

Answer Keys

DIAGNOSTIC TEST: Reading Section

(p. 1)

Note: If you answered an item incorrectly, complete the exercises listed for that item.

- (B) To “prevail” means “to exist” or “to occur more prominently or notably.” See Exercises R1–R3.
- (D) The phrase “the three most prominent factors” indicates there are other factors that may not be as prominent. See Exercises R15–R21.
- (C) The phrase “these eccentricities” refers to the movements of the Earth. The pattern of insolation is not a movement of the Earth. See Exercises R9–R14.
- (B) The phrase “the match between periods of peak insolation and most intense glaciation were not exact” means that the periods did not occur at the same time. See Exercises R9–R14.
- (A) The author is using the flat plane image to show the reader how the Earth moves in and out of a plane. See Exercises R15–R21.
- (D) The Earth, our planet, is plunged into cold periods periodically. See Exercises R4–R8.
- (D) Space debris reduces the amount of solar energy reaching the Earth. This causes regular cold periods. See Exercises R9–R14.
- (A) Muller and MacDonald’s theory is supported by the fossil record, whereas Milankovitch’s theory is not. See Exercises R9–R14.
- (A) When someone is “persuaded” or “convinced,” they have been shown evidence that makes them believe something. See Exercises R1–R3.
- (C) The problem with Muller and MacDonald’s theory is that the amount of debris that reaches Earth in comparison to the debris from volcanoes appears too small to cool temperatures sufficiently. See Exercises R9–R14.
- (D) The phrase “Earth is at its furthest from the sun” indicates that this is a detail related to the Earth’s orbit around the sun. This would follow the sentence that discusses the elliptical nature of the Earth’s orbit. See Exercises R4–R8.
- Flaws in the Milankovitch Cycles Theory**
(A) Milankovitch’s predicted intervals of sunlight do not coincide with the climate records.
(B) The Nevada lake temperature increased before Milankovitch’s predicted peaks of sunlight.
(D) Milankovitch’s predicted cycles do not always match the periods of most glaciation.
(H) The data from the ocean sediments does not coincide with Milankovitch’s predicted years of glaciation.

Flaws in the Muller and McDonald Theory

- (E) The mild effect of volcanic eruptions on the climate does not support Muller and MacDonald’s theory that interstellar debris affects the amount of sunlight that reaches the Earth.
(G) There is not enough interstellar debris reaching Earth to support Muller and MacDonald’s theory that this dust blocks sunlight.
(I) Even though the glaciation corresponds to the periods of the Earth’s moving through debris, Muller and MacDonald’s theory is not supported by much physical evidence of changes in energy levels. See Exercises R22–R24.
- (D) The passage mentions that some species are well-adapted to harsh living conditions. It can be understood that such birds don’t migrate south. See Exercises R15–R22.
- (D) The word “those” refers to the species of birds that find moving south in the winter advantageous. See Exercises R4–R8.
- (D) According to the passage, “changes in the weather can trigger the start of the journey south.” See Exercises R9–R14.
- (A) When fat “accumulates” under the skin, it “builds up.” See Exercises R1–R3.
- (D) The passage does not mention birds migrating east–west toward a hotter climate. See Exercises R9–R14.
- (B) “Precisely” refers to an action that is performed “exactly” without error. See Exercises R1–R3.
- (C) Since the polarization patterns are visible at sunset and the passage mentions patterns in sunlight, we can infer that they are not visible at night. See Exercises R15–R21.
- (B) The bowtie shape of the pattern has “fuzzy” ends which are reminiscent of a brush. See Exercises R15–R21.

Answer Keys

21. (A) The term "subjected" here means that the birds were exposed to the projection on the inside of the planetarium. See Exercises R1–R3.
22. (C) According to paragraph 6, some research using projections on the planetarium ceiling indicates the birds are guided by the constellations. See Exercises R9–R14.
23. (A) The highlighted sentence means the same as "Birds needing to orientate seemed to use the information . . . from the stars that rotate around Polaris." See Exercises R9–R14.
24. (B) The word "this" refers to the fact that when fewer stars are visible on the planetarium ceiling, the birds' sense of direction worsened. See Exercises R4–R8.
25. (B) The particular landscapes such as river valleys and shapes of hills are examples of the topographic features mentioned in the previous sentence. See Exercises R4–R8.
26. (B), (E), and (F) The main ideas from the passage are all theories that scientists have studied in their attempt to understand the methods birds use to migrate. These theories are that birds may determine direction through detection of the gradations of polarization patterns in sunlight, through the rotation of stars around a fixed position, and through knowledge of landscape features. See Exercises R22–R24.
27. (C) The phrase "this element" refers to the parent element, uranium, mentioned in the previous sentence. See Exercises R4–R8.
28. (A) A liquid or gas "seeps" or "leaks" through holes or cracks. See Exercises R1–R3.
29. (A) According to paragraph 2, the health problems are caused by radon after it decays into its radioactive particles. If it has not had time to decay, radon is harmless. See Exercises R9–R14.
30. (A) When a substance "disintegrates" or "breaks down," it changes from one state into its simpler component parts. See Exercises R1–R3.
31. (B) According to the passage, heavy metals such as polonium, lead, and bismuth, which are products of the decay process of radon, are what cause health problems. See Exercises R9–R14.
32. (A) The radon progeny are the products that gather together as the radon disperses. See Exercises R9–R14.
33. (B) According to paragraph 3, products of decay, especially alpha particles, are dangerous because they accumulate into concentrations instead of dispersing throughout the body. In these concentrations, they damage nearby cells. See Exercises R9–R14.
34. (B) Radon is described as a decay product of uranium and, therefore, is a uranium daughter. See Exercises R4–R8.
35. (B) It can be understood that radon is detectable because buildings are tested for the amount of radon that has accumulated. See Exercises R9–R14.
36. (C) According to paragraph 6, a reduction of radon can be achieved by using concrete sealing and active ventilation systems. See Exercises R15–R21.
37. (A) A "prudent" or "sensible" action is one which is wise under the circumstances. See Exercises R1–R3.
38. (C) The phrase "But this research" refers back to the research on radon accumulation and cancer rates. See Exercises R4–R8.
39. (B) After radon enters a building, its decay products form particles that can be breathed into the lungs.
- (D) The alpha particles, in particular, accumulate in the lung tissue and damage cells.
- (F) It is possible to reduce radon exposure, but some of the gas stays in the atmosphere.
- See Exercises R22–R24.

DIAGNOSTIC TEST: Listening Section

(p. 19)

1. (B) The professor explains how the Electoral College works and how it is important for deciding the outcome of a presidential election. See Exercises L9–L12.
2. (C) According to the professor, an elector is a member of a political party who is pledged to that party's candidate for office. See Exercises L13–L17.
3. (A) The professor wants the students to realize that although the number of electors is equal to the number of senators and representatives, the actual people filling these roles are different. The professor thinks that the students might believe they are the same people. See Exercises L18–L23.
4. (A) The professor uses Alaska as an example of a state with a small population and only one representative. The number of electors in any state is equal to the number of senators (two) plus the number of representatives (dependent on population). See Exercises L18–L23.

6. (D) The winner of the election is the candidate whose total Electoral College vote is largest. See Exercises L13–L17.
7. (B) The professor mentions that some people have criticized the Electoral College system. They have raised problems associated with the fairness of the process of choosing a president. See Exercises L18–L23.
8. (D) The student's questioning the professor about his having the chance to look at her proposal and the discussion about ways for her to improve her proposal indicate her reason for going to see the professor. See Exercises L18–L23.
9. (B) The professor suggests that she see a statistician to explain a way to set up her experiment to get meaningful statistics. See Exercises L13–L17.
10. (A) and (C) The professor states that the procedure for getting meaningful statistics should be explained in the proposal and explains that the committee will need to understand how the student plans to select her subjects. See Exercises L13–L17.
11. (A) The professor means that if the student doesn't make it clear to the committee how she will be comparing subjects, they will not understand the relationship. See Exercises L18–L23.
12. (D) The committee will ask questions about those things they don't understand. The professor's discussion of subjects indicates that this is a point that they won't understand and this might affect the student's likelihood of getting the grant. See Exercises L18–L23.
13. (A) The professor and the students mention the different ways to send e-mails in a business situation. See Exercises L9–L12.
14. (C) The professor brings up the situation of sending a message to a large group of customers to get the students to think about the differences in how to deal with different kinds of receivers. See Exercises L18–L23.
15. (B) Both students have opinions about such things as e-mail etiquette and user techniques. This implies they are both experienced. See Exercises L18–L23.
16. (B) The students have not found the best solution of how to keep anonymity when sending group letters. The professor tries to jog their memory by referring to a previous lesson. See Exercises L18–L23.
17. (C) According to the professor, by using the blind-copy function, it is possible to maintain the anonymity of receivers but appear to be sending the message to only one individual. See Exercises L13–L17.
18. (A) and (B) According to the discussion, the customer's identity is protected because the individual addresses are hidden. See Exercises L13–L17.
19. (B) The professor mainly discusses important aspects of London's life and work and how they were related. See Exercises L9–L12.
20. (C) The professor mentions that London felt anxiety because he never knew his father and that this anxiety is reflected in the themes of his books. See Exercises L13–L17.
21. (B) The professor is making a lighthearted reference to the possibility that university life can be difficult at times for students. See Exercises L18–L23.
22. (A) The professor mentions that London read and studied books by other authors in order to learn how to write himself. See Exercises L13–L17.
23. (C) The professor implies that London worked hard to be successful. He mentions that London was a disciplined writer and that he sent many writings to publishers before his work was accepted. See Exercises L18–L23.
24. (C) The professor says that a considerable part of his writing is uninteresting and uninspired. See Exercises L13–L17.
25. (D) The main question the professor addresses is how and why the Neanderthal people became extinct. See Exercises L9–L12.
26. (C) By saying "in other words" followed by an explanation, the professor is providing more information about the meaning of the word *anatomically*. See Exercises L18–L23.
27. (D) The professor mentions that the Neanderthals, like the Cro-Magnon, were able to make and transport fire. This, and their simple art forms, shows they were not as backward as some people have claimed. See Exercises L18–L23.
28. (D) The professor notes that bone remains of Neanderthals suggest that their speech may have been slow and restricted in its range of sounds. See Exercises L13–L17.
29. **Neanderthal**
(C) The Neanderthals produced simple art forms.

Answer Keys

Cro-Magnon

(A) Only the Cro-Magnon developed tools with handles.

(B) Only the Cro-Magnon used bows and arrows.

See Exercises L13–L17.

29. (B) The professor mentions that current research is looking at whether Neanderthal DNA can be found in modern humans. If it were found, this would be evidence that the Neanderthals interbred with the Cro-Magnon. See Exercises L13–L17.
30. (A) The student thinks his car has been stolen and goes to the police to report this. See Exercises L9–L12.
31. (D) Since the student has a car parking problem, he probably drives to campus. Although he is disabled, it cannot be inferred that he uses a wheelchair. See Exercises L18–L23.
32. (B) By saying “I’m sorry to say,” the police officer shows that she can see the problem from the student’s point of view and that she empathizes about all the costs involved. See Exercises L18–L23.
33. (A) The police officer is finding out if the man knows he has the right to appeal. See Exercises L18–L23.
34. (A) The police officer explains in some detail how the student can appeal the parking fine. The student then thanks the police officer for the information. We can infer that the student will appeal the fine. See Exercises L18–L23.

There is no answer key for the Speaking and Writing sections of the Diagnostic Test. See Calculating Scores for Practice Tests on p. XXIII for information about how to evaluate your responses. Also use the scored sample essays and speaking responses for CD-ROM Test 1 as a guide.

PART 1 BUILDING SUPPORTING SKILLS

Note: An asterisk (*) indicates the correct answer to the question in those places where an explanation is provided for each possible answer.

There is no answer key for **EXERCISES LS1–LS13** (pp. 42–52) and **EXERCISE NPS1** (p. 55).

EXERCISE NPS2 (p. 57)

Your answers may be stated differently.

- | | |
|-----------|----------|
| 1. assoc. | 6. = |
| 2. WHO | 7. conc |
| 3. e.g. | 8. chaps |
| 4. lex’y | 9. dev’g |
| 5. bldg | 10. w/o |

EXERCISE NPS3 (p. 57)

Your answers may be stated differently. Make sure you understand your own notes.

1. Fe-work’g Meriotic civ → Afr
2. Fine grnd pigm. + yolk = paint 4 M.A. panls
3. Trade Egp. ↔ Afr, 1st 1460 B.C., Q Hpt’s ships → Punt, now Som
4. Free. Info Act, U.S. Congr. ‘66, = U.S. pers. access Pub. Rcds
5. Sonora D’s day temp ↑ 50°C

EXERCISE NPS4 (p. 58)

Your answers may be stated differently.

1. likewise: additional information will be presented
2. therefore: a conclusion or result to the previous point or points will be made
3. as an illustration: a longer example will be given
4. granted that: an admission of the truth of an opposing argument will be stated
5. incidentally: something unrelated is going to be said or a regression to something said before will take place
6. previously: a situation that occurred before the given point is going to be discussed
7. conversely: a point that is in contrast to the given point is going to be discussed
8. furthermore: additional information will be presented
9. above all: a point is going to be emphasized
10. to summarize: all the points are going to be repeated in a shortened form

There is no answer key for **EXERCISE NPS5** (p. 58).

EXERCISE NPS6 (p. 59)

Your answers may be stated differently.

1. Rube Goldberg, engineer → cartoonist. Best known for crazy inventions. Inventions complex machines do easy thing. Contest, Purdue U. to make R.G. type of machine does tasks in <9 min. + 20 steps. e.g. Turn off alarm clock, peel apple.

2. Animals make sounds/listen for echo to navigate, find food.

Called echolocation. Way of make out things in obscure places. Used by bats, birds in caves, whales, dolphins in cloudy water

Toothed whales use Ech.

Baleen whales have vestigial form, past use?

3. IQ scores rising since '50s

Why? small families, + food, + living stndrd., + edu or comb?

IQ ↑ in abstrct reason. Why? kids visual TV, solve prblm video games.

Emotional Intelligence → self-awareness, understand own emot., manage emot., empathic, social skills.

A few people ↑ IQs ↓ EI.

People ↑ EI ↑ IQ coz can control emot

People ↓ EI ↓ IQ coz emot interfere

EXERCISE NPS7 (p. 61)

Your answers may be stated differently.

1. Rube Goldberg was an engineer who changed his career to become a cartoonist. He is best known for the crazy inventions designed by one of his cartoon characters. The inventions are very complex machines that are designed to do easy things. Purdue University runs a contest in which the contestants are required to make a Rube Goldberg invention. The machine has to do the task in less than 9 minutes but with more than 20 steps. Examples of the tasks are to build a machine that turns off an alarm clock or peels an apple.

2. Some animals make sounds and then listen for the echo. They use this to navigate and to find food. This is called echolocation. It is used by creatures that live in dark places. For example, bats and some birds live in caves and dolphins and whales may travel through dark, cloudy water. Not all whales use echolocation. Toothed whales do, but Baleen whales do not. However, Baleen whales have a vestigial form of the mechanisms to use echolocation. This indicates that they may have used it in the past.

3. IQ scores have been rising since the 1950s. The question is why. Perhaps it is because of smaller families, better food, living standards and education, or a combination of those factors. The rise in IQ scores is in abstract reasoning. The reason might be that children since the 1950s are exposed to more visual stimulation such as TVs. They also solve problems set by video games. Besides IQ, there is Emotional Intelligence or EI. EI has to do with one's self-awareness in understanding and managing one's own emotions. People with EI are empathic and have social skills. There seems to be a relationship between IQ and EI. Those people who can control their emotions get higher IQ scores and those who allow their emotions to interfere get lower IQ scores. There are a few people who have high IQ scores and low EI scores.

EXERCISE NPS8 (p. 61)

Your answers may be stated differently.

1. Rube Goldberg was a cartoonist famous for depicting very complex machines that were designed to do very easy things, such as turn off an alarm clock. Today university students compete in designing Goldberg machines that meet certain specifications.
2. Echolocation refers to the way some species of bats, birds, dolphins, and toothed whales make sounds and listen for the echo. These creatures use echolocation to navigate and find food in obscure living habitats. Baleen whales have the vestigial forms of the kind of anatomy needed for echolocation, which suggests that they once used it.
3. IQ scores have been increasing, although the reasons for this are not understood. It could be a combination of factors. Today's children have more exposure to TV and video games, which could affect abstract reasoning, an area in the IQ test where scores have increased. Studies have shown that EI, emotional intelligence, or the way one manages one's emotions, can influence IQ scores.

There is no answer key for **EXERCISES NPS9–NPS10 (p. 62)**.

EXERCISE V1 (p. 64)

The words that are specific to biology and biochemistry are shown below. The words you circled depend on your vocabulary needs.

Vacuole, chromosomes, cytoplasm, mitochondria, chloroplasts, glycogen

There is no answer key for **EXERCISES V2–V10 (p. 64–69)** and **EXERCISES P1–P3 (pp. 70–71)**.

EXERCISE P4 (p. 72)

Since the seventh century, large bells have been used in cathedrals, churches, and monasteries. The greatest bell in the world is in Moscow. This famous "King of Bells" weighs about one hundred ninety-eight tons. The next two largest bells are also located in Russia. One near St. Petersburg weighs one hundred seventy-one tons, and another in Moscow weighs one hundred ten tons. Great Paul, the bell at St. Paul's in London, is the largest bell in England, but weighs a mere seventeen tons.

There is no answer key for **EXERCISES P5–P8 (pp. 72–74)** and **EXERCISE G1 (p. 75)**.

EXERCISE G2 (p. 76)

The following answers show ways of correcting those sentences that are incorrect. You may have made different changes that also make the sentences correct.

1. A laser cane, which the blind find useful, sends out beams that **detect** obstacles. (incorrect verb form in the adjective clause)
2. This sentence is correct.
3. The most convincing evidence **is** that female chimpanzees in Tanzania use the aspilia plant for medicinal purposes. (incomplete sentence)
4. **That** adults come to night classes eager to learn has been the experience of most adult-education teachers. (incorrect noun clause marker)
5. A vending machine is a kind of robot that automatically **gives** out candy or other items when money is inserted. (incorrect subject/verb agreement)
6. Apprentices sometimes fear that they **might** not be able to master the intricacies of their chosen craft. (incorrect modal)
7. The importance of the Chaco Canyon archaeological site is that **it** reveals insights into a whole civilization. (incorrect referent agreement)
8. Arched roofs were built for **the** first time 2,500 years ago. (incorrect article)
9. Because of financial restrictions, some schools cannot **contemplate staying** abreast of advances in modern technology. (incorrect use of infinitive)
10. Birds that breed on high cliffs have pear-shaped eggs that roll in a tight circle. **Consequently**, that makes them somewhat less likely to roll off the cliff. (incorrect connecting word)

11. This sentence is correct.
12. Butterfly wings have iridescent scales **consisting** of thin, interlaced layers. (incorrect reduced adjective clause)
13. China's first emperor was buried surrounded by 7,000 life-sized clay figures of soldiers standing in battle formation **beside** life-sized ceramic chariots. (incorrect prepositions)
14. Christopher Columbus persuaded the Spanish monarchs Isabel and Fernando **to finance** his expeditions to the Caribbean. (incorrect gerund use)
15. East Coker is where the Anglo-American poet T. S. Eliot **was** buried in 1965. (incorrect use of the active voice)
16. Even though the team of scientists **encountered** snow and strong winds, they continued their excavation. / Even though the team of scientists encounter snow and strong winds, they **continue** their excavation. (incorrect verb tense agreement)
17. Every four years the International Olympic Committee selects **which** city will hold the next games. (incorrect noun clause marker)
18. Filming a wild animal in its habitat requires meticulous preparation, unending patience, and, **at** times, **courage**. (incorrect parallel structures)
19. George Gershwin gathered motifs for his folk opera *Porgy and Bess* while **he** lived in Charleston. (missing subject in the adverb clause) / George Gershwin gathered motifs for his folk opera *Porgy and Bess* while **living** in Charleston. (incorrect reduced adverb phrase)
20. Having first **been** domesticated for milk production, sheep were then used for wool. (incorrect reduced adverb clause)
21. This sentence is correct.
22. Lucid dreamers are those people who recognize when they are dreaming and thus **control** the plot of their dreams. (incorrect parallel form of verb)
23. Many traditional attitudes and **values** seem to be disappearing under the pressure of global media. (plural form should be used)
24. This sentence is correct.
25. Mice aren't really more attracted to cheese **than** they are to grains. / Mice aren't really **as** attracted to cheese as they are to grains. (incorrect comparison form)
26. Monteverdi, **whose** works were mainly written on commission for the private theaters of wealthy Italian nobility, wrote his final opera in 1642. (incorrect adjective clause marker)
27. **More** pioneers walked across the continent than rode in wagons or on horses. (incorrect comparative form)

28. This sentence is correct.
29. Mount Rainier towers nearly three miles **above** sea level. (incorrect preposition)
30. This sentence is correct.
31. Postwar women had more opportunities to find work **than** they had had in the prewar days. (the article **the** before "work" should be deleted)
32. This sentence is correct.
33. New Orleans is a city **where** older traditions can still be seen. (incorrect adjective clause marker)
34. This sentence is correct.
35. Of all salmon species, the king salmon is the **rarest**. (incorrect superlative)
36. Only if packages are labeled properly, **will** sufferers be able to avoid severe allergic reactions. (incorrect word order)
37. This sentence is correct.
38. **Putrefaction** is caused by bacteria and not by a chemical process. (incorrect noun form)
39. The diary of Samuel Pepys contains eyewitness **descriptions** of the Great Plague and the Great Fire of London. (incorrect word form)
40. This sentence is correct.
41. Scientists must be willing to change their position when **confronted** with new and conflicting data as **it** is this openness to change that allows scientific progress to be made. (incomplete sentence because of missing subject)
42. Scissors, a Bronze Age invention **remaining** basically unchanged to this day, consist of two blades linked by a C-shaped spring. (incorrect verb form for reduced adjective clause)
43. This sentence is correct.
44. When telephones were first invented, many business owners refused to have them installed in their offices because **there** were messenger services that they believed to be more efficient. (incomplete sentence because of missing subject)
45. Sixteenth-century mariners called Bermuda the "Isle of Devils" partly because breeding seabirds **were** making horrid sounds in the night. / Sixteenth-century mariners called Bermuda the "Isle of Devils" partly because breeding seabirds **made** horrid sounds in the night. (verb tense agreement)
46. Small animals can **survive** the desert heat by finding shade during the daytime. (incorrect word form)
47. So incredible **were** explorer John Colter's descriptions of the Yellowstone area that people **didn't** believe in its existence. (incorrect word order)
48. Public lands in many parts of the West **may** be overgrazed as cattle, sheep, and **wildlife** compete for forage. (incorrect plural form of the noun)
49. This sentence is correct.
50. Swimmers should avoid **entering** ocean areas contaminated by red tide organisms. (incorrect use of infinitive)
51. This sentence is correct.
52. The great stone city Angkor flourished for six centuries **before** it fell in 1431 and lay prey to the jungle for four long centuries. (incorrect adverb clause marker)
53. This sentence is correct.
54. When llamas were first brought into the Colorado wilderness, no one could have predicted how **popular** the animal would become. (incorrect word form)
55. The more technical today's world becomes, the **more** compatible with both humans and machines language needs to be. (incorrect parallel comparison)
56. This sentence is correct.
57. Today, *carpet* refers to floor coverings that reach from wall to wall, **whereas** *rug* refers to a piece of material that covers only one section of the floor. (incorrect connecting word)
58. What we **have** already **learned** about tornadoes has contributed to reducing the casualty rates. (incorrect verb tense agreement)
59. This sentence is correct.
60. While large numbers of eagles have long nested in national parks, only recently **have** the birds **been** generating outside curiosity. (incorrect verb form)
- There is no answer key for **EXERCISES G3–G6** (pp. 80–82).
- EXERCISE G7** (p. 86)
- | | |
|---------------------|----------------------|
| 1. This is correct. | 7. impediment |
| 2. tolerate | 8. undeniably |
| 3. cooperative | 9. This is correct. |
| 4. This is correct. | 10. This is correct. |
| 5. symbolizes | 11. tribe |
| 6. famous | 12. hastily |
- EXERCISE G8** (p. 88)
- This phrase is missing a subject.
 - ✓
 - ✓
 - This phrase is missing a verb.

