

What's In SPACE?

LESSON

1

Why Explore Space?

Citizens of the universe need to know what goes on in space.

asteroid goals retreat
demonstrate meteor suspend
establish resolve treacherous
galaxy

LESSON

2

The Life Cycle of a Star

Like people, stars experience birth, life, and death.

bond compress monitor
coincide comprise overall
combustion luminous reaction
compound

LESSON

3

Is There Life on Mars?

Scientists search for signs of life on this nearby planet.

administration investment privilege
celestial orbit resources
constrained percentage satellite
immense

▶ Watch a video introduction for each word

🔊 Listen to iWords

📖 Refer to the online dictionary

Word Meanings

For each highlighted word on pages 12–13, the meaning is given below. For practice with other meanings, see pages 17–19. For synonyms and antonyms, see page 32.

1. **comprise**
(kuhm-PRIZE) (v.) Several smaller parts *comprise* a larger or greater thing.
2. **bond**
(bond) (n.) A *bond* is a strong tie, unifying force, or binding element, such as the feelings that are the basis of friendships.
(v.) When people *bond*, they form a close relationship, often because they see each other or interact frequently.
3. **monitor**
(MO-nuh-tur) (v.) When you *monitor* a situation, you watch it over time and keep track of what is happening.
(n.) A *monitor* is a person who watches or keeps track of a situation, such as a *monitor* who observes students who are taking a test.
4. **overall**
(oh-vur-AWL) (adv.) Something that is true *overall* is true when all circumstances or possibilities are taken into account.
5. **compress**
v. (kuhm-PRESS)
n. (KOM-press) (v.) When things *compress*, they press or squeeze together and are reduced in size.
(n.) A *compress* is placed on an injured body part to aid in healing.
6. **coincide**
(koh-in-SIDE) (v.) When two or more events *coincide*, they happen at the same time.
7. **reaction**
(ree-AK-shuhn) (n.) A *reaction* is a change, such as a chemical *reaction*, that involves a chemical transformation.
(n.) A response to an event or situation is a *reaction*.
8. **combustion**
(kuhm-BUSS-chuhn) (n.) When *combustion* occurs, something bursts into flame and burns.
9. **luminous**
(LOO-muh-nuhss) (adj.) Something that is *luminous* is shining or glowing—giving off light or reflecting light.
10. **compound**
v. (kom-POUND)
n. (KOM-pound) (v.) When things *compound*, they combine or come together to form a whole.
(n.) A *compound* is something formed by combining or uniting multiple parts.



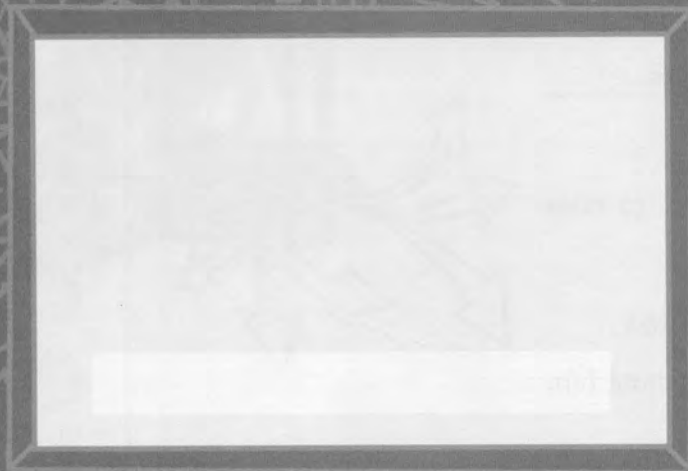
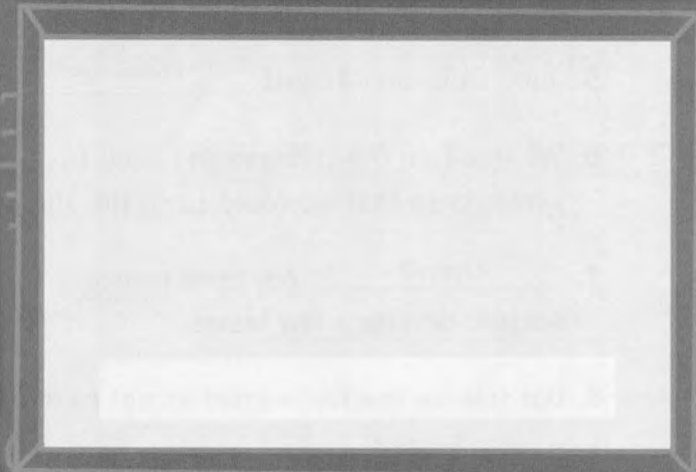
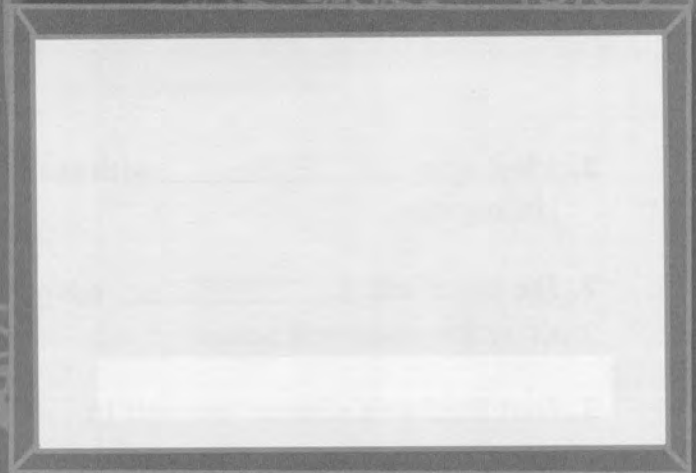
Word Talk

Each lesson word is listed here. With a partner, take turns drawing a picture to illustrate the meaning of six of the words. As one partner draws, the other partner identifies the vocabulary word.

