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Acknowledgments

Reading


“It’s Hard to Keep a Good Yo-Yo Down/Tricks with a Yo-Yo” by Patrick Sweeney, illustrations by Lars Leetaru.

“A Summer at Brewster” from THE STORY OF MY LIFE by Helen Keller. Published by Random House, Inc.

“When I Used to Go to the Beach” by Bill Collins, from SALTING THE OCEAN. Reprinted by permission of the author William P. Collins.


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“Citizen Carmen” by Fabiola Santiago. Copyright © 2001 by Highlights for Children, Inc., Columbus, Ohio.

“Ice Cube On A Wire.” Copyright © 2001 by Highlights for Children, Inc., Columbus, Ohio.

“A Better Mouse Trap” by J. T. Waite. Reprinted with permission of the author. All rights reserved.

Camping Adventure

A loud crack made Daniel sit straight up in his sleeping bag. The silver-white flash of lightning lit up his father’s face. His father was peering out through the tent flap at their remote campsite. In the next instant, torrents of rain as loud as a freight train beat down on the tent.

“We’ll have to move to higher ground,” Daniel’s father yelled above the din. “The river will rise pretty quickly if it’s been raining this hard upstream.”

Quickly Daniel stepped into his shoes and pulled his poncho on over his clothes. He skillfully rolled up his sleeping bag and strapped it to his backpack, while his father did the same with his own. Within minutes, they were fighting against the wind and rain, pulling apart the tent and bundling up the soggy nylon. They knew exactly what to do.

Sample Selection

Sample A

The author provides enough evidence to show that

A Daniel had chosen the campsite himself.
B Daniel’s father had forgotten to pack a flashlight.
C Daniel and his father were experienced campers.
D Daniel was sorry that he and his father had gone camping.

Sample B

Why did Daniel and his father need to move their camp?

A because the wind was blowing
B because the river might flood
C because their tent was soggy
D because their campsite was too remote

Go On
So your school’s mystery meatloaf makes you want to barf?

Next time you feel compelled to complain, think about this: If you were a student in South America, you might be dining on grilled guinea pig.

In the Netherlands, you might be served a salted horsemeat sandwich.

And in Papua-New Guinea, you just might pamper your palate with a wriggling sago worm or smoked bat.

Sound disgusting?

Not to the people who live in these places.

Whether your dinner is delicious or despicable depends on where you live and what you have eaten all your life. While Americans cringe at the thought of eating insects, most people around the world consider them to be savory snacks.

And healthful ones, at that. Ounce for ounce, critters like flies, spiders, maggots and termites are lower in calories and higher in protein than cooked beef or chicken.

“When it comes to food,” says David George Gordon, author of The Eat-a-Bug Cookbook, “what your parents and grandparents raised you with is fine. But,” adds the former Boy Scout from Chicago, “going outside that narrow window is very weird. People have very strong feelings toward food.”

Australians say kangaroo and crocodile taste delicious. In Hong Kong, monkey brains are served at the finest restaurants. Some Mexicans feast on grasshopper tacos. Japanese eat raw fish. And in many African nations, natives drink

1 *palate*—appetite, roof of the mouth
2 *despicable*—awful, disgusting
3 *savory*—pleasing, delicious, appetizing
blood fresh from living livestock. Sometimes they even mix it with milk.

11 You probably like popcorn. If you go to the movies in Colombia, you might want to pass on the snack of choice there—crunchy roasted ants, which are said to taste a bit like beef jerky.

12 “They’re quite good,” Gordon says.

13 His taste for insects began five years ago, when he was writing a book about cockroaches. While researching his topic, he discovered old recipes for bugs.

14 “Quite tasty,” he said. Gordon’s favorite is waxworms, a small caterpillar that gets its name from eating the wax of a honeycomb.

15 “They say you are what you eat. These creatures live on a diet of wax and honey, so you can imagine how good they taste,” Gordon said. “I have a great recipe for white chocolate chip cookies with waxworms. If people tried them blindfolded, they would be eating them by the handfuls.”

**Appetizing Appetizers?**

16 In Asia, earthworm soup is as popular—and, some say, as medicinal—as chicken noodle soup is here. People in Korea eat this soup before bed, believing that it prevents disease. People from China have traditionally eaten it as a cure for fever.

17 And scientists say they might be right. Studies in Vietnam show that earthworms have been successful in the treatment of illnesses including stroke, seizures, malaria, acne, cough, blood infections and hypertension.

18 Bird’s nest soup is another sought after Chinese and Hong Kong specialty. People risk their lives to climb hundreds of feet up vines and bamboo poles to harvest “swiftlets.” These small nests made of bird spit are, at $1,000 a pound, among the world’s most expensive foods.

**Think That’s Gross?**

19 Before you say “no way!” to trying a new food, take a look in your own refrigerator.

20 See that pizza? The cheese comes from bacteria. Cheese is made when an enzyme from an animal’s stomach lining is used to curdle milk. The mushrooms are nothing but (yummy) fungus.

