

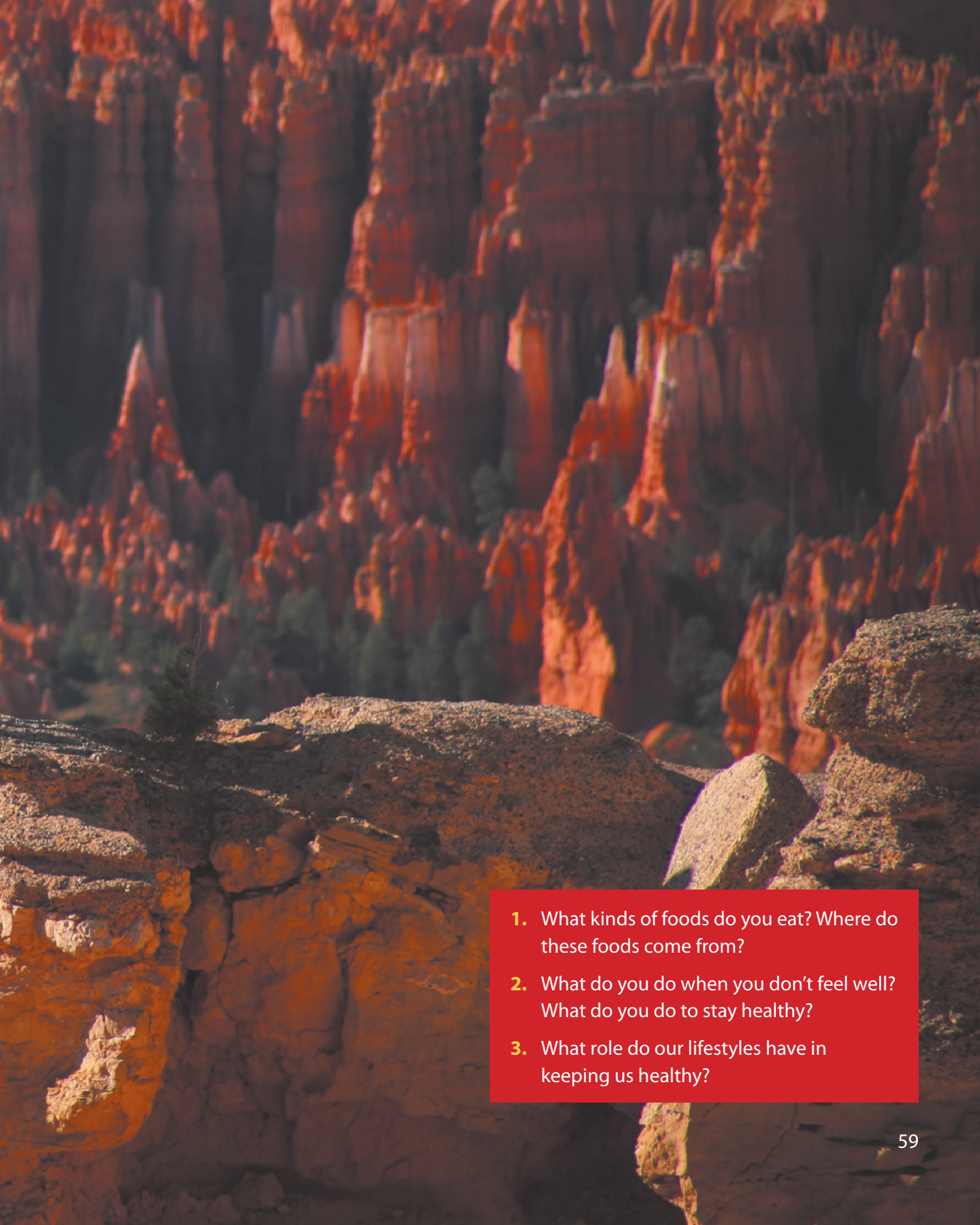
## UNIT 2

# Health and Wellness



A family hiking to stay fit and healthy





1. What kinds of foods do you eat? Where do these foods come from?
2. What do you do when you don't feel well? What do you do to stay healthy?
3. What role do our lifestyles have in keeping us healthy?