bond (n.)
coincide
combustion
compound (v.)
compress (v.)
comprise
luminous
monitor (v.)
overall
reaction



luminous



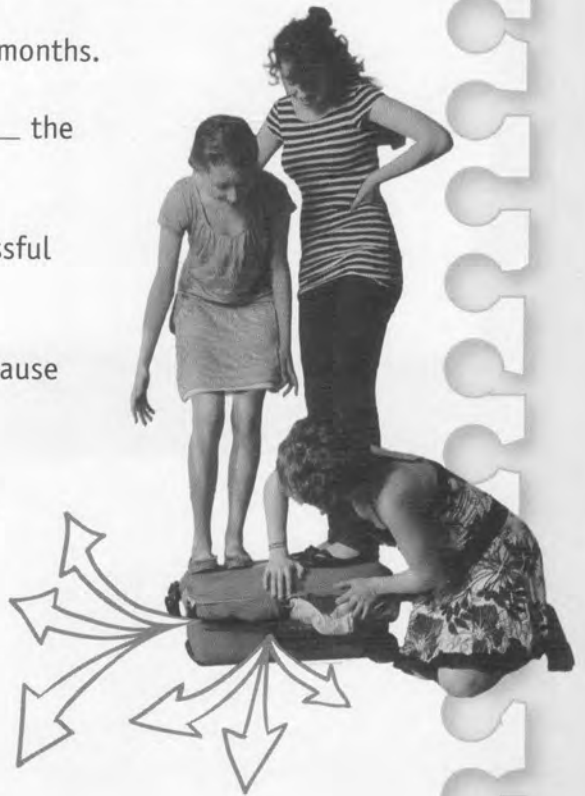
Check for Understanding

Choose the lesson word that completes each sentence. Write the word on the line provided. Some words will be used twice.

bond	compound	monitor
coincide	compress	overall
combustion	comprise	reaction
	luminous	

- I feel a/an bond with the kids I've gone to school with since kindergarten.
- The coach will monitor our gymnastics practice to make sure we are using the equipment safely.
- Aunt Stephanie planned her visit to coincide with our spring break.
- We combined vinegar and baking soda and observed the reaction.
- June, July, and August comprise the summer months.
- We stood on the suitcase and tried to compress the contents so that we could close the zipper.
- Overall, our team managed to have a successful season, despite a few losses.
- Our science teacher warned us not to mix liquids that cause combustion.
- The moon appeared as a bright and luminous circle in the night sky.
- Rain, wind, and bitter cold compound to make a miserable day.
- We didn't raise as much money as we hoped, but overall it was a very successful school fair.
- Monitor the time so you don't stay too long and miss your bus.

If students confuse *compound* and *comprise*, encourage them to discuss the difference between *come together*, a synonym for *compound*, and *make up*, a synonym for *comprise*.



Expand Word Meanings

Read the paragraph below to learn other meanings for some of the lesson words.

Walter was fascinated by stars, so I was not surprised to see him bond with the other members of the astronomy club. He often talked about how much he wanted a telescope. For now, he could only stare out the window and serve as a monitor of the night sky. Once he saw a star streak by, when he leapt up to get a better look, he hit his head on the window. His initial reaction was to cry out in pain, but then poor Walter had to hold a cold compress to his head. It was soaked in a compound of comfrey root and water. The next day, Walter's astronomy club friends agreed that it was worth the pain to see such a sight.

In this passage, some of the lesson words are used in a different way. Look at *bond*. Here it's a verb that means "form a close relationship." Look at the other highlighted words. Can you figure out what they mean in this context? Refer to page 14 to confirm that the meanings you come up with are correct.

Apply Other Meanings

Complete each sentence with a highlighted word from the paragraph above.

1. Mai couldn't wait to see her mother's reaction when she told her she'd won first place in the race.
2. The United Nations often chooses a person to act as an election monitor in countries where, in the past, the government has been dishonest about voting.
3. A compound of warm olive oil and Vitamin E is a good home remedy for a cat's ear mites.
4. A cool compress can help when you have a headache or are just feeling tired.
5. Clay tiles are made from a compound of clay, sand, topsoil, and water.
6. Your stunned reaction tells me that you are surprised to hear that you didn't get the lead in the school musical.
7. Many hours of working together gave the team members a chance to bond.
8. When a child fell off the swings, the playground monitor rushed over to make sure she was not hurt.
9. Should you use a hot or cold compress to keep a sprained ankle from swelling?
10. When you adopt a kitten, you need to spend time with your new pet so it will bond with you.



Watch a video introduction to this passage at vocabularyforsuccess.com.



Listen to this passage at vocabularyforsuccess.com.

Is There Life on Mars?

<informational article>

For centuries, human beings have asked themselves if there might be life on other planets. Before, we could only wonder. Now, with each satellite or probe sent into space, we've hoped to find the answer. That's because the possibility that life exists on one of Earth's celestial neighbors is too intriguing to ignore.

Among the planets that orbit, or circle around, the Sun, Mars is the most like Earth. As a result, in recent years astronomers have focused their research on that planet. In May 2008 the Mars Phoenix Lander touched down at the Martian North Pole. It immediately began to dig for ice

using a special mechanical arm controlled by NASA scientists back on Earth. This mission taught scientists that underneath the reddish, sandy surface of the planet, there was evidence of frozen water on Mars. This was an important find because water is one of the most essential resources for supporting life. If there were no water on Mars, we would know that there is no life there, either. This gave scientists hope.

Another clue regarding the possibility of life resulted from the careful study of a meteorite found in Antarctica. Scientists knew that it came from Mars. Their study of it revealed a small percentage of bacteria, single-celled organisms, that had once been alive. This exciting news was reported around the world.

Rovers similar to this one gather information from Mars' surface to help us understand if the planet can support life.



Explain to students that an informational article provides readers with facts and details about a particular topic and can appear in print or online.

VOCABULARY

satellite	immense
celestial	investment
orbit	constrained
resources	administration
percentage	privilege


Now scientists had proof that life had once existed on Mars! It has taken a long time and an immense investment of money by the U.S. government for NASA scientists to learn what we now know about the “red planet.” However, we still don’t have all of the answers. That’s why research continues. Like any government agency, NASA is sometimes constrained by funding cuts, but the careful administration of its budget should ensure that money will continue to support future missions to Mars.

NASA hopes that rock and soil samples obtained from the planet during these missions will bring more discoveries. Imagine what a privilege it would be for scientists if they found proof that life still exists on Mars!

TALK ABOUT IT

With a partner, answer the questions below. Use as many of the highlighted words in the selection as you can.

1. Why would it be a *privilege* to discover that life exists on another planet?
2. Why do you think NASA continues to make an *investment* in the study of life on Mars?



Scientists have found evidence that water once flowed on Mars.

Check for Understanding

Choose the lesson word that completes each sentence. Write the word on the line provided. Some words will be used twice.

administration	immense	privilege
celestial	investment	resources
constrained	orbit	satellite
	percentage	

- The scientists sent the satellite into space to take pictures of Earth.
- There are sixty small moons that orbit the planet Jupiter.
- Thousands of tiny celestial objects twinkled in the night sky.
- We had the privilege of previewing the new show at the planetarium before everyone else could see it.
- A large percentage of the graduates from our high school go to college.
- Carlos wasn't sure which investment would earn him the most money.
- Resources such as clean air are critical to human life and must be protected.
- We were awestruck by the immense expanse of sky visible from the top of the mountain.
- Their plans to go to a movie were constrained by a lack of funds.
- Quinn was in charge of the administration of the fundraiser because of her experience managing large events.
- Our band considered it a/an privilege to be invited to march in the parade.
- Immense effort can bring equally great rewards.