21 Hot dogs are pulverized meat scraps that have been stuffed into a...
tube and smoked. Honey is bee barf.

22 And then there are those truly American dishes that make foreigners gag. If you live in the West, you may have already tried rattlesnake. Many Southerners eat fried pickles; a lot of Easterners eat scrapple. Never heard of scrapple? It’s a breakfast meat that’s made when leftover butchered pig parts are slow-cooked and thickened with flour, hardened into a loaf, then sliced and fried.

23 Pennsylvanians love to argue about what tastes best on scrapple—honey, ketchup or maple syrup.

24 Kind of makes you hungry for that meatloaf, doesn’t it?

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1 Which phrase means the same as swiftlets, as it is used in paragraph 18?
A birds’ nests
B Asian vines
C bamboo poles
D specialty foods

2 Gordon became interested in eating insects while
A writing a bug cookbook.
B researching cockroaches.
C trying new and unusual recipes.
D eating roasted ants in Colombia.

3 Which should be added to the word web above?

4 Go On
Which is a fact from the selection?

A. “You probably like popcorn.”
B. “The cheese comes from bacteria.”
C. “People have very strong feelings toward food.”
D. “If people tried them blindfolded, they would be eating them by the handfuls.”

In paragraph 9, the phrase “going outside that narrow window” refers to

A. trying new things.
B. changing your appearance.
C. traveling to a new place.
D. squeezing through a small space.
Reading • Section 1

Read the selection below. Then answer the questions that follow.

Citizen Carmen
by Fabiola Santiago

1 Carmen walked up to the silver water fountain in the hallway, her hands damp and her mouth as dry as an empty well. A new school day stretched before her, and Carmen had butterflies in her stomach again. Maybe a cool sip of water would help.

2 She tucked her curls behind her ears and bent to reach the chilly trickle when, out of the corner of her eye, Carmen saw an older girl walking her way. The girl wore a bright orange belt with a silver patch that said “School Patrol.”

3 “What are you doing in the hall?” the patrol girl scolded Carmen. “The late bell is about to ring!”

4 “I don’t speak good English. I’m a Cuban girl,” Carmen said slowly.

5 The girl stared at Carmen as if she were wondering how anyone could go to this school and not speak English.

6 “You’re going to be in trouble if you don’t get to class on time,” the girl said, pointing her index finger at Carmen.

7 Carmen dreamed of the day that she would open her mouth and the English words would flow in beautiful, musical tones. But every day in school she was reminded that she did not speak English well. Most of all, she dreaded reading out loud in class.

8 “Carmen, please read from the board,” Mrs. Smith had asked yesterday.

9 Carmen started to sweat, bite her lip, and tap her foot.

10 Her classmates broke out in giggles. Even the other Cuban students laughed. They had been in the United States longer and spoke better English.

11 Oh, how Carmen wanted to go home to Cuba, her alligator-shaped island in the Caribbean Sea. She missed her old school. In Cuba no one laughed at her because Carmen was the smartest girl in class.

12 But now that Carmen was in
America, her English didn’t sound so good. She didn’t want to go back to Mrs. Smith’s class. She wanted to close her eyes and wake up at home in Cuba!

13  **R-i-i-i-n-g!** The bell interrupted Carmen’s daydream.

14  The first notes to the song Carmen liked so much crackled over the loudspeakers, and the patrol girl hurried off. Whenever Carmen heard this song at the start of the school day, she forgot about her accent. Even if she didn’t know the words, she could enjoy the melody of the violins and hum along.

15  With the sound of the late bell, Carmen remembered that the school day was about to begin, and she hurried to her classroom. But Mrs. Smith stopped Carmen when she rushed into the room.

16  “You must stand in respect whenever you hear this song,” Mrs. Smith whispered, bending down to reach her ear. “It’s the national anthem of the United States.”

17  Carmen stood tall at attention. After the song had ended, she told Mrs. Smith how much she liked it.

18  “Will you teach me the words?” Carmen asked. Although she didn’t realize it, Carmen said this in pretty good English.

19  Mrs. Smith smiled sweetly, the way Carmen’s favorite teacher did in Cuba.

20  “Of course,” Mrs. Smith said. “I would be happy to teach you ‘The Star-Spangled Banner.’”

21  Carmen spent all day saying the words until she knew them by heart. Mrs. Smith was so impressed with her effort that she asked Carmen to stay after school. Day after day, she taught her a new stanza until Carmen had learned the entire song.

22  Mrs. Smith said that Carmen had other talents: a crisp alto\(^1\) voice and a good ear to catch the melody. “How would you like to join our school chorus, the Stars and Stripes?” she asked.

23  At first, Carmen was a little scared to sing—in English!—in front of everyone. But she felt lucky to have been picked to sing her favorite American song with the chorus.

\(^1\) *alto*—a low female singing voice
Carmen especially liked the last line: “The land of the free and the home of the brave.”

Freedom. That’s why Carmen’s family had come to live in the United States, her father always said.

Now that she understood the words, whenever she sang “The Star-Spangled Banner,” Carmen felt proud of becoming an American.