## Prereading

1. What do you know about sugar? For example, where does it come from? How is it processed? Is it expensive or inexpensive?
2. When you think of types of food that contain sugar, do you think of these items as healthy or unhealthy? Why?
3. The word *sweet* usually describes something that has a lot of sugar in it. What are some other meanings of *sweet*? What do you think the title of the story means?

## Reading



Read the passage carefully. Then complete the exercises that follow.

CD 1  
TR 5

### Sugar: A Not-So-Sweet Story

by Rich Cohen, *National Geographic*

In the beginning, on the island of New Guinea, where sugarcane was domesticated some 10,000 years ago, people picked cane and ate it raw, chewing a stem until the taste hit their tongue like a starburst. A kind of elixir, a cure for every ailment, an answer for every mood, sugar featured prominently in ancient New Guinean myths.

5 Sugar spread slowly from island to island, finally reaching the Asian mainland around 1000 B.C. By A.D. 500, it was being used in India as a medicine. By 600, it had spread to Persia (now Iran), where rulers entertained guests with a plethora of sweets. When Arab armies conquered the region, they carried away the knowledge and love of sugar.

10 Perhaps the first Europeans to come across sugar were British and French crusaders who went east to fight for the Holy Land.<sup>1</sup> They came home full of visions and stories and memories of sugar. The sugar that reached the West was consumed by the nobility, so rare it was classified as a spice.

15 Columbus planted the New World's first sugarcane in Hispaniola.<sup>2</sup> As more cane was planted, the price of the product fell. As the price fell, demand increased.

In the mid-17th century, sugar began to change from a luxury spice, like nutmeg and cardamom, to a staple, first for the middle class, then for the poor. Sugar was the oil of its day. In 1700, the average Englishman consumed 4 pounds a year. In 1800, the common man ate 18 pounds of sugar. In 1870, that same sweet-toothed person was  
20 eating 47 pounds annually. By 1900, he was up to 100 pounds a year. In that span of 30 years, world production of cane and beet sugar exploded from 2.8 million tons a year to 13 million plus. Today, the average American consumes 77 pounds of added sugar annually, or more than 22 teaspoons of added sugar a day.

25 "It seems like every time I study an illness and trace a path to the first cause, I find my way back to sugar." Richard Johnson is a nephrologist at the University of Colorado in Denver, Colorado. "Why is it that one-third of adults [worldwide] have high blood pressure, when in 1900, only 5 percent had high blood pressure?" he asked. "Why did 153 million people have diabetes in 1980, and now we're up to

<sup>1</sup> This sentence refers to a period during the 11<sup>th</sup>, 12<sup>th</sup>, and 13<sup>th</sup> centuries when European Christians tried to regain control of the Holy Land from Muslim people. The Holy Land is a region in present-day Israel and Palestine that is considered sacred by Christians, Jews, and Muslims.

<sup>2</sup> **Hispaniola** is the name for the Caribbean island that includes Haiti and the Dominican Republic.



30 347 million? Why are more and more Americans obese? Sugar, we believe, is one of the culprits, if not the major culprit.”

Recently, the American Heart Association added its voice to warn against too much added sugar in the diet. But its rationale is that sugar provides calories with no nutritional benefit. According to Johnson and his colleagues, this misses the point. Excessive sugar isn't just empty calories; it's toxic. “It has nothing to do with its calories,” says endocrinologist Robert Lustig of the University of California, San Francisco. “Sugar is a poison by itself when consumed at high doses.”

Johnson summed up the conventional wisdom this way: Americans are fat because they eat too much and exercise too little. But they eat too much and exercise too little because they're addicted to sugar, which not only makes them fatter but, after the initial sugar rush, also saps their energy, leaving them on the couch. “The reason you're watching TV is not because TV is so good,” he said, “but because you have no energy to exercise, because you're eating too much sugar.”

The solution? Stop eating so much sugar. When people cut back, many of the ill effects disappear. The trouble is, in today's world it's extremely difficult to avoid sugar, which is one reason for the spike in consumption. Manufacturers use sugar to replace taste in foods reduced in fat so that they seem more healthful, such as fat-free baked goods, which often contain large quantities of added sugar.

It's a worst-case scenario: You sicken unto death not by eating foods you love, but by eating foods you hate—because you don't want to sicken unto death.



## Fact Finding

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Read the passage again. Then read the following statements. Check (✓) whether each statement is True or False. If a statement is false, rewrite it so that it is true. Then go back to the passage and find the line that supports your answer.