Answer Keys

EXERCISE G9 (p. 88)

- C Soil is highly fertile in volcanic areas, and volcanic activity offers advantages such as geothermal energy.
- Women with very narrow pelvises are more likely to experience potentially life-threatening problems during childbirth.
- C On collective farms, land, buildings, and equipment are shared, the farmers work together, and the profits are divided equally.
- Life expectancy, or the average length of an individual life, varies over time within the same community and from community to community at the same time.

EXERCISE G10 (p. 99)

- That rent-control laws may inhibit landlords from repairing properties is unfortunate but true.
- Studies of newborn infants show that some perceptual processes, such as depth perception, may be inherited.
- How glass is blown in a cylinder was demonstrated at the Stuart Crystal Factory.
- One can easily understand why fast-food restaurants are so popular.

EXERCISE G11 (p. 100)

- A species of tomato that is adapted to harsh climatic conditions has been developed.
- The date on which Romulus founded Rome is generally considered to be 753 BCE.

- In the Colosseum in ancient Rome, hoists lifted cages to a level where the animals could enter the arena up a ramp.
- The common hedgehog, which has outlived the mammoth and the saber-toothed tiger, is now threatened by automobile traffic.
- Many English villages have churches that date back to Norman times or before.
- Shakespeare wrote plays people have enjoyed for four centuries.
- People who are in charge of ticket reservations warn travelers to book early during the high seasons.
- Walt Disney was a man whose creations still bring happiness to many children.
- Using low doses of antibiotics that don't kill bacteria only increases these germs' resistance.
- The only U.S. president the people did not choose in a national presidential election was President Gerald Ford.

EXERCISE G12 (p. 100)

- trying to overcome severe obstacles
- leading into the ancient city of Petra carved out of the sandstone cliffs "that ends in front of an impressive temple" is an adjective clause
- _____ "who have been raised apart" is an adjective clause
- found in the Andes

EXERCISE G13 (p. 101)

- Hundreds of pandas starved to death when one of the species of bamboo on which they feed died out.
- While the world population continues to grow, natural resources remain finite.

3. Because ^{ds} the ice crystals ^{dv} from which they form are usually hexagonal, snowflakes often have six sides.
4. Antiochus was overthrown by Rome around 34 BCE ^{ds} after he ^{dv} apparently used some of his funds to support a local rebellion backed by the Persians.
5. The Romans built raised sidewalks of stone in Pompeii ^{ds} so that ^{dv} pedestrians would not get their feet muddy.
6. Although ^{ds} the existence of germs ^{dv} was verified in about 1600, scientists did not prove the connection between germs and diseases until the mid-nineteenth century.
7. Since ^{ds} the search to find and document sites of Native American cave paintings ^{dv} was first begun, several hundred have come to light.
8. Aphrodisias continued as a Byzantine center until violent earthquakes and invasions ^{ds} brought its prosperity ^{dv} to an end.

EXERCISE G14 (p. 101)

- _____ "when Cartier first discovered them" is an adverb clause
- Once covered by thick, solid ice during the last Ice Age
- _____ "By the time newcomers to the United States had passed through the immigration center on Ellis Island" is an adverb clause
- When building Hadrian's Wall

EXERCISE G15 (p. 111)

- The word "recently" indicates a recent past action. Therefore, the verb "will revealed" should be either "has revealed" or "revealed."
- The verb is used correctly.
- The phrase "in the future" indicates that a future tense should be used. "May have been measuring" indicates possibility in an undefined past time. "May be measuring" would be correct.

- The verbs are used correctly.
- The verb is used correctly. "Have been grown" is the passive voice of the present perfect and indicates that someone has done this action in an undefined past time.
- The word "now" indicates that the verb should be in the present tense: "are."
- The verb "has seized" is used correctly. The present perfect tense "has seized" indicates that the action has happened immediately before the second action. The verb "is dragging" is used incorrectly. The present tense "drags" should be used because the crocodile always drags its prey under water. The present tense "seizes" could also be used in the adverb clause indicating that this action is a general fact.
- The word "since" indicates that this is an action that began in the past and is continuing. Therefore, the verb "harbor" should be in a present perfect tense. Either "have harbored" or "have been harboring" would be correct. The verb "began" is correct.

EXERCISE G16 (p. 111)

- C The verb "has been eliminated" agrees with the subject "difference."
- C The verb "occurs" agrees with the subject "reorganization."
- I The verb "is" should be "are" to agree with the plural subject "levels."
- C The verb "is taking" agrees with the noncount noun "pollution."
- I The verb "contributes" should be "contribute" to agree with the plural subject "decoration and use."

EXERCISE G17 (p. 112)

- | | |
|------|-------|
| 1. A | 6. B |
| 2. A | 7. B |
| 3. A | 8. A |
| 4. B | 9. B |
| 5. A | 10. A |

EXERCISE G18 (p. 114)

- these qualities: loyal, intelligent, and calm
them: dogs
- its: ancient Egypt
them: hieroglyphics

Answer Keys

3. his: Caesar
 they: Caesar and his troops
 their: Caesar and his troops
 they: Caesar and his troops
4. itself: The prickly pear
 those places: rocky, barren hills
5. this bird: The dodo
 that island: Mauritius
 that: around 1600
6. his: Maxie Anderson
 their: Maxie Anderson and his two partners

EXERCISE G19 (p. 115)

1. "Were paying homage to pagan gods" is incorrect because the verb is in the past continuous form and the other verbs are in the simple past form. "... paid homage ..." is correct.
2. This sentence is correct.
3. This sentence is correct.
4. "Most importantly medical supplies" is incorrect because it is a noun phrase and the other phrases are gerund phrases. "... supply medicines" or "providing medical supplies" is correct.
5. "The small bitter apples make the best cider" is incorrect because it is an independent clause and the other clauses are noun clauses. "... that the small bitter apples make the best cider" is correct.
6. This sentence is correct.

EXERCISE G20 (p. 119)

- | | | | | |
|------|------|------|------|-------|
| 1. A | 3. A | 5. A | 7. C | 9. B |
| 2. B | 4. D | 6. D | 8. D | 10. A |

EXERCISE G21 (p. 123)

1. "Citizen" should be in its plural form, "citizens."
2. "Motivations" should be in the singular form.
3. "Metalworker" should be in the plural form, "metalworkers," because there is a comparison between Yellin and all the other metalworkers in America.
4. "Children" is the plural form. An "s" should not be added.
5. The use of the plural verb "learn" and the pronoun "their" indicates that the noun "calf" should be in its plural form, "calves."
6. "Advice" does not have a plural form.

EXERCISE G22 (p. 126)

1. This article is correct.
2. This article is correct.
3. the eighteenth century
4. Russia: no article
5. This article is correct.
6. nature: no article

EXERCISE G23 (p. 128)

1. Had Napoleon succeeded
AUX S V
2. are federal officials impeached
AUX S V
3. does tea
AUX S
4. should he or she start
AUX S V
5. will it be able to undertake
AUX S V
6. is the tomato
V S
7. Should a medical crisis occur
AUX S V
8. remain the mysterious giant stone heads
V S

EXERCISE G24 (p. 130)

1. better than - "Best than" is incorrect because two things are being compared.
2. This sentence is correct.
3. flattest and driest - "The flatter and drier" is incorrect because there are more than two continents.
4. less severe than / not as severe as - "As not severe as" is incorrect because one of two things compared does not have as much of the particular quality; incorrect word order.
5. This sentence is correct.
6. tougher - "Tough" is incorrect because it is not in the comparative form.
7. This sentence is correct.
8. the largest sailing ship - The article "the" is used with the superlative.
9. Turkey's largest city - The article "the" should not be used with the possessive form.
10. This sentence is correct.

EXERCISE G25 (p. 132)

1. (A) "As" appears to be a clause marker, but there is no verb to complete a clause.
*(B) "Through" indicates from one point in time to another point in time.
2. *(A) "Full" is the adjective describing the region and "of" is used in the sense of containing.
(B) "Filled" makes the sentence passive, so the preposition "with" would be needed to complete the sentence correctly.
3. *(A) "That" is a clause marker, "the twenty-first century" is the subject of the clause, and "will bring" is the verb.
(B) The object of the preposition "from" is the noun "twenty-first century," which cannot also serve as the subject for the verb "will bring."
4. (A) "Because" is a clause marker, but there is no verb to complete the clause.
*(B) "Because of" is the preposition and "structures" is the object of the preposition.
5. (A) "That" is a clause marker, but there is no verb to complete the clause.
*(B) "For" is a preposition. The noun "mammal" completes the prepositional phrase.
6. (A) "Was" cannot be used because the sentence is not passive.
*(B) "Of" indicates the tradition pertains to the spring fertility celebrations.
7. *(A) "For" expresses the object or purpose of the need.
(B) "Being a new attitude" suggests a reduced adverbial clause, which would not fill the position of describing the noun "need."
8. *(A) "Over" indicates the position of the stones.
(B) "That" is a clause marker, but there is no position for a clause.

PART 2 BUILDING SKILLS: Reading

Note: An asterisk (*) indicates the correct answer to the question in those places where an explanation is provided for each possible answer.

EXERCISE R1 (p. 146)

- | | |
|--|------|
| 1. an illness | 4. D |
| 2. a rodent | 5. D |
| 3. the smallest part of a chemical element | 6. B |

- | | |
|---------------------------------|---|
| 7. electrical devices | 33. descended from |
| 8. a goddess | 34. B |
| 9. explosions of dying stars | 35. D |
| 10. B | 36. A |
| 11. D | 37. insects |
| 12. A | 38. meat-eating animals |
| 13. ancient burial mounds | 39. a marine time-keeping device |
| 14. having a slender body build | 40. C |
| 15. biting surface of teeth | 41. D |
| 16. A | 42. A |
| 17. D | 43. not deadly |
| 18. B | 44. flourishes, grows easily, does well |
| 19. height above sea level | 45. high resistance to motion |
| 20. specialized bone cells | 46. C |
| 21. internal walls | 47. C |
| 22. B | 48. B |
| 23. B | 49. a flower |
| 24. C | 50. part of a bagpipe |
| 25. large fish | 51. made better, lessened |
| 26. animals | 52. A |
| 27. drought-resistant plants | 53. B |
| 28. D | 54. C |
| 29. B | |
| 30. A | |
| 31. a compound used for burns | |
| 32. the succession of sounds | |

EXERCISE R2 (p. 155)

- | | | |
|------|-------|-------|
| 1. B | 7. B | 13. C |
| 2. D | 8. C | 14. D |
| 3. A | 9. A | 15. B |
| 4. D | 10. D | 16. C |
| 5. C | 11. D | 17. A |
| 6. A | 12. B | 18. A |

EXERCISE R3 (p. 159)

- | | | | |
|------|------|------|------|
| 1. B | 2. D | 3. B | 4. A |
|------|------|------|------|

Reading Mini-test 1 (p. 160)

- (A) The words "scrap" and "waste" can refer to materials that are thrown out because they are damaged or no longer serve their purpose.
- (C) Something that is "customary" or "regular" is something that is usual or habitual.
- (A) The word "abatement" means to subside or decrease. The benefit is a reduction of noise.
- (D) The words "elimination" and "eradication" refer to a complete removal or destruction of something.
- (A) To be "reclusive" means to deliberately avoid other people, to be "solitary," or to be alone.
- (D) The word "prolific" means abundant. Dickinson wrote a large number of letters (correspondence).
- (D) When a feeling is "intense," we can also say it is very "strong."
- (D) The words "concisely" and "succinctly" refer to something being said clearly, using few words.
- (C) "Afflictions" and "diseases" refer to illnesses.
- (A) The word "expire" means to die.
- (A) The "incidence" of a disease is the number of cases that appear or the "rate of occurrence."
- (D) To be "susceptible" or "vulnerable" means to be unprotected and open to the possibility of being harmed.
- (A) When people make a "resolution," they declare their intentions (make a declaration).
- (C) When people are "bombarded" or "saturated" with information, they are given an overwhelming amount of it.
- (C) When the experimenter was "claiming to represent a local utility company," that person was pretending to be part of the company in order to hide his or her identity from the homeowners.
- (A) When people give their "consent" or "permission," they are agreeing to something.

EXERCISE R4 (p. 167)

1. themselves: Arctic people
 they: Arctic people
 these natural resources: the environment and wild animals
2. who: individuals
 their: political prisoners

3. when: 1863
 he: a Hungarian count
 the first European variety: wine grapes
 there: California
4. the lawyer and lexicographer: Noah Webster
 who: Noah Webster
 at this time: 1828
 that: English

EXERCISE R5 (p. 168)

1. B 2. C 3. D

EXERCISE R6 (p. 169)

1. Scientists used to believe that animals scream to startle predators into loosening their grip or to warn their kin. However, now some researchers have concluded that the piercing, far-reaching cries of animals may have another function. Recent studies indicate that these screams may have evolved to attract other predators, which will give the prey a chance to escape during the ensuing struggle between predators.
2. When cartoonists take on the task of drawing real people, they do so by making a caricature. These kinds of cartoon drawings are frequently used to satirize well-known people. Most famous people have several particular characteristics that distinguish them, such as facial features, body posture, or gestures, which are familiar to the general public. Cartoonists can cleverly exaggerate them to the point of ridiculousness.
3. Satellites routinely relay pictures of desert areas. From these pictures, it can be determined where locusts are likely to breed. With information on the locusts' breeding areas, agriculture officials can use pesticides to kill these insects before they become a menace. If not eradicated, a single swarm can devour 80,000 tons of corn a day – sustenance for half a million people for one year.

EXERCISE R7 (p. 170)

- (D) "But" is used to qualify a statement. The statement concerning the value of glass in Egyptian times is qualified by (D) concerning the value of glass today. (A) is added information. (B) and (C) are not related to the fact that glass was valued in Egyptian times.
- (C) "Such as" is used to introduce examples. An example of "behavior" is (C), sucking a thumb. (A) development, (B) the sex, and (D) structures are not examples of behavior.

3. (D) "Although" is used to qualify a statement. In (D) the fact that desert species are similar is qualified by the contrasting fact that their ancestry is different. (A) gives information that one might assume to be true. However, "Although" indicates that the information is not what one might expect. In (B) the species' not adapting to jungles is not related to their coming from different ancestral stocks. (C) is a repetition of the phrase "the world's various deserts."
4. (C) "In contrast" is used to contrast statements. The informality of Halloween is contrasted with (C), the relative formality of Thanksgiving. (A) doesn't make a contrast but gives another example of a traditional holiday. (B) and (D) don't make contrasts but instead give information that is not related to the topic of Halloween.
5. (C) The main point of the statement is the uses of bamboo in general. "Equally important" introduces another way bamboo is used. In this case, (C), the food that can be made from bamboo and the items that can be made from bamboo are both important. In (A) the importance of grass growing in warm climates is not clear. In (B) the longer cooking time seems to be more of a disadvantage than an aspect of equal importance. (D) does not relate to the importance of making something.
6. (A) "In conclusion" is used to indicate that something is true because the facts lead to this belief. All the facts about satellites lead to the belief that (A) the lives of humankind have been enriched by their existence. The facts given do not lead to any conclusion about (B) the difficulties of satellites, (C) how many TV channels can be picked up, or (D) orbital placement.
7. (B) "In addition" is used to add more information. The lasers and two-way wrist TV in (B) are two additional items Dick Tracy used besides the atomic-powered space vehicle. (A) gives new information about today's astronauts, not added information about space items introduced in a comic strip. Dick Tracy's popularity, (C), is not an addition to his devices. (D) gives new information about items being used by today's astronauts, not the use by Dick Tracy.
8. (D) "Consequently" is used to show the results of an action. The results of a vaccine that reduces the microorganism thought to cause cavities is (D) protection against tooth decay. In (A) a cavity-prevention program for immunizing people against cavity-causing microorganisms would probably be organized instead of eliminated. In (B) there is no inference that test animals were used in the development of this vaccine. In (C) the amount of sweets that children consume is not solely dictated by tooth decay.
9. (A) "In some cases" is used to give information for particular situations. The information in (A) gives the advantages of the nonsurgical method of treating heart disease in the situations where it can be used. In (B) the nonsurgical method cannot replace an artery. In (C) the fact that coronary bypass operations are lucrative does not explain the nonsurgical method. In (D) the fact that the chest is opened up indicates that this information does not relate to the "nonsurgical method."
10. (A) "Indeed" is used to emphasize a fact. In (A) the fact that Einstein's brain contained more glial cells than other people's brains is being emphasized. (B) is added information concerning scientists' studies of brains. (C) is added information concerning where scientists looked for glial cells. (D) is a conclusion concerning the development of Einstein's intellectual processing.

EXERCISE R8 (p. 172)

1. B 2. D 3. C 4. C

Reading Mini-test 2 (p. 173)

1. (C) "Architects" used techniques to reduce noise.
2. (A) The air is filtered through the air conditioners and furnaces.
*(B) Because these techniques absorb the sound, there is a lack of sound.
(C) A filled wall cannot have a reaction.
(D) These techniques do not distinguish between desirable noise and undesirable noise.
3. (A) A description of the symptoms people suffer when they are in a noiseless environment would support the idea that people react adversely to the lack of sound.
4. (A) "The gambrel roof design" is a feature of Dutch colonial architectural style.
5. (A) The bell-shaped appearance is a description of the roof. There is no suggestion that people want such a roof because it looks like a bell.
*(B) The spacious interior is an advantage for a growing family.
(C) The shape would only be traditional for the Dutch, and this does not explain why other homeowners would be attracted to it.
(D) The angle being shallower at the eaves does not indicate a reason that a homeowner would want it.
6. (D) A second use of a roof that is spacious would follow the detail about the main advantage of a spacious roof.

Answer Keys

7. (C) Each point above 1 carat is more valuable than "each point" below 1 carat.
8. (A) The carbon spots, inner flaws, and surface blemishes are imperfections.
 (B) The diamond's rating is based on the number and severity of these imperfections.
 (C) The imperfections cannot be seen with the naked eye, but they affect the brilliance.
 (D) The diamond might be determined as flawless, but not the imperfections.
9. (C) A sentence that contrasts unprofessionally cut diamonds would follow one that discusses well-cut diamonds.
10. (A) A contrast is being made between when most people feel drowsy and when narcoleptics doze.
 (B) According to the passage, there are different extremes of narcolepsy. Some sleep most of the time, others just at odd times.
 (C) The two ways narcoleptics suffer is not a contrast to most people feeling drowsy after a meal.
 (D) There is no contrast between feeling drowsy and falling asleep.
11. (C) The "drugs" administration has unwanted side effects.
12. (A) The estimated number of sufferers would support the sentence that introduces the lack of data on the number of people who have narcolepsy.
13. (B) The crew of the *Dei Gratia* gave a report at the inquiry concerning the finding of the abandoned *Mary Celeste*.
14. (B) "Alien abduction and sea-monster attacks" are outlandish (absurd) explanations concerning the missing crew.
15. (C) A sentence about leaving the hatches open to prevent a blast would come between the sentence that introduces the possibility of an explosion and the sentence that gives other details to support the explanation.

EXERCISE R9 (p. 180)

1. A. T
 B. F The third time the plan was proposed it was accepted.
 C. T
 D. T
 E. F We are not told why the plan was rejected in 1883. ("Bore" has two meanings: "to drill" and "to tire.")
2. A. T
 B. F The animals, not the fossils, were probably 6 to 8 feet long and about 350 pounds in weight.
 C. F The middle ear is evidence the ancient whale was a land animal.
 D. T
 E. T
 F. F It is the separation of the ear bones that allows a marine whale to recognize the source of a sound, not the vestigial middle ear.
 G. T
 H. T
3. A. T
 B. F The hundreds of varieties of potatoes are ones that the researchers were studying when they discovered the hairy one.
 C. F A glue, not a scent, is emitted from the ends of the hairs of the hairy Bolivian potato.
 D. T
 E. T
 F. F A new hybrid potato, not the wild hairy potato, has reduced by 40 to 60 percent the aphid population, not all insects.
 G. T
 H. T
4. A. F It is the quality of a Stradivarius violin that cannot be matched by any other violin.
 B. T
 C. T
 D. F There is no mention of Stradivari having written down his secret for making violins.
 E. F It was the type of varnish, not the color, that produced the quality.
 F. T
 G. F Each Stradivarius violin costs hundreds of thousands of dollars.
 H. T
5. A. F There are six colors in total. The multicolored one is included in the six.
 B. F The kernels were ground into cornmeal.
 C. T
 D. F There is nothing in the passage to indicate that the colonists' experimentation with cornmeal was related to a dislike of the Native Americans' meal.

E. *F* There is nothing in the passage to indicate that the colonists introduced succotash and mush to the Native Americans.