Complete the analogy: wanted : dreaded :: remembered : __________
A listened
B forgot
C thought
D interrupted

How can the reader tell that “Citizen Carmen” is a short story and not an essay?
A There is a stated purpose.
B It has an introduction.
C The passage has a plot.
D It is organized around a topic.
8. Which sentence foreshadows the solution to Carmen’s problem?

A. “The girl stared at Carmen as if she were wondering how anyone could go to this school and not speak English.”

B. “Carmen dreamed of the day that she would open her mouth and the English words would flow in beautiful, musical tones.”

C. “In Cuba no one laughed at her because Carmen was the smartest girl in class.”

D. “With the sound of the late bell, Carmen remembered that the school day was about to begin, and she hurried to her classroom.”

9. Paragraph 11 is important because it introduces

A. the problem Carmen faces.

B. the resolution of Carmen’s problem.

C. important foreshadowing.

D. background information.

10. The word crackled in paragraph 14 is an example of what poetic device?

A. onomatopoeia

B. metaphor

C. rhyme

D. simile
11. Which words best describe how Carmen felt at the end of the story?
A. pleased and fortunate  
B. bold and carefree  
C. excited and impatient  
D. curious and restless

12. At the end of the story, it is reasonable to conclude that Carmen will
A. become a professional singer.  
B. improve her English.  
C. learn other foreign languages.  
D. return to Cuba.

13. Complete the analogy:  
stanza : poem :: hallway : ____
A. patrol  
B. bell  
C. tones  
D. school
1. About 2,500 years ago, Greek children played with the first known yo-yos. And from Greece the yo-yo did indeed go “Around the World.” Ancient yo-yos have been found everywhere, including China and India. In the Philippines the yo-yo was used not as a toy but as a hunter’s weapon. Filipino hunters would hide up in trees and use yo-yo-styled rocks to hunt passing animals. If the hunter missed the animal, the string would bring the rock back up quickly while the hunter waited for the next animal to appear.

2. As the yo-yo continued its up-and-down travels all over the world, its name changed with every new language. On the ends of the strings in France spun the emigrette. In Spain they listened to the soft hum of the de Coblenz. Still other people in England liked twirling the bandalore or the quiz. But whatever it was called, the yo-yo really became popular around 1791. It was then that the Prince of Wales, who was later crowned King George IV, began whirling his quiz. When others in the royal court saw the future king playing with a yo-yo, they quickly began playing, too. Soon every prince and princess was playing with beautiful yo-yos made of gold and ivory, thus setting off a national craze. Everyone—from common shoemakers to wealthy aristocrats—played with their yo-yos as a way to relax.

3. Relaxation became an important reason for owning a yo-yo. Drawings as early as the 1780s showed French soldiers playing with yo-yos. In 1815, at the Battle of Waterloo, General Napoleon and his army relaxed with their emigrettes before battle. In addition, during these same years, doctors began giving yo-yos to their patients in hopes that relaxation would hasten recovery from illness. Even criminals on their way to executions were given yo-yos to pass the time.

4. Yo-yos also helped pass the time on the long trip to America. It was 1866 when the toy, still called a bandalore, began spinning on our shores. In 1916 a magazine called the Scientific American Supplement published an article about Filipino toys and in it described the bandalore, but named it a “yo-yo,” a...
Filipino term that means “come-come” or “to return.”

Now that this toy had a new name, it needed a new design. In 1928, a man named Donald Duncan produced colorful plastic yo-yos. He then sent out a team of yo-yo experts to amaze America with incredible tricks. Children’s eyes widened and chins dropped while they watched tricks called “Rock the Cradle” and “Walk the Dog” for the very first time. Soon every child had to have a yo-yo, and by 1962 Duncan’s company had sold forty-five million yo-yos, making it once again one of the most popular toys in the world.
Tricks with a Yo-Yo
by Patrick Sweeney

Walk the Dog
1  Throw the yo-yo down hard, then keep your hand still while the yo-yo “Sleeps.” Lower your yo-yo to the floor, and it will walk out in front of you.

Around the World
2  Throw the yo-yo out and swing your arm around in a clockwise circle so the yo-yo makes a complete circle. The yo-yo will “Sleep” the entire trip around.

Rock the Cradle
3  Throw a fast “Sleeper.” Grab the string halfway down with your left hand. With your right hand reach down and pinch the string halfway between your left hand and the yo-yo. Bring your left hand down under the yo-yo to make the cradle, and rock the yo-yo back and forth.
14. “It’s Hard to Keep a Good Yo-Yo Down” is an example of what type of literature?
   A. autobiography
   B. informational article
   C. folktale
   D. newspaper article

15. The phrase, “Children’s eyes widened and chins dropped” in paragraph 5 of “It’s Hard to Keep a Good Yo-Yo Down” tells that the children were
   A. bored.
   B. amazed.
   C. afraid.
   D. amused.

