.

## Unit 8: Child Prodigies

---

### Reading Comprehension

- |      |      |      |      |      |
|------|------|------|------|------|
| 1. F | 3. F | 5. F | 7. F | 9. T |
| 2. T | 4. T | 6. T | 8. F |      |

p. 116

### Reading Skill: Recognizing Comparison and Contrast

p. 116

#### Apply A

|           |                   |                     |
|-----------|-------------------|---------------------|
| S both    | S in the same way | D on the contrary   |
| D but     | D instead of      | D on the other hand |
| D despite | S likewise        | S similarly         |
| D however | S moreover        | D unlike            |

### Reading Skill: Recognizing Comparison and Contrast

p. 117

#### Apply B

1. Line 3  
Context clue: However (contrast)  
Words: normal/ unusual
2. Line 13  
Context clue: likewise (comparison)  
Words: Another two-year-old child
3. Line 33  
Context clue: on the other hand (contrast)  
Words: praise and attention/ criticism
4. Line 52  
Context clue: Similarly (comparison)  
Words: Abigail Sin/ Nguyen Ngoc Truong Son
5. Line 68  
Context clue: unlike (contrast)  
Words: prodigies/children of average intelligence
6. Line 77  
Context clue: instead of (contrast)  
Words: child's environment, child's biology
7. Line 89  
Context clue: On the contrary (contrast)  
Words: Other parents/some parents

**Vocabulary Activities Step I: Word Level**

**p. 117–118**

**A**

- |            |              |              |
|------------|--------------|--------------|
| 1. display | 3. utilize   | 5. isolation |
| 2. expert  | 4. a feeling |              |

**Vocabulary Activities Step I: Word Level**

**p. 118**

**B**

Possible answers:

- books: to look for information out of her sphere of knowledge
- a computer: to look at patients' medical records
- another doctor in the family: to compare findings or consult with
- a microscope: to look at a throat culture
- a telephone: to call patients about test results

**Vocabulary Activities Step I: Word Level**

**p. 118**

**C**

Answers will vary. Possible answers:

- exercise equipment, running shoes, moral support
- interview techniques, a wireless laptop or notepad, persistence
- a wireless laptop or notepad, knowledge of economics and communications, a mentor
- school supplies, ongoing professional development, patience

**Vocabulary Activities Step I: Word Level**

**p. 118**

**D**

Answers will vary. Possible answers:

|                         |  |   |
|-------------------------|--|---|
| 1. a spy                | her true profession                        | Her family could be in danger.  |
| 2. a research scientist | his current project details                | A competitor could steal his ideas.                                     |
| 3. a used-car salesman  | that there is something wrong with the car | The buyer will probably not buy it.                                     |
| 4. a politician         | her bad behavior as a teenager             | Voters might feel that she was not entirely truthful.                   |
| 5. a psychiatrist       | notes on patients                          | Doctors can lose their licenses if they do not respect confidentiality. |

**Vocabulary Activities Step II: Sentence Level**

**p. 119**

**E**

Answers will vary. Possible answers:

- It was very challenging for Billy Sidis to socialize with others.
- One of the challenges for researchers and experts is that it is hard to study child prodigies without isolating them from society.
- Child prodigies challenge society to resist the impulse to reject those who are different.
- Answers will vary.

**Vocabulary Activities Step II: Sentence Level**

p. 120

**F**

Answers will vary. Possible answers:

2. Chandra's father wanted to encourage his skill with technology.
3. He hoped that Chandra would develop expertise in computers.
4. His father was poor, but he found ways to acquire resources like a computer for his son when he was only four years old.
5. A very resourceful child, Chandra found a way to teach himself to use MS-DOS, and the computer programs LOTUS and MS-Word.
6. He was considerably younger than the typical age of 30 when he became the world's youngest Microsoft Certified Systems Engineer.
7. When he was 11 and a student at a university in Madras, the government of India honored Chandra because he was an expert on the technology related to computer network security.

**Vocabulary Activities Step II: Sentence Level**

p. 120

**G**

Answers will vary. Possible answers:

2. Which factors were most important in your success?
3. What challenges did you face?
4. When did you discover that you were more intelligent than most people?
5. How do you think you are different from normal people?
6. Who had the biggest influence on you?
7. Where have you used your expertise?
8. What resources did you have for developing your skills?
9. Why did you decide to concentrate on technology?