If students choose *immense* or *satellite* for Item 3, point out that *tiny*, *twinkled*, and *night sky* are clues that *celestial* is a better choice.



Expand Word Meanings

Read the paragraph below to learn other meanings for some of the lesson words.

The Glenn Research Center in Ohio is a **satellite** of NASA. There, scientists conduct research in technology and aeronautics to advance space exploration. The Franklin D. Roosevelt administration created the center under another name in 1941. It began as an aircraft engine research laboratory. In 1991 it was renamed to honor John H. Glenn, the first American to follow an **orbit** around the Earth. He returned from space a national hero. Other astronauts have since gone into space, but we **privilege** Glenn with this honor to acknowledge his unique contributions to American history.

! This passage deals with space exploration, but some lesson words, such as *satellite*, have different meanings here. *Satellite* is a facility that is part of a larger organization. Try to figure out the meaning of the other highlighted words. Refer to page 24 to confirm your ideas.

Apply Other Meanings

Complete each sentence with a highlighted word from the paragraph above.

1. The state university is planning to open a small satellite campus in our community.
2. The first space shuttle was launched in April 1981, during President Reagan's administration.
3. The orbit of the Earth around the Sun is nearly a circle.
4. Some people felt that if the entire debate club attended the competition, it would privilege those who hadn't come to meetings or contributed to the team's success.
5. During the current mayor's administration, our city has seen many positive changes.
6. From 1952 to 1990, Poland was a satellite nation of the Soviet Union.
7. The guidelines for the award privilege projects that support early childhood education.
8. We can tell that the Moon moves in its orbit around the Earth because it changes position in the sky throughout the night.
9. The city office was a satellite of the largest medical center in the state.
10. At the beginning of her administration, everyone had high expectations of the new director of education.

Word Associations

Use what you know about the lesson word in *italics* to answer each question. Circle the letter next to the phrase that best answers the question. Be prepared to explain your answers.



- What might make you feel most *constrained*?
 - too many rules
 - lots of freedom
 - a great deal of knowledge
- Which would you consider a *privilege*?
 - having to wash the dishes
 - babysitting a difficult child
 - meeting one of your heroes
- Where might you find a *satellite*?
 - in the air
 - in outer space
 - under the ocean
- Which is NOT a *celestial* object?
 - Earth's moon
 - a small planet
 - a tall tree
- If you spend a *percentage* of your time doing something, how much time are you doing it?
 - all of the time
 - some of the time
 - none of the time
- Which is considered the wisest *investment* in your future?
 - a start-up business
 - a lottery ticket
 - a college education
- Which of the following is part of an American president's *administration*?
 - the U.S. government
 - the voters
 - the vice president
- In which pattern does an object travel in order to have an *orbit*?
 - a diamond pattern
 - a circular pattern
 - a varying pattern
- Which *resources* would be most useful in solving a mystery?
 - wealth and power
 - reason and observation
 - skill and balance
- Which structure would you describe as *immense*?
 - a sports stadium
 - an expensive car
 - a friendly cafe



Check Again

Use what you know about the lesson word in italics to complete each sentence. Be sure your sentences make sense.

1. A weather *satellite* circles Earth and gathers _____ information about weather conditions and other environmental concerns.
2. I considered it a *privilege* to be able to _____ visit the Kennedy Space Center in Florida.
3. It took all of our *resources* to _____ solve the problem we encountered with our science project.
4. A great *percentage* of the members of that community _____ work for technology companies.
5. There is an *immense* difference between _____ the gold earrings I wanted for my birthday and the white socks I received instead.
6. When people make a financial *investment*, they expect _____ to earn more money than they've put in.
7. Objects that *orbit* in space _____ circle another object.
8. When the current *administration* runs for reelection next year, the governor will benefit from the fact that _____ people already know her name.
9. The law requires that dogs be *constrained* by _____ a leash whenever they are outside their homes.
10. *Celestial* objects appear in the night sky as _____ glowing or twinkling points of light.

Challenge Yourself

Follow the directions to write sentences with the lesson words in italics. Be sure your sentences make sense both grammatically and in meaning.

Write
Your Own

1. Write a sentence using the word *immense*.

A trip to the zoo was an immense treat for the children.

2. Write a sentence in which the final word is *resources*.

It is important to protect and conserve our natural resources.

3. Write an eight-word sentence using the word *orbit* in the sixth position.

There are eight planets that orbit the Sun.

Word-Solving Strategies: Context Clues

Embedded Definitions

Sometimes an author helps the reader out with a difficult word by providing a definition that is embedded in the text. Read this sentence from “Is There Life on Mars?”

Among the planets that orbit, or circle around, the Sun, Mars is the most like Earth.

The word **orbit** is followed by a phrase that defines the word directly in the text: *circle around*. Embedded definitions are sometimes, but not always, set off by commas.

Although the word *or* can signal a synonym or a definition, it doesn't always. Read this sentence:

For decades people have been fascinated, or even terrified, by the idea of life on Mars.

BE CAREFUL!

In this case, *or* introduces a contrast, not a synonym, for *fascinated*.

Practice

A. Write a highlighted word and its embedded definition in the first two boxes. Then write the meaning of the word in the third box.

The idea of life on Mars has fascinated people for a long time. In 1950, Ray Bradbury wrote a series of vignettes, or short stories, called “The Martian Chronicles.” The stories tell about humans who escape an Earth that has been devastated—completely ruined by atomic warfare. The humans attempt to colonize Mars. They deal with the hostile Martian climate and with unfriendly aboriginal Martians, who were the first beings to live there.

WORD	EMBEDDED DEFINITION	WORD MEANING
vignettes	short stories	brief literary texts
devastated	completely ruined	destroyed by a disaster
aboriginal	first to live there	native to a place

B. Write a sentence for each of the highlighted words from the paragraph above. You will use one word twice. Use embedded definitions.

- _____ He wrote vignettes, or brief scenes, about his experiences in the woods.
- _____ Franca was devastated—beyond humiliated—when she fell down in front of the group.
- _____ The C Lily received on her math test devastated her ego and seriously damaged her A average.
- _____ The aboriginal people, or the early residents of the land, lived in harmony with nature.

Practice for Tests

Fill in the bubble next to the answer that best completes the sentence or answers the question.

1. Read this sentence.

The seatbelts kept the students
constrained on the school bus.