16. In “It’s Hard to Keep a Good Yo-Yo Down,” why did Donald Duncan send out a team of yo-yo experts in 1928?
   A. to teach children about the history of yo-yos
   B. to tell students where to buy wooden yo-yos
   C. to teach children how to do “Rock the Cradle”
   D. to convince children to buy yo-yos of their own

17. Which question is answered in the section “Tricks with a Yo-Yo”?
   A. What does a sleeping yo-yo look like when it is “sleeping”?
   B. What is the best material from which to make a yo-yo?
   C. In which trick does the yo-yo go in a circle?
   D. What yo-yo trick is the easiest to learn?
How do the drawings help the reader understand “Tricks with a Yo-Yo”?

A. They show that the tricks are simple.
B. They illustrate the described tricks.
C. They draw attention to important parts of the trick.
D. They demonstrate how the tricks got their names.

What is the main idea in “It’s Hard to Keep a Good Yo-Yo Down”?

A. King George could do tricks with a yo-yo.
B. Yo-yos have been used for a long time.
C. The first yo-yos were used as weapons.
D. Some doctors gave yo-yos to their patients.
Secret Language
by Karen Gibson

An unbreakable code helped win World War I.
But to these soldiers, it was just a chat.

1 It was October 1918 at Forest Ferme in France. The Germans surrounded the American forces.

2 The Germans had tapped the phone lines and broken every code the Americans used. They knew every move the Americans tried to make.

3 Private Mitchell Bobb delivered a message into the field telephone to Ben Carterby at battalion¹ commander headquarters. He knew the Germans were listening. But the Americans had to take the chance or be defeated.

Talking in Code

4 The Germans heard gibberish on the phone lines. Try as they might, they couldn’t break the code. Within 24 hours, the Americans successfully launched surprise attacks. After 72 hours, the Germans retreated.

5 The “code” that helped American forces win several battles in the final days of World War I was no code at all. It was Choctaw, the language of eight American soldiers, including Bobb and Carterby, from rural Oklahoma.

6 Cryptology is the science of codes. In the military, codes ensure secure communication. Code talkers transmit information over telephones, radios, and through runners. When troops are spread out, having an “unbreakable” code is an advantage.

Inventing Words

7 Speaking Choctaw was the first attempt by the U.S. armed forces to use a Native American language. Because military terms are not part of the Choctaw language, those words had to be created. “Big gun” was used for artillery. “Little gun shoot fast” meant machine gun.

8 Native Americans in the military are nothing new. Native American scouts aided the colonists during the Revolutionary War against England. More than 12,000 Native Americans served during World War I. At least 44,000 served in
World War II. And more than 90 percent of the 42,000 Native Americans who served in Vietnam volunteered. According to U.S. Navy historians, Native Americans have the highest record of service per capita of any ethnic group.

9 During the first half of the 20th century, many Native Americans were sent to government boarding schools and forbidden to speak their native languages. Imagine how different things might have been if eight young men from Oklahoma had not known how to speak Choctaw.

**Navajo Code Talkers**

10 Between World Wars I and II, many Germans and Japanese studied in the United States. Some visited Indian reservations and learned the languages. Many Native American languages used as code were eventually broken. Except for one: Navajo.

11 Because it was an unwritten language with no alphabet, Navajo words could change meaning according to tone and pitch. For anyone not living among Navajos in the Southwest, it was a very difficult language to learn.

12 The Navajo code talkers took part in every U.S. Marine assault between 1942 and 1945. Iwo Jima, in the Pacific islands, was one of World War II’s most important battles. It is said that the Americans would never have taken Iwo Jima in 1945 without the Navajo code talkers.
20. Using the same relationship, complete the analogy:

Choctaw : language :: cryptology : ______

A telephone  
B radio  
C science  
D military

21. Paragraph 10 indicates that some German and Japanese people came to the United States to learn Native American languages which enabled them to

A teach the languages to their students.  
B use the languages for their military advantage.  
C compare the languages to their own languages.  
D translate stories into their own languages.

22. Navajo words can change meaning according to tone and pitch because Navajo is

A spoken by only a few people.  
B a difficult language to learn.  
C an unwritten language.  
D spoken only in the Southwest.
What is the author’s purpose in writing the article?

A  to persuade readers to learn Native American languages
B  to tell the story of two battles in two world wars
C  to express an opinion about speaking more than one language
D  to discuss the achievements of Native American code talkers

Which would be the best resource to find more information about the Navajo language?

A  a tourist pamphlet, “Museum Tour: Traditional Arts & Crafts of the Navajo Tribe”
B  a book, The Voice of the Navajo People: A History of the Navajo Nation Council
C  a Web site, The Navajo Tribe of the Southwestern United States
D  an article, “Speaking Navajo: The Mystery of Meaning”
Just before the Perkins Institution closed for the summer, it was arranged that my teacher and I should spend our vacation at Brewster, on Cape Cod, with our dear friend, Mrs. Hopkins. I was delighted, for my mind was full of the prospective joys and of the wonderful stories I had heard about the sea.

My most vivid recollection of that summer is the ocean. I had always lived far inland and had never had so much as a whiff of salt air; but I had read in a big book called Our World a description of the ocean which filled me with wonder and an intense longing to touch the mighty sea and feel it roar. So my little heart leaped high with eager excitement when I knew that my wish was at last to be realized.