1. \_\_\_\_ True \_\_\_\_ False Sugarcane is a native plant of Europe.

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2. \_\_\_\_ True \_\_\_\_ False As people moved across the islands, they brought sugarcane plants with them.

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3. \_\_\_\_ True \_\_\_\_ False At a time in the past, Arab armies conquered the Asian mainland.

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4. \_\_\_\_ True \_\_\_\_ False Europeans first discovered sugar when the British and French went to the island of New Guinea.

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5. \_\_\_\_ True \_\_\_\_ False As the supply of sugarcane increased, the price of sugar increased, too.

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6. \_\_\_\_ True \_\_\_\_ False Eating a lot of sugar has no connection to some of today's health problems.

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7. \_\_\_\_ True \_\_\_\_ False When people reduce their sugar consumption, the negative effects of sugar disappear.

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8. \_\_\_\_ True \_\_\_\_ False Many fat-free foods contain large amounts of added sugar.

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# Reading Analysis

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Read each question carefully. Circle the letter or the number of the correct answer, or write your answer in the space provided.

1. Read lines 1–4.
  - a. “. . . Sugarcane was **domesticated**” means that people
    1. ate it and used it to sweeten their food.
    2. cultivated it in order to eat it.
    3. discovered it and started to sell it.
  - b. **Some 10,000 years ago** means
    1. exactly 10,000 years ago.
    2. more than 10,000 years ago.
    3. about 10,000 years ago.
  - c. A **cure** is
    1. a treatment.
    2. a food.
    3. an analysis.
  - d. An **ailment** is
    1. a complaint.
    2. an illness.
    3. a mood.
  - e. In these sentences, a synonym for **cure** is
    1. elixir.
    2. ailment.
    3. mood.
  - f. **Prominently** means
    1. noticeably or greatly.
    2. happily or excitedly.
    3. medically or healthily.
  - g. **Myths** are
    1. facts about how plants were domesticated.
    2. true stories that people remember.
    3. untrue stories that people like to believe.
2. Read lines 5–9.
  - a. **Mainland** refers to
    1. the part of a country that does not include any islands.
    2. the most important area of a country.
    3. the part of a country where people grow plants.

- b. Once sugar reached the Asian mainland, its use changed from that of medicine to sweets in about
1. 500 years.
  2. 1,000 years.
  3. 1,600 years.
- c. **Plethora** means
1. very expensive kinds.
  2. a very large amount.
  3. a very small amount.
- 3.** Read lines 10–13.
- a. The British and French crusaders who went to the Holy Land
1. fought to try to bring sugar back to Europe.
  2. tried to plant and grow sugar in the Holy Land.
  3. came across sugar for the first time and brought it to Europe.
- b. **Consumed** means
1. grown.
  2. eaten.
  3. bought.
- c. The **nobility** refers to
1. poor people.
  2. all people.
  3. rich people.
- d. **The sugar that reached the West was consumed only by the nobility, so rare it was classified as a spice.** This sentence means that in the West,
1. sugar was so rare that only the wealthy could afford it.
  2. sugar was so rare that very few people could find it.
  3. sugar was considered a spice and only used in small amounts.
- 4.** Read lines 14–17.
- a. Which of the following sequences is correct?
1. more cane is planted → prices rise → demand increases
  2. more cane is planted → prices decrease → demand decreases
  3. more cane is planted → prices decrease → demand increases
- b. A food **staple** is
1. a nutritious food.
  2. a common food.
  3. a delicious food.
- c. Examples of food **staples** are
1. bread or rice.
  2. cookies or cake.
  3. ice cream or butter.



5. Read lines 17–23.
- What is the main idea of this paragraph?
    - Over the past 300 years, the production of sugar has risen dramatically.
    - Over the past 300 years, the consumption of sugar has risen dramatically.
    - Over the past 300 years, the price of sugar has risen dramatically.
  - A **span** of time is
    - a very long time.
    - a very short time.
    - a period of time.
6. Read lines 24–30.
- Who said, “It seems like every time I study an illness and trace a path to the first cause, I find my way back to sugar”?  

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  - What is the answer to the three questions asked in lines 26–29?  