Constrained means:

- A separated
- B under control
- C restricted
- D in pairs

2. Objects *orbit* a planet when they:

- A hit it
- B fall to Earth
- C leave the atmosphere
- D circle it

3. Which office is NOT a *satellite* of a company or organization?

- A local branch office
- B state information center
- C national headquarters
- D regional mail center

4. A word associated with *celestial* is:

- A heavenly
- B earthly
- C aliens
- D astronaut

5. If you make an *investment*, you expect:

- A to waste your time
- B to get fame and fortune
- C to receive some benefit
- D to lose your money

If students choose answer D for Item 5, remind them that although losing money is possible, people don't make investments if they think they will lose.

6. Read this sentence.

It was a *privilege* to be invited to speak at the assembly.

Privilege means:

- A serious task
- B difficult experience
- C unwanted assignment
- D special honor

7. The *administration* of a hospital might:

- A perform physical exams
- B hire hospital employees
- C drive an ambulance
- D serve patients food

8. The opposite of *immense* is:

- A miniature
- B enormous
- C average
- D tremendous

9. A word related in meaning to *percentage* is:

- A average
- B whole
- C fraction
- D dimension

10. *Resources* enable a person to:

- A trick others
- B predict the future
- C quote from memory
- D accomplish things

Synonyms and Antonyms

In the following Word Bank, you will find synonyms and antonyms for some of the words in Lessons 1–3. (Remember: Some words have both synonyms *and* antonyms.) Study these words; then complete the exercises below.

harmless earthly advance continue valid dangerous
expand glowing order overlap benefit enormous

A. For each sentence, fill in the blank with a **SYNONYM** for the word in boldface.

1. The mountain road is **treacherous** in the wintertime when drifting snow creates _____ dangerous driving conditions.
2. A **luminous** moon lit our way as we walked home this evening, but last night, heavy clouds masked the moon's _____ glowing surface.
3. As members of Mr. Lee's class, we have the _____ benefit of learning music from a gifted singer. It is a **privilege** that we all enjoy.
4. My spring vacation will **coincide** with my cousin's time off from school. Because the dates _____ overlap, we'll be able to make a beach trip together.
5. Many _____ enormous barges travel along the waterway, carrying goods such as coal and cement in their **immense** hulls.

B. For each sentence, fill in the blank with an **ANTONYM** of the word in boldface.

6. Coach will **suspend** basketball practice for the week. Practice will _____ continue next week after the floors in the gym have been refinished.
7. An air mattress will **compress** when you lie on it, but it will _____ expand again when you get up.
8. Many wild animals that look _____ harmless in a zoo cage can be **treacherous** in their natural habitat.
9. Looking up at **celestial** bodies from our _____ earthly point of view can make a person feel very small.
10. As our soldiers began to _____ advance into enemy territory, the enemy troops hurried to **retreat**.

Word Study: Denotation and Connotation

Every word has a **denotation**, the literal meaning that you find in a dictionary. Many words also have a **connotation**, the feelings and images associated with the word. Connotations are usually described as being positive or negative. A neutral word has no connotations.

POSITIVE	NEGATIVE	NEUTRAL
friend	rival	classmate
peaceful	boring	quiet
spontaneous	chaotic	unplanned

Look at the word *luminous* in Lesson 2 and some of its synonyms:

bright **illuminated** **blinding**
glowing **lit**

Most of these words are neutral. They have neither positive nor negative connotations. The word *blinding*, however, has a negative connotation. It suggests that a light is so bright that it can cause some actual harm or discomfort.

Practice

A. Underline the word in parentheses that has the connotation (positive, negative, or neutral) given at the beginning of the sentence.

- negative** 1. They realized that they had made a/an (immense, monstrous) mistake.
- positive** 2. The light made her complexion look (luminous, shiny).
- neutral** 3. The lifeguard's job was to (monitor, spy on) activity in or near the water.
- neutral** 4. Instead of getting into an argument, Constantine chose to (flee, retreat).
- negative** 5. Driving in the dark on icy roads can be (treacherous, risky).
- positive** 6. He was granted the (favor, privilege) of marching with the honor guard.
- negative** 7. She was very (flexible, fickle) in her tastes and opinions.

B. Work with a partner. Write a plus sign (+) if the word has positive connotations; write a minus sign (-) if the word has a negative connotation. Put a zero (0) if the word is neutral.

1. resolve + 3. annoy - 5. enrich + 7. establish 0
2. deceit - 4. comprise 0 6. suspend - 8. goals +

Vocabulary for Comprehension

Read the following passage, in which some of the words you have studied in Lessons 1–3 appear in boldface type. Then answer questions 1–6.



Space on Earth

Max Adler was an early stockholder in the store Sears and Roebuck. In 1928, he heard about a device that displayed images of **celestial** objects on the inner surface of a dome. He visited the Carl Zeiss Company in Germany to see them **demonstrate** this device. The illusion of the night sky impressed him and made him **resolve** to donate part of his fortune to **establish** a planetarium in Chicago. He believed that the popular ideas about the universe were inaccurate. He wanted to give the people of his city the **privilege** of seeing how **immense** and ordered the universe was. He wanted them to see that just as people are related, everything in the sky is, too.

Adler's **investment** created the first modern planetarium in the Western Hemisphere—a room where people could view a model of the solar system. It opened in 1930 and was a success from the beginning. People came in great numbers to gaze at the movement of the **luminous** orbs that make up the **galaxy**.

For eighty years, the Adler Planetarium has been a Chicago landmark. Today, the Sky Pavilion, the Doane Observatory, and the Sundial Plaza have joined the original twelve-sided domed building to **comprise** the institution that we know today.

If students struggle with any of the vocabulary in this passage, encourage them to look for meaning clues in the context.

1. You **demonstrate** (line 6) something by

- A figuring out how it works
- B explaining how it works
- C asking questions about it
- D showing how it works

2. When you **resolve** (line 8) to do something, you are

- A halfhearted
- B determined
- C uninterested
- D curious

3. A **privilege** (line 12) is something

- A everyone has
- B no one wants
- C some people have
- D that is not enjoyable

4. Another word for **immense** (line 13) is

- A patterned
- B regular
- C great
- D brilliant

5. Something that is **luminous** (line 22) is

- A glowing
- B flashing
- C distant
- D uneven

6. In line 27, **comprise** means

- A support
- B make up
- C exceed
- D surround

Struggle and Glory

LESSON

4 Tania León Follows Her Music

A musician leaves Cuba in search of more opportunity.

displaced	illusion	prominent
enhance	moral	ration
founder	occupied	restrained
harmony		

LESSON

5 A Slave Remembers

A slave shares the story of his journey to America.

agency	indication	radical
bondage	isolation	trace
condemn	periodical	verdict
contradiction		

LESSON

6 Following Lewis and Clark

The explorers' travels also make a fun modern-day trip.

discrimination	mishap	recover
episode	overtake	route
expedition	perspective	visible
log		



Watch a video introduction to this passage at vocabularyforsuccess.com.