F. *T*

G. *T*

H. *F* The common forms of cornmeal are found nationwide.

EXERCISE R10 (p. 183)

1. D 2. A 3. B 4. D 5. B

EXERCISE R11 (p. 185)

1. S 3. S 5. D 7. D
2. S 4. D 6. S 8. S

EXERCISE R12 (p. 186)

- Europa, one of Jupiter's moons, is the only place in the solar system (unequaled in the solar system) – outside of Earth (with one exception) – where enormous quantities of water (vast oceans) are known to exist.
- ... A single discharge (a lightning bolt) can actually (it is possible) contain twenty or more successive strokes (a series of bolts). ... Some seem to stretch for 500 miles (which seems very large).
- ... they (porpoises) frequently leap out of the water (travel through the air) to escape the pull of surface drag (air, which creates less drag than water). At that point, leaping out of the water (traveling through the air) actually requires less energy (conserve energy) than swimming.
- ... During the flare-up, strong winds blowing off the surface of the star disperse the surrounding dust (scatter the dust particles) and expose the newborn star (allow the birth of a star to be seen) to observers (people who see) on Earth.
- Perhaps the greatest navigators (expert sailors) in history were the Vikings (the Vikings were).
- ... Today, dolphins do such dangerous and necessary work (important task) as locating explosives (find mines) hidden in the sea.
- ... trained them (Saint Bernards) to search for travelers lost in snowstorms or avalanches (aided travelers) in the Alps. For hundreds of years, (for centuries) Saint Bernards served this purpose (aided travelers).
- ... Out on Lake Biwa, participants attempt to break records by flying (fly) their own inventions (craft they have designed themselves).

EXERCISE R13 (p. 188)

- (A) and (D) It is not the brain that faints.
*(B)
(C) It is not the brain that causes the drop in the blood supply.
- (A) It is not vegetarians that treat gorillas and small animals gently, but gorillas that treat small animals gently.
(B) All gorillas are vegetarians, not just some.
(C) Gorillas have been observed behaving in a gentle manner, not the small creatures.
*(D)
- (A) The crews do not dig a fire; they dig a fire line.
(B) It is not the fire that varies the fire line, but the crews who vary the fire line according to the strength and nature of the fire.
*(C)
(D) "Depend on" means "rely on." Crews do not rely on fighting fires to dig a line. The result of the fire line is determined by the strength and nature of the fire.
- (A) It is not the well educated who promise cures, but the medical quacks.
*(B)
(C) All people are promised cures, not only the well educated.
(D) It is not the medical profession that has appealed to the well educated, but the promise of cures that has appeal for even the well educated.
- (A) It is not the tsetse fly that kills the parasitic protozoa, but the tsetse fly that carries the parasitic protozoa.
(B) The tsetse fly carries the parasitic protozoa, not the silver compound.
(C) Parasitic protozoa cause the sleeping sickness, not the tsetse fly.
*(D)
- *(A)
(B) Six out of thirty-seven stories were published, all were written.
(C) Only six stories were published.
(D) There is no information concerning the topic of the six accepted stories.

Answer Keys

7. (A) It is the convection currents that behave like conveyor belts driving the plates, not the plates.
*(B)
(C) It is the convection currents that are in the hot magma and that behave as conveyor belts.
(D) The earth's crustal plates cannot propose a theory.
8. (A) Medical authorities are reluctant to support the views.
(B) This statement might be inferred, but it is not a restatement of the sentence that medical authorities are reluctant to support the nutritionists' findings.
*(C)
(D) Medical authorities have not supported the findings that vitamin C may prevent the common cold.
9. *(A)
(B), (C), and (D) Female cowbirds can teach songs by responding to certain chirps.
10. *(A)
(B) The conflict is of interest not only to those who want to abolish the last remnants of wilderness but to those who want to save it as well.
(C) There is no information about lawyers' involvement in this conflict.
(D) The conflict is not about abolishing industry but about abolishing or maintaining wilderness areas.

EXERCISE R14 (p. 191)

1. A 2. B 3. B 4. C

Reading Mini-test 3 (p. 193)

1. (A) Borglum was the sculptor.
(B) The men Borglum trained were not stone carvers.
(C) The word "hired" indicates that the workers were paid.
*(D) The passage states that Borglum hired "laid-off workers from the closed-down mines."
2. (A) Although sculpting four presidential faces was an achievement, there is no information concerning Borglum's attitude about it.
(B) It is stated that this removal took place, but there is no information concerning Borglum's attitude about it.
*(C) It is stated in the passage that Borglum was proud that no workers were killed or severely injured.
(D) Although it is stated in the passage that his training of the labor force made the workers skillful at using dynamite, there is no information concerning Borglum's attitude about it.
3. (A) The materials were mixed, not used in separate attempts to cover cracks.
*(B) Borglum himself invented the mixture to fill the cracks that couldn't be avoided.
(C) The sentence is discussing how the unavoidable cracks were dealt with, not how Borglum avoided the cracks.
(D) Borglum did not buy the mixture, he made it himself from a formula he invented.
4. (A) The passage does not discuss air pollution, but natural seasonal climate changes.
(B) There is no mention of polishing as being part of the maintenance procedure.
(C) The work is not restoring the faces, but maintaining them.
*(D) Mount Rushmore is repaired every autumn, or "periodically."
5. (A) It is stated that the people came from the Black Hills area.
*(B) The author concentrates on the work involved in making and maintaining the heads but does not mention why Borglum undertook this work.
(C) It is stated that Borglum dealt with the fissures using a concoction of his own making.
(D) It is stated that repairs are made to the monument every autumn.
6. (A) The earliest artifacts from over two thousand years ago indicate the existence of an earlier city on the site.
(B) The size of the population is not related to the finds being dispersed.
(C) Urbanized areas include residential areas, but this is not related to the finds being dispersed.
*(D) Dispersed finds are those that are scattered throughout a region. These finds show the influence of surrounding areas.
7. (A) Although the city was abandoned, there is no information as to where the people went.
(B) Although a depletion of resources is mentioned, there is no information about a famine.
(C) The sacking by adversaries is stated as a possibility, not a known fact.
*(D) It is stated in the passage that it is not clear what caused the city's decline.
8. (A) The apartment compounds were on both sides of the avenue.

- (B) The avenue passed through the center of the urban area and the Great Compound complexes.
 (C) The avenue was a primary axis.
 *(D) The symmetrical layout around the avenue indicates planning from the very beginning.
9. (A) The feature is not made up of steps, but looks like steps.
 (B) The vertical panels do not give the appearance of steps, it is the series of walls and vertical panels that give the appearance of steps.
 (C) The word "taluds" refers to sloping apron walls, and "tableros" refers to vertical panels. This is not the name of the architectural feature.
 *(D) The series of *taluds* and *tableros* makes up the steplike appearance of the pyramidal platforms.
10. *(A) There is no mention of market streets.
 (B) Finds of the image of the rain god Tlaloc are religious artifacts.
 (C) The Pyramids are ceremonial structures.
 (D) The apartment compounds made up residential districts.
11. *(A) The first camera obscura was the natural phenomenon of light entering a hole in a wall and creating an image on the opposite wall.
 (B) The image projected in a box was a later form of the camera obscura.
 (C) The lens made the image clearer within the box. It was not projected onto a wall.
 (D) A lens is mentioned as used in a box, not in a hole in the wall.
12. (A) Niépce's pictures were all negative images.
 (B) Daguerre was the person who found a way to make positive images.
 *(C) Daguerre found a way to reverse the image to make positive prints, but at first he could not keep the images from getting darker.
 (D) The fixed image did not need to be reversed.
13. (A) Eastman proposed the use of chemically coated paper film to replace glass plates.
 (B) The prints were not light-sensitive. The paper was.
 (C) The clear, sharp, positive prints on paper discussed in the passage were those made with the chemically coated glass plates.
 *(D) Eastman manufactured the first lightweight camera that people could carry and use.
14. (A) The chemicals are only sensitive to red, green, and blue light.
 (B) This information is correct, but it fails to include the important information that all colors can be made from the three mentioned colors.
 (C) This information is correct, but it does not include the color film and layers of chemicals.
 *(D) The layers of chemicals that are used to make up color film are sensitive to three colors of light, red, green, and blue, and these colors can be used to make all colors.
15. *(A) Although Johann Heinrich Schulze discovered a mixture that became darker when subjected to light, the passage does not indicate that he was working on this mixture to produce photographic images.
 (B) Joseph Nicéphore Niépce made the first permanent photographic image.
 (C) Louis Daguerre found the way to fix the image.
 (D) George Eastman developed the portable camera.
16. (A) The number of lives lost and the number left homeless are facts, not myths.
 *(B) The O'Leary cow story has been told to children.
 (C) The costs of the fire are facts.
 (D) How fast the fire spread and how much of Chicago was destroyed are facts.
17. (A) Some local boys were accused of smoking in the barn.
 (B) Other people accused the boys.
 *(C) It is stated that Peg Leg's testimony was questionable because his account had inconsistencies and he himself could have been suspected.
 (D) Peg Leg invented the cow story. Other people came up with other possible culprits.
18. *(A) Since an asteroid shower could cause fires in many areas, the various fires support the theory.
 (B) The fires were in neighboring states, not just the Chicago area.
 (C) It is only a theory that asteroids were to blame.
 (D) It is not mentioned in the sentence that the number of fires was unusual.
19. (A) The passage mentions near-drought conditions.
 (B) The passage mentions densely packed wooden shacks.
 (C) The passage mentions the undermanned fire department.
 *(D) The populace was described as devastated, not as riotous.

20. (A) Mrs. O'Leary's cow did exist.
(B) The story is folklore, not the cow.
*(C) The passage states that the cow was a scapegoat for people to focus their frustrations on.
(D) Mrs. O'Leary's cow was a real cow.

EXERCISE R15 (p. 200)

1. (A) Private individuals must be able to submit reports because two reports came from private individuals.
(B) The reports were already published. This is understood from the phrase "three of the published reports."
*(C) Three reports from official investigations and two from private individuals equals a total of five reports.
(D) There is no information given on what the investigations covered.
2. (A) No information is given concerning how the villages were destroyed.
*(B) Information must have been collected for the Institute of Anthropology to computerize it, and the villages must be in ruins if the plans are to restore them.
(C) It is not the Native Americans who have the computers to store data but the Institute of Anthropology.
(D) It is not the plans that need to be restored but the villages.
3. (A) This statement is contrary to the information given in the statement, which suggests that the European bees will make the African bees gentler. This may be an advantage.
*(B) If the bees have "devastated" the beekeeping industry, they must be destructive, and if it is believed that the interbreeding might make them "gentler," they must not be gentle now.
(C) The question of becoming gentler refers to the bees, not the industry.
*(D) Both kinds of bees must live in Latin America if they are interbreeding there.
4. *(A) If "no partner" helps the male, then the female does not help him.
*(B) If the nest is floating, it must be on water, and this suggests that the jacana is an aquatic bird.
(C) The male protects and nurtures its chicks, but whether or not it protects its partner cannot be inferred. A partner probably doesn't need to be nurtured.
(D) Mating is not mentioned.
5. (A) Elephants are being trapped as a result of farmers clearing land, not by hunters.
*(B) It can be inferred by the elephants' being trapped in forest enclaves that these must be their habitat, and these forests are being cleared away for agriculture or farming.
*(C) Since the land cleared of forests is being used for agriculture, these farms would have to be crossed for an elephant to reach another forest area.
(D) People are not trapping elephants for use. The elephants are unintentionally being trapped through the process of making space for more cropland.
6. (A) Since it is sunken ships that are being safeguarded, it is understood that they were already sunken and not made to sink by thieves.
*(B) Sunken ships must contain something valuable for thieves to be interested in plundering them.
(C) It is not the salvagers who are caught but the salvagers who are trying to protect the ships from adventurers or thieves.
*(D) There must be more ways than electronic means to protect a ship because "other" means are also used.
7. *(A) The weeds known as gopher plants have been given the name "gasoline plant."
(B) Although a gasoline substitute can be refined from the gasoline plant, there is no mention of replacing other sources of gasoline.
*(C) The hydrocarbons in latex can be refined into substitutes for crude oil and gasoline. Therefore, hydrocarbons must contain something that can be made into a substitute for crude oil and gasoline.
(D) It is the "milky latex" that contains hydrocarbons. It cannot be inferred that milk contains hydrocarbons.
8. (A) Since morphine is still being scraped from the poppy plant and since it has not been profitably synthesized, it must still be profitable to cultivate.
*(B) If morphine is unsurpassed for controlling pain, it must be more effective than any other drug, including cocaine.
(C) Although morphine has been used for at least 5,000 years, it cannot be inferred that its use was for controlling pain.
(D) If morphine is not yet profitably synthesized, then artificial morphine cannot be made economically.

EXERCISE R16 (p. 202)

1. Unlike other toads, the male golden toad is nearly voiceless; which is as effective as croaking in luring females during the mating season.
2. Besides earthquakes and volcanos, torrential rains, encroaching tropical vegetation, and time have all taken their toll.
3. medical authorities are skeptical of the treatment
4. powerful legs; lacks the barbules that are needed to lock feathers into a flat vane; head is crowned by a leathery helmet that protects it when it is charging through the jungle.
5. Away from the master carver, who dictated what was to be carved . . .
6. Members of both sexes; learn the art of sword fighting in mock combat
7. Computer-generated motion pictures allow the viewer to see the meaning of data and complex relationships instantly and are a new aid to human understanding.
8. not recommended for beginners
9. Nowhere else, except perhaps in tropical coral reefs, is nature so great in its diversity of organisms.
10. Champion athletes combine new heights of athleticism with the elegance of dance.

EXERCISE R17 (p. 204)

1. *Yes* If communities are discovering that they are living near toxic waste dumps, then they must not have known it in the first place because no one told them.
2. *Yes* E. B. White must have been well known if his death was cause for sadness in millions of homes.
3. *No* Although a firestorm may have caused the dinosaurs to disappear, it was not necessarily the cause of their disappearance. Some other catastrophe may have been responsible for the dinosaurs' extinction.
4. *Yes* There were twelve deaths and three were not linked to fresh fruits and vegetables. The remaining nine were linked to fresh foods. The deaths were sulfite-associated and, therefore, the fresh foods must have been contaminated with sulfite.
5. *No* Other antibiotics may still be useful for other kinds of illnesses.
6. *Yes* If actions such as walking and grasping may be impossible for those people who have had nerves damaged, then the nervous system must be important for muscle control.

EXERCISE R18 (p. 205)

1. A. I Individuals who have shown outstanding talents in a field must be known. Since these awards are given to such people, it can be inferred that those who are not already known will not receive an award.
B. I The last sentence in the passage implies that some people might attain success because they worry about money.
C. R Large grants are given to individuals to allow them time to devote to creative "thinking."
2. A. I The phrase "attempting to solve" suggests that the CDC is not always successful.
B. R "To crisscross the country" means "to travel back and forth across the nation."
C. I If patterns and common links among the victims are found during epidemics, it can be inferred that it is through the extra data collected that the patterns emerge.
3. A. R On the basis of the amount of light absorbed and reflected, astronomers determined that comets contain frozen water.
B. I It can be inferred that since the ice content in Comet Bowell was determined by measuring the light it absorbed and reflected, the ice content in other comets can also be determined.
C. R The name given for the comet that astronomers were observing was Comet Bowell.
4. A. R "Must be removed" means "not left," and "prevent the spread of disease" means "stop other bees from being sick."
B. R If the corpses emit a chemical that signals death, then the chemical that is emitted signals to the honeybees that a death has occurred.
C. R "Within an hour" means "in less than one hour."
5. A. I If the availability of petroleum products is a factor in the reduced demand for seal oil, the implication is that products that were made from seal oil are now made from petroleum.
B. I Because petroleum products are more available, we can infer that the petroleum to make those products is probably easier to obtain than seal oil.
C. ___ Although the northern elephant seal has made a dramatic comeback, there is no information concerning how numerous they are.
6. A. R "More than the severe cold [the harsh climate], the lack [scarcity] of resources for food, clothing, and shelter defines [influences] the lifestyles [living conditions]."

Answer Keys

- B. I It can be inferred from the words "probably descended from" that their ancestry is not known for certain.
- C. ___ One cannot make any inference from the information in this passage whether there is more or less sunshine the further north one is.
7. A. I If scientists could tell whether an astronaut who suffers from car sickness will suffer from space sickness, they would not be attempting to find a way to predict who was susceptible.
- B. R "It [space sickness] interferes with [causes problems or makes difficult] the important work that must be done [work the astronauts do]."
- C. R "Akin to" means "related to."
8. A. R If a white shark belongs to the mackerel shark family, it is a kind of mackerel shark.
- B. I If the white shark did not attack people, it would not have a terrifying reputation.
- C. I If the shark does not eat people, as the evidence suggests, it must kill them for other reasons. Also, "mindless ferocity" implies that the shark attacks for no discernible reason.
9. A. R An inchworm is a geometrid. "Extends itself forward" means "stretching forward," "draws its back end up to its front legs" means "moving its back to its front," and "repeats the sequence" means "repeating this process."
- B. I If only some caterpillars are called *earth measurers*, or *inchworms*, it can be inferred that not all caterpillars are inchworms.
- C. R The caterpillars called *geometrids* are commonly known as *inchworms*.
10. A. I The Merlin must be a kind of aircraft because it is compared with a helicopter or small plane and it "takes off and hovers."
- B. I If the Merlin is safer than a helicopter or small plane because it has no exposed blades, it must be the exposed blades that make some aircraft unsafe.
- C. ___ There is no information given concerning the production of the Merlin. The passage could simply be describing the design or a model of the Merlin, not a Merlin that has actually been produced.

EXERCISE R19 (p. 208)

1. D 2. B 3. A 4. C

EXERCISE R20 (p. 209)

- 1.*(A) Along the coast would be at sea level, where the races must be slower if racing is faster at high altitudes.
- (B) An indoor track could be in an area at sea level or at a higher altitude.
- (C) and (D) A high plateau and near the snowline of a volcano are both high-altitude areas, where the racing would be faster, not slower.
2. (A) While an owner may think it amusing to trick an expert, there would be no need for the owner to do so.
- * (B) An owner could hang a copy of a valuable painting so that in the case of a theft, the real painting would not be taken.
- (C) If owners want to encourage talented artists, they would do so through other means, such as buying an original work by those artists or encouraging them to paint something special.
- (D) If owners enjoyed buying fake paintings, they would probably do this instead of spending a lot of money on valuable paintings.
3. (A), (B), and (C) These are all places where a law enforcement official could use a dog for detecting drugs, but only if he were suspicious that drugs were in use.
- * (D) A law enforcement official would always be on the lookout for possible smuggling of drugs into a country and might, therefore, use such a trained dog.
4. (A) There is no information that implies that a Steiner school does not include academic subjects.
- (B) A game that is not competitive could be played in a coeducational (boys and girls together) school.
- * (C) A contest suggests a competition, and this kind of activity is discouraged in a Steiner school.
- (D) A school that is practicing mixed-ability teaching is teaching children with different abilities; therefore, the children are probably at different levels.
- 5.* (A) If the bacteria can destroy the cyanide, a toxic waste dumped into rivers, then the bacteria can save the water life by getting rid of this poison.
- (B) The bacteria destroy cyanide, not fish.
- (C) Cyanide is not put into swimming pools; therefore, the bacteria would not serve a purpose there.
- (D) The bacteria were exposed to increasing levels of cyanide. An increase of cyanide in the chemical plants is not desirable.

EXERCISE R21 (p. 211)

1. (A) The term "chicks" can refer to any baby bird, not just chickens.
(B) Seals do not build nests in trees.
*(C) The words "nests," "molts," "chicks," "hatch," and "plumage" all refer to birds.
(D) Bears do not build nests in trees.
2. *(A) Since the female molts (loses her feathers) inside the nest, the nest is probably lined with those feathers.
(B) The female probably loses her feathers in order to make the nest, not because the nest is too warm.
(C) After the female molts, she seals herself into the nest; she does not break it up.
(D) To lose feathers by molting is different from losing feathers by plucking them out. The female probably uses her feathers to make the nest warm. The passage states she uses mud and dung to seal the nest.
3. (A) There is no information to indicate that the male forces the female into the nest. Both birds seal the opening.
(B) If sealing the nest happened by accident, it would be exceptional rather than the typical behavior of the species.
*(C) The female probably seals herself in on purpose for laying her eggs and hatching the chicks.
(D) There is no information to indicate that the female is protecting her eggs from the male as opposed to other predators.
4. (A) The baby chicks can be fed, but eggs cannot.
(B) The male helps seal in the female.
(C) It is not plumage that keeps the chicks safe, but sealing the nest that keeps the chicks safe.
*(D) Since the male is outside of the sealed nest, he cannot hatch the eggs by keeping them warm.
5. (A) The rivers from two Canadian provinces drain into the Mississippi River. Drainage areas in Canada are not mentioned.
(B) Thirty-one states out of all the states in the United States have rivers that drain into the Mississippi.
(C) If only parts of some states have rivers that drain into the Mississippi, there are probably other rivers in other parts of those states that drain elsewhere.
*(D) If the Mississippi extends to Canada and flows down to the sea carrying sand, silt, and clay, probably some of the silt the river is carrying comes from Canada.
6. *(A) Since the delta system provides shelter and nutrients for the continent's most fertile marine nursery, it must be very important to marine life.
(B) "Nursery" in the passage means a place where marine life grows, not a nursery for children.
(C) There is no information about diseases caused by mosquitoes and other insects in the passage.
(D) There is no information about the United States government establishing nurseries.
7. (A) It is not being destroyed but being built up.
*(B) If the delta is constantly being built up by the river deposits of sand, silt, and clay, it is probably always changing.
(C) It is not the sea movement but the river deposits that are building up the delta.
(D) The delta is being built on the continental shelf. The continental shelf is already there.
8. *(A) The phrase "carries about 5 gallons of fuel" implies that ultralights have an engine that uses fuel.
(B) If human energy were used, then there would be no need for fuel.
(C) If an ultralight were powered by remote control, there would be no need for a pilot.
(D) No mention is made of solar energy in the passage.
9. (A) There is no information given as to where the kits can be bought.
*(B) If ultralights are sold as kits and take about 40 hours to assemble, people can probably buy their own kit and assemble it.
(C) Although a person without experience can fly an ultralight, it doesn't mean that people in general who fly ultralights have no experience.
(D) If a person can buy a kit and assemble it, there is probably no need to have training in aviation to do this.
10. (A) There is no information given as to whether or not ultralights are registered.
(B) "Rarely fatal" means that they are not frequently fatal.
*(C) If an accident is rarely fatal or even serious, the pilots can probably walk away from most of the accidents.
(D) Fatal accidents rarely occur.

Reading Mini-test 4 (p. 213)

1. (A) The author does not discuss whether Epstein's sculpture is good or bad.
(B) The author does not ridicule or scorn Epstein's work.
(C) The author does not make any amusing comments.
*(D) The author states that artists and critics praised his works, that it now receives the recognition it deserves, and that Epstein is considered one of the major sculptors.
2. (A) Although the public tastes were offended, it cannot be inferred that he let their opinions influence him.
*(B) It is stated in the passage that critics noted the "influence on it of primitive and ancient sculptural motifs from Africa."
(C) Although Epstein had Russian parents, it cannot be inferred that Russian paintings influenced his work.
(D) It cannot be inferred that the Rhodesian government's dislike for the sculpture affected Epstein's future work.
3. (A) It is stated in the passage that today Epstein's work has received the recognition it deserves, and therefore, we can conclude that it wouldn't be mutilated.
(B) It cannot be inferred that because the work has received recognition, it is because it conforms to public tastes. Perhaps public tastes have changed.
*(C) Because Epstein's work has received the recognition it deserves, it would probably be well received.
(D) It is stated that Epstein's first commission was of expressive distortion. It cannot not be inferred that all his works are expressive.
4. (A) It is stated that one of Epstein's sculptures was mutilated. The author does not mean that others have been defaced.
(B) This statement could include all artists' important works of art. The author is only discussing Epstein's works.
(C) It is stated that the figures of one sculpture offended public tastes because of nudity. The author does not discuss why other works have incited criticism.
*(D) The author means that other sculptures of Epstein's have been criticized.
5. (A) It cannot be inferred that there is a relationship between small theaters not being able to afford sound effect machines and what they paid their musicians.