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  - Trace** means
    - study.
    - follow.
    - understand.
  - A **culprit** is
    - a wrongdoer.
    - a type of disease.
    - a high-calorie food.
7. Read lines 32–36.
- A **rationale** is
    - a warning about something.
    - a reason for something.
    - a description of something.
  - A food that is only **empty calories**
    - has no nutritional benefit.
    - has few or no calories.
    - is good for your health.
  - Which word is a synonym for **toxic**?  

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  - At high doses** means
    - with other foods.
    - with empty calories.
    - in excessive amounts.

- e. The American Heart Association and Robert Lustig
  - 1. agree on the reason for avoiding excessive sugar in the diet.
  - 2. disagree on the reason for avoiding excessive sugar in the diet.
  
- 8. Read lines 37–40.
  - a. **Conventional wisdom** refers to
    - 1. a generally accepted belief.
    - 2. a cultural tradition.
    - 3. a medical conclusion.
  - b. Which of the following sequences is correct?
    - 1. become addicted to sugar → eat too much, exercise too little → become fat
    - 2. eat too much, exercise too little → become fat → become addicted to sugar
  - c. Something that **saps** your energy
    - 1. increases your energy.
    - 2. lessens your energy.
    - 3. gives you energy.
  
- 9. Read lines 43–45.
  - a. **Cut back** means
    - 1. reduce.
    - 2. stop.
    - 3. solve.
  - b. A **spike** is
    - 1. a serious addiction.
    - 2. a large, sudden increase.
    - 3. an addition to a food.
  
- 10. Read lines 48–49.
  - a. A **worst-case scenario** is
    - 1. the most terrible way to become sick.
    - 2. the most serious disease one can ever have.
    - 3. the most serious possible result of a situation.
  - b. This sentence means that the worst thing that can happen to you is
    - 1. to become sick and die from eating foods you enjoy eating, such as food with sugar.
    - 2. to become sick and die from eating foods you don't enjoy eating, in the hope that you won't become sick.
  
- 11. What is the main idea of the passage?
  - a. Since its spread worldwide, the production of sugar has increased and its cost has decreased so everyone can buy it.
  - b. Since its spread worldwide, the production and consumption of sugar has increased so much that it has become a threat to people's health.
  - c. Since its spread worldwide, sugar has been added to every type of fat-free food.



# Vocabulary Skills

## PART 1

### Recognizing Word Forms

In English, the verb and noun forms of some words are the same, for example, *answer* (n.) and *answer* (v.).

**Complete each sentence with the correct form of the word on the left. Then circle (v.) if you are using a verb or (n.) if you are using a noun. Use the correct form of the verb in either the affirmative or the negative. All the nouns are singular.**

**cure**      1. Ten thousand years ago, people believed that sugar was a \_\_\_\_\_  
(n., v.)  
for many ailments. However, modern medicine has shown that sugar  
\_\_\_\_\_ illnesses.  
(n., v.)

**demand**      2. As the cost of sugar decreased, the \_\_\_\_\_ for it increased.  
(n., v.)  
More and more people \_\_\_\_\_ sugar, and it became popular  
(n., v.)  
with the rich and the poor.

**spike**      3. The consumption of sugar by the English \_\_\_\_\_ from  
(n., v.)  
1870 to 1900. One reason for the \_\_\_\_\_ in sugar  
(n., v.)  
consumption is that it became less and less expensive.

**spread**      4. The popularity of sugar \_\_\_\_\_ from island to island  
(n., v.)  
before it reached the mainland of Asia. The \_\_\_\_\_ of sugar  
(n., v.)  
was very slow at first.

taste

5. Although many people enjoy the \_\_\_\_\_ of sugar, it  
 (n., v.)  
 contains empty calories. In other words, although sugar  
 \_\_\_\_\_ good, it is not nutritious.  
 (n., v.)

## PART 2

### Phrasal Verbs

A phrasal verb is a verb plus a preposition or an adverb. Phrasal verbs have a different meaning from the original verb. *Carry away, come across, cut back on, sum up, and warn against* are common phrasal verbs.

First, match each phrasal verb with the correct meaning. Then complete each sentence with the correct phrasal verb. Use the past tense if necessary, and use each phrasal verb only once.