Listen to this passage at vocabularyforsuccess.com.

Tania León Follows Her Music

<biography>

Explain to students that a biography tells about important details and events in a person's life.

Imagine that you loved music but lived in a country where there weren't enough opportunities to study it—not enough schools, instruments, or teachers. What would you do? As a young concert pianist, Tania León believed she would never have all the opportunities she hungered for if she remained in Cuba. That's why, in 1967, at the age of 24, León applied for and received a ticket for a Freedom Flight to the United States. These were flights out of Cuba taken by hundreds of thousands of people who were unhappy with life after the 1959 revolution. Fidel Castro, Cuba's leader at the time, gave citizens who were opposed to the government permission to leave.

With a mix of emotions, León said goodbye to her family and friends and left the house she had occupied—and everything else—behind. However, unlike many people, León didn't leave for political or moral reasons. She left for artistic opportunity. León's life was devoted to music; she wanted to reach her full potential and take chances. She later said that coming to the United States was “an act of dreams and courage.”

When she first arrived, with no home or friends, León could have felt like a displaced person. But she didn't. Instead, she quickly got to work. She tried to make as many connections in the music world as she could. At the same time, she was careful to ration her time so that she could learn English without losing her focus on music. In her own restrained yet capable way, León became a part of the music scene in New York City. In fact, within two years, she became a founder of the Dance Theater of Harlem, now one of the country's most prominent dance groups.

Ever since her arrival, León has proven that her dedication to music is not an illusion. Today, León is an award-winning composer and conductor whose Cuban musical roots enhance her music. Her compositions reveal a unique harmony between the Cuban rhythms she grew up with and the jazz, gospel, and classical forms she came to love so well.

Back in Cuba, León made a lifelong commitment to music. That love of music has remained with her wherever she has gone.

VOCABULARY

occupied

moral

displaced

ration

restrained

founder

prominent

illusion

enhance

harmony

Write the words down.



TALK ABOUT IT

With a partner, answer the questions below. Use as many of the highlighted words in the selection as you can.

1. Why might someone feel like a *displaced* person after arriving in a new country?
2. How do you *ration* your time so you can participate in two or more activities that are important to you?

Tania León conducting the Brooklyn Philharmonic Orchestra



LESSON
6

vocabularyforsuccess.com

▶ Watch a video introduction for each word

🔊 Listen to iWords

📖 Refer to the online dictionary

Word Meanings

For each highlighted word on pages 56–57, the meaning is given below. For practice with other meanings, see pages 61–63. For synonyms and antonyms, see page 66.

1. **expedition**
(ek-spuh-DI-shuhn)

(n.) An *expedition* is a journey taken for a specific reason or purpose, such as an *expedition* to explore the Moon.

2. **log**
(log)

(v.) When you *log* something, you record it. You might *log* information about a science experiment in a notebook, or events from a trip in a journal.

(n.) A *log* is a large piece of a cut or fallen tree.

3. **perspective**
(pur-SPEK-tiv)

(n.) Your *perspective* is your mental point of view, or the way you interpret what you see and experience.

(n.) *Perspective* is the appearance of things from a certain point or distance. From the *perspective* of someone on a plane, people below look as small as ants.

4. **route**
(root)

(n.) A *route* is the path or course taken for travel.

5. **mishap**
(MISS-hap)

(n.) If you have a *mishap*, you have an unfortunate minor accident. When someone drops his glasses and another steps on them, that is a *mishap*.

6. **discrimination**
(dis-kri-mi-NAY-shuhn)

(n.) *Discrimination* is the practice of treating a person or a group unfairly, usually because of differences in race, age, religion, or gender.

(n.) When you have *discrimination*, you can see fine differences in things and pick out what is good or best. You might choose clothes with *discrimination*.

7. **episode**
(E-puh-sode)

(n.) An *episode* is a noteworthy or meaningful event within a larger event. The first day of school is an important *episode* in a child's life.

(n.) A brief part of a dramatic or literary work is called an *episode*. An *episode* can also be one show from a television series.

8. **visible**
(VI-zuh-buhl)

(adj.) Something that is *visible* can be seen. On clear nights, the moon is *visible* in the sky.

9. **overtake**
(oh-vur-TAKE)

(v.) Something will *overtake* you if it comes upon you suddenly, or catches up and passes you.

10. **recover**

(v.) When you *recover*, you return to normal.



Word Talk

Each lesson word has been placed in a category. With a partner, discuss and list items that belong in each category. Compare your results with those of another pair of students.

Things That Might Help People Recover from an Accident
surgery

Mishaps That Can Happen at School
tripping and falling while rushing to class

Reasons to Go on an Expedition
to explore land that is not lived on

People's Perspectives on Volunteering
Everyone should help out those less fortunate.

Information You Might Log
the week's schedule

Routes You Regularly Take
the walk to school

Things Visible in the Sky at Night
lights from planes

Important Episodes in People's Lives
high school graduation

Events at Which Emotion Might Overtake a Person
a wedding

Reasons That Discrimination Is Wrong
all people are equal

Check for Understanding

Choose the lesson word that completes each sentence. Write the word on the line provided. Some words will be used twice.

discrimination	log	recover
episode	mishap	route
expedition	overtake	visible
	perspective	

- We had many exciting times on our trip, but the episode I remember best was river rafting in Colorado.
- Even though I walked into a garbage can, the mishap left me unharmed.
- Our coach expects the players on our team to be respectful of one another, because discrimination in any form is not allowed.
- As we drove toward the city, tall buildings became visible in the distance.
- I asked everyone who performed research to log information onto one chart.
- When Roald Amundsen reached the South Pole in 1911, the expedition was called a success.
- We told the surfer not to go into the sea because the huge waves might overtake him.
- This trail is longer, but the route takes us past the best scenery.
- My little brother is afraid to go to summer camp alone, and I'm trying to understand the situation from his perspective.
- We looked at a map to check which route to take home.
- After a long day of hiking, my tired muscles needed time to recover.
- The ocean is visible through the trees, and I can see the big waves.



Some students may choose *expedition* or *mishap* as an answer for Item 1. Invite volunteers to tell about an exciting or interesting episode from a recent trip. Repeat a similar procedure if other answers vary.

Expand Word Meanings

Read the paragraph below to learn other meanings for some of the lesson words.

The coast off Washington and Oregon was a great spot for our family vacation. One day we hiked in a park near the Pacific Ocean. I stood on a log and gazed at the water from a perspective that Lewis and Clark may have enjoyed in 1805. The scene made me think of an episode I read about in a biography of the explorers. The two men were very excited when they thought they'd reached the coast. "Ocean in view! O! The joy!" Clarke wrote. I think he chose his words with discrimination; in just six words, he expressed great happiness. I stared at the view so that later I could recover the memory of this beautiful spot.