- *(B) The word "These" refers to the music and sound effects in the earliest films. These sounds were made by the musicians the author mentions.
(C) The mentioned musicians were those playing in a pre-Jazz Singer era.
(D) The musicians played to accompany early films. This does not refute any claim about the date of the first film with sound.
6. (A) Some theaters had a pianist, but others had a band or orchestra. There is no information about which was the most common.
(B) Since only larger theaters could afford sound-effect machines, they were probably not common.
(C) There is no indication that orchestras were even required to synchronize sound.
*(D) It is stated that the newly invented gramophone was used as early as 1896 and the earliest public performances of films were in 1896.
7. (A) and (C) The variation in speed was a problem with the projector, not the gramophone.
(B) The disk for the gramophone is mentioned as being large, but there is no mention of the size of the gramophone itself being too large for theaters.
*(D) The gramophone was invented in 1896, and there were difficulties with the needle jumping.
8. (A) The sound signals were placed alongside the images, not the system.
(B) Sound-effect machines were used from the earliest films. The equipment for synchronization was developed in 1922.
*(C) Since the synchronization system is mentioned as eventually bringing us "talking pictures," it was an important development.
(D) It was the signal system that guaranteed synchronization, not the synchronization that guaranteed the production of short films.
- 9.*(A) The sentence "This system [that was used in short films] eventually brought us 'talking pictures'" indicates that short feature films came first.
(B) There is no mention of what happened to the musicians.
(C) The optical sensors read the signals for sound.
(D) The gramophone is mentioned as only being effective for dialogue sequences.
10. (A) The error of the horns effect is slanted toward the negative, whereas that of the halo effect is slanted toward the positive.
*(B) The misjudgment is the same. It is only the outcome that is different.

(C) Focusing on bad traits does not show how the error is the same

(D) This is the result of the error, not how the error is the same.

11. (A) The halo effect from the very intelligent applicant would affect the interviewer's perception of this person negatively.
 (B) The halo effect from the well-dressed and confident applicant would affect the interviewer's perception of this person negatively.
 *(C) The applicant with apparent flaws would probably be judged less capable than the well-dressed, confident applicant. This is because of the horns effect.
 (D) The primary effect from the applicant who is both confident and well-dressed would affect the interviewer's perception of this person negatively.
12. (A) The author would not agree with this because first impressions have been found to be unrelated to the aptitude of the candidate.
 (B) The appearance referred to in the passage concerns the applicant, not the interviewer.
 (C) The author would agree to this, but would want the interviewer to do more than just be aware of this fact.
 *(D) The author would agree that since the interview is a bad way to decide on an applicant, the interviewer should find a better way to choose an applicant.
13. (A) It is unlikely that the author would return to discussing other misjudgments after introducing the topic of better procedures.
 (B) It is unlikely that the author would return to giving more information on kinds of judgments after introducing the topic of better procedures.
 *(C) The passage ends with the author introducing the topic of tests designed to measure cognitive ability. The next paragraphs would probably be about these tests.
 (D) Since it is stated that interviewing is inadequate, the author probably won't discuss the procedures used in interviewing.

EXERCISE R22 (p. 217)

1. A. N 2. A. N 3. A. S 4. A. D
 B. S B. D B. N B. N
 C. D C. S C. D C. S

EXERCISE R23 (p. 218)

1. B, D, F
 2. B, C, F
 3. A, C, D
 4. C, E, F

EXERCISE R24 (p. 222)

1. Underground Homes: A, D
 Conventional Homes: B, E
 2. Early Forms of Dueling: D, E
 Later Forms of Dueling: A, C
 3. Ringtaw: A, D
 Fortification: C, E
 4. Artificial Resort: A, D
 Traditional Resort: C, E
 5. Creatures Found to Exist: D, E, H
 Creatures That Perhaps Don't Exist: A, B, F, I
 6. One of the First Four Stages: A, D, G, I
 Final Stage: C, F, H

Reading Mini-test 5 (p. 227)

1. (A) The area that Rogers came from and his origins are details in the passage.
 *(B) This was the start of Rogers' climb to fame.
 (C) The information about the Ziegfeld Follies is a detail.
 *(D) These are characteristics that made Rogers a much loved personality.
 *(E) Rogers' being mourned by so many people shows that he was loved and admired.
 (F) Rogers' epitaph is a detail.
2. *(A) This is a description of the first way music was made to create a mood.
 (B) The information about Camille Saint-Saëns is a detail.
 *(C) Synchronization of sound and image is a change that took place in the history of cinema.
 (D) These movies are mentioned as examples.
 *(E) Music underlying dialogues and being heard in the background were developments that took place.
 (F) The characteristics of audiences throughout the growth of the cinema is not mentioned in the passage.

Answer Keys

3. Xerophytes

- B. Internal characteristics ("internal gums and mucilages") allow water to be held ("water-retaining properties").
- D. Xerophytes "have spines instead of leaves."
- F. The long roots ("extensive root systems") spread out ("radiate out") close to the surface of the ground ("shallow").

Phraetophytes

- C. Small leaves ("tiny leaves") open to collect water ("open them at night when they can absorb moisture") and close to retain it close their pores during the day to avoid water loss).
- E. The smell and taste of the plant is unpleasant for predators ("some phraetophytes depend on their unpleasant smell and taste for protection").
- G. The roots stretch deep into the ground ("extremely long root systems that draw water from the water table deep underground").
- I. Two sets of root systems ("a double-root system") to collect ground and surface water.

Not used:

- A. Storage difficulties are not discussed in the passage.
- H. This is a detail about cactus, not about survival tactics.

Reading Section Practice Test (p. 231)

Note: If you answered an item incorrectly, complete the exercises listed for that item.

1. (B) The passage states that slime molds "were regarded as organisms of ambiguous taxonomic status." See Exercises R9–R14.
2. (D) To "ingest" or "consume" bacteria means to eat it as food. See Exercises R1–R3.
3. (C) The passage states that "Their uniqueness lies in an unusual life cycle, which alternates between a feeding stage in which the organism is essentially unicellular and a reproductive stage in which the organism adapts a multicellular structure." See Exercises R9–R14.
4. (A) The passage states that "the organism initiates a new genetic program that permits the cells to eventually find a new, food-rich environment." See Exercises R9–R14.
5. (A) The word "Starvation" refers to "become starved" in the preceding sentence and explains when this occurs. See Exercises R4–R8.
6. (D) An "entity" or "unit" is an assemblage of parts, or as in this case, members. See Exercises R1–R3.

7. (A) There are two distinct kinds of cells. Other cells form prespore cells. See Exercises R4–R8.
8. (C) The author does not mention legs. The organism moves like a slug and then changes to a fungi-like form on a stalk. See Exercises R4–R8.
9. (D) When something bears fruit, it is at the stage where the next generation is produced. The author is referring to the organism as being ready to release its spores. See Exercises R15–R21.
10. (B) After the spores that form the head ("the head develops into spores") are scattered around the area ("are dispersed into the environment"), they develop ("form") into a new generation ("the next generation") of amoebae cells. See Exercises R9–R14.
11. (A) Developmental biologists are interested in this transformation because it is similar "to an important process found in higher organisms in which organs with highly specialized functions are formed from unspecialized stem cells." See Exercises R15–R21.
12. (A) The passage states the DNA approach "has essentially backed up the results of the earlier dye studies." See Exercises R9–R14.

13. Unspecialized Cells

- (B) The passage states that the organism is unicellular during the feeding stage.
- (F) The passage states that "This mass [the cells that have come together] sticks together through the secretion of adhesion molecules."
- (G) The passage states that "Once a favorable location has been found with a fresh source of bacteria to feed on, the migration stops."
- (H) The passage states that "a few of the amoebae start to produce periodic chemical pulses that are detected, amplified, and relayed to the surrounding members, which then move toward the pulse origin."

Specialized Cells

- (D) The passage states that "the back cells climb up the stalk and form a spherical-shaped head, known as the sorocarp."
- (E) The passage states that "The head develops into spores, which are dispersed."
- (I) The passage states that "The front cells turn into a stalk, and the back cells climb up the stalk and form a spherical-shaped head." See Exercises R22–R24.

14. (C) The "path" of something is the direction in which it travels. See Exercises R1–R3.

15. (A) "This phenomenon" refers to the movement of icebergs "to the right side of the direction in which the wind blew." See Exercises R4–R8.
16. (A) To "rotate" is to "spin" or "turn" around an axis or central point. See Exercises R1–R3.
17. (C) All points on the planet travel once around the Earth in a single day. Thus the rotational velocity is the same at different latitudes. See Exercises R15–R21.
18. (D) The author points out the linear speed of a point on the Earth depends on its distance from the equator. See Exercises R9–R14.
19. (B) The passage states that an object in the Northern Hemisphere near the equator travels faster than an object further north, where the distance around the Earth is less than at the equator. See Exercises R9–R14.
20. (B) The transitional phrase "And conversely" indicates that the sentence contains some information showing an opposite tendency to the previous sentence. An object traveling northward, away from the equator, travels relatively faster. The converse means that it travels relatively more slowly as it travels southward. See Exercises R4–R8.
21. (D) The passage states that at a depth of about 150 meters water moves in the opposite direction to the surface water. See Exercises R9–R14.
22. (B) Paragraph 4 gives an explanation of how the Coriolis force changes the direction of water flow. See Exercises R9–R14.
23. (A) To "deflect" is to "turn" to one side. See Exercises R1–R3.
24. (D) The information about the movement of icebergs in paragraph 1 and the description of the water deflection in paragraph 4 indicate that it is the Coriolis force that deflects ocean water. See Exercises R15–R21.
25. (A) The passage mentions how the marine ecosystem is affected by water taking the place of water displaced in the Ekman spiral. See Exercises R9–R14.
26. (B), (D), and (E) The Coriolis force results from the Earth's rotation and the fact that the linear speed (distance traveled in a given time) of a point on the Earth's surface is slower the further it is from the equator. This causes an object moving away from (or toward) the equator to be deflected to the right in the Northern Hemisphere and to the left in the Southern Hemisphere. Ocean currents are deflected at an angle with respect to the prevailing wind because of the Coriolis force. Water at successively deeper levels is further deflected in respect to the layers above it, creating a spiral. See Exercises R22–R24.
27. (C) When two armies are "engaged," they are involved in a "battle." See Exercises R1–R3.
28. (B) The passage states that the Confederates' "weaker manufacturing capacity and transportation infrastructure led ultimately to defeat." See Exercises R15–R21.
29. (C) Part of Lee's plan was to lure or entice the Northern army to fight in an exposed or vulnerable position. See Exercises R9–R14.
30. (D) The phrase "aimed at increasing the war weariness of the North" implies that the North was tired of waging war. See Exercises R15–R21.
31. (C) In paragraphs 1 and 2, the invasion of the North by the Confederate army indicates that the Union had to defend itself. In paragraph 3, the passage discusses the defensive positions that the Union took. See Exercises R15–R21.
32. (B) "This crest" refers to the "long rise of land" known as Cemetery Ridge. See Exercises R4–R8.
33. (A) The author is giving a description of what the Union army position may have looked like if it were drawn on a map or seen from the air. See Exercises R15–R21.
34. (D) "Devastating" or "ruinous" means the number of casualties was disastrous. See Exercises R1–R3.
35. (D) The strength of the Confederate infantry was probably great, considering 13,000 men were involved in the charge. See Exercises R9–R14.
36. (D) The word "They" refers to the 13,000 men charging across the open land. See Exercises R4–R8.
37. (D) The passage states that "Both sides had suffered excessive losses of men." See Exercises R9–R14.
38. (C) Because Pickett's Charge failed and the Confederates did not capture Northern territory, they were unable to reach their objectives of weakening the Union army and increasing war weariness, and they had to take on a defensive strategy without adequate manufacturing and transportation infrastructure. See Exercises R9–R14.
39. (B), (E), and (F) The main outlines of the battle were as follows: Two days of fighting failed to lead to a successful outcome for either side. Reinforcements strengthened the positions of both armies, which formed lines facing each other. On the final day, the Confederate army attacked the defensive positions of the Union army, but was unsuccessful. After this failure, the Confederates retreated back to the South. See Exercises R22–R24.

PART 2 BUILDING SKILLS: Listening

EXERCISE L1 (p. 255, script on p. 592)

Your answers may be stated differently, but they should contain all the information included here.

1. We need to put alternative medicines under the same investigation as we do to medicines being developed to confirm their efficacy.
2. The brain has the tendency to interpret vague images as specific ones.
3. The savagery of the Mongols was moderated because the tribute they lived on could only come from prosperous subjects.
4. Alliteration, the technique of repeating the initial consonant sounds, is a common poetic device.

EXERCISE L2 (p. 256, script on p. 592)

Your answers may be stated differently, but they should contain all the information included here.

1. the endosperm of the seed
2. He doubts that the average person understands the difference between science and pseudoscience.
3. Universal units of time are not accurate enough for modern measurement.
4. When that which is purchased will be worth more than the amount of money borrowed.

EXERCISE L3 (p. 257, script on p. 592)

1. B 2. B 3. A 4. A

EXERCISE L4 (p. 259)

1. people ← they
abracadabra ← this word
2. subject matter → frontier life
her → Willa Cather
Willa Cather ← her
3. a drying time → 6 to 8 weeks
nutmeg ← its
kernels ← their
4. his → Charles duc d'Orléans
Charles duc d'Orléans ← his
sending love letters ← this

EXERCISE L5 (p. 260, script on p. 593)

1. A. the one who wrote *Uncle Tom's Cabin*: Harriet Beecher Stowe

- B. he: President Lincoln
- C. her: Harriet Beecher Stowe
- D. her: Harriet Beecher Stowe
- E. the little lady who started the Civil War: Harriet Beecher Stowe

2. A. when: 1867
B. he: William Seward
C. it: Alaska
D. the idea: purchasing Alaska
E. that: that people thought purchasing Alaska was crazy and called it Seward's Folly
3. A. one thing: something interesting
B. its: the English House of Lords
C. something: that issue
D. they: members of the English House of Lords
E. they: members of the English House of Lords
4. A. it: the Turkish cultural arts exhibition
B. These: events
C. one: lecture
D. that: traditional Turkish music

EXERCISE L6 (p. 261, script on p. 593)

1. A. this happening: the breakdown of the traditional family
B. these people: the elderly
C. these problems: no home and no family members to help
D. their ideas: the delegates' ideas
2. A. the dream: to climb Mount Everest
B. this climb: Mount Everest
C. these are granted: permits
D. a few groups: alpine clubs
3. A. He did this: invented the digital calculator
B. a particular problem: the division of the French currency
C. such divisions: the divisions of livres, sols, and deniers
D. which are divisible: today's currencies

EXERCISE L7 (p. 262, script on p. 594)

Your answers may be stated differently.

1. In contrast – Large estates have become smaller plots as well as small landholdings becoming larger estates.

2. **Consequently** – Writers and speakers use connotations to persuade their audience because they have powerful associations.
3. **However** – Sea defenses built to prevent beach erosion may be the cause of coastal land erosion.
4. **first** – When the paper is written, follow this order: put it away and do something else.
then – Go back to the paper.
5. **important** – Decomposition in organic matter releases and circulates minerals into the environment.
In particular – Detritus feeders break down dead material.

EXERCISE L8 (p. 263, script on p. 594)

Your answers may be stated differently.

1. The dinosaurs were walking on a beach. There are families. The stride and speed, as well as the weight and height, can be calculated.
2. Pests attack a tree. The tree responds by changing its nutritional quality. It is thought that the attacked trees emit a chemical that warns other trees. The surrounding trees change their nutritional quality. This chemical could be used in pest control.
3. The types of caudal fins are rounded fins, soft and flexible, good for maneuvering and acceleration; forked fins, less drag than rounded fins, good for continuous swimming; and lunate fins, rigid, good for traveling long distances, not good for maneuvering.
4. A child riding a tricycle is compared to one riding a bicycle to explain static stability – the tricycle can stand by itself, whereas the bicycle cannot – and dynamic stability – a tricycle is not as stable in motion as a bicycle.

EXERCISE L9 (p. 265, script on p. 595)

1. the United Kingdom (The speaker will probably go on to give more facts about the United Kingdom.)
2. the Award for Architecture (The speaker will probably continue his talk by giving more information about the award. He may discuss the qualities an architect must have in order to be considered for the award.)
3. patterns of Irish linen (The speaker will probably continue to talk about the patterns as she displays the Irish linen.)
4. figures carved in hillsides (The speaker will probably talk about specific human- and animal-shaped figures.)

5. Professor Brown's talk on the geology of Mars (The speaker has attended the talk and will probably discuss it.)

EXERCISE L10 (p. 266, script on p. 595)

1. (A) Although the discussion may develop into the uses of acupuncture in the West, the talk will probably concentrate on the practice of acupuncture.
(B) The topic sentence concerns acupuncture in China five thousand years ago, not modern China.
*(C) The talk has begun with the topic of the practice of acupuncture and will probably continue to discuss the development of acupuncture throughout the centuries.
(D) There is no mention of arthritis or its cures.
2. (A) Although fabric is made up of threads called fibers, the fibers in the topic sentence concern those of the muscles.
*(B) The talk begins with a description of muscles and will probably continue with more information about them.
(C) Although muscle fiber is measured in millimeters, the talk will probably not continue with details about millimeters.
(D) The length of muscle fiber is mentioned, but the talk will probably not continue with details about lengths in general.
3. (A) The talk mentions satellite-communications technology, not communications technology in general.
(B) The challenges mentioned are those in education, not in communications.
(C) The satellites are those of communications, not education.
*(D) The talk will probably expand on the possibilities and challenges in education that satellites have opened up.
4. (A) This seminar covers a specific period of time in Spanish literature.
(B) Although this is a Spanish course, it is a specific course.
(C) Historical events are mentioned in the context of the period of time when the Golden Age of Spanish literature flourished.
*(D) The professor is probably explaining to the seminar class what the course will be about. He will probably continue to give the students more information concerning the Golden Age of Spanish literature.

Answer Keys

5. (A) Because influenza is emphasized by its being discussed in the main clause, the speaker will probably talk more about its particular characteristics.
(B) and (C) The common cold may be compared to influenza, but the emphasis will probably be on influenza.
(D) The speaker does not mention other diseases.
6. (A) It is not human protein but rather animal protein that is being introduced.
(B) Only one cause of malnutrition will probably be discussed.
(C) Only one world problem – malnutrition – is being introduced.
(D) The talk will probably discuss the lack of animal protein in the diet of some peoples and the malnutrition that it causes.

EXERCISE L11 (p. 267, script on p. 595)

1. Yes (topic = magic squares)
2. No (topic = public zoos)
3. No (topic = the Pony Express)
4. Yes (topic = butterfly farm)
5. No (topic = gargoyles)

EXERCISE L12 (p. 268, script on p. 596)

Your answers may be stated differently.

1. development of a written system to describe dance movements
2. settlement of the New World
3. contemporary photography's lack of historical value
4. no official language in the United States

Listening Mini-test 1 (p. 268, script on p. 597)

1. (D) The woman asks the man about his job at the library. The man describes aspects of the job.
2. (B) The man tells the woman that he unpacks boxes of newly purchased books and it is like unwrapping presents. She thinks it would be fun to unpack the books.
3. (B) The man states that the worst thing is to attach the bar code.
4. (C) The talk begins by introducing Buffalo Bill (William Cody) and his Wild West Show. It goes on to discuss the performers in the show and those who saw the show.
5. (A) The given date is the year that William Cody founded the great Wild West Show.

6. (C) Chief Sitting Bull is mentioned as an example of the famous people who joined Buffalo Bill in his tour of Europe.
7. (B) The talk begins by introducing a new musical form in America, called ragtime. It goes on to discuss the musical features of ragtime, important ragtime composers, and how this musical form became popularized.
8. (C) According to the speaker, ragtime was a new musical form that captivated America just before the turn of the twentieth century.
9. (A) The professor discusses the regular beats of waltzes and polkas as a contrast to the main feature of ragtime, its syncopation or irregular beat.
10. (B) The discussion is mainly about the painting featured on the news broadcast.
11. (C) The curator on the news report said that the painting has been "out on unauthorized loan for three years." "Unauthorized loan" is a humorous way of saying it was stolen.
12. (D) Its small size makes it easy to conceal and take out of the museum.

EXERCISE L13 (p. 275, script on p. 598)

1. (B) It is not that the people in Homer's time used words from the Kápathos dialect, but that the Kápathos dialect of today uses words from the time of Homer.
2. (A) It is not the first hot-air balloon, but the first hot-air balloon flight that was piloted by a person on board.
3. (B) It is not that the word for "beautiful bird" means "tail feather," but that "quetzal," which is the name of a beautiful bird, means "tail feather."
4. (B) Twenty-two men did not cut off the escape route; they secured the escape route.
5. (A) It wasn't the areas themselves that set up the centers; the centers were set up in the areas.
6. (B) It is not our past that has been revolutionized, but our concepts about our past that have been revolutionized.
7. (B) It is not that explorers were unable to locate the island in March 1783, but that the island was described in March 1783.
8. (A) It was not dolphins, whales, and dead fish that were spotted. This suggests that only the fish were dead. Dead fish, dolphins, and whales were spotted. This suggests that creatures from all three groups were dead. Also, the dead creatures were reported by the authorities. The actual spotting could have been either by the authorities or by other people.

EXERCISE L14 (p. 276, script on p. 598)

- 1.
-
- A,
-
- C 2.
-
- B,
-
- D 3.
-
- A,
-
- B 4.
-
- B,
-
- C

EXERCISE L15 (p. 277, script on p. 599)

1. A, B, D
-
2. A, B
-
3. A, D
-
4. B, C

EXERCISE L16 (p. 278, script on p. 600)

1. A. Yes 2. A. No 3. A. No
-
- B. Yes B. Yes B. No
-
- C. No C. Yes C. Yes
-
- D. Yes D. Yes D. Yes
-
- E. No E. No E. Yes

EXERCISE L17 (p. 280, script on p. 602)

1. A. Prisms 3. A. Refrigerator
-
- B. Plates B. Icehouse
-
- C. Stars C. Icebox
-
2. A. Antiviral 4. A. Drops of water
-
- B. Antibacterial B. Drops of water
-
- C. Antibacterial C. Drops of water
-
- D. Flow of water
-
- E. Flow of water

Listening Mini-test 2 (p. 281, script on p. 603)

1. A. Yes The artificial chemical CFCs in the production of goods are first released into the atmosphere.
-
- B. No Although it is true that CFCs continue to be used for economic reasons in some parts of the world and that they affect the ozone layer, this is not a step in the process of ozone depletion.
-
- C. Yes The chemical reaction between oxygen atoms of the ozone layer and the CFCs is what is causing the depletion of the ozone layer.
-
- D. Yes This is how the CFCs get into the atmosphere.
-
- E. No This is a result of the depletion of the ozone, not a step in the process.
-
2. *
-
- A The professor states that for economic reasons, some countries are not enthusiastic about phasing out the production of CFCs.
-
-
- B It is not that she doesn't think the CFCs will disperse, but that she is concerned about their being dispersed.