- |          |              |    |                         |
|----------|--------------|----|-------------------------|
| _____ 1. | carry away   | a. | accidentally encounter  |
| _____ 2. | come across  | b. | caution or advise       |
| _____ 3. | cut back on  | c. | conclude or explain     |
| _____ 4. | sum up       | d. | reduce or lower         |
| _____ 5. | warn against | e. | take with or bring with |

1. The French and British crusaders were the first Europeans to \_\_\_\_\_ sugar in the Holy Land. They had never seen it before.
2. The armies had to return home without sugar, but they \_\_\_\_\_ the knowledge and love of sugar.
3. The American Heart Association and Dr. Johnson both \_\_\_\_\_ the danger of eating too much sugar.
4. When people \_\_\_\_\_ eating sugar, many of their illnesses disappear.
5. Dr. Johnson \_\_\_\_\_ the problem this way: Americans are fat because they eat too much and exercise too little.



# Vocabulary in Context

Read the following sentences. Complete each sentence with the correct word or phrase from the box. Use each word or phrase only once.

consumes (v.)

cut back on (v.)

rationale (n.)

staple (n.)

culprit (n.)

plethora (n.)

span (n.)

trace (v.)

cure (n.)

prominently (adv.)

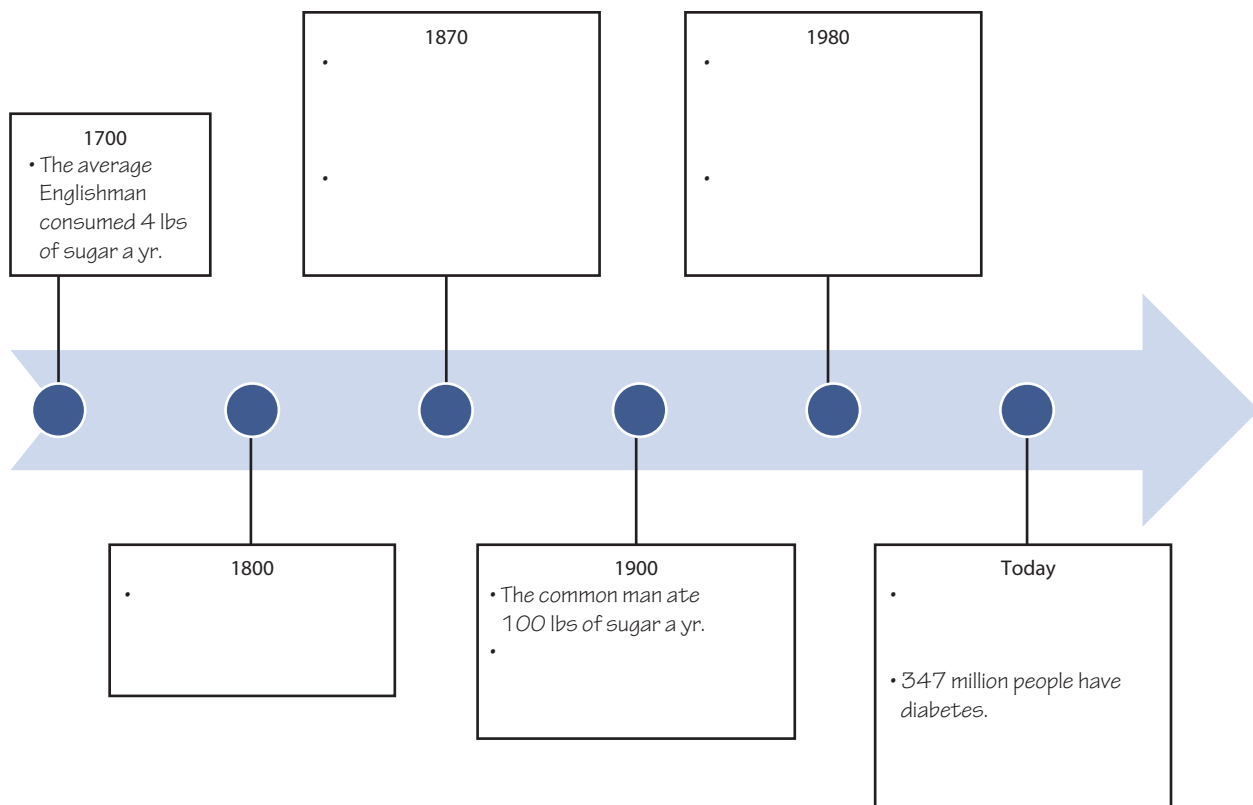
1. Breakfast cereal is a \_\_\_\_\_ in our home. Our family eats it every morning.
2. Liz had to \_\_\_\_\_ her hours at her job because she didn't have enough time to do her homework.
3. My uncle grows a \_\_\_\_\_ of vegetables in his garden every year. He enjoys the variety of tastes and colors.
4. Olivia \_\_\_\_\_ too much junk food. It's not healthy for her to eat so many empty calories every day.
5. In the \_\_\_\_\_ of just five years, Taylor established a very successful business.
6. When our dog ran away last winter, we quickly found him because it was easy to \_\_\_\_\_ his footprints in the snow.
7. The Fleming family is very patriotic. They \_\_\_\_\_ display the country's flag in front of their home every day.
8. Carlos wanted to go to Europe after he graduated from high school. His \_\_\_\_\_ was that he wanted to travel for a few years before he started college.
9. Drinking plenty of liquids and getting a lot of rest is the only \_\_\_\_\_ for the common cold.
10. Our kitchen window was broken yesterday. We found that the \_\_\_\_\_ was a boy who was playing baseball in the street. He apologized and repaired the window.