Some of the lesson words are used in this passage in a different way. For example, *perspective* means "the appearance of things from a certain point or distance." Look at the other highlighted words. Can you figure out each meaning as it is used here? Refer to page 58 to confirm meanings.

Apply Other Meanings

Complete each sentence with a highlighted word from the paragraph above.

1. During my walk in the woods, I lifted the rotting log to see what insects might be living underneath it.
2. The police detective finally solved the mystery on the last episode of my favorite TV show.
3. Mom chose paint colors with discrimination because she did not want to have to repaint the room again for several years.
4. Our perspective from the bottom of the trail made the path seem steeper than it actually was.
5. I dropped my sunglasses in the river and doubt that I can recover them.
6. Because I want my writing to be exciting, I use discrimination when choosing words for my stories.
7. The perspective in my paintings and drawings makes the scenes look more realistic.
8. If investigators can recover the sunken ship, they might learn why it foundered.
9. I think the best episode in the book is the scene that describes the climbers reaching the top of the mountain.
10. I chopped the log into smaller pieces so I could use it for firewood.

Word Associations

Use what you know about the lesson word in *italics* to answer each question. Circle the letter next to the phrase that best answers the question. Be prepared to explain your answers.



- Which event would be a *mishap*?
 - catching a cold during winter
 - stubbing your toe on a rock
 - finding money on the sidewalk
- Which situation is an example of *discrimination* by a government?
 - honoring one citizen instead of many
 - hosting a special day for families
 - banning certain people from a public meeting
- Which trip could be considered an *expedition*?
 - a bus ride to school
 - a long bike race in the park
 - an exploration of the Amazon
- What makes an astronaut's *perspective* of Earth so unusual?
 - they see it from a great distance
 - they are alone in a space ship
 - the sun shines light on Earth
- If your bike were stolen, how might you *recover* it?
 - buy another bike
 - never leave a bike in the same place
 - go to the police or lost and found
- Which is NOT *visible* to people without special equipment?
 - stars
 - eyeglasses
 - germs
- In which item would you *log* facts about a trip you took?
 - photo album
 - travel journal
 - map
- What might show an *episode* from your childhood?
 - family pictures
 - old TV show
 - photographs in a textbook
- Which could *overtake* people hiking in the desert?
 - a hungry lizard
 - a large cactus
 - a dust storm
- What would be the best way to make sure you stayed on your *route*?
 - change directions
 - check directions
 - travel only in the daytime



Check Again

Use what you know about the lesson word in italics to complete each sentence. Be sure your sentences make sense.

1. People often try to *recover* a lost pet by _____ putting up notices in their neighborhood.
2. One *episode* from my favorite book that I'll never forget is _____ when Stanley takes Mr. Sir's truck.
3. A person can avoid a *mishap* in the cafeteria by _____ using a tray and holding it with both hands.
4. Three things that are tiny but *visible* are _____ ants, specks of dust, and grains of sand.
5. When I travel along my usual *route* to school, I pass _____ the fire station and a small shopping center.
6. If I described technology from the *perspective* of a senior citizen, I would say _____ computers make communicating today very different from how it was done in the past.
7. Two places where I could *log* my thoughts and ideas are _____ a blog and a diary.
8. Two things I would take with me on an *expedition* across the United States would be _____ a guidebook and my camera.
9. I show *discrimination* when choosing friends by _____ hanging out with friendly, interesting people.
10. Something I would not want to *overtake* me would be _____ a dizzy spell.

Challenge Yourself

Follow the directions to write sentences with the lesson words in italics. Be sure your sentences make sense both grammatically and in meaning.

Write
Your Own

1. Write a sentence using the word *route*.

The bus picks up students at three stops on its route to school.

2. Write a sentence using the word *episode* in the third position.

The funniest episode of my summer was when Dad fell into the pool with his clothes on.

3. Write a fifteen-word sentence using the word *visible* in the fifth position.

Our neighbor's backyard is visible to us in the winter when the trees are bare.

Word-Solving Strategies: Context Clues

Examples

Examples can often help you figure out the meaning of unfamiliar words. Read this passage from "Following Lewis and Clark."

It was on this fast-moving river that one of the explorers' canoes capsized. This may sound like a minor mishap, but it could have been a major catastrophe.

In this passage, the example *one of the explorers' canoes capsized* can help you figure out that a **mishap** is a small accident..

An example may not give context clues for all unfamiliar words.

A Shoshone woman named Sacagawea accompanied the expedition, traveling with the group along with her husband.

BE CAREFUL!

The example defines *accompanied* but doesn't tell you who the Shoshone were.

Practice

A. In the first two boxes, write a highlighted word and the example that provides a context clue for it. Then write the meaning of the word.

Lewis and Clark and the men who went with them were known as the Corps of Discovery. In fact, they were a scientific and military group with a mission. Their goal was to explore uncharted land, including little-known areas along the Missouri River. Before their quest began, Meriwether Lewis took on the task of equipping the expedition. He gathered food, clothing, and tools. Lewis also included in the provisions some medical supplies and gifts for Native American people that the expedition team might meet along the way.

WORD	EXAMPLE	MEANING
corps	a scientific and military group with a mission	a group that carries out a special duty
uncharted	little-known areas along the Missouri River	unknown; unmapped
equipping	gathered food, clothing, and tools	furnishing what is needed

B. Write a sentence for two of the highlighted words from the paragraph above. Use context clues.

- Most areas of the world that were once uncharted, such as the deepest parts of the ocean and the highest mountains, have now been explored.
- When we go hiking on weekends, we carry all the necessary provisions, including food, water, and extra socks.

Practice for Tests

Fill in the bubble next to the answer that best completes the sentence or answers the question.

1. Read this sentence.

From the students' *perspective*, the assignment was very difficult.

In this sentence, *perspective* means:

- A point of view
- B imagination
- C distance from a certain point
- D effort

2. The opposite of *recover* is:

- A find
- B regain
- C locate
- D lose

3. When would you need to find a new *route* to your friend's house?

- A if you had a map
- B if you had a flat tire
- C if a road was closed
- D if there was no traffic

4. A constellation of stars is *visible* when:

- A the night sky is clear
- B there are clouds in the sky
- C the sun is rising
- D trees block the view

5. A word closely associated with *log* is:

- A erase
- B identify
- C write
- D count

6. Read this sentence.

The running boys collided, and the *mishap* caused their books to fall to the ground.