No sooner had I been helped into my bathing suit than I sprang out upon the warm sand and without thought of fear plunged into the cool water. I felt the great billows rock and sink. The buoyant motion of the water filled me with an exquisite, quivering joy. Suddenly my ecstasy gave place to terror; for my foot struck against a rock and the next instant there was a rush of water over my head. I thrust out my hands to grasp some support. I clutched at the water and at the seaweed which the waves tossed in my face. But all my frantic efforts were in vain. The waves seemed to be playing a game with me, and tossed me from one to another in their wild frolic. It was fearful! The good, firm earth had slipped from my feet, and everything seemed shut out from this strange, all-enveloping
Reading • Section 2

element—life, air, warmth and love. At last, however, the sea, as if weary of its new toy, threw me back on the shore, and in another instant I was clasped in my teacher’s arms. Oh, the comfort of the long, tender embrace! As soon as I had recovered from my panic sufficiently to say anything, I demanded: “Who put salt in the water?”
When I Used to Go to the Beach
by Bill Collins

1 When I used to go to the beach
my mother would take a saltshaker
and make the water salty

With great expertise
5 she would taste, salt, taste
and salt again
five minutes or so
until she decided it was right

Then I would go swimming
10 thinking my mother salted the whole
ocean however large it was

I now know
my mother isn’t responsible for the salty
ocean

15 It takes some of the fun
out of going to the beach.
25. In paragraph 3 of “A Summer at Brewster,” what does Helen mean when she says, “The waves seemed to be playing a game with me”?
   A. She feels like a ball being tossed back and forth by waves.
   B. She struggles to catch the waves, but they always get away.
   C. She tries to guess how far the water would come up on the beach.
   D. She tries to hide, but the waves always find her and pull her into the water.

26. In “A Summer at Brewster,” Helen asks the question “Who put salt in the water?” Which of the following resources would help the reader answer the question?
   A. an online newspaper
   B. an online encyclopedia
   C. almanacs and atlases
   D. dictionaries and thesauruses

27. In an outline of the story “A Summer at Brewster,” which of the following should be included?
   A. A Difficult Childhood
   B. Helen’s Awards and Honors
   C. Helen’s First Taste of the Sea
   D. School Days at Perkins Institution

28. “When I Used to Go to the Beach” is a
   A. written account of a person’s life.
   B. story intended to interest or amuse the reader.
   C. popular story handed down from one generation to another.
   D. set of free verse stanzas that tell about an object or experience.
Reading • Section 2

29. A theme for both “A Summer at Brewster” and “When I Used to Go to the Beach” is

A. people need friends in order to be truly happy.
B. people find ways to explain nature’s mysteries.
C. people have imaginary adventures by reading books.
D. people are convinced that nature affects their decisions.

30. Where should a reader look in the library to locate a copy of Helen Keller’s book, The Story of My Life?

A. the fiction section
B. the science section
C. the reference section
D. the biography section
Why Is It So Hard to Get Ketchup Out of the Bottle?

by Shawna Stuart Whyte

1 The Super Double Cheeseburger Deluxe arrives at your table. You stare at the dripping burger and the tantalizingly crisp, golden French fries. The only thing that’s missing is the ketchup, so you grab the bottle and prepare to slather your entire plate. You unscrew the cap, but... what’s this? Nothing is coming out! Why is ketchup so hard to pour out of the bottle?

2 Ketchup is a liquid, right? Not really. A solid? Nope. Actually, ketchup is a type of solution that sometimes acts as a liquid and other times acts as a solid. Ketchup and other solutions that have properties of both a solid and a liquid are called thixotropic (thık-sə-trō-pık) solutions. Other thixotropic solutions that you may have in the house include yogurt and margarine. When yogurt sits undisturbed, it is a jellylike solid. When you stir it, it becomes more like a liquid. Margarine that has been refrigerated can become quite hard, but once it warms up, it becomes softer and more liquid—and much easier to spread on toast!

3 So why are thixotropic solutions so weird? Why can’t they just make up their minds and be one or the other: solid or liquid? The answer is that molecules of a thixotropic substance tend to form in long chains. When these substances are stirred or shaken, the chains of molecules break apart into smaller segments, allowing the margarine, yogurt, or ketchup to act more like a liquid. Imagine that a bottle of ketchup is like a bottle full of string. You can see that pouring string out of a bottle is not going to be easy! But if you shake the bottle, the “strings” break apart into small pieces, which come out of the neck more easily.

4 Thixotropic solutions are also found in more exotic locations than the kitchen. Quicksand is a thixotropic mixture of sand and water. It looks like any other patch of sand, but once someone steps in it, the loosely packed molecules give way, causing the unlucky adventurer to sink into the quicksand.

5 Thixotropic mixtures of soil and water can be useful, however. Oil rigs use a thixotropic mix of clay and water to make “drilling mud.” This mixture is pumped down a
drilling hole to keep the drill bit cool and lubricated. Drilling mud remains a liquid when it is being stirred by the drill, but acts as a solid around the sides of the drilling hole, which helps to keep the hole from collapsing.