 C The professor states that it is hoped the ozone layer will recover by the year 2060. D The professor states that aerosols are being phased out. This implies that alternatives are acceptable.3. A The chemical reaction is not caused by ultraviolet rays. The reaction allows ultraviolet rays to reach the Earth's surface. B The CFCs in the atmosphere migrate to the stratosphere, not from the stratosphere. C The DNA of humans and plants do not contain artificial chemicals.* D The professor states that CFCs are components of certain products and are produced in various manufacturing processes.4. * A CFCs are mentioned as a main component in dry-cleaning chemicals.* B CFCs are mentioned as being produced in nitrogen fertilizers. C Oxygen atoms are mentioned as combining with CFCs, not as being contaminants. D Ultraviolet light reaching the Earth is discussed as the consequences of the ozone depletion, not as a contaminant.

5. A. Brainwashing – The professor describes brainwashing as forcing someone to accept implanted ideas after losing a sense of reality.

B. Subception – The experiment that increased the buying of ice cream after an unconscious intrusion was the result of subception.

C. Hypnosis – The carrying out of a command at a given signal is a feature of post-hypnotic suggestion.

6. A There is no mention of this technique being used on unsuspecting people after the end of the experiment.* B Although the people were not aware that they saw the ad, it did affect them. C The ad that was shown to the people was not attempting to make people do something unethical. There is no indication that this technique can be used to do this. D The experiment was given special attention because it was evidence that people are unconsciously aware of things going on around them.7. A People may forget what they were told in hypnosis, but they may never be aware that they were shown anything if exposed to the technique of subliminal perception.* B According to the speaker, people are not conscious that their minds are being influenced.

Answer Keys

- (C) People may be given a post-hypnotic suggestion to do something silly after they come out of a hypnotic trance.
- (D) People who have been brainwashed are implanted with false ideas that they act upon in a way they would have thought unacceptable before the brainwashing experience.
8. ***(A)** The professor does not mention drugging in the list of brainwashing techniques used to break down an individual.
- (B), (C), and (D) The professor states that the breaking down of an individual "is done through acts such as starving them, preventing them from sleeping, intimidating them, and keeping them in a state of constant fear."
9. **A. Yes** Whether or not they were feasible, they were an attempt to mimic nature.
- B. Yes** These devices mimic the seedpods that grasp animal fur for dispersal.
- C. No** The skeletons that soften to change shape are a feature of a creature whose properties could possibly be mimicked.
- D. No** Antlers are being investigated because of their natural strength. They are not an application of biomimetics.
- E. Yes** A substance that could copy photosynthesis to create energy would be mimicking plants.
10. ***(A)** The professor states that architects and engineers consciously model buildings on forms found in nature.
- (B) The architects and engineers are those who have inventive ideas.
- (C) The professor talks about the freedom of birds.
- (D) The architects and engineers are not inspired by animals' and plants' problems, but how they have evolved solutions to problems.
11. **(A)** The professor does not consider the structures to be intelligent but talks about how the structures could be built to appear intelligent.
- (B) The professor is discussing the similarity of the structures to intelligence, not to fashion.
- ***(C)** The professor uses the term "smart" because structures that are able to design and repair themselves seem to have intelligence.
- (D) The professor is not ridiculing the processes in the natural world but is discussing how those processes could be used effectively.
12. ***(A)** The high resistance that wood has to impacts would be a useful feature to mimic.
- (B)** There is no reason that biomimetics researchers would want to study the stimulus for inventive minds.
- ***(C)** The structure that gives antler bone its toughness could be a useful feature to mimic.
- (D)** Biomimetic researchers would not be interested in studying the impact of their field in the twenty-first century.
13. **(A)** The professor states that the illegal art trade destroys the integrity of the overall work. She does not compare the illegal art trade with the illegal trade in weapons in terms of which is more devastating.
- (B) The professor emphasizes that the illegal art trade equals that of the illegal trade in drugs in economic terms.
- (C) The professor does not mention the Mafia.
- ***(D)** The professor states that the illegal art trade equals the trafficking of both weapons and drugs in economic terms.
14. ***(A)** and ***(C)** The professor agrees with the man's point that inventories would only be useful if they were available for concerned organizations. The professor then gives examples of several organizations, such as the police, customs agencies, and insurance companies, that would find this information useful for stopping the illegal art trade.
- (B)** There is no mention of criminals getting into an electronic network to find valuable treasures.
- (D)** It would be unlikely that a tourist would read an inventory about cultural properties. A tourist would have to be informed in a different way about the illegal art trade.
15. **(A)** The professor mentions wealthy buyers but does not mention anything about bribery.
- (B)** Nothing is stated in the discussion about people being afraid of or even having knowledge of illegal art traders.
- ***(C)** The professor states that original owners cannot always furnish an accurate description of their stolen property and, consequently, cannot prove ownership.
- ***(D)** The professor mentions that a criminal could cut up a painting and sell parts of it. This would change the work of art so it might not be recognized.
16. ***(A)** The professor states that surveillance is not always affordable.
- (B) The thieves' possible shrewdness in stealing objects under surveillance is not discussed.

(C) There is no mention of any particular treasures not being worth protecting from theft.

(D) There is no information on any particular government's stand on the issue of the depletion of their cultural treasures. It can be understood that it is an issue because of the mentioned law enforcement officials who are involved in combating the illegal art trade.

EXERCISE L18 (p. 288, script on p. 606)

1. *Yes* It is new research that has brought doubt about whether Mata Hari was a spy. Therefore, either a death sentence or prison sentence was probably given at the time of her trial.
2. *No* The woman is showing interest in the man's experience, but there is no indication that she wants to build a mud house herself.
3. *No* A fossil is the remains of a prehistoric creature or organism.
4. *Yes* The speaker's saying that further experiments need to be done before a decision is made concerning use on humans indicates that humans have not yet undergone the operation.

EXERCISE L19 (p. 289, script on p. 607)

1. (B) Research into the recurrence of polio may give those involved in medicine new insights in how to treat the disease.
2. (D) The man will probably sign up to take Italian in order to complete his foreign language requirement.
3. (A) Jean Muir's working with her staff to prepare twenty years' of materials suggests she wanted her fashion business to continue after her death.
4. (B) A way to motivate learners and encourage learning would be important for education majors.

EXERCISE L20 (p. 290, script on p. 608)

Your answers may be stated differently.

1. She's probably an art major.
2. To contrast the lasting enjoyment that children get from common objects with the short-term enjoyment that they get from high-tech toys.
3. The professor wants the students to take the opportunity to experience Spanish culture and language outside of the classroom.
4. Because there has been a violent incident on campus recently.

EXERCISE L21 (p. 291, script on p. 609)

1. A, D 3. B, C
2. B, D 4. A, C

EXERCISE L22 (p. 292, script on p. 609)

1. (D) The professor wants the students to think about the different arguments about the relationship between competition and success.
2. (A) The professor is explaining the term *cariogenic* by showing the word *caries* within the term and then stating that it is tooth decay.
3. (D) The professor wants the students to consider the results of tests as an indication of one's natural progress in understanding.
4. (C) The instructor is letting the students know that she is impressed with those people who will be leading the workshop.

EXERCISE L23 (p. 293, script on p. 610)

1. (C) The phrase "if that's the case" refers to the situation of students getting so far behind that they can't catch up. The man is concerned that this may be her situation and, if that is true, she should drop out.
2. (D) The man is surprised about what the woman said and wants to confirm his understanding.
3. (A) The professor believes that the relationship between the information written on the board and the statistics shown in the transparency will be understood immediately.
4. (C) The woman gives positive examples of what happens in the pursuit of happiness, and the man gives a negative example.

Listening Mini-test 3 (p. 294, script on p. 611)

1. (A) The professor said that asbestos caused memory loss. She then apologizes and changes the statement to say that asbestos causes lung cancer.
2. (B) The professor means that the situation of synthetic materials causing diseases is very serious.
3. (B) The toxic fumes, which have led to more fire-related deaths, are created when synthetic materials catch on fire. This is another danger of using synthetic materials in houses.
4. (A) Stone is a natural material. The other items are synthetic building materials or use synthetic materials in their processing.
5. (D) Most people cannot move from their homes very easily, but they can remove some of the synthetic materials in their homes and replace them with natural alternatives.
6. (B) The instructor would probably hand out the list of required readings at the beginning of the semester.
7. (D) An out-of-print book would not be available in a bookstore, so a professor might leave a personal copy at the reserve desk.

Answer Keys

8. (A) Because the articles are on microfiche and microfiche materials are on reserve, it can be inferred that the articles cannot be taken out.
 9. (B) When the professor asks the man to wait after class so that he can explain the procedures, the woman implies that it might be better for the professor to explain to everyone because she thinks that a large number of students need an explanation. The man agrees with her perception.
 10. (A) The lecturer has introduced his lecture with a familiar proverb. By stating that this proverb is true in some cases, he indicates that it is not always true or valid.
 11. (A) The lecturer has been talking about inventors being dissatisfied people, but he doesn't want those listening to think that they are unhappy or pessimistic.
 12. (A) The speaker uses the example of the aspirin bottle to demonstrate that one invention often brings about another invention created to correct a fault of the first one.
 13. (A) The speaker asks for the audience to suggest ways to improve the aspirin bottle cap. They may come up with a good improvement.
 14. (D) The speaker closes the talk by having the audience discuss their ideas.
 15. (D) The students are listening to the lecture about how anthropologists can use garbage to learn about cultures.
 16. (A) The professor uses the example of orange peels to demonstrate the various things that can be learned about people by looking at what they discarded.
 17. (B) A Stone Age person may have thrown away all of the stated items. However, the broken stone tools would most likely be the only objects that remain today.
 18. (C) Since the organic materials that ancient cultures used disintegrated, they no longer exist and, therefore, cannot be studied. The professor regrets that this information has been lost.
- a normal response and differs from anxiety disorders. See Exercises L18–L23.
3. (A) The professor explains that specific phobias are usually focused on relatively harmless objects, such as spiders. Often the sufferer realizes the irrationality of being fearful of such things. See Exercises L13–L17.
 4. (D) The professor mentions some strange anxieties, such as fear of laughter. By saying "I guess that's not a laughing matter for the sufferer," the professor implies that it might seem funny to many people. See Exercises L18–L23.
 5. (C) The professor mentions certain social phobias that may include the fear of performing normal everyday activities in front of others. Eating in front of others could be one such activity. See Exercises L18–L23.
 6. (A) The term "agoraphobia" is of relatively low usage and the professor probably thinks some students are not familiar with the word or its spelling. See Exercises L18–L23.
 7. (D) The professor says there are various medications and therapies that can be used to treat phobias. See Exercises L18–L23.
 8. (B) The student reminds the professor that she wrote on his questionnaire "Come and see me." The student wants to know why she wanted to see him. See Exercises L9–L12.
 9. (A) The professor used the point about fruit and vegetables to illustrate why *and* questions don't work well on a questionnaire. See Exercises L18–L23.
 10. [C] and [D] The professor explains to the student that he may annoy his subjects if he asks questions in a certain way. She also warns against asking questions that he knows how the subjects will answer. See Exercises L13–L17.
 11. (D) The professor doesn't have a copy of the questionnaire in front of her and so asks the student if she can see his copy. To jog one's memory means to help someone remember something. See Exercises L18–L23.
 12. (A) The professor says that other students in the class have also made mistakes writing their questionnaires. Later she suggests working together with a classmate. This suggests that the task was given as a class assignment. See Exercises L18–L23.
 13. (C) The professor discusses with the students various characteristics of tundra plants, such as short plants with short root systems and plant clustering. They also discuss the causes of these characteristics. See Exercises L9–L12.

Listening Section Practice Test (p. 299, script on p. 613)

Note: If you answered an item incorrectly, complete the exercises listed for that item.

1. (B) The professor describes the causes and symptoms of the three main groups of anxiety disorders. See Exercises L9–L12.
2. (D) According to the professor, feeling anxious on a visit to the dentist (and in some other situations) is

14. (B) The professor mentions that Alpine tundra has similar characteristics to Arctic tundra, but that it has enough differences to justify spending a separate lesson on its main features. See Exercises L13–L17.
15. (A) and (D) According to the professor, the landscape is flat and treeless – in Finnish the word *tundra* means “treeless plain.” A student brings up the fact that the ground is too hard to let melted snow drain through it. See Exercises L13–L17.
16. (C) According to the professor, the plants in the tundra cluster together in depressions to avoid the strong winds, and this helps them to resist the cold arctic temperatures. See Exercises L13–L17.
17. (A) *No* The plant roots are short because the ground is too hard to penetrate.
 (B) *Yes* The snow insulates the plants against the bitter cold.
 (C) *No* Tundra plants use the melted snow that cannot drain as a water source.
 (D) *No* Trees do not grow on the tundra.
 (E) *Yes* Tundra plants take advantage of the long hours of summer sunlight. See Exercises L13–L17.
18. (A) The professor discusses various ways in which Isadora Duncan influenced modern dance stage practice. See Exercises L9–L12.
19. (C) The professor introduces the lecture by noting that artists in various fields were trying to discover new ways of expressing themselves. See Exercises L18–L23.
20. (B) The professor notes that Duncan may have been influenced by folk dancing in her use of the whole body in dance and in her use of costume. See Exercises L13–L17.
21. (D) The professor notes that the use of great concert music to accompany dance movements was an innovation of Duncan’s. See Exercises L13–L17.
22. (A) *No* Stiff shoes were used for the dance of her period. She danced barefooted.
 (B) *Yes* Duncan used loose, flowing gowns inspired by Greek models.
 (C) *No* Duncan was concerned with using the whole body for expression
 (D) *No* Duncan chose concert music of classical composers, such as Beethoven, Bach, and Chopin.
 (E) *Yes* Duncan is said to have felt frustrated by the lack of emotional impact and used her movement to express emotions. See Exercises L13–L17.
23. (C) The professor discusses the three ways in which Duncan was an innovator. He also states, “Perhaps all modern dance owes something to Duncan’s inventiveness.” See Exercises L18–L23.
24. (A) The professor notes that modern audiences may take the achievements made by Duncan for granted and so her originality may not be so obvious today. See Exercises L18–L23.
25. (C) The professor explains the causes of the formation of the layers or stratification inside of the Earth. See Exercises L9–L12.
26. (D) The professor discusses how some scientists are questioning the standard model of planetary formation and mentions that many scientific theories are open to revision. See Exercises L18–L23.
27. (A) The professor says that she knows that some of the students listening have studied Earth formation in other courses. This implies that this topic is familiar to some students. See Exercises L18–L23.
28. (B) The professor mentions that 4.6 billion years ago the material in the Earth was randomly spread around. She concludes by noting how differentiation changed the internal structure from a random mix to a layered structure. See Exercises L13–L17.
29. (D) The professor states that the most important cause of heating was the decay of radioactive elements. See Exercises L13–L17.
30. (A) and (C) The heavier material sinking and the gases escaping and coming out at the surface are two of the aspects of differentiation. See Exercises L13–L17.
31. (B) The man came to the advisor to talk about graduate school. He needs help because he finds the application form “a bit overwhelming.” See Exercises L9–L12.
32. (C) The advisor says that they should look in reference books to find universities offering a degree in marine biology. See Exercises L13–L17.
33. (A) The student thinks it would be expensive to apply to a lot of universities. The advisor tells him it would be expensive to apply to all of them on the list. The implication is that an application fee is necessary. See Exercises L18–L23.
34. (A) The advisor makes this statement in order to find out what area the student hopes to specialize in within the field of marine biology. She wants to help the student focus the search more precisely. See Exercises L18–L23.
35. (C) The advisor suggests that the student read published articles in the area he is interested in to find researchers who might be able to help him in his future research. See Exercises L13–L17.

PART 2 BUILDING SKILLS: Speaking

There is no answer key for **EXERCISES S1–S2** (pp. 313–314).

EXERCISE S3 (p. 315)

Theaters of the Elizabethan period were open-air constructions in which poorer members of the audience, "the groundlings," stood in a space called "the pit" around three sides of a projecting rectangular platform that formed the main stage. Most of the perimeter of the building comprised covered, tiered galleries, and it is here that the wealthier members of the audience sat. A roof supported on two pillars projected from the back wall and covered part of the stage. The main stage was hollow and could be accessed from below through trapdoors set in the floor. The main stage also had a door on either side at the back, which gave access to the dressing rooms. Between these doors was a small recess, usually curtained off, that could be used for extra stage space. Above this recess was a balcony sometimes used by musicians or, when necessary, by actors in a performance.

EXERCISE S4 (p. 315)

It is simply not feasible for every university library in the nation to contain all the books, journals, and resource materials that university students and faculty need for their research. So what have libraries done to meet the needs of their users? Well, several things, in fact. While some money is used for the yearly purchasing of hardbound books and current journals that are recommended by professors, other funds are used to obtain materials that have been put on microfilm and microfiche. These techniques have proved extremely useful for adding informative materials to a library's collection at a low cost and without taking up much space. Another way libraries have increased access has been to invest in computers. Computers are linked to collections in other libraries. Professors and students can perform a computer search to find a library that has the material they need. The material can then be ordered and checked out through the interlibrary loan system, which costs the user a nominal shipping fee.

EXERCISE S5 (p. 316)

(Man) Professor Cline?

(Woman) Yes?

(Man) I'm Robert Daley. The work-study office sent me.

(Woman) Oh, I've been waiting for them to send someone. Did you say your name was Robert?

(Man) Yes.

(Woman) What's your major, Robert?

(Man) Zoology.

(Woman) Good. You have some science background then. Let me show you what we're doing in our lab.

(Man) Will I be working in the biology lab?

(Woman) Yes. We're studying the speed of reproduction of paramecia. Uh, paramecia are the most complex single-celled organisms.

(Man) Oh, that sounds interesting.

(Woman) Well, what we need you to do is probably not so interesting.

(Man) And what is that?

(Woman) We'll need you to come in every day at the same time and count the paramecia.

(Man) Count paramecia?

(Woman) Yes. It's very important to keep an accurate count and fill the numbers in on a form. I'll show you where the forms are and explain how to complete it later. After you have completed the form, you need to give it to Nancy. She's the woman that you met in the lab office. She'll feed your numbers into the computer for our statistical analysis. Right now, though, I want to introduce you to the other members of our team so that we can arrange a convenient time for you to come in.

EXERCISE S6 (p. 316)

Treasured since ancient times, saffron is obtained from the autumn-flowering *Crocus sativus*. It is the dried flower stigmas – the three slender threads in the center of each flower – that are the source of saffron. This "king of spices" is one of the world's most prized and expensive foodstuffs. The finest variety is grown in La Mancha in the central plateau of Spain. Spain is by far the biggest producer. It contributes seventy percent of the world's output, with India and Iran

the only other producers of note. The cultivation of saffron in Spain goes back to the Moorish invasion of the eighth century, when the crocuses were first introduced from the Middle East. Not only is Spain the largest producer of saffron, but it is also the largest consumer. Up to one-third of the crop is bought in Spain, and the remainder is exported. The biggest buyers are Middle Eastern countries, followed by the United States, Italy, and France.

EXERCISE 57 (p. 319)

Your answers may be stated differently.

1. I admired my high school history teacher for several reasons. First, he could explain historical events as if he were telling a story.
2. I enjoyed doing quiet activities like playing chess, whereas my brother preferred more physical activities like football.
3. Our teacher would walk around the classroom looking at our work while we were busy on our individual projects.
4. The rain poured down for several days. Consequently, the river banks in my city overflowed.
5. I took as many science courses as I could. For example, I studied biology, chemistry, biochemistry, and physics.
6. Even though the rain forest provides us with many products, the forests are being cleared for crops.

EXERCISE 58 (p. 320)

Your answers may be different.

1. Childhood is a time in life before a person has reached an adult state.
2. An avalanche is a great mass of snow that slides quickly down a mountain, destroying everything in its path.
3. Fiction is a literary work that is based on imagination instead of facts.
4. A loan is a sum of money or an object that is given for a period of time and must be returned.
5. An accountant is a person who does bookkeeping for a company or individuals.
6. Whales are air-breathing mammals that live in oceans.

EXERCISE 59 (p. 320)

Your answers may be stated differently.

1. Wind and solar energy are alternative forms of energy.
2. To get accepted into some universities you have to send copies of your high school diploma, get letters of

recommendation from a teacher who knows your work, and write an essay stating why you want to study there.

3. Students tend to get out of shape because they eat a lot of junk food and spend a lot of time studying.
4. Rivers are polluted both by factories dumping their waste products and by people throwing garbage into the river.

EXERCISE 510 (p. 321)

Your answers may be stated differently.

1. Since I frequently can't find the definition of words I need in a dictionary, I've had to buy a specialized **one**. I also need to use an encyclopedia that gives more detailed information. Using **these reference books**, I can collect information for my course papers.
2. My grandfather taught me woodcarving when I was young. When I need to relax, I go out into my yard and practice **this hobby**.
3. Many people enjoy reading fantasy stories of imaginary worlds and extraordinary events. **This genre** is also common in popular movies.
4. A pitfall trap can be used to get a sample of small ground-living creatures. To make **this trap**, a glass jar is put into the ground with its rim at ground level. The trapped **animals** can then be counted and identified.

EXERCISE 511 (p. 321)

Your answers may be stated differently.

1. I prefer to spend my leisure time with **different** friends. Since **they** have diverse interests, one or the other is always involving me in different activities.
2. Many children are sent to school at an **early** age to get a head start in a formal education. **That** is unfortunate because **they** can learn very important lessons about life through play.
3. The woman believes that the new plan to book study rooms will affect students adversely. Because of the plan, **they** won't be able to book the rooms ahead of time and it is possible that a room will not be available when **it** is needed.
4. The computer program contains activities for dyslexic children. The children work through **these** to help improve reading abilities.

EXERCISE 512 (p. 322)

1. Cooking is fun when you are planning a nice meal for visitors. You can make a starter, a main course, a salad, and a dessert. Then, when your guest arrives, you can surprise him with how well you have cooked it. Guests will appreciate all the work one does to make tasty meals.