Mishap means:

- A confusion
- B misunderstanding
- C fast action
- D minor accident

7. People experience *discrimination* if:

- A others treat them like strangers
- B they are banned because of gender
- C others include them
- D they enjoy equal rights

8. When you *overtake* something, you are likely to:

- A capture it
- B fall behind it
- C be an equal to it
- D ignore it

9. You might read an interesting *episode*:

- A in a menu
- B in a schedule
- C in a novel
- D in a set of instructions

10. A person on an *expedition* would:

- A travel alone
- B have a purpose for the trip
- C leave quickly
- D spend lots of time relaxing

If students choose answer C for Item 1, review the different meanings of the word *perspective*.

Synonyms and Antonyms

In the following Word Bank, you will find synonyms and antonyms for some of the words in Lessons 4–6. (Remember: Some words have both synonyms *and* antonyms.) Study these words; then complete the exercises below.

knowledge worsen unemotional reality undetectable famous
signal expressive traditional separation voyage mobile

A. For each sentence, fill in the blank with a **SYNONYM** for the word in boldface.

1. When the astronauts went on a/an voyage to the moon, the information they brought back from the **expedition** was of interest to people around the world.
2. You can meet **prominent** authors at the bookstore. Last month two famous writers held book signings there.
3. There are a few patients in the hospital who remain in **isolation**. Their separation keeps germs from spreading.
4. The coach blew a whistle as an **indication** that the race had begun. The runners took off when they heard the signal.
5. I admire my father's **restrained** way of handling the problem. He was unemotional even when the discussion became angry.

B. For each sentence, fill in the blank with an **ANTONYM** of the word in boldface.

6. The builder thought his business might **recover**, but it seemed to worsen as fewer and fewer people bought new homes.
7. The politician used **radical** tactics to win the election. Once he was in office, however, he supported traditional values.
8. Although the tiny organism is undetectable to the naked eye, it is **visible** when viewed under a microscope.
9. Although in class Janyce is always **restrained** when discussing a point she feels strongly about, she is usually more expressive when discussing important issues among friends.
10. The scientists worked together to prove that global warming is a/an reality and not an **illusion**.

Word Study: Idioms

An **idiom** is a phrase that means something different from the literal meaning of its words. For example, if someone says, “That’s a horse of a different color,” he’s probably not talking about horses at all. The expression means that something is completely unlike other things being talked about or considered.

Some of the words in Lessons 4–6 have meanings that can also be expressed as idioms. If you wanted to express a hope that a friend will **recover** (Lesson 6) quickly from an illness, you’d say that you hope she’s “back in the saddle” soon.

Practice

Read each sentence. Use context clues to figure out the meaning of each idiom in bold print. Then, write the letter of the definition for the idiom in the sentence.

- | | |
|--|--|
| <u> f </u> 1. Daniel is a good hockey player, but he can’t hold a candle to his brother. | a. someone who does a particular task well but has limited skills in other areas |
| <u> a </u> 2. Pablo’s a great singer but a terrible actor, so I wonder if he’s a one-trick pony . | b. remembers everything and forgets very little |
| <u> g </u> 3. When our team lost ten games in a row, Coach told us to face the music —we would not make the playoffs. | c. fail and go out of business because of financial problems |
| <u> b </u> 4. Everyone says Uncle Liam is the unofficial family historian because he has a memory like an elephant’s . | d. in an advantageous or superior position |
| <u> d </u> 5. Although Aunt Sarina struggled to finish college and find a job, today she is in the catbird seat because she’s doing well. | e. look serious and try not to laugh |
| <u> c </u> 6. Our favorite restaurant may go belly up because a kitchen fire forced it to close for a month. | f. has far less skill |
| | g. accept the truth |

Practice

Work with a partner to find out the meaning of each idiom. (Use an online or print dictionary.) Then, work together to write a sentence for each idiom.

- | | |
|-----------------------|---------------------------|
| 1. play second fiddle | 5. show your true colors |
| 2. hit the sack | 6. turn over a new leaf |
| 3. see eye to eye | 7. keep a stiff upper lip |
| 4. be on shaky ground | 8. cry crocodile tears |

Vocabulary for Comprehension

Read the following passage, in which some of the words you have studied in Lessons 4–6 appear in boldface type. Then answer questions 1–6.



Sacagawea

Lewis and Clark had few **illusions** about the difficulties they would face as they explored the American West. Their **expedition** would be long, and the **isolation** of the wilderness
5 would make travel challenging. Despite the hardships, a young Native American woman named Sacagawea joined Lewis and Clark on the journey, and she even traveled with a baby.

Lewis and Clark spent the winter of 1804–
10 1805 in what is now North Dakota. They met Sacagawea and her husband, Toussaint Charbonneau, who **occupied** a home there. The couple chose to join the explorers on the **route** west. Sacagawea acted as an interpreter of
15 Native American languages. She also identified

landmarks, searched for plants to use as food **rations**, and helped arrange for horses. In addition, she was
20 a **visible indication** of the group's intentions. When Native Americans saw Sacagawea and her child, they knew that the purpose of the expedition was peaceful.

There is more than one **contradiction** in
25 the way Sacagawea has been portrayed. No one knows what she actually looked like. It's possible that some artists have worked to **enhance** her looks. Regardless, an especially handsome image of her now exists on an
30 American dollar coin.

1. In line 3, **expedition** means

- A unplanned travel
- B journey taken for a purpose
- C pleasure trip
- D journey on foot

2. Another word for **isolation** (line 4) is

- A hardship
- B companionship
- C freedom
- D remoteness

3. A home that is **occupied** (line 12) is

- A built
- B empty
- C lived in
- D abandoned

4. Something that is NOT **visible** (line 20) might be

- A clear
- B noticeable
- C hidden
- D distinct

5. In line 20, **indication** means

- A sign
- B word
- C promise
- D denial

6. When you **enhance** something (line 28), you

- A write on it
- B make it better
- C illustrate it
- D make it worse

Encourage students to use context clues to help them determine the meaning of words.

It's Elemental!

LESSON

7

Do Cereals Really Contain Iron?

Science reveals the truth about "iron-fortified" cereal.

clarify intensify representation
diversify phenomenon signify
domain precede tangible
element

LESSON

8

Two-Time Nobel Prize Winner Dies

Marie Curie's study of radioactivity changed the world.

advocate interval radioactive
civil nuclear succession
civilian particles welfare
innovation

LESSON

9

The Tennessee Coal Ash Case

Coal ash spills must be stopped.

differentiate properties sinister
endeavor protocols status
professional remedy tolerate
prohibit



▶ Watch a video introduction for each word

🔊 Listen to Words

📖 Refer to the online dictionary

Word Meanings

For each highlighted word on pages 80–81, the meaning is given below. For practice with other meanings, see pages 85–87. For synonyms and antonyms, see page 100.