6 Believe it or not, we have thixotropic fluid in our own bodies. This fluid is found in our elbows and knees, where two bones move against one another. It is called synovial (sǐ-no´ve-əl) fluid, and it protects our bones and joints from damage. During normal movement, synovial fluid helps lubricate the joint. But if the joint is hit or suddenly twisted, the fluid immediately becomes thicker. In this way, synovial fluid helps protect our joints from injury.

7 Now you know all about the mysterious, helpful, and sometimes frustrating behavior of thixotropic solutions, which, because of their unique molecular structure, have some properties of both solids and liquids. Sometimes this can be helpful, as in the case of drilling mud and synovial fluid. Thixotropy can also be dangerous and deceiving, as in quicksand. Sometimes thixotropy is just plain curious—or irritating. It depends on how badly you want that ketchup out of the bottle.
31. Drilling mud is to an underground drill as synovial fluid is to ____________.
   A. liquid
   B. bodies
   C. joints
   D. helpful

32. Ketchup and other solutions that have properties of both a solid and a liquid are called thixotropic (thīk’-sə-trō-pīk) solutions.

   The purpose of the information in the parentheses from paragraph 2 is to show the
   A. word origin.
   B. pronunciation.
   C. definition.
   D. optional spelling.

33. Which phrase is an example of a simile?
   A. “. . . crisp, golden French fries.”
   B. “. . . like a bottle full of string.”
   C. “Believe it or not . . .”
   D. “. . . dangerous and deceiving . . .”

34. Which paragraph could best use the heading, “The Natural Shock Absorber”?
   A. paragraph 3
   B. paragraph 4
   C. paragraph 5
   D. paragraph 6
31

Reading • Section 2

35
Which is the best way to allow ketchup to function as a liquid?
A  Keep the bottle sealed.
B  Refrigerate the bottle.
C  Shake the bottle.
D  Use plastic bottles.

36
What is one effect of drilling mud?
A  It keeps the hole from collapsing.
B  It helps the drill stay sharp.
C  It keeps the hole smooth inside.
D  It helps the drill stay steady.

37
Without synovial fluid, what would happen to our bodies?
A  Knees would bend better.
B  Joints would creak loudly.
C  Elbows would move faster.
D  Joints would be easily injured.
It was a chilly February evening, and I had worn my warmest coat. I brought a blanket for the trek up the mountain to see Halley’s comet. Mr. Hall, our science teacher, carried our supplies. We neared the top of the small mountain, and found a cleared patch for us to sit and discuss the comet which we had talked about in class.

Mr. Hall, known for his pop quizzes, asked Stacy to give the history of the famous comet. She nervously began, telling us that Halley’s comet was first tracked by English astronomer Edmond Halley. It appears approximately every 76 years, and observations of the comet can be traced to about 240 B.C.

Mr. Hall interrupted Stacy, telling her how well she had answered, and told her that she would be receiving a star. He then asked for a volunteer to continue the history. Many students raised their hands; he picked Alice.

She smiled and said that Edmond Halley first recorded his observations of the comet in 1682 and predicted that it would return in 1758. In December of 1758, the comet returned just as predicted. Due to Edmond Halley’s predictions and observations of the comet, Alice continued, it was named Halley’s comet. The comet was seen again in 1834, 1910, and then in 1986. The future return of the comet is estimated to occur in 2062 and 2138.

Mark, another student, spoke next to tell us that a comet was just like a dirty snowball (a big ball made of snow and dust). There were billions of comets in orbit, but very few actually came close enough to Earth to be seen.

I interrupted Mark’s lengthy explanation to say that comets travel in an elliptical pattern at a distance of approximately one light year. When the comets approach
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The sun, jets of gas explode from the surface of the comet. These jets (or the tails of the comet) are called comas. They can be millions of miles long and up to 10 times larger than the Earth!

The actual comet, Mr. Hall reminded us, is called the “head.” It ranges from 10 miles to 1000 miles in diameter. The “head” is the only part of the comet that travels in orbit, except when it approaches the sun and forms the tails.

Even though we only see Halley’s comet once every 76 years, Mr. Hall continued, we feel the effects from it twice a year. In May and October, there are visible meteor showers caused by debris in the orbit of Halley’s comet.

As we talked, the sky had grown dark. Jessica, who was staring at the sky, suddenly shouted that she saw the comet! I looked up, craning my neck and then saw a bright line in the sky. Jessica told us that this line was Halley’s comet. She explained that it did not look like it was moving because it was so far away, and we would be able to see it for several nights.

The class picked up their belongings and followed our teacher back down the mountain. Stacy asked where her star was for answering her question correctly, and Mr. Hall pointed at the sky and told her she could have all the stars she wanted.
Halley’s Comet

I. Observations
   A. first observed in 240 B.C.
   B. recorded by Halley in 1682
   C. can be seen every 76 years

II. Physical Characteristics
   A. made of snow and dust
   B. travel in an elliptical pattern
   C. jets of gas shoot from it
   D. ____________________

What characteristic should be included under section D in the outline above?

A named after Edmond Halley
B meteor showers can occur twice a year
C can be seen from Earth for several days
D head’s diameter ranges from 10 to 1000 miles

From which point of view is this selection told?