**Reading Comprehension**

p. 123

- |      |      |      |      |
|------|------|------|------|
| 1. F | 3. T | 5. T | 7. T |
| 2. F | 4. F | 6. F | 8. T |

**Reading Skill: Recognizing Comparison and Contrast**

p. 123

**Apply**

Answers will vary. Possible answers:

2. Line 43  
Context clue: instead of (contrast)  
Words: filling their time with planned activities, should try not to be too controlling
3. Line 55  
Context clue: moreover (comparison)  
Words: take them on field trips and museum tours, child's normal environment should be treated as an experiential playground

4. Lines 71–72  
Context clue: On the other hand (contrast)  
Words: Karl’s parents know he’s a genius, they know they should never use that term
5. Line 105  
Context clue: Similarly (comparison)  
Words: Adult tend to make friendships . . . , highly gifted children seek out

**Review a Skill: Making Inferences** **p. 124**  
Karl Sr. means that most people don’t know how different and perhaps difficult it is to live with a child prodigy. (lines 25–35)

**Vocabulary Activities Step I: Word Level** **p. 124**

**A**

- |                           |                    |
|---------------------------|--------------------|
| a. enormous, intelligence | e. an environment  |
| b. concentrated           | f. expertise       |
| c. revealed               | g. factor, pursued |
| d. normal, considerably   |                    |

**Vocabulary Activities Step I: Word Level** **p. 125**

**B**

- |      |      |      |      |
|------|------|------|------|
| 1. a | 3. b | 5. g | 7. f |
| 2. d | 4. e | 6. c |      |

**Vocabulary Activities Step I: Word Level** **p. 125**

**C**

- |                |             |              |             |
|----------------|-------------|--------------|-------------|
| 1. intelligent | 3. enormous | 5. challenge | 7. pursuits |
| 2. utilize     | 4. reveal   | 6. expertise |             |

**Vocabulary Activities Step I: Word Level** **p. 125**

**D**

- |                         |                       |                              |
|-------------------------|-----------------------|------------------------------|
| 2. technology, examples | 4. resource, examples | 6. intelligence, verb/object |
| 3. pursue, synonyms     | 5. utilize, antonyms  |                              |

**Vocabulary Activities Step I: Word Level** **p. 126**

**E**

1. intelligence, life, environment, upbringing
2. Answers will vary.
3. Quotes in this case indicate that what is normal is relative.
4. It means “the usual circumstances or situation.”

**Vocabulary Activities Step II: Sentence Level** **p. 126**

**F**

Answers will vary.

**Vocabulary Activities Step II: Sentence Level** **p. 127**  
**G**  
 Answers will vary.

**Vocabulary Activities Step II: Sentence Level** **p. 127**  
**H**  
 1. E                      2. H                      3. H                      4. E and H

**Vocabulary Activities Step II: Sentence Level** **p. 128**  
**I**

| <b>For</b>   | <b>Against</b>   |
|--|--|
| All children should have the right to realize their highest potential. Therefore, public money should be spent to help prodigies in the pursuit their goals.   | Because public resources are limited, we cannot afford to be pursuing unnecessary causes like helping child prodigies.<br><i>(pursuing)</i>  |
| Prodigies are a valuable future resource for a society; therefore, the government should help them pursue their intellectual goals.  | Very few people have prodigies in their families. It is therefore unfair to spend public resources and give special attention to them.   |
| Prodigies are likely to achieve more if the utilization of more resources is done effectively. Society should do everything in its power to help develop a prodigy’s intellect and expertise. <i>(utilization)</i> | In the interest of equal education for all children, extra resources should not be given to child prodigies. Funds for education should be utilized to improve education for all children. |

## Unit 9: The Competitive Instinct

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### Reading Comprehension

p. 133

- |      |      |      |      |
|------|------|------|------|
| 1. c | 3. a | 5. a | 7. b |
| 2. b | 4. b | 6. c | 8. c |

### Reading Skill: Understanding Time Signals

p. 134

#### Apply

Underlined:

|                       |                         |                                  |
|-----------------------|-------------------------|----------------------------------|
| when (line 6)         | This time (line 49)     | then (line 107)                  |
| while (lines 7 and 8) | eventually (line 58)    | soon (line 108)                  |
| Before (line 16)      | Over the next (line 60) | previously (line 112)            |
| later (line 28)       | Starting with (line 63) | four years later (lines 120–121) |
| now (line 34)         | not until (line 66)     | after that (lines 122–123)       |
| Throughout (line 36)  | Soon after (line 68)    | On October 31, 2011 (line 135)   |
| Even now (line 41)    | In 1854 (line 76)       | Previously (line 141)            |
| Not until (line 48)   | in 1969 (line 96)       | until (line 143)                 |

### Review a Skill: Summarizing a Text Using Nontext Elements

p. 134

Ancient History: People tell stories that involve competition between siblings.