# Reading Skill

## Understanding a Timeline

Timelines show the order of events, such as important dates in history or in a person's life. Using a timeline can help you understand and remember information from a reading passage.

Look at the dates on the timeline. Go back to the reading passage on pages 61–62. Write information about sugar on the timeline in the appropriate place.





# Information Recall

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Read the information in the timeline on page 71. Then answer the questions.

1. Which years had the biggest increase in sugar consumption?

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2. What was the reason for this?

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3. What is a result of the large consumption of sugar?

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## Writing a Summary

A summary is a short paragraph that provides the most important information in a reading. It usually does not include details, just the main ideas. When you write a summary, it is important to use your own words and not copy directly from the reading.

**Write a brief summary of the passage. It should not be more than five sentences. Use your own words. Be sure to indent the first line.**

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## Topics for Discussion and Writing

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1. Do people in your culture consume a lot of sugar in their diet? If so, what do you suggest they do to reduce the amount of sugar that they eat? If not, what recommendation can you make to people who need to cut back on sugar consumption?
2. “Manufacturers use sugar to replace taste in foods reduced in fat so that they seem more healthful, such as fat-free baked goods, which often contain large quantities of added sugar.” (p. 62, lines 45–47) In other words, manufacturers decrease the fat in some food but increase the sugar. Do you think this makes the food healthier to eat? Why or why not?
3. Write in your journal. Do you think you get enough exercise? Why or why not? What can you do to include more exercise in your daily routine?

## Critical Thinking

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1. In the beginning, sugar was a luxury used by the nobility. What are some reasons why sugar was first used only by wealthy people? How did it become available to the poor, too? Talk about this with your classmates.
2. According to the article, Dr. Richard Johnson believes that excessive sugar isn’t just empty calories; it’s toxic. (p. 62, line 33) What does he mean by this? What do you think is his opinion about people who eat too much sugar? Discuss this with your classmates.
3. Go online. Research another plant such as coffee, tea, corn, tomatoes, or potatoes. Find out where that plant originated, what its history is, and how its cultivation spread to areas outside its point of origin. Prepare a speech or PowerPoint presentation to give in class.