A first person
B Stacy’s
C third person
D Mr. Hall’s

Which sentence is the best summary?

A Halley’s comet affects the people on Earth in many ways.
B Stacy answers a question correctly and is rewarded with a star.
C While waiting for Halley’s comet, Mr. Hall’s students review what they know about it.
D Over the years, people have observed and recorded information about Halley’s comet.
41. In paragraph 9, the author creates the mood of excitement by
   A. describing the dark sky.
   B. having a character suddenly shout.
   C. explaining that the comet was far away.
   D. having the character crane her neck to see.

42. The phrase “a comet was just like a dirty snowball” in paragraph 5 is an example of
   A. a simile.
   B. a metaphor.
   C. exaggeration.
   D. personification.

43. How do astronomers know when Halley’s comet will come next?
   A. the length of the comet’s tail
   B. through tracking meteor showers
   C. by the diameter of the comet’s head
   D. through years of observations
“How do they invent stuff?” Marty asked me one afternoon.

“I don’t know,” I answered.

We were in my backyard trying to decide if we were going to be two guys on a spaceship to another planet or two knights on a quest for King Arthur. Mostly that meant that we had to figure out if we wanted to fight off alien creatures or slay make-believe dragons.

“If I knew how to invent stuff,” I said, “I’d invent something that would make spelling tests easier to pass.”

“Really?” Marty asked. “Somebody already did!”

“No kidding?” I said.

“Yes. It makes all kinds of tests easy to pass. I think they call it . . .” Marty paused dramatically, “studying!”

“Very funny,” I said.


“How?” I asked.
“Kind of like building a better mouse trap?”

“Sure,” I said, “in a way.” I knew Marty was just trying to be funny, but he was right. “What’s TV?” I asked him.

“A big waste of time,” Marty said, “if you ask my mom.”

“Well, I suppose she’s right, but television is also a means of communication.”

“So?”

“So to communicate,” I said, “we had to develop a lot of things first before we got to TV.”

“Like what?” Marty asked.

“Like a way to understand each other,” I answered. “Before we learned to talk, we used gestures that meant something.”

“You mean like charades.”

“Sort of,” I said, “then we used words. We developed language so that we could exchange information.” I looked at Marty to see if he was following any of this.

“Okay,” he said.

“For a long time, we passed everything on by word of mouth. It was somebody’s job to remember the history of the tribe and to pass it on to the next generation.”

“That’s a lot to remember,” Marty said. “Every time my grandpa tells us about what things were like when he was a kid, the story changes a little.”

“That’s why we invented writing, so that the stories could remain the same. And we’d all learn the same things.”

“That was a pretty good idea,” Marty said.

“It was,” I agreed, “but people had to copy everything by hand, and it took a lot of time. Books were expensive and rare, not that many people could read. To get more information to more people, somebody came up with the idea of the printing press and movable type.”

“Yeah,” Marty said, “we learned about Gutenberg in school. He was the guy who printed the first Bible.”

“Right. Then at some point we wanted to send information over distance. People came up with a lot of ideas: signal fires, drums, smoke signals, and flags that spelled things out in code.”
“Semaphores," Marty said. “After people understood electricity, the invention of the telegraph became possible, and we could transmit those codes through wires like the Morse code, where dots and dashes stood for letters.”

“That’s it. Then Alexander Graham Bell figured out a way to send sound through those same wires.”

“Yeah,” Marty answered, “and then we wanted to be able to send sound over distance without wires. That’s how Marconi got the idea for the radio.”

1 *semaphore*—a visual signaling system using flags or lights

“You see,” I said. “Once we could send sound, people wanted to send pictures.”

“And we got television!” Marty added.

“Right,” I said, “because it came from lots of other ideas, I guess you could call it a kind of better mouse trap.”

“Cool,” Marty said, “way cool. But there’s just one thing.”

“What?” I asked.

“If TV’s a better mouse trap, how did they invent the cheese?”
Silvano couldn’t see that well, although he wasn’t blind. He had a lot of trouble finding things not hard to find.

He lost his pants, his socks, his shirt—he even lost his dog. He said, “I’ve got to fix my eyes and clear away this fog.”

One day in the year 1280 while drinking from a glass, he was looking through the bottom when he said, “I see at last.”

So he made two discs of finest glass. He made them thick and round.

He held them right up to his eyes and this is what he found.

“My pants, my socks, my shirt!” he cried. His heart was filled with glee, and there right by his favorite chair, his dog scratching a flea.

He made a fine contraption. It was a brilliant scheme. He used the top of his nose as a glasses balance beam.
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44. Which word describes the narrator of “A Better Mouse Trap”?
   A. proud
   B. frustrated
   C. intelligent
   D. gentle

45. In “A Better Mouse Trap,” the author tells the story by using
   A. action.
   B. changing settings.
   C. dialogue.
   D. changing tones.

46. In “A Better Mouse Trap,” the author uses a story to explain the
   A. process of creating inventions.
   B. importance of watching television.
   C. invention of mouse traps.
   D. development of language.