1206: Genghis Khan dominates a vast empire in Mongolia.

1296: The elite in Florence commission a cathedral. It isn't completed until the fourteenth century when Brunelleschi constructs a large dome.

1419: Prince Henry the Navigator from Portugal sends out expeditions that eventually lead to the discovering of the Americas.

1450: The first book using moveable metal type is printed and soon paves the way for literacy.

1854: The term *capitalism* and its resulting definition of private ownership and competition is introduced.

1957: The Soviet Union and United States enter the space race as they compete to reach the moon.

1980: Bill Gates teams up with IBM and the personal computer and Microsoft change the landscape of technology.

2004: Taipei 101, a 101-story skyscraper becomes the tallest building only to be eclipsed several years later and again as building technology allows for taller and taller skyscrapers.

2010: The results from the international PISA test reveal to the world that students in Shanghai, China are the top performers.

2011: The UN estimates that the world's population has reached seven billion, causing the world's people to contemplate the future of Earth's resources.

**Vocabulary Activities Step I: Word Level**

p. 134–135

**A**

- |      |      |      |
|------|------|------|
| 1. b | 3. a | 5. a |
| 2. c | 4. b | 6. b |

**Vocabulary Activities Step I: Word Level**

p. 135

**B**

- |               |                        |                    |
|---------------|------------------------|--------------------|
| 1. innovative | 3. demanding, majority | 5. attraction      |
| 2. consumers  | 4. helpful             | 6. is greater than |

**Vocabulary Activities Step I: Word Level**

p. 136

**C**

Answers will vary.

**Vocabulary Activities Step II: Sentence Level**

p. 136

**D**

- |                 |                 |                |
|-----------------|-----------------|----------------|
| 1. Quantitative | 3. Quantitative | 5. Qualitative |
| 2. Qualitative  | 4. Quantitative |                |

**Vocabulary Activities Step II: Sentence Level**

p. 137

**E**

Answers will vary. Possible answers:

2. Tan signed a contract with a particular major international company although she could have commenced her career with almost any company in China.
3. Companies doing business in China are so desperate to find well-trained employees that they offer many incentives, such as flexible working hours and education programs that help employees get professional licenses.
4. Companies don't offer these benefits based on the principle that workers should be well treated.
5. Rather, they hope that employees will reward them with devotion and stay with the company for a long time.
6. Companies in China have developed mechanisms through which younger workers often rise more quickly into leadership positions than young people on parallel tracks in the West.
7. These companies also offer different amounts of currency as a reward for work of corresponding value. For example, they might award an employee \$100 to take the family out for dinner after completing a project.
8. A portion of the success of Tan's new employer in attracting and keeping employees is due to qualitative benefits. The company works hard to make employees feel recognized and appreciated.

**Reading  
Comprehension**

**p. 140**

1. F Companies realize they are selling brands, not products.
2. F Corporate logos can be traced back to the 1880s.
3. T
4. T
5. F Branding means establishing a real relationship with the consumer and a reputation.
6. T
7. T
8. F Samsung invested money into the quality design of their electronics.

**Reading Skill: Understanding Time Signals**

**p. 140**

**Apply**

Answers will vary. Possible answers:

- 1880s: competition requires alike businesses to attach a logo and personality to their products
- 1950s and 60s: beginning of modern advertising with introduction of television; the few channels and programs reach large audiences
- 1980s and 1990s: cable TV and satellite bring more channels and fragmented audiences; marketing more essential now; TV ads become entertainment; businesses soon recognize that competing with a conscience earns/keeps consumers); advertising requires a lot of money
- Early 2000s: recognition that branding (how consumers feel about a product) helps businesses
- In the 21<sup>st</sup> century: companies continue to compete by targeting deep emotion consumers have over brands

**Vocabulary Activities Step I: Word Level**

**p. 141**

**A**

- |               |                 |
|---------------|-----------------|
| 1. parallels  | 5. commissions  |
| 2. commence   | 6. devote       |
| 3. correspond | 7. on behalf of |
| 4. mechanism  | 8. principle    |

**Vocabulary Activities Step I: Word Level**

p. 142

**B**

Answers will vary. Possible answers:

1. A Commission on Human Rights might investigate how prisoners of war are being treated or whether citizens of a country are being deprived of basic needs such as food and medicine. It is necessary because these people need representation.
2. A Parks and Recreation Commission might determine whether a park can have an area for dogs to run free or what to do about vandalism in parks. It is probably necessary to regulate this area because individuals often can't agree on issues or fix vandalism problems.
3. An International Trade Commission might regulate how much payment farmers receive for their products before exportation to other countries. This is to avoid exploitation of the people who do the most work to create the product, so it is necessary to regulate this area.
4. A Commission on Ocean Policy might regulate fishing practices in international waters to avoid overfishing of whales, tuna, sea turtles, dolphins, and so on. It is necessary to regulate this so that these animals don't become endangered or extinct.
5. An Atomic Energy Commission is very necessary as it probably regulates safety in nuclear power plants.
6. A Fish and Wildlife Commission is similar to a Commission on Ocean Policy but for recreational issues for freshwater fish and land animals. Hunting and fishing should be regulated so that the numbers do not diminish and cause changes in the natural ecosystem.

**Vocabulary Activities Step I: Word Level**

p. 142

**C**

Answers will vary. Possible answers:

1. Information such as knowing when a famous person is going to be at a specific place would allow a photographer to take pictures and perhaps sell them.
2. Airplane tickets are sometimes given to passengers when a flight is overcrowded. They agree to take a later flight to their destination, and they receive a free ticket for a future flight.
3. A car can be traded in as currency to buy another car.
4. The ability to speak another language can open many job opportunities.
5. Some people are bribed with money to keep quiet or silent on an issue or secret. In a busy and loud world, silence is a gift to people who are stressed.
6. Cell phones are definitely a currency. Some people are robbed for their phones. The newest phones are a status symbol and highly in demand.

**Vocabulary Activities Step II: Sentence Level**

**p. 143**

**D**

Answers will vary. Possible answers:

2. The coach of one soccer team had been following a classic model of team leadership by making his best players into team captains. Unfortunately, their leadership ability did not correspond to their sports skills.
3. The coach, Sasho Cirovski, saw parallels between what he needed and his brother Vancho's work in human resources. He decided to commence the next practice with a survey that Vancho used for organizational development.
4. The survey asked team members to associate qualitative characteristics with individuals on the team, for example, by identifying those who helped them increase their devotion to the team.
5. Based on the results of the survey, Coach Cirovski discovered that a player he had not seen as a leader, Scott Buete, had the respect of the team. Cirovski decided that he should be more flexible in his selection of team leaders. He signed a contract with Buete that he would become a third team captain.
6. For the remaining portion of the season, the team played much better. It seemed that Cirovski had finally found the right mechanism for choosing a leader.

**Vocabulary Activities Step II: Sentence Level**

**p. 143–144**

**E**

Answers will vary. Possible answers:

2. Nowadays, employees are rarely so devoted to their company that they stay longer than a few years.
3. Many employees leave companies because they are expected to devote a lot of time to work-related projects.
4. They believe that companies should not expect employees to be devoted when they are asked to do an increasing amount of work.
5. At first, some businesses devoted more money to try to get employees to stay with the company.
6. Now, however, most businesses have decided that they can't afford to buy the devotion of their employees.
7. Instead of expecting devotion to the company, they now expect employees to leave after a certain time and to get a regular number of new employees.

**Vocabulary Activities Step II: Sentence Level**

**p. 144**

**F**

Answers will vary.

## Unit 10: Getting There

### Reading Skill: Identifying and Understanding Metaphors

p. 149

#### Apply A

Answers will vary. Possible answers:

1. A boiler room is the place on a ship where the steam boilers that propel the ship are located. The metaphor here refers to a business that is propelling an industry with productive ideas and data.
2. A blizzard is a snowstorm with strong winds. The metaphor here links the blinding snow to an overabundance of road signs or attributes, which could cause a driver to lose his way.
3. A thatch is a very thick growth of plants or foliage that is hard to pass through. *Mad* here means “wild” or “crazy.” The author is implying that to a driver lacking good directions, the New York road system can seem similarly dense, wild, and impenetrable.
4. A thicket is very similar to a thatch, and the description of signage here implies that it is so dense and overabundant that it is hard to follow. To *see something through someone else’s eyes* means “to adopt someone else’s perspective on something.”
5. An orbit generally refers to the path of an object in the sky around another, such as a planet around the sun, or of a satellite around a planet. In this context the writer means that he and the field researchers made another trip around the airport. The writer uses *orbit* here because the size of the path around the airport can feel extraordinarily long, similar to a planet’s orbit.

### Reading Skill: Identifying and Understanding Metaphors

p. 149

#### Apply B

Answers will vary. Possible answers:

2. The writer might be describing complicated behavior with dishonest intent.
3. The writer might be describing a series of untrue statements that a person continues to tell.
4. The writer might be describing a deliberate intent to hide the truth about something.
5. The writer might be describing a complicated floor plan in a house with a lot of hallways.