# Crossword Puzzle

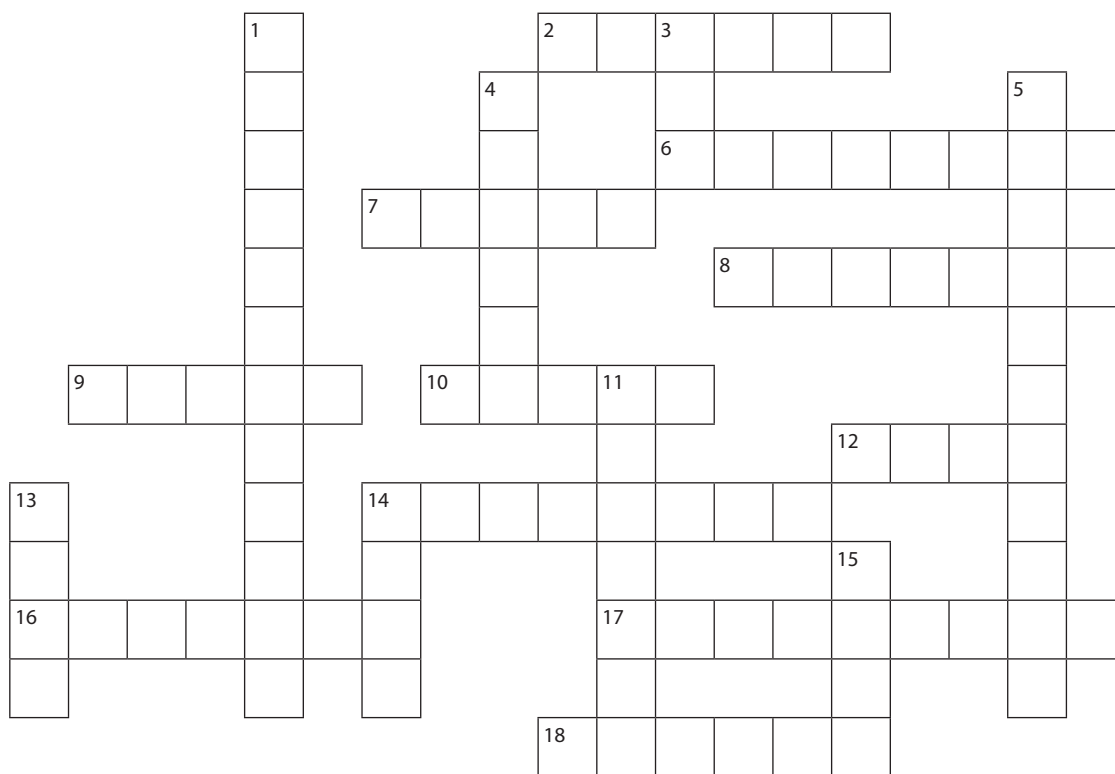
Review the words in the box below. Then read the clues on the next page. Write the words in the correct spaces in the puzzle.

ailment  
consume  
culprit  
cure  
domesticated

dose  
elixir  
mainland  
myth  
plethora

prominently  
rationale  
sap  
span  
spike

staple  
toxic  
trace  
wisdom



# Crossword Puzzle Clues

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## ACROSS CLUES

2. An example of conventional \_\_\_\_\_ is “Feed a cold and starve a fever.” I don’t believe it, though.
6. That drugstore has a(n) \_\_\_\_\_ of medicines for every illness you can imagine.
7. When sugar became more available and less expensive, there was a huge \_\_\_\_\_ in the consumption of this item.
8. Many people \_\_\_\_\_ too much sugar every day. They should eat less sugar.
9. Excessive consumption of sugar can be \_\_\_\_\_. It is like a poison in large amounts.
10. Researchers can \_\_\_\_\_ the spread of many crops from their point of origin throughout the world.
12. If you have a bad cold, the best \_\_\_\_\_ is rest, not medicine.
14. Hawaii is part of the United States, but it is not part of the \_\_\_\_\_. It is a series of islands.
16. A cold is not a serious \_\_\_\_\_.
17. I don’t understand the \_\_\_\_\_ behind replacing fat with sugar in food. Sugar isn’t healthy in large amounts.
18. In some countries, bread is a(n) \_\_\_\_\_. In others, it’s rice. In others, it’s potatoes.

## DOWN CLUES

1. Over thousands of years, people \_\_\_\_\_ many types of plants including wheat, corn, and potatoes.
3. Working long hours and not getting enough sleep can \_\_\_\_\_ your energy and make you tired.
4. A(n) \_\_\_\_\_ is a type of remedy for an illness.
5. Stories about the origins of humans, plants, and animals appear \_\_\_\_\_ in the cultures of many people.
11. Sometimes the \_\_\_\_\_ in poor health isn’t fat—it’s an excess of sugar.
13. In a(n) \_\_\_\_\_ of just 100 years—from 1700 to 1800—the consumption of sugar increased by 350 percent in England.
14. The people of ancient New Guinea had a(n) \_\_\_\_\_ about the origin of sugar.
15. When you take medicine, be sure to take the proper \_\_\_\_\_. Do not take too much or too little. Follow the directions.