Answer Keys

2. It is very important for a teacher to be patient because their students don't always understand what they are expected to do. Sometimes one has to guess what the teacher means. It is very upsetting if you guess wrong and then they get angry when it isn't your fault.
3. A movie is never as good as the novel they are based on. Sometimes the novel has two or three subplots. Since all these subplots can't be addressed in a two-hour movie, the main plot is frequently changed. But without the subplot, they don't make sense. In the end, the movie tells a completely different story than that of the novels.
4. The professor talked about the rise and fall of empires. He notes that the conquerors spread through the valleys, the most fertile and accessible parts of a country. However, the people who live in the less accessible areas, like the tropical forests or the high mountain regions, are frequently not affected by the conquerors and continued to maintain languages and traditions throughout the many invasions that will take place over the centuries.

EXERCISE S13 (p. 323)

Your answers may be stated differently.

1. Cooking is fun when you are planning a nice meal for visitors. You can make a starter, a main course, a salad, and a dessert. Then, when your guests arrive, you can surprise them with how well you have cooked the various courses. They will appreciate all the work you have done to make a tasty meal.
2. It is very important for a teacher to be patient because his or her students don't always understand what they are expected to do. Sometimes a student has to guess what the teacher means. It is very upsetting if that student guesses wrong and then the teacher gets angry when it isn't the student's fault.
3. A movie is never as good as the novel it is based on. Sometimes the novel has two or three subplots. Since all these subplots can't be addressed in a two-hour movie, the main plot is frequently changed. But without the subplots, the movie doesn't make sense. In the end, the movie tells a completely different story than that of the novel.
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There is no answer key for **EXERCISES S14–S26 (pp. 328–330 and 334–337)**. You might wish to discuss your recorded responses with a fluent English speaker.

EXERCISE S27 (p. 343)

Your notes may be different.

1. Class cancelled and students should either
 - a. accept the opportunity to join another course
 - b. officially drop the course

EXERCISE S28 (p. 343, script on p. 621)

Your notes may be different.

Man's points

Course has good reputation

Easy option

Woman's points

Already read most of the requirements

Wants a challenge
Suspects it will be a large class
Likes small classes

EXERCISE S29 (p. 344)

Your answers may be stated differently.

1. state the topic – the course replacement
2. state the woman's opinion – She is not interested in the other course.
3. state her reasons for the opinion – already did the reading; wants a challenge; doesn't like large classes

There is no answer key for **EXERCISE S30 (p. 344)**

EXERCISE S31 (p. 344)

Your speech may be different.

The Survey of American Literature course is going to be replaced by the Literature of Minority Groups. The woman is not interested in taking the course replacement for several reasons. First, she has already read most of the books on the required reading list and consequently, does not think that she would find the course a challenge. She would like to take a challenging course. Second, she thinks that when the two classes are joined into one class, there will be too many students in the class. She prefers small classes. She feels that it is easy to discuss ideas in smaller groups. In conclusion, the woman has decided to drop the course instead of taking the course replacement.

EXERCISE S32 (p. 345)

Your notes may be different.

Boston Tea Party, 1773 act of defiance
Reason: Br. Parliament imposed taxes
Action: dressed as Native Americans and threw tea overboard

EXERCISE S33 (p. 345, script on p. 622)

Your notes may be different.

French/Indian War caused debt and economic crises
 Taxation without representation put on colonists who wouldn't pay
 Colonists protested
 Tea tax not revoked

EXERCISE S34 (p. 346)

Your answers may be stated differently.

1. state the topic – the background to the American War of Independence
2. state the events – the French/Indian War, the imposition of taxes
3. state the relationship – the dressing as Indians to represent the French/Indian War, throwing the tea overboard because it was the commodity being taxed

There is no answer key for **EXERCISE S35** (p. 346)

EXERCISE S36 (p. 346)

Your speech may be different.

The incident of colonists dressing up as Native Americans, boarding British ships and throwing the cargo of tea into the sea was an act of defiance preceded by important events. A war involving the British against the French and Native Americans had left Britain in debt. To pay off this debt, the British imposed a tax on the American colonists. However, the American colonists were suffering an economic crisis because of the same war and could not pay the taxes. In protest of the taxes, the colonists throw the British cargo of tea into the sea. Dressing up as Native Americans was not only a way for the colonists to disguise themselves, but also it represented the French and Indian War. The tea was the only commodity that was still being taxed, but the colonists were making a point about being taxed without representation. The incident became known as the Boston Tea Party and perhaps marked the beginning of the American War of Independence.

There is no answer key for **EXERCISE S37** (p. 347)

EXERCISE S38 (p. 347, script on p. 622)

The following notes from the reading and listening passages have been made as complete as possible for easier understanding. Your notes may not be as complete.

1. **Reading**

Old Main building demolished for fine arts center.
 Center includes classrooms and facilities for
 a. drama – main stage and smaller stages

- b. music – concert hall and practice rooms
- c. art – exhibition hall and workrooms

Listening

Man's points

Need to stop the demolition

Waste ground better place

Old Main

- a. 1st and only building
- b. built mid-1800s of stone
- c. Has historical value
- d. Preserve heritage

Not expensive to heat
 Good for graduate student offices

Woman's points

Need a fine arts complex

Waste ground too far away

Not good for classrooms
 Expensive to heat

2. **Reading**

Lecture by Dr. James Filbert on Restless Leg Syndrome

Restless Leg Syndrome

- a. misdiagnosed because difficult to describe
- b. probably genetic – runs in families

Dr. Filbert will discuss

- a. symptoms
- b. ways to relieve pain

Listening

Man's points

What is RSL

Why misdiagnosed?

How diagnosed?

Woman's points

Wants to go to RLS lecture

Mother was a misdiagnosed sufferer, thought to be
 a. growing pains
 b. strain
 c. on feet too much
 d. imagination

Difficult to describe pain

Cousin mentioned suffering
 Runs in families

Answer Keys

3. Reading

A decrease in the number of required physical education courses

- a. students responsible for their own physical condition
- b. money saved can be spent on labs/library

Listening

Man's points

Money from courses not taught

Programs won't be affected

Woman's points

Students should take responsibility
Money not put into facilities

Programs might be affected
Women's varsity soccer team

Cut in classes means cut in the number of instructors
Programs run by those instructors affected

4. Reading

Renovation of classroom building to include state-of-the-art facilities

- a. computers and projection facilities
- b. multimedia labs

Improvements

- a. better access
- b. motion sensor for energy conservation

Listening

Man's points

Excited about high-tech classrooms

Lectures backed up by projected computer images more interesting

Has to be maintained

Dr. Rosa is exceptional

Woman's points

Not excited

Technology often fails

Becomes obsolete
Expensive equipment in relation to amount used
Many professors not technological

Time-consuming to make interesting lecture notes

Best teacher doesn't even use old technology

5. Reading

Phytoplankton

- what:
- a. single-celled plants
 - b. part of food chain
 - c. basis for all marine life

- where:
- a. photic zone
 - b. abundant near land masses where nutrients concentrate

Photosynthesis

- a. sunlight
- b. phosphates and nitrates
- c. carbon dioxide
- d. by product - oxygen, 75% of world's oxygen
- e. bloom known as red tide

Listening

Phytoplankton

- a. key nutrient in food chain
- b. important for production of oxygen

Recent study

- a. ocean areas with sunlight and nutrients, but no phytoplankton
- b. analysis of water - no iron
- c. hypothesis-phytoplankton needs iron

1. experiment

- a. added iron sulfate to area
- b. increase of phytoplankton

Possibilities

- a. could be effective for removing carbon dioxide from atmosphere
- b. replenish oxygen
- c. increase of phytoplankton could mean increase of fish

Question

- a. What would be the environmental consequences?

6. Reading

Road sign system

- a. ensures safety of drivers and people
- b. controls car speed and flow
- c. restrictions for parking and stopping
- d. raised sidewalks to separate people and cars
- e. traffic lights and road markings
- f. legal action if drivers don't obey

Listening

Road signs all over cities

- a. to reduce accidents
- b. to inform drivers

Experiment of removing all road markings and signals

- results: a significant drop in accidents
why:
- a. drivers more careful and courteous
 - b. signs gave false sense of security

7. Reading

Time – cultural invention

Monochronic

- a. linear
- b. schedules and routines important
- c. efficient and impartial
- d. blind to other people

Polychronic

- a. simultaneous
- b. people more important than schedules
- c. social
- d. deal with many people at the same time
- e. time and schedules not priorities

Listening

Monochronic and polychronic at opposite ends, but most cultures in between

Individual differences within a culture

Monochronic:

- a. linear, predict time for task and follow through
- b. prompt, meet deadlines, dependable

Polychronic:

- a. able to multitask
- b. can move around within a company
- c. become irreplaceable because of this
- d. doesn't get promoted because can't be replaced

8. Reading

Weathering – a process of rock breakdown

Three types

- a. mechanical – physical factors
- b. chemical – reactions between water and minerals in rock
- c. biological – animal or plant factors

Listening

Relation of weathering to climate

Arid areas more mechanical – fluctuations in temperatures

Tropics more chemical – heavy rain

Temperate climates both mechanical and chemical – both fluctuations in temperature and rain

Polar climates show little weathering

Most areas show biological weathering, but less in extreme climates

EXERCISE S39 (p. 360, script on p. 625)

Your notes may be different.

Man's points

- Best seats \$60
- No student discount
- Least expensive \$15
- Middle balcony \$40

Woman's points

- Too expensive
- Location of cheap tickets too far away
- First balcony expensive, but best option

EXERCISE S40 (p. 360)

Your answers may be stated differently.

1. state the topic – which seats to purchase for a concert
2. state the problem – the cost and area of the seats
3. explain and support my preference – buy the expensive ones for important concert

There is no answer key for **EXERCISE S41 (p. 362)**.

EXERCISE S42 (p. 361)

Your speech may be different.

The students want to purchase seats for a concert and must make a decision on which ones to get. The difficulty in their decision is that the best seats are too expensive for them to buy. Unfortunately, the cheapest tickets are for seats that are too far away for a good view of the stage. The third option is for seats in the middle balcony. Those seats are not as close to the stage, but neither are they as expensive as the best seats. They are more expensive than the cheapest ones, but closer to the stage. The woman believes that they should buy the tickets for the middle balcony, but the man seems hesitant. I would suggest that they get the most expensive tickets. Money can be budgeted and replaced. A special concert may be a once-in-a-lifetime experience that should not be missed.

EXERCISE S43 (p. 361, script on p. 625)

Your notes may be different.

A financial crisis is occurring in places where there are low birthrates but a growing number of older people.

Older people are living longer and therefore get benefits for more years.

They need more medical attention that is costly. Some can't take care of themselves and need expensive intensive care.

Families can't pay for the elderly.

EXERCISE S44 (p. 361)

Your answers may be stated differently.

1. state the topic – problem of imbalance of older to younger people
2. explain the points – aging population, live longer, become ill, must be cared for
3. discuss the financial problems – need support longer, need costly medical treatment, need taking care of

There is no answer key for **EXERCISE S45 (p. 362)**.

EXERCISE S46 (p. 362)

Your speech may be different.

The imbalance of older people to younger people is causing financial problems for some governments. Older people are living longer and, therefore, receive a government pension and old-age benefits for more years than ever before. When they get ill, the medical attention that they need is very costly. Some people get too old or ill to take care of themselves. Expensive intensive care may be needed that families cannot pay for, so the government has to provide it for them. The financial situation caused by an aging population is new to many countries. To deal with the situation, those governments have to reconsider their policies concerning the elderly.

There is no answer key for **EXERCISE S47 (p. 362)**.

EXERCISE S48 (p. 363, script on p. 625)

The following notes from the listening passages have been made as complete as possible for easier understanding. Your notes may not be as complete.

1. Man's points

Test-anxiety concern

Wonders about differences

Woman's points

Instead of GRE results, universities require
 a. grade point average
 b. letters of recommendation

Gender bias

- a. 60 points lower average mean
- b. higher grade point averages

Females

- a. more prone to test anxiety
- b. approach task differently
- c. more cautious and analytical
- d. work slower
- e. find tricks distracting

Males

- a. risk takers
- b. enjoy finding trick questions

Universities take this into consideration

Open-ended tasks better for women, ethnic groups, and nonnative English speakers

2. Man's points

Prefers summer courses
 Summer courses are intensive

Can take course online
 Failed course because

- a. put off doing assignments
- b. didn't feel responsible to professor

Thinks woman motivated enough for course

Woman's points

Needs prerequisite before taking course only offered in autumn
 Prerequisite offered in summer

3. Man's points

Student Union busy on Monday

Wants to go to book fair

Book fair then cafeteria to work over coffee

Woman's points

Library quiet but can't drink coffee
 Suggests Student Union

Book fair

Must work on presentation

Too noisy with crowds for book fair
 Long lines in cafeteria

Meet at library	When to reserve study room
If available, can walk in	Risk not reserving Meet in Student Union If too noisy in cafeteria, go to library
4. Man's points	Woman's points
A bad decision	Wants the course requirements dropped
Being fit helps people concentrate	Students should be responsible for health
Students involved with studies	Some students don't like sports
a. need break	
b. need stimulation	
Cuts affect variety offered	Not university's responsibility
a. currently something for everyone	
Money spent wasted	Money better spent on library facilities and labs
Equipment will not get replaced	
5. Goats good for subsistence	
a. eat plants that are unsuitable for other herd animals	
b. provide milk and meat	
Goats bad for ecosystems	
a. overgrazing	
b. prevents new vegetation by eating young plants	
c. destroys woody plants that have balance with soil	
1. plants	
a. stabilize soil	
b. provide biological material to make soil	
c. hold soil together	
2. soil	
a. provides plants anchor for roots	
b. provides water and nutrients	
Goats prime cause of deserts	
a. fault of people's bad management	
b. educational program needed	

6. Justice system principle – children different from adults
- provide individual treatment
 - provide services
- System under threat because
- not tough enough, according to critics
 - doesn't rehabilitate
 - increase of juvenile crime
- Areas of research needed
- accountability
 - how children differ in understanding of behavior
 - how to assess responsibility
 - risk evaluation
 - how to determine child at risk
 - how to use this information to prevent a crime
 - susceptibility
 - how easy for child to change behavior
- Understanding child
- need experts in all fields
 - need input from public
 - need to learn more about juvenile crime
 - need to spread that knowledge
7. Intermediate technology – people can make with materials around them
- Example – fuel collection
- time-consuming
 - causes deforestation
 - soil erosion
 - ecological imbalances
 - not enough for future use
- Answer – solar oven
- made of two boxes, metal or cardboard
 - painted black
 - insulation rice husks or nut shells
 - mirror
- Other advantages
- cheap and energy efficient
 - doesn't cause illnesses
 - not a fire hazard
 - doesn't add to global warming
8. Venice controlled spice trade
- spices brought overland to Constantinople
 - shipped from Constantinople to Venice
 - sold to northern Europe at high prices
- Late 1400s, early 1500s new methods of navigation
- Spanish and Portuguese challenged Venice monopoly
 - Portuguese ships went around Africa
 - Spanish ships sailed west
- Consequences
- Portugal made trade directly with India
 - Columbus discovered the Americas

Speaking Section Practice Test (p. 369, script on p. 629)

The following notes on the reading and listening passages have been made as complete as possible for easier understanding. Your notes may not be as complete.

There is no answer key for **ITEMS 1–2** (p. 370).

3. Reading

Legal Aid Project

- a. non-profit
- b. gives law students experience
- c. part of training
- d. assisted by staff

Listening

Man's points

Just for law students

Law students are inexperienced

Just classroom exercise

Woman's points

Man could get help for housing problem

Service is free and might help get deposit back

Law students have practice with real case

- a. study how experienced lawyers managed
- b. analyze cases

Law students are advised by staff members

4. Reading

Transportation costs factor in agricultural production

- a. heavy items expensive to transport
- b. perishable goods need expensive refrigeration
- c. poor farmers can't get surplus to market

Listening

Model of zones, Von Thünen set out in 17th century

Concentric rings with city at the center

- a. dairy and fresh foods
- b. wood
- c. grain
- d. animals
- e. too far away

5. Man's points

Needs lots of books
Didn't buy all that was required

Couldn't find them there

Didn't look for specific stories

Likes to write in books

Didn't know there is used bookstore.

Woman's points

Textbooks are expensive
Can get books at library

Look for individual stories in different texts
Look in collections of authors

Find individual stories in library
Return books to bookstore

Go to the used bookstore.

Used bookstore on University Avenue.
Maybe previous classes had same books.
Can own cheaper copy and write in it

6. "Mozart effect" term refers to music and brain experiment

one area of brain

- a. spatial-temporal reasoning reasoning important for some aspects of music reasoning for solving some types of physics and math problems

experiment group, college students, not children,

- a. pretested divided into 3 groups
 - 1. heard no music
 - 2. heard variety of music
 - 3. heard only Mozart
- b. given intelligence test

results of experiment

- a. Mozart group had increased scores on spatial-temporal reasoning
 - 1. only for 10 minutes
 - 2. only one type of IQ test used in experiment

public's reaction

- a. media hype of listening to Mozart improving IQ
- b. marketing of products

problems

- a. importance of music for bringing beauty is lost
- b. parents attempting to turn children into geniuses

PART 2 BUILDING SKILLS: Writing

EXERCISE W1 (p. 379)

- | | | | |
|------|------|------|-------|
| 1. C | 4. B | 7. A | 10. A |
| 2. A | 5. D | 8. D | 11. D |
| 3. A | 6. B | 9. B | 12. B |

EXERCISE W2 (p. 381)

Your answers may be stated differently.

- Passive smoking is the involuntarily inhalation of cigarette smoke by a person who is in the vicinity of someone who has lit up a cigarette.
- Subsistence farming is land cultivation in which the food produced is sufficient only to feed the farmer and immediate family without any surplus for sale.
- An expectorant is a medication that helps to promote the ejection of phlegm from the lungs or chest.
- Nonfiction is a kind of writing that is based on factual information as opposed to the imagination.
- A trowel is a tool with an iron blade and wooden handle and is used for digging and cutting soil or turf.

EXERCISE W3 (p. 381)

- in the library rather than at home
- to read . . . , but also to pay attention
- to work . . . , compare . . . and then work together
- of towering pinnacles and grotesque eroded forms
- as working animals and as pets
- stayed . . . , took . . . and returned to Gaul

EXERCISE W4 (p. 382)

Your paragraphs will be different. If possible, you should have a fluent English speaker check your paragraphs.

- Adults tend to cherish soft values that are hard to evaluate monetarily. Such values include family, health, and career satisfaction. In contrast, children take these for granted and place more importance on material objects, such as a favorite toy. Such things become less important to them as interest in relationships increases.
- The boundary that separates the Earth's crust from the upper mantle is commonly called the Moho. This boundary is like an exaggerated mirror image of the surface profile. So the highest mountain ranges result in the deepest thickness of crust. Beneath these ranges, the crust's thickness can attain 50 miles, while beneath the oceans, it is about 3 miles, and under the continents, 20. The reason for this is that

the material making up the upper mantle is denser than the crust, and therefore it floats like an iceberg floats in the sea. You can get an idea of how this works by thinking of different sized ice cubes in a glass of water. The biggest cube extends to the highest point and also to the greatest depth.

EXERCISE W5 (p. 385)

Your sentences will be different. If possible, you should have a fluent English speaker check your sentences.

- If a person is not breathing and if the heart is not beating, it is important to start resuscitation.
- Inhalation of smoke from a parent's cigarette over a long period may harm a child.
- I try to give my reader a good impression by making my e-mails clear.
- Learning and research are fundamentally cooperative efforts.
- The car has been a success for people, but not for nature.
- Because of low birthrates, in the future there may be too few employees to support the increasing number of retirees.
- My friend was jogging along the riverside when a pack of dogs appeared in his path.
- My stamp collection even includes stamps from countries that now have different names.

EXERCISE W6 (p. 386)

Your paragraphs will be different. If possible, you should have a fluent English speaker check your paragraphs.

- One of the most important school subjects is mathematics. Although learning to read is important, if we do not know how to do simple sums, we will not be able to keep track of our finances. Besides everyday calculations such as figuring the best prices per weight in the grocery store, we need to understand more complex computation to understand interest rates on our bank accounts and loans for major purchases. People who earn enough sometimes have financial difficulties because they do not understand the mathematics behind finances.

Mathematics is also important in other parts of our lives. For example, we have to measure and calculate numbers when we cook. We need to know about mathematical functions like fractions or multiplication when we decrease or increase the amounts depending on the number of people who are going to be eating. An error in sums could result in a bad-tasting meal.

Answer Keys

2. The electric streetcar was popular in U.S. cities after 1880 when an engineer invented a cable that could run from wire overhead to a streetcar's electric engine. Because of this overhead wire, a dangerous electric rail did not run along the street at ground level. This was a very important feature of the streetcar.

From 1880 onward, the electric streetcar was very popular in big cities all over the U.S.A. Nonpolluting and very efficient, it carried large numbers of passengers cheaply and at profit for the companies. However, early in the next century, automobile manufacturers and other business interests attempted to replace streetcars with buses and cars. Eventually, cars completely took over the city streets.

EXERCISE W7 (p. 391)

Your answers may be stated differently.

1. Topic: ban on smoking in public
Task: reasons and examples for opinion
2. Topic: advantages of marriage at different ages
Task: state preference and support it
3. Topic: necessity of university education for success
Task: reasons and examples for opinion

There is no answer key for **EXERCISES W8–W9** (pp. 391–393).

EXERCISE W10–W14 (pp. 395–397)

The following introductory paragraphs are modified student-written examples. Your introductory paragraphs will be different. If possible, you should have a fluent English speaker check your paragraphs.

1. Many people are addicted to the nicotine in cigarettes. These people like to smoke whenever or wherever they feel the urge for a cigarette. However, the smoke from the cigarettes disturbs nonsmokers. Because of that, many nonsmokers would like smoking to be banned from public places. Antismokers provide several reasons for the importance for such a ban.
2. Marriage is an important step in a person's life. It is a legal bond between two people and has important social and legal implications. To enter into this bond, a person should have some maturity. To consider the best age to enter into marriage, the advantages of marrying at different ages need to be compared.
3. To be successful is most people's goal. Achieving that goal takes hard work and sometimes education or training. However, a university education is really not necessary for success in many cases. The answer

to the question of what success is depends on what one's goals are and the kind of aspirations a person has.

EXERCISE W15 (p. 399)

Note: The possible answers for Exercise W15 are so varied that you might wish to discuss your answers with a fluent English speaker.

EXERCISE W16 (p. 399)

1. Yes
2. Yes

Note: The answers for items 3–5 depend on your judgment of your own work. You might wish to discuss your answers with a fluent English speaker.

EXERCISE W17 (p. 400)

Note: The possible answers for Exercise W17 are so varied that you might wish to discuss your answers with a fluent English speaker.

EXERCISE W18 (p. 401)

Your answers may be different.