### Vocabulary Activities Step I: Word Level

p. 150

#### A

- |                   |                   |
|-------------------|-------------------|
| 1. attributed     | 3. was attributed |
| 2. was attributed | 4. attributed     |

**Vocabulary Activities Step I: Word Level**

p. 150

**B**

Answers may vary. Checked may include:

- |                               |                                       |
|-------------------------------|---------------------------------------|
| ✓ 1. a stop sign              | ✓ 5. a gas station                    |
| 2. an animal crossing area    | ✓ 6. a bus stop                       |
| ✓ 3. a mall's parking garage  | 7. the poor condition of a major road |
| 4. an automotive supply store | ✓ 8. a highway rest area              |

**Vocabulary Activities Step II: Sentence Level**

p. 151

**C**

2. In the general population, the incidence of traffic accidents decreases in proportion to the age of the driver.
3. The new Impressa has the highest safety rating of any car in its class from three major car-rating organizations. Incidentally, it's the car that a lot of pop stars drive.
4. Before the guide started the tour of the presidential palace, she gave us some incidental information about the buildings in the neighborhood.
5. There was a strange incident during the performance when the singer seemed to forget which song he was singing.

**Vocabulary Activities Step I: Word Level**

p. 152

**D**

Answers will vary.

**Reading Comprehension**

p. 155

- |      |      |      |      |
|------|------|------|------|
| 1. T | 3. F | 5. T | 7. T |
| 2. T | 4. F | 6. F | 8. T |

**Review a Skill: Understanding Time Signals**

p. 156

Answers will vary. Possible answer.

1. Initially, land navigation using physical landmarks to map courses was used; then prehistoric people used marine navigation as they ventured across water using familiar coastal landmarks to guide their way.
2. After some time, an oral tradition of experiences were passed down. These stories contained crucial information about stars, weather, length of travel, wildlife species, ocean characteristics, and color of sea and sky. Navigators recorded these notes in their diaries. A diary was considered the most important instrument a navigator could have.
3. Around the year 300, the magnetic compass had been invented, and between 850 and 1050, compasses were common. Then the development of accurate celestial navigation allowed crews to better determine their position.
4. Later navigation tools such as the Arab kamal, modern latitude instruments and clocks, and then the sextant all contributed to determining the position of a ship.

5. Next, radio beacons and radio direction finders provided accurate land-based locations until modern satellite navigation systems made them obsolete. Then around the year 1960, TRANSIT, the first global electronic navigation system, was developed.
6. The most recent developments are global positioning systems (GPS) that are accurate to a few meters and also have precision timing.

**Vocabulary Activities Step I: Word Level** **p. 156**

**A**

- |      |      |      |
|------|------|------|
| 1. b | 3. a | 5. f |
| 2. d | 4. c | 6. e |

**Vocabulary Activities Step I: Word Level** **p. 157**

**B**

Answers will vary.

**Vocabulary Activities Step I: Word Level** **p. 158**

**C**

- |             |             |                     |
|-------------|-------------|---------------------|
| 1. vary     | 3. various  | 5. variety          |
| 2. variable | 4. variance | 6. variety, various |

**Vocabulary Activities Step I: Word Level** **p. 158**

**D**

- |                              |                               |                       |
|------------------------------|-------------------------------|-----------------------|
| 1. items                     | 3. attributes, significant    | 5. crucial, precisely |
| 2. equivalent, chart, manual | 4. assemble, enable, prohibit |                       |

**Vocabulary Activities Step II: Sentence Level** **p. 159**

**E**

1. An owner's or user's manual is a set of instructions that explain how to work and take care of items like cars and appliances that belong to the owner or user.
2. A style manual has conventions for spelling, punctuation, typographic arrangement, and type display. Writers, editors, and book designers use style manuals.
3. A computer manual tells the user about the hardware and software of a computer as well as how to take care of it.
4. A wilderness survival manual tells the user what she should know about or do to stay warm, fed, and out of danger. People on a camping trip in a rugged area would use this.
5. A camera manual tells the user about all the functions the camera has and also how to take care of it.

**Vocabulary Activities Step II: Sentence Level**

**p. 159**

**F**

Answers will vary.

**Vocabulary Activities Step II: Sentence Level**

**p. 160**

**G**

Answers will vary. Possible answers:

2. It is important that you not get another speeding ticket.
3. It is essential that your friend pick up your grandmother.
4. It is vital that you give the car owner the money today.
5. It is necessary that you follow the instruction manual.