47. What rhyme scheme is used in “Eyeglasses”?
   A. aabb
   B. abab
   C. abcb
   D. abcd
41

Go On
Reading • Section 2

Read the selection below. Then answer the questions that follow.

Animal House
by Gibbs Davis

1. Who gets to live in the White House? The President and his family, of course—and their wacky and wonderful pets!

2. For the average family, a pet means a dog or a cat. But the President of the United States and his family are hardly average. And neither are their pets. The President’s pets get to live in the most famous house in the country. The White House has 132 rooms. That’s some doghouse!

3. Sometimes the President receives exotic four-footed gifts from foreign officials. Zebras, lion cubs, and baby hippos are shipped to the nearest zoo. However, some equally wild pets such as bears, raccoons, and even alligators have remained in the White House to live with the First Family.

The President’s Bear Garden: Thomas Jefferson (1801–1809)

4. President Jefferson had a brilliant, curious mind. Before he became President, he wrote the Declaration of Independence. During his nine years as President, Jefferson doubled the size of America by buying the massive Louisiana Territory from the French.

5. Jefferson was fascinated by the natural world. In 1804, he sent two...
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explorers, Meriwether Lewis and William Clark, on their famous expedition to explore the vast unknown territory from the Mississippi River to the Pacific Ocean.

6  One day, an especially large crate arrived at the White House. Growling and scratching sounds came from inside. The famous explorers had sent Jefferson two grizzly bears!

7  The animal-loving President liked the grizzlies so much he decided to build them a cage on the South Lawn. Although the bears weren’t invited to live inside the White House, Jefferson often joined his grizzly pets for walks around the garden. Jefferson’s enemies made fun of his choice of pets. They called the White House grounds “The President’s Bear Garden.”

There’s an Alligator in the East Room:
John Quincy Adams (1825–1829)

8  John Quincy Adams had lots of ideas about improving things like roads, canals, and schools. He had a hard time getting his improvements made, though. Maybe that’s why he was so understanding when an alligator came to visit!

9  The alligator came with the President’s good friend, the Marquis de Lafayette (mar-KEY duh LAH-fah-YET). A hero on both sides of the Atlantic, Lafayette fought in the French and the American revolutions. Lafayette served as a general with George Washington at Valley Forge, and Americans never forgot how the loyal Frenchman helped them during their time of need. Whenever Lafayette returned to America, he was welcomed as a beloved hero.

10  During his final visit to the United States, Lafayette was given an alligator in Louisiana. In the summer of 1826, Lafayette arrived at the White House with his reptile.

11  For two months, the lucky alligator lived in the East Room of the White House. Visitors who wandered in got a big surprise. They came running out with alligator jaws snapping at their heels!

12  After a sad farewell ceremony, Lafayette and his alligator finally departed. The President and First Lady waved goodbye as they watched their visitor’s green tail slither out of sight. See ya later, alligator!
Coolidge’s High-Riding Raccoon:
Calvin Coolidge (1923–1929)

Coolidge was President during the prosperous 1920s. The era was often referred to as the Roaring Twenties because many Americans enjoyed a wild and extravagant* way of life. With the introduction of radio and commercial aviation, American life was changing fast. In contrast, President Coolidge was a conservative man of quiet dignity and old-fashioned values. Nicknamed “Silent Cal,” he had a quiet style of governing the country. However, he was not quiet when it came to communicating with animals.

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13  One Thanksgiving the Coolidge family received a raccoon intended for their dinner table. President Coolidge took one look into her shiny brown eyes, and named her Rebecca. Rebecca and the President became fast friends. He built her a pen outside the Oval Office. Most evenings he could be found walking his bushy-tailed pet on a leash. When the White House was being repaired, the President’s family had to move out. Poor Rebecca was left behind. Coolidge worried about his people-loving pet, and took action. He ordered the presidential limousine to pick Rebecca up at the White House and return her to the Coolidge family. After all, she was the First Raccoon.

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51  Coolidge first became attached to the raccoon when he
A  walked her around on a leash.
B  sent a limousine to pick her up.
C  looked into her shiny brown eyes.
D  built her pen outside the Oval Office.

52  The expression, “the Roaring Twenties,” mentioned in paragraph 13, refers to what?
A  a loud and irritating way of acting
B  a group of young adults causing trouble
C  a troubled time when many people were poor
D  a time in which many people lived recklessly

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Go On
What do the bold-faced subtitles tell the reader about the selection?

A  There is a break in tone.
B  There will be a setting change.
C  There will be a shift in the theme.
D  There is a new animal story.

“In contrast, President Coolidge was a conservative man of quiet dignity and old-fashioned values.”

What does the above statement tell readers about Coolidge?

A  He was not popular with many people in the country.
B  He chose to keep his private life separate from his public life.
C  His lifestyle was calmer than that of many people living at that time.
D  His decisions were focused on trying to stop people from wild living.

How were Jefferson and Coolidge alike?

A  Both grew attached to their odd pets.
B  Both felt obligated to keep their pets.
C  Their pets entertained them during troubled times.
D  They were criticized for having pets in the White House.