1. It is the largest and most interesting city in the country.
2. I read on the bus on my way to class, while I'm waiting for my friends, and before I go to sleep.
3. The university that I want to attend requires that I get a good score.
4. The sound of the water along the shore calms one's nerves.
5. They can be both psychologically and physically addictive.
6. Had my brother been paying attention to the road instead of changing the CD in the CD player while he was driving, he wouldn't have crashed into the tree and broken his leg.
7. The Pompidou Centre in Paris is a building that has provoked controversy.
8. Many city centers are not bustling with shoppers anymore. Instead, the streets are empty except when workers are leaving or returning to their offices.

EXERCISE W19 (p. 401)

The following answers illustrate one way that you could add details. Your answers may be different.

1. When you plant a tree, you are helping your environment in many ways. Your tree will provide a home and food for other creatures. Birds may build nests in the branches. The flowers will provide nectar for insects, and the fruits or nuts may feed squirrels

or other small animals. Your tree will hold the soil in place. This will help stop erosion. In addition, your tree will provide shade in the summer. This will give welcome relief on hot days. You can watch your tree grow and someday show your children, or even grandchildren, the tree you planted.

- Airplanes and helicopters can be used to save people's lives. Helicopters can be used for rescuing people in trouble. For example, when a tall building is on fire, people sometimes escape to the roof, where a helicopter can pick them up. Passengers on a sinking ship could also be rescued by helicopter. Because planes can carry heavy loads, they are useful in transporting food and supplies when disasters strike. This is very important when there is an earthquake, flood, or drought. Both types of aircraft can transport people to hospitals in emergencies. Getting a victim of an accident or heart attack to a hospital quickly could save the person's life. Helicopters and airplanes can be used to deliver medical services to people who live in remote areas. They can also be used as a kind of ambulance service in cases where getting to the hospital by car would take too long.
- Studying in another country is advantageous for many reasons. The student is exposed to a new culture. This exposure teaches him or her about other people and other ways of thinking, which can promote friendships among countries. Sometimes students can learn a new language. This language may be beneficial for keeping up with research after the student has finished studying. Furthermore, students can often have learning experiences not available in their own countries. For example, an art history student studying in Rome would get to see works of art that can only be seen in Italian museums and churches. A student may also get the opportunity to study at a university where a leading expert in his or her field may be teaching. A leading expert can introduce the student to the most up-to-date findings of the top researchers in the field. Exposure to such valuable knowledge and insights into the field can aid the student in becoming an expert as well.

EXERCISE W20 (p. 403)

The following are possible questions to stimulate details.

- What kind of scenery do you like?
Why would you want to stop along the road?
Where and when have you met interesting people on your travels?
How much luggage can you carry on airplanes?
Why don't you have to worry about missing flights?

- What are the poor and inhumane conditions?
Why don't the animals get exercise?
What is an example of neurotic behavior?
Why is it a problem for animals not to breed?
Why is it a problem for animals to breed with a related animal?
- Why is knowing the material important?
Why should teachers be able to explain their knowledge?
Why are patience and understanding important?
What should teachers do to show their patience and understanding?
How can teachers make the subject matter interesting?

EXERCISE W21–W23 (pp. 403–404)

The following developmental paragraphs are modified student-written examples. Your developmental paragraphs will be different. If possible, you should have a fluent English speaker check your paragraphs.

- Smoking has been shown to be harmful to health. The main health effect is that it causes lung cancer. Research now shows that even people who don't smoke themselves are in danger of developing cancer when they are regularly exposed to the smoke of people who do. Besides the danger of cancer, nonsmokers also complain that a smoky environment makes them suffer from a variety of illnesses including sore eyes, headaches, and even asthmatic symptoms.
Despite the possible dangers and unpleasant side effects of smoking for the general public, we should be cautious about banning smoking in all public spaces. If public space means all areas outside of private homes, then I don't agree with a ban. Such a measure is an infringement of a basic right of enjoyment. But, in places where smoking is a nuisance to nonsmokers, it should be banned completely. It should also be banned in enclosed areas such as railroad carriages, buses, and restaurants, but not in city streets and other open-air places.
- A young married couple has only a few advantages over a couple who marries later. Because they are young, they are not set in their ways. Therefore, they are more flexible in their relationship than older people. Furthermore, they are probably not yet stable financially, so they share the hardships of starting out together. This can be a bond that brings them closer together.
A couple that marries at an older age has some important advantages. For one thing, an older couple

will tend to have greater emotional stability. They may have more understanding of the difficulties life can bring and thus be more prepared for the ups and downs of married life. By contrast younger people may not have reached their full emotional development and may find that they grow apart due to interests and friendships developing in different directions. Furthermore, older couples are likely to have greater financial or job security. They may also have better jobs since they are more likely to have finished higher education and have better job qualifications. This is particularly important for couples who wish to start a family.

3. For some people success is related to the amount of money earned. Many well-paid jobs are in the area of maintenance or in technical areas. People with skills in construction work, plumbing, or electricity can find well-paid work without spending many years studying at a university. The people in these jobs have important skills that everyone needs to use at some point in their lives, so these people also have good job security.

Other people relate success to job satisfaction. This does not necessarily require a university education either. A person wanting to help others may find a satisfying career working with people. One who enjoys nature may find an outdoor job. There are many jobs that are not particularly well paid nor require a university education but bring satisfaction to those with an interest in a particular area.

However, a university education is necessary for people whose goals are to do scientific research or go into different academic fields. These people cannot succeed in their chosen career without getting a university education.

EXERCISE W24–W28 (pp. 405–406)

The following concluding paragraphs are modified student-written examples. Your concluding paragraphs will be different. If possible, you should have a fluent English speaker check your paragraphs.

1. In conclusion, there are good reasons to stop people smoking in some public places. If the smoking is in a place where others are exposed to health risks, then it should be banned. However, if smoking is taking place in a public area where the health risk to others is minimal, then smokers should be able to light up. A total prohibition on smoking in all public places is too extreme a solution and violates personal freedoms.
2. The advantages of marrying at an older age outweigh those of marrying young. More mature couples, having better job prospects and a more developed

understanding, provide a better environment for raising a family. Although there are some advantages to marrying young, in most cases it is probably better for young people to consider putting off their marriage until a later date.

3. In conclusion, people's goals, whether it is earning money, achieving job satisfaction, or succeeding in academic research, will determine if a university education is necessary. The statement that a university education is a requirement in today's world if one wishes to be successful is only true for certain people. There are many fulfilling, high-paid jobs that do not require a high academic qualification.

EXERCISE W29 (p. 407)

Question A

1. *No* The introductory paragraph is incomplete.
2. *No* The restated problem should be in different words, not in the same words as the question.
3. *No* There is no development of the introductory paragraph.
4. *Yes* The thesis statement gives the controlling idea as advantages and disadvantages of small and large cars.
5. *Yes* In the topic sentence of the first developmental paragraph, the topic is "large cars" and the controlling idea is "advantages." In the topic sentence of the second developmental paragraph, the topic is "small cars" and the controlling idea is "advantages and disadvantages."
6. *No* According to the first developmental paragraph, only advantages of large cars will be discussed in that paragraph.
7. *No* The first developmental paragraph discusses both advantages and disadvantages. This supports the thesis statement but not the topic sentence of the paragraph.
8. *Yes* However, more details could be added. For example, how are large cars good for big families? Why is strength important in a bad accident? Has the student had any experiences of crashes in big or small cars?
9. *No* The concluding paragraph is incomplete. The topic and controlling idea are not restated. It is not clear what "for this" refers to or why the student has this preference.
10. *No* A concluding statement should sum up the essay.

11. *No* The reasons the writer likes small cars are not included.
12. *No* The use of transitions would improve this essay. The writer gives the advantages as examples. It would be better to introduce the advantages by using connecting words, such as the *first* advantage or *another* advantage. The writer contrasts the advantages and disadvantages of large cars. Instead of introducing the disadvantages with the phrase "About the disadvantages," the writer could have used a transition, as in "However, large cars cannot get through small streets easily."
The order in which the ideas are introduced could also be improved. The writer talks about a big car carrying a lot of people, then discusses a large car being stronger in an accident, and then discusses that a large car is good for big families. This third idea relates to the car's being able to carry a lot of people and, therefore, would more logically follow the first point.
13. *No* The sentences are sometime joined in an illogical fashion and sometimes are short and would be better if combined. For example, the sentences "Many people can be carried inside the car. Also, large cars are stronger in bad accidents, and they are very good for big families," could be improved by joining them differently, as in "Large cars are good for big families because they can carry a lot of people. Another advantage is that they protect the passengers better if an accident occurs."
14. *No* There are some grammatical mistakes that may cause confusion.

Question B

1. *Yes*
2. *Yes*
3. *Yes*
4. *Yes* The controlling idea is "pollution problems."
5. *Yes*
6. *Yes*
7. *No* The statements "Public safety does not concern the factory owners, who must know that people don't want to live in pollution that is dangerous for their health" and "Nobody in this world wants to breathe dirty air" are irrelevant.
8. *Yes*
9. *Yes*
10. *Yes* It gives solutions. However, it is weak. A better concluding statement might be "In conclusion, the pollution of our air and seas is a major problem. We must work together to solve it now."
11. *Yes*
12. *No* Throughout the paragraphs there are sentences where cohesion could be improved. For example, the writer is inconsistent in the use of pronouns. In the beginning, the writer uses the pronoun "we," but then changes to using "they." Later the writer uses the pronoun "you" and finishes by going back to the pronoun "we."
13. *No* Throughout the paragraphs, there are sentences that could be more concise. For example, in the introduction, the sentences that narrow the topic would be better combined, as in "Because of this, we must think about these problems and try to find solutions." The thesis statement could be improved by using a different grammar structure, as in "Pollution is one of the more serious problems we need to tackle."
14. *Yes*

EXERCISE W30 (p. 408)

1. Score 2: This essay demonstrates some development, but the writer focuses on people who read instead of supporting his or her agreement or disagreement with the given statement. There are insufficient details and a noticeably inappropriate choice of words or word forms (e.g., "emphasize," "imagines," "the read").
2. Score 5: This essay demonstrates competence in writing. It gives a thesis statement that all the paragraphs support. It uses details to illustrate ideas. There is unity, coherence, and progression. Syntactic variety and appropriate word choices are demonstrated.
3. Score 1: This essay contains serious errors in sentence structure. It states an opinion but does not give enough information to support that opinion. There are few details. The specifics are irrelevant (e.g., Helen of Troy).
4. Score 3: This paper demonstrates minimal competence. It lacks a strong thesis statement to give it direction. The first developmental paragraph supports the opinion that reading nonfictional works is beneficial. The second developmental paragraph supports (with only one detail) an implied opinion that reading novels is no longer beneficial. That detail is unnecessarily repeated (TV has taken the place of the novel). There are a number of mistakes in syntax and usage.

Answer Keys

5. Score 0: This is not an essay. There is no development of ideas. There are writing errors that make the meaning difficult to understand.
6. Score 4: This paper demonstrates a generally well-organized and well-developed essay. The paper shows unity, coherence, and progression. There are some grammatical errors, but they do not impede understanding. Although the essay is well developed, it does not have the details and the syntactic variety seen on a score 6 paper.

There is no answer key for **EXERCISES W31–W32** (p. 410 and pp. 413–414).

EXERCISE W33 (p. 417)

Your answers may be stated differently.

1. The Mediterranean monk seal and common gray seal differ in size.
2. Ninety-nine percent of the extinct flora and fauna has not been identified according to figures presented by scientists.
3. Many dangers were encountered by early seafarers sailing to places across unknown seas.
4. In the future, water will be the main cause of disagreements between different countries, according to the UN.
5. It no longer makes good business sense to use sailing ships, because their speed depends on the wind.
6. Chaucer's burial place is marked by a tomb built in the 1500s.
7. As many as 600 species of butterflies called "swallowtails" exist in the world.
8. City parks provide both a venue for celebrations and a hideaway for those seeking escape from everyday noise and disturbance.
9. People who live in places with the right weather conditions and type of food still use their ancestors' method of drying food under the sun.
10. The 1906 San Francisco earthquake destroyed all but a few Victorian structures, most of which are located in the Haight-Ashbury district.

EXERCISE W34 (p. 419)

Your answers may be stated differently.

1. *New paraphrase*: Volunteers are given puppies by the Seeing-Eye Puppy-Raising Program to start their training as Seeing-Eye dogs.
2. The paraphrase is correct.

3. *New paraphrase*: In Denmark, a windy country where windmills were once used for pumping water and grinding grain, people have returned to using wind power.
4. *Paraphrase*: It is necessary for an infant to be able to physically react to its surroundings for it to realize its full capabilities.
5. The paraphrase is correct.

EXERCISE W35 (p. 420)

Your answers may be stated differently.

1. Shanty towns, found in many cities, are illegal temporary settlements of the poor that eventually become permanent.
2. Arcs of light caused by gravitational pull indicate the existence of dark matter in some galaxies.
3. The Henry Ford Museum offers a variety of exhibitions showing the development of cars and car-related services.

EXERCISE W36 (p. 420)

Your answers may be stated differently.

1. The main advantage of herding animals instead of killing them is that they can provide milk and fresh meat. (Note: Although breeding can be done to improve quantities, there is no mention of that in the passage.)
2. Games designed to entertain people by requiring a thinking process have been shown to help people maintain their thinking abilities into older age.
3. Believed to have a religious purpose, the *kiva* was a circular building with pillars, a protected fire pit, and a symbolic entrance into the underworld.

EXERCISE W37 (p. 421)

Your answers may be very different.

1. A radio drama about a Martian invasion caused some panic because it included very realistic information. Orson Welles produced the drama, which was based on a novel written by H. G. Wells. The extent of the panic that this play caused was exaggerated by media, and this can be seen as a second deception by the media.
2. A famous engineering feat is that of the Brooklyn Bridge that spans the East River in New York City. There were many difficulties in the building of the bridge. Chambers had to be designed so people could work on the river bottom. They also served as the foundations for the towers. Cables, steel ropes, and stays had to be designed to support the roadway.

Many workers and then the supervisor suffered from the bends due to breathing compressed air, and the supervisor's wife had to take over the management. Despite these problems and financial ones, the bridge finally was opened in 1883.

EXERCISE W38 (p. 423)

Your answers may be very different.

- To help writers find work during the Depression Era, Roosevelt began a controversial program, the Federal Writers Project. Writers interviewed and recorded the personal histories of people from all areas of life. These collections of people's stories are valuable for historians, but sadly the project was never completed. However, the writers involved were able to use this information for their own works.

Topic sentence: The Federal Writers Project, funded during the Depression, has left collections of people's personal stories, which are important for historians.

- Test scoring machines were invented by a high school teacher. He knew from his boyhood tricks of using pencil marks to make car engines fail to start that graphite conducts electricity. He realized that pencil marks could be read by a machine. This invention was bought by IBM, which developed the technique. Large numbers of paper tests can be scored quickly and accurately by these machines. Scoring machines will probably be taken over by computers.

Topic sentence: A high school teacher invented a machine that scored tests quickly and accurately, bringing standardized tests into fashion.

EXERCISE W39 (p. 423)

Your notes should include the following outlined points from the readings and lectures in your own note-taking style. Main points are numbered and details are lettered.

1. Reading notes

- Fluoride is in all water in varying amounts.
- Children in areas of high fluoride had better teeth.
- When fluoride was added to areas with low amounts, children's teeth improved.
- Fluoride is important for the development of teeth because
 - makes enamel so it doesn't dissolve easily
 - keeps plaque organisms from making acids that attack teeth
 - makes enamel hard and strong so decay is slowed
- Fluoride also is good for developed teeth because
 - helps teeth fight cavities by repairing enamel

- added through toothpaste or drops prevents root decay and sensitivity

Lecture notes

- Public treated like test animals with no consent
- New studies indicate important results conflicting with original study
 - no difference between low and high fluoride areas and healthy teeth
 - better dental hygiene is the real difference, not related to fluoride
- Dangers of fluoride
 - extra amount in water claimed to be environment hazard
 - side effects seen in test animals
 - accumulates in the body
 - is poisonous

2. Reading notes

- Belief of animals sensing seismic activity
 - hear ultrasound from rocks breaking
 - sense changes in the Earth's magnetic field
- Creatures useful for predicting earthquakes
 - animals and other creatures behave abnormally in advance
 - quake in China – 7.3 – predicted by animals, evacuation saved thousands

Lecture notes

- weak evidence of animals predicting quakes
- all evidence anecdotal and after the fact when impression more vivid
 - odd behavior common, but unnoticed when not followed by shocking event
 - animal stories fiction not fact
- studies of missing animals reported before a quake show no connection
- Chinese city had real warning by shocks preceding quake

There is no answer key for EXERCISE W40 (p. 424).

EXERCISE W41 (p. 425)

Student-written response 1

- No Although the introductory statement is well constructed, the information is incorrect. The lecturer states that people *should* question the addition of fluoride to water. The lecturer's statement implies that most people are not questioning the use of fluoride. The student's statement would be more correct if the writer were to state "Some people are questioning . . .".
- Yes
- Yes

Answer Keys

- No* The writer states that fluoride has been shown to accumulate in people's bodies and cause side effects. However, the lecturer states that fluoride has been shown to cause side effects in test animals. The implication might be that it causes side effects in humans, but this has not necessarily been shown and was not stated in the passage.
- Yes*
- Yes*
- Yes*
- Yes* For the most part the sentences are concisely written. There are some minor changes that could be made to some sentences to make them more concise.
- Yes* However, the concluding statement would be better without the phrase "or toothpaste" since the mention of "toothpaste" was a minor detail. Although it was not discussed in the paragraph, toothpaste tubes indicate their contents so consumers can make their own decisions on buying toothpaste with or without fluoride. In other words, in the case of toothpaste, people are not being used as test animals without consent.
- Yes*

Student-written response 2

- No* The writer immediately starts the paper with a topic sentence of a paragraph that disputes the use of fluoride.
- Yes*
- No* There are missing parts, such as the introductory statement. Some irrelevant information has been included.
- No* The lecturer doesn't dispute the benefits of fluoride but states that the rates of decay are going down due to other reasons. The concern is that of the dangers. The lecturer ends the lecture with the statement that more research into benefits and dangers needs to be conducted.
- No* Although for the most part the writer uses his/her own words, there are places that are copied directly from the reading. "...reduce the solubility of tooth enamel..."
- No* The writer adds the opinion about animal testing.
- No* The topic sentence of each supporting paragraph does not indicate what the paragraph is about, and the last statement in each of the supporting paragraphs does not add to the topic nor effectively complete the paragraphs.
- No* Some sentences are unnecessarily complicated. For example, "It has been found that the teeth of children in areas where there is little fluoride in the water are no different than those of children in areas where there is a lot of fluoride in the water" could be reduced to "The health of children's teeth were similar in areas of differing fluoride amounts."
- No* Although the writer has written a concluding statement, it does not summarize the discussion. It gives a personal opinion that does not correspond to the lecturer's conclusion that more research needs to be done. It does agree with the lecturer's statement against widespread experiments without people's consent.
- No* There are some grammatical mistakes, such as "like is a poisonous waste in water."

EXERCISE W42 (p. 425)

- Score 3: This response contains important information from the passages. However, the connections between ideas are limited. There are some minor grammatical errors.
- Score 2: This response contains ambiguities. For example, "they" in the phrase "they do weird things like jump out of the water" should only refer to "fish" and not to "fish and snakes." Points made in both the reading and the lecture are missing. There are grammatical mistakes and misspellings.
- Score 5: This response covers the main points of the reading and lecture. It is well organized and uses a variety of sentence structures and vocabulary. Errors and occasional inconcise phrases do not detract from the overall presentation of the response.
- Score 0: This response is too brief. What is written is incomprehensible.
- Score 4: This response is generally good. It includes the main points from both passages. There is some ambiguity in the first paragraph; and in several places, sentences could be more concise.
- Score 1: This response contains information from the reading. It is not accurate, and there is insufficient information from the listening to cast doubt on the information of the reading.

EXERCISE W43 (p. 427)

Check the main points in the answer key for Exercise W39 to make sure you have covered all points.

EXERCISE W44 (p. 429)

The points you should have covered are listed below. Main points are numbered and details are lettered.

1. Reading notes

1. Apes can communicate
 - a. understand language
 - b. respond at a human child's level
2. Can't speak because physically unable, but
 - a. can use sign language to show emotions, etc.
 - b. can discriminate sounds
 - c. can use keyboard of symbols

Lecture notes

1. What does acquiring language mean?
 - a. use language creatively
 - b. take turns
 - c. communicate on one's own without a signal from humans
 - d. comment on interesting things
2. Difference in opinion among researchers
 - a. people believing in ape communication say those against haven't worked with apes
 - b. People skeptical of ape communication say believers are blinded by attachment
3. Brain scan comparisons might solve dispute

2. Reading notes

1. Complex life cycle of salmon
 - a. salmon leave ocean and swim upstream to lay eggs
 - b. smolts swim downstream to ocean
2. Dams cause problems in the migration
 - a. salmon returning must get past them to go upstream
 - b. smolts must pass dams without help from current
3. Attempts to help smolts
 - a. barges to transport them
 - b. increase flow rate
 - c. reduce water level

Lecture notes

1. Importance of getting smolts to sea is because of body changes from fresh to saltwater tolerance
 - a. changes take 6 to 20 days
 - b. slow current takes 60 days, too much time
2. Solutions unsuccessful
 - a. barges kill more fish than they save
 - b. flow-rate increase not accepted by power companies
 - c. water-level reduction not accepted by power companies

3. Reading notes

1. DDT crystalline compound used to control diseases
 - a. typhus
 - b. malaria

2. DDT used as agricultural insecticide
3. Environmental consequences on bird population – bald eagle and falcon
 - a. accumulation of DDT in bodies
 - b. thin egg shells
4. Humans at risk from cancer
 - a. liver cancer
 - b. breast cancer
5. DDT remains in nature for long time

Lecture notes

1. Evidence about DDT under question
 - a. birds in decline before introduction of DDT
 - b. birds almost hunted to extinction
 - c. no indication of difficulty in reproducing during time of DDT use
2. Egg thinning results because
 - a. experiments used massive doses
3. Egg thinning because of other factors
 - a. oil spills
 - b. lead and mercury poisoning
 - c. stress from noise
4. Other studies show no links between DDT and cancer
5. Studies showed overuse can cause loss of effectiveness against pests
6. Conclusion that DDT should be reconsidered as method against malaria

Writing Section Practice Test (p. 433)

There is no answer key to the Writing Section Practice Test. The main points that you should have covered in the integrated writing task are listed below.

Reading notes

1. tides can generate energy through dam-like structure across river entering bay
 - a. gates are opened for rising tide and closed at high tide
 - b. gates are opened at low tide and the out flow turns turbines
 - c. can be used other direction
2. advantages of using tide energy
 - a. four periods daily
 - b. renewable
 - c. nonpolluting
 - d. no greenhouse gases

Lecture notes

1. Drawback that tidal power provides small amount toward total needs
 - a. aren't enough good locations
2. negative impact as change in water quality, salinity, and the mix up of mud and sediments
 - a. provides good conditions for growth of destructive organisms
 - b. intertidal zone destroyed

3. causes problems for fish that migrate between river and sea
4. causes problems for finding mooring for fishing boats

PRACTICE TEST 1: Reading Section

(p. 439)

Note: If you answered an item incorrectly, complete the exercises listed for that item.

1. (D) The Greeks were early supporters of the idea that life originated elsewhere and was carried to Earth. See Exercises R9–R14.
2. (D) When something is “propelled” or “thrust,” it is pushed onward with great force. See Exercises R1–R3.
3. (D) If it were known for certain that there is no life elsewhere, there would be no hypothesis or debate. See Exercises R9–R14.
4. (B) “Resurrected” and “reintroduced” mean “revived or brought back.” See Exercises R1–R3.
5. (D) “Retain” and “keep” mean “to hold in place.” See Exercises R1–R3.
6. (B) The phrase “objections . . . can be overcome” indicates that people are seriously looking at the hypothesis again. See Exercises R9–R14.
7. (C) Microscopic studies have been done on the meteorite’s (“its”) internal structure. See Exercises R4–R8.
8. (A) The phrase “such a trip” refers to a trip from Mars. See Exercises R4–R8.
9. (B) The phrase “many researchers now seem to reject this possibility” indicates that there is some disagreement about whether or not the meteorite contains fossils of microscopic bacteria. See Exercises R15–R21.
10. (C) “The panspermia hypothesis is regarded [judged] with less skepticism [to be less doubtful] than formerly [than was once thought].” See Exercises R9–R14.
11. (C) The word “However” indicates that conflicting information will follow. The facts of being “too heavy to be ejected from a planetary system” conflict with the previous sentence, which introduces the possibility of an organism being ejected. See Exercises R4–R8.
12. **Arguments Against Panspermia Hypothesis**
(C) Although bacterial spores can survive long enough for interplanetary travel, they cannot for interstellar travel.
(E) The ultraviolet radiation and cosmic rays would destroy any life-form.
(F) Any life-form inside a meteorite would not be able to survive these high temperatures.

Support for Panspermia Hypothesis

- (A) These chemicals may indicate that life can also exist in comets.
- (D) Since comets retain materials that life requires, they could also retain life-forms.
- (I) If bacterial spores can survive in space, the objections to their being destroyed by ultraviolet radiation and cosmic rays is not significant.
- (J) Such an ejecting star would have a high repulsive force.
See Exercises R22–R24.
13. (B) Something that is “viable” or “feasible” is capable of working successfully. See Exercises R1–R3.
14. (C) The article implies that OTEC energy, despite some drawbacks, is likely to generate electricity in the future. The oceans store energy, and the author mentions that this system could be used to reduce our reliance on nonrenewable sources. See Exercises R15–R21.
15. (D) According to the reading, a temperature difference of at least 20 degrees Celsius between surface and deep water is necessary for efficient energy production. See Exercises R15–R21.
16. (B) According to the passage, both systems use cold water to condense vapor. See Exercises R9–R14.
17. (D) The phrase “other forms” refers to renewable energy directly provided by the sun and wind. See Exercises R4–R8.
18. (A) The fact that OTEC could produce energy that would allow us to reduce our use of fossil fuels and nuclear fission implies that the author thinks we rely too much on these nonrenewable kinds. See Exercises R15–R21.
19. (A) The author mentions that the OTEC technology has other benefits apart from clean energy production. See Exercises R15–R21.
20. (B) No mention is made of the damage that could be caused to fishing grounds. See Exercises R9–R14.
21. (B) The “conventional” alternatives are those that are the more established or accepted as “traditional.” Here, it refers to alternatives such as wind power and solar energy. See Exercises R1–R3.

22. (A) Water outflows are water discharges that will raise the water temperature and affect creatures in the marine habitat. See Exercises R9–R14.
23. (C) The author mentions both benefits and disadvantages of OTEC but overall suggests that this energy technology could contribute a portion of the total energy production. See Exercises R15–R21.
24. (C) The sentence gives an explanation of the reason aquaculture is an important spinoff. See Exercises R4–R8.
25. (B) OTEC systems use the variations of water temperature to produce clean, renewable energy.
(D) A million energy users is a significant number to be supplied with energy.
(E) The OTEC system can run 24 hours a day for every day of the year.
See Exercises R22–R24.
26. (B) The word “corollary” is a natural consequence or “result.” See Exercises R1–R3.
27. (C) The passage explains that surpluses allow people to use their time in other ways. See Exercises R9–R14.
28. (D) The passage states there was no longer “the need to migrate in search of food supplies.” See Exercises R9–R14.
29. (A) Settlements first needed to be established before people could develop their skills. See Exercises R9–R14.
30. (A) When something occurs “independently,” it is unrelated or occurs “separately.” See Exercises R1–R3.
31. (D) The passage states that “Such tools were certainly used for reaping some grass crop.” See Exercises R9–R14.
32. (B) Something that is “fertile” is “productive” in that it provides the environment for productivity. See Exercises R1–R3.
33. (B) The passage states that the sediment was deposited on flood plains and that the fruitfulness of the land was restored annually. See Exercises R9–R14.
34. (A) The passage states that the area was expanded when people learned to draw off the river water into canals and ditches. See Exercises R9–R14.
35. (C) The evaporation of water could lead to an increase in soil salinity. See Exercises R4–R8.
36. (A) The evaporation of water from the irrigation ditches caused an increase of the salt in the soil, and this damaged the land. See Exercises R9–R14.
37. (D) The passage states that “settled agriculture led to the development of property rights and hence to a legal framework . . . to enforce laws.” This suggests that an organized government was needed to protect property rights. See Exercises R15–R21.
38. (A) This sentence introduces the topic that the other sentences in the paragraph support. See Exercises R4–R8.
39. (A), (B), and (F) The people who ate the grass began to understand how to cultivate it. With the enriched soil to grow crops, the land sustained more people. Irrigation increased crop-growing areas, but property rights led to the need for a government to enforce laws. See Exercises R22–R24.

PRACTICE TEST 1: Listening Section

(p. 460, script on p. 635)

1. (A) CBA is a system for estimating or evaluating the costs and benefits of the outcomes of decisions. See Exercises L9–L12.
2. **Cost**
(B) Higher insurance payments are a cost.
(D) Additional floor space would add to costs since it could increase the rent, maintenance costs, and energy consumption.
- Benefit**
(A) If a new machine lowers energy consumption (a cost), it is a benefit.
(C) Higher-quality products are a benefit.
(E) New safety features would be a benefit since they could reduce insurance costs in the long run. See Exercises L13–L17.
3. (B) The professor discusses how the purchase of a new machine generates both costs and benefits. She uses the example to show what might be a cost and what, a benefit. See Exercises L18–L23.
4. (A) The professor mentions that in calculating costs and benefits, it is important to take into account the less obvious costs and benefits that are sometimes hidden. See Exercises L18–L23.
5. (D) The professor gives the building of a new road as an example of CBA use in the public domain. See Exercises L18–L23.

Answer Keys

6. (B) The professor states that CBA tries to put a value on costs and benefits of subjective things by studying the financial choices people make. See Exercises L13–L17.
7. (C) The student tells the professor that she has come to discuss the research paper. She wants feedback from the professor to improve or correct her paper. See Exercises L9–L12.
8. (D) The student used information from a source that she thought was that of a professor, but in fact, it was that of a student. Her professor wants her to investigate a Web site more thoroughly so that she will understand her source. See Exercises L18–L23.
9. (A) Dr. Johnson points out to the student that the Web site she used was one on which a professor posted students' work, and consequently, the work may not be a good source for research. See Exercises L18–L23.
10. (A) The professor means that the claims may or may not be true, but that they should be questioned because of a possible bias. See Exercises L18–L23.
11. (C) The professor states that the research might be good and not biased, but it has to be repeated by an independent person to ensure that it is not biased toward the company. See Exercises L13–L17.
12. (C) The professor states, "I'd like to focus on the Prairie School of Architecture." See Exercises L9–L12.
13. (A) and (C) The professor explains that the horizontal features are designed to harmonize with the flat prairies. The professor also discusses the many features of the interior that created a living space that was more compatible with human proportions and living requirements. See Exercises L13–L17.
14. (B) The architects' philosophy was to harmonize their buildings with the prairie, but most of the houses were not built on the prairie, so the name isn't really appropriate. See Exercises L18–L23.
15. (B) and (D) The professor discusses the reduction in the number of interior corners and the reduction of the number of rooms to create a feeling of movement and freedom. See Exercises L13–L17.
16. (B) The professor states that ornamentation was only permitted if it complemented the overall expression and feeling of the building. See Exercises L13–L17.
17. (D) The professor states that the architects used geometric or Oriental designs. Then she gives the Japanese turned-up roof design as a feature used in the Prairie School designs. See Exercises L18–L23.
18. (D) The professor lectures on the most important aspect of memes – the fact that they replicate. See Exercises L9–L12.
19. (B) The professor is suggesting that the meme theory is not accepted by all academics. See Exercises L18–L23.
20. (C) The professor discusses how memes are spread among people. See Exercises L13–L17.
21. (B) The professor gives some examples of memes that could be considered unimportant. The meme of how to build a fire is a significant meme. See Exercises L18–L23.
22. (A) According to the professor, our minds are full of thoughts because memes need to be rehearsed and remembered so they can survive and be passed on. See Exercises L18–L23.
23. (A) The professor says that memes behave like genes. They are not part of genes. See Exercises L13–L17.
24. (A) The professor focuses mostly on the possible reasons why the Anasazi abandoned their communities and why their society disappeared. See Exercises L9–L12.
25. (D) The professor points out that some people are not completely happy with the name *Anasazi*. See Exercises L18–L23.
26. (C) When the Anasazi discovered that ceramic ware was better for storing food and liquid, they started making pottery rather than baskets for this purpose. See Exercises L13–L17.
27. (A) The professor was going to talk about the Anasazi buildings and briefly digressed into talking about their road system. She is reminding herself where in the lecture she left off. See Exercises L1–L3.
28. (A) *No* The professor says there is no strong evidence to support the idea that the Anasazi were wiped out by a disease.
(B) *No* The professor says there is not much evidence to suggest they were invaded.
(C) *Yes* The professor believes that the Anasazi abandoned their communities because overexploitation of the environment led to a lack of resources.
See Exercises L13–L17.

29. [B] The professor says that the Anasazi may have caused an environmental disaster by their overexploitation of resources. This implies that they did not take good care of their environment. See Exercises L18–L23.
30. [C] The students are reviewing the definition of some legal terms that a professor discussed in class. See Exercises L9–L12.
31. [B] The woman is in a hurry to meet a roommate. She has only a few minutes to discuss legal terms. See Exercises L18–L23.
32. [A] and [B] The defendant tries to show that the accusation made against him or her is false. According to the woman, the prosecutor usually acts on behalf of the government. See Exercises L13–L17.
33. [C] The man describes how circumstantial evidence can be used to build a case against a defendant. See Exercises L18–L23.
34. [B] According to the woman, most people think that circumstantial evidence is not sufficient to get convictions in court. See Exercises L13–L17.

There is no answer key for the Speaking and Writing sections of Practice Test 1. See Calculating Scores for Practice Tests on p. XXIII for information about how to evaluate your responses. Also use the scored sample essays and speaking responses for CD-ROM Test 3 as a guide.

PRACTICE TEST 2: Reading Section

(p. 481)

Note: If you answered an item incorrectly, complete the exercises listed for that item.

- [B] When something “alters,” it “changes” or takes a different form. See Exercises R1–R3.
- [A] The passage states that the rate of decay is constant, regardless of conditions. See Exercises R9–R14.
- [B] The element’s half-life is the time necessary for one-half of the original number of radioactive atoms in a sample to decay. See Exercises R4–R8.
- [B] The rate at which a radioactive element decays, its half-life, is used as a way to calculate its age. See Exercises R9–R14.
- [B] According to the passage, “Rocks as old as 4.6 billion years can be dated with some degree of reliability.” This implies that dating rocks that are older than this is probably less reliable. See Exercises R15–R21.
- [A] The phrase “from this point” refers to the separation of rubidium and strontium that occurs when the minerals crystallize from magma or metamorphic rock. That point is when the elements are incorporated into the minerals. See Exercises R4–R8.
- [D] When something is “essential,” it is “vital” or necessary. See Exercises R1–R3.
- [C] According to the passage, when an organism dies, “no more carbon dioxide is absorbed.” See Exercises R9–R14.
- [A] According to the passage, the nitrogen-14 isotope leaks out so it cannot be used for comparisons. See Exercises R9–R14.
- [D] The passage states that the amount of carbon-14 in the dead organism becomes less over time. See Exercises R9–R14.
- [C] The information about the kinds of isotopes taken in from the atmosphere would follow the fact that the isotopes are in the same amount in the atmosphere as in the organism. It would precede the information about what happens after an organism dies. See exercises R4–R8.
- Rubidium-87**
 - [D] Rubidium-87 has a half-life of nearly 48.8 billion years.
 - [E] Rubidium-87 is incorporated into minerals as they crystallize from magma or metamorphic rock.
 - [I] Rubidium-87 is formed when the rock is formed.
- Carbon-14**
 - [A] Bones or wood are organic materials.
 - [C] Carbon-14 is an essential element of the cells being incorporated into living tissue.
 - [F] Carbon-14 has the progeny nitrogen-14, which is a gas that leaks out of the organism and, therefore, is not useful for dating.
 - [H] Trees are organic.
See Exercises R22–R24.
- [D] The number of births is divided by the total population. See Exercises R4–R8.
- [A] Demographers use the model because it helps to explain changes in population. See Exercises R9–R14.
- [B] When something is “portrayed,” it is shown or “represented” in a visual or verbal form. See Exercises R1–R3.

Answer Keys

16. (D) There is no information given as to the number of women who died while giving birth. See Exercises R9–R14.
17. (B) The fluctuations in total population due to epidemics indicate a drop followed by a rise. There was a gradual rise overall. See Exercises R15–R21.
18. (C) “Agrarian” occupations refer to those that are agricultural, in other words, occupations dealing with “farming.” See Exercises R1–R3.
19. (C) The increased urbanization reduced the incentive to have a large number of children. See Exercises R9–R14.
20. (A) The birth rate may fall below the death rate (deaths exceed births) and without immigration (there is no immigration) the total population may slowly decrease (the population gradually declines). See Exercises R9–R14.
21. (B) Something that is at an “equilibrium” level is at a “stable” level or is balanced. See Exercises R1–R3.
22. (A) The improvements in health have caused an imbalance of births over deaths. See Exercises R9–R14.
23. (A) The earlier “pessimistic” predictions were that the population explosion would continue were based on the length of time the demographic transition took place in Europe (200 years). However, the transition in less developed countries seems to be occurring faster than predicted. See Exercises R15–R21.
24. (A) The information about why in cities there was less incentive for large numbers of children would follow the statement that industrialization had led to urbanization. See Exercises R4–R8.
25. (B), (C), and (E) In the preindustrial era, there were high birth and death rates with only a gradual population increase. This was followed by dramatic increases in population as improved health caused a decline in the death rate. Economic pressures reduced the birth rate, bringing the population to zero growth. See Exercises R22–R24.
26. (A) When something is put into an underground “chamber,” it is put into a large “cavity” or hole that forms a roomy area. See Exercises R1–R3.
27. (B) The commission understood that the waste may be hazardous for people thousands of years in the future and that these future generations need to be warned of the danger. See Exercises R4–R8.
28. (D) The author mentions different circumstances to help the reader understand that even though we think that future societies may be sophisticated, they may not be, and therefore we cannot leave the matter to chance. See Exercises R15–R21.
29. (C) A “scourge” is a source of extensive “affliction” and devastation. See Exercises R1–R3.
30. (A) The message must be understandable to any person no matter what his or her cultural background or knowledge is. See Exercises R9–R14.
31. (B) The author mentions the second law of thermodynamics to explain why materials can’t endure. See Exercises R15–R21.
32. (C) The word “its” refers to the *committee* formed to guard a certain kind of knowledge. See Exercises R4–R8.
33. (D) The committee that guards and passes on specialized knowledge has been called an “atomic priesthood” because it is rather like a priesthood in its exclusiveness and its monopoly of knowledge about nuclear waste sites. See Exercises R15–R21.
34. (D) A “sanction” is a “penalty” used to obtain conformity to someone’s wishes. People who do not observe sanctions are punished through legal or moral pressure. See Exercises R1–R3.
35. (A) The idea of a relay system is to pass on information over just a few generations. This would help to prevent the breakdown of communication over long periods of time. See Exercises R9–R14.
36. (A) The author points out that those who have exclusive knowledge could use it to control those who are ignorant. See Exercises R9–R14.
37. (D) While the exclusiveness of the atomic priesthood might lead to other problems, it is not mentioned as a difficulty in devising a communication system with the future. Rather, it is the main proposal put forward for making that communication possible. See Exercises R9–R14.
38. (B) Finding efficient ways to deactivate nuclear waste materials is an example of a technological advance that could be made to solve this problem. See Exercises R4–R8.
39. (A), (D), and (F) All of the various means of storing and passing on information pose a problem in communicating with the future because of the physical decay of storage media. A relay system could be used in which the knowledge is passed by a selected group of people. However, the proposal has potential problems of creating a divided society. See Exercises R22–R24.

PRACTICE TEST 2: Listening Section

(p. 502, script on p. 643)

1. (D) The professor explains the way various creatures deal with the change of water and salt concentrations in the estuarine environment. See Exercises L9–L12.
2. (A) The professor thinks that the students know the definition of osmosis and is confirming that belief. See Exercises L18–L23.
3. **A** and **D** The professor states that crabs keep out both water and salt with their hard shells and that they may have internal organs that can regulate salt intake and excretion. See Exercises L13–L17.
4. (D) The professor has just explained the migration pattern in blue crabs. He is giving the students an opportunity to ask for more explanation if they do not understand. See Exercises L18–L23.
5. **Physiological**
(B) osmoregulating
(C) dropping leaves
Behavioral
(A) migrating
(D) burrowing into mud
See Exercises L13–L17.
6. (B) Although the professor mentions birds as predators of invertebrates in the estuaries, he doesn't talk about any adaptation birds have made in order to live in the estuarine environment. See Exercises L13–L17.
7. (B) The man states that he was told to see the professor to get advice about switching majors. See Exercises L9–L12.
8. (C) The man wants to change majors, and the professor assumes that he is changing to linguistics. Since the man has been sent to this particular professor, it can be inferred that she is an advisor for students in the Linguistics Department. See Exercises L18–L23.
9. (C) The man explains to the professor that he taught English in Peru to earn money. He enjoyed the experience and is considering going into this field of study. See Exercises L13–L17.
10. (A) She does not know if the man's courses in American Sign Language can be used as a second language credit for the Linguistics Department requirements. She would prefer to tell him the wrong answer than to allow him to make a decision based on this point. See Exercises L18–L23.
11. (A) The man's answer to the professor's question indicates that he is concerned about graduating on schedule. He later states that he might be able to get more funding and mentions looking into grant and loan possibilities. This indicates that finances are a factor in his decision on changing majors. See Exercises L18–L23.
12. (B) The professor elicits the kinds of pressures that keep students from asking questions in classroom situations. See Exercises L9–L12.
13. (B) The professor is listing the questions he asks himself after class. He does this in order to set the stage for a discussion on why students don't ask questions in class. See Exercises L18–L23.
14. (D) The woman agrees with the man's reason for considering the class size as a negative pressure but provides her own reason for class size being a negative pressure. See Exercises L18–L23.
15. (B) When the professor asks Lisa to explain what she means by time pressure, she gives the name of Professor Clarkson. Although the professor doesn't understand how this can be an example, the other students do. See Exercises L18–L23.
16. (A) *No* Fear of asking too many questions is not one of the reasons discussed.
(B) *Yes* The students mention fear of being considered stupid by classmates.
(C) *Yes* Being the victim of a professor's sarcastic joke is one of the reasons elicited.
(D) *No* Fear of making a mistake is not discussed in the class.
(E) *Yes* Fear of wasting a professor's time with a mere question is discussed.
See Exercises L13–L17.
17. (D) The professor is letting the students know that there are other pressures that did not come up during the conversation but probably will during the discussions. See Exercises L18–L35.
18. (C) The professor discusses the theory of phrenology, an early method of psychological analysis. See Exercises L9–L12.
19. **B** and **C** According to the professor, Gall (the founder of phrenology) said the brain faculties had separate organs placed in a separate part of the brain and that the shape of the brain determined the shape of the skull. See Exercises L13–L17.
20. (B) The professor explains the popularity of the practice and then indicates through the question that nowadays this is considered a strange theory. See Exercises L18–L23.

Answer Keys

21. (C) The professor states that the phrenologists looked for confirmation for their hypotheses and ignored anything that went against their hypotheses. See Exercises L13–L17.
22. (A) The professor discusses the widespread practice of phrenology. Today its practice has largely disappeared. See Exercises L18–L23.
23. (D) The professor states that phrenologists were important in arguing that brain functions were localized. See Exercises L13–L17.
24. (B) The professor mentions the differences between the conditions on Mars and Earth, the necessity of human migration, and the ethical problems as part of the issues to be dealt with in radically transforming the conditions on Mars. See Exercises L9–L12.
25. (C) By comparing terraforming to science fiction, the professor is pointing out that technologically it will be a difficult task to undertake. See Exercises L18–L23.
26. (B) The professor states that pressure on resources of a rapidly expanding population has always forced people to migrate in search of new territory. He mentions the migration of Europeans to the Americas as an example of such a migration. See Exercises L18–L23.
27. (C) and (D) The professor states that the other planets are unsuitable and that Mars has water and a solid surface. See Exercises L13–L17.
28. (A) The professor wants to leave aside the ethical considerations and concentrate on the practicalities, which would be those technological considerations. See Exercises L18–L23.
29. (D) The professor mentions greenhouse gas being produced by the ammonia-rich asteroids, not by factories. See Exercises L13–L17.
30. (C) The student has seen an announcement on the bulletin board asking for participants in a research project. She wants to volunteer to participate. See Exercises L9–L12.
31. (A) The coordinator needs to make certain that the student meets the requirements for the experiment. See Exercises L18–L23.
32. (B) The student is indicating that even though she is well this week, no one can be certain about their health later. See Exercises L18–L23.
33. (C) The coordinator does not ask the student her preferences for snacks, but states the snacks will be “typical.” See Exercises L13–L17.
34. (D) The coordinator states that the breakfasts will consist of the normal things, and gives eggs and cereal as examples. See Exercises L13–L17.

There is no answer key for the Speaking and Writing sections of Practice Test 2. See *Calculating Scores for Practice Tests* on p. XXIII for information about how to evaluate your responses. Also use the scored sample essays and speaking responses for CD-ROM Test 4 as a guide.