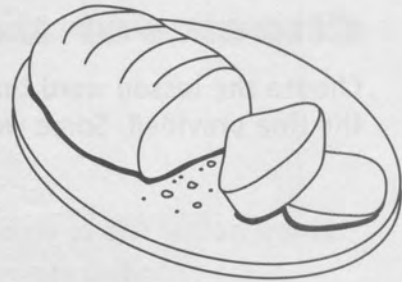
1. **particles**
(PAR-ti-kuhlz) (n.) *Particles* are tiny parts or pieces, such as specks or nearly invisible fragments.
2. **advocate**
n. (AD-vuh-kit)
v. (AD-voh-kayt) (n.) A person who serves as an *advocate* speaks out or pleads for the cause of another by defending or supporting that other person.
(v.) When you defend or support someone or some idea, you *advocate* on his behalf or act in favor of the idea.
3. **radioactive**
(ray-dee-oh-AK-tiv) (adj.) Something that is *radioactive* gives off atomic energy when its nucleus is broken down.
4. **interval**
(IN-tur-vuhl) (n.) The amount of time between two events is an *interval*, such as halftime in a basketball game.
(n.) An *interval* is the measured distance between two objects, such as the space between ladder rungs.
5. **civil**
(SI-vuhl) (adj.) Acting in a *civil* fashion is being polite, well-mannered, or courteous.
(adj.) Something described as *civil* relates to citizens or the general population.
6. **welfare**
(WEL-fair) (n.) *Welfare* is a state of happiness, good fortune, well-being, or health.
(n.) Money or aid given to help people meet basic needs is *welfare*.
7. **innovation**
(i-nuh-VAY-shuhn) (n.) A new product, idea, or way to do something is an *innovation*.
8. **civilian**
(si-VIL-yuhn) (adj.) *Civilian* life involves the daily activities of people who do not serve in the military or work as police officers or firefighters.
9. **nuclear**
(NOO-klee-uhr) (adj.) Something described as *nuclear* relates to the nucleus of an atom or to weapons and power sources that use energy from atoms.
10. **succession**
(suhk-SE-shuhn) (n.) *Succession* is a number of things that follow each other in order, such as a *succession* of airplanes taking off at the airport.
(n.) The order in which people obtain property or a title such as king is *succession*.



Word Talk

Each lesson word is listed here. With a partner, take turns drawing a picture to illustrate the meaning of six of the words. As one partner draws, the other partner identifies the vocabulary word.

advocate (n.)
civil
civilian
innovation
interval
nuclear
particles
radioactive
succession
welfare



particles

Word Associations

Use what you know about the lesson word in *italics* to answer each question. Circle the letter next to the phrase that best answers the question. Be prepared to explain your answers.



- Apple is to fruit as *nuclear* is to:
 - war
 - electric
 - power
- What is the *civil* thing to do when you realize you are wrong in an argument?
 - continue to argue
 - ignore the person's opinion
 - apologize
- Which word could describe *particles*?
 - bits
 - complete
 - segments
- Which time unit is an *interval*?
 - overtime
 - halftime
 - warm-up
- What would have a significant effect on your *welfare*?
 - a delicious meal
 - a friendship
 - a disease
- What might best serve as an *advocate* for children?
 - a store
 - a playground
 - a charity
- Which of these could be part of a *civilian* uniform?
 - a suit and tie
 - a fireproof coat
 - a set of medals
- Which of these inventions would be an *innovation* today?
 - portable phone
 - nonpolluting car
 - sewing machine
- Which word is associated with *radioactive*?
 - musician
 - atoms
 - outside
- Which event requires participants to move in *succession*?
 - a parade
 - a hockey game
 - an election



Check Again

Use what you know about the lesson word in italics to complete each sentence. Be sure your sentences make sense.

1. People protect themselves from *radioactive* materials because they are dangerous and can make humans and animals sick.
2. If you were an *advocate* for a new park, you might write emails to your representatives.
3. *Particles* of food put into an aquarium will be eaten by the fish.
4. If you are looking after the *welfare* of your pets, you will make sure they are well cared for.
5. When an *innovation* becomes popular, the old way of doing things is quickly abandoned in favor of the new way.
6. If you behave in a *civil* way with people at a party, you greet them and speak to them politely.
7. *Civilian* life is very different from military life because you don't have to wear a uniform and obey constant orders.
8. People have to handle *nuclear* materials carefully or they can be harmed by radiation.
9. A *succession* of snowstorms will create a deep covering of snow and tall snow drifts.
10. An *interval* of calm air during a hurricane might mean that the storm winds will come back again soon.

Challenge Yourself

Follow the directions to write sentences with the lesson words in italics. Be sure your sentences make sense both grammatically and in meaning.

Write
Your Own

1. Write a sentence with the word *advocate* in the second position.

My *advocate* went to the principal's office to help me.

2. Write a sentence exactly ten words in length using the word *particles*.

Tiny *particles* of broken glass made walking barefoot very dangerous.

3. Write a question with the word *innovation* in the fifth position.

Can you name an *innovation* that has changed the world?

Word-Solving Strategies: Context Clues

Antonyms

Authors often provide contrast by using antonyms to help define words they've used. Reread this sentence from "Two-Time Nobel Prize Winner Dies."

When military personnel returned to civilian life, Curie began work at a center devoted to nuclear physics.

By using the word *military*, which is the opposite of **civilian**, the author helps the reader to understand what **civilian** means. **Civilian** life is life outside of the military.

Not every antonym can provide a clue to a word's meaning. Read this sentence:

The castle's ancient portcullis gave way to a modern steel gate.

The antonyms *ancient* and *modern* describe different versions of a gate. But they don't define a *portcullis*, or a castle's gate.

BE CAREFUL!

Practice

A. Write a highlighted word and its antonym in the first two boxes. Use context clues to write the meaning for the word in the third box.

Rachel Carson wasn't just a scientist. Her true gift was writing about science. She supplemented her income by writing articles, because college tuition had depleted her savings. She wrote about both the preservation and the destruction of nature. Her exemplary prose charmed readers who were used to ordinary science writing that tended to be dull. Her masterpiece, *Silent Spring*, proved that imperiled bird species could increase once again if humans controlled their use of pesticides

WORD	ANTONYM	WORD MEANING
supplemented	depleted	added to
exemplary	ordinary	exceptional, excellent
imperiled	increase	in danger, declining

B. Write a sentence for each of the four highlighted words from the paragraph above. Create antonym context clues. Ask a peer if you need help.

- _____ A kind developer saved the swamp animals imperiled by the plan to drain away the water.
- _____ Hector has exemplary test scores in math and unimpressive grades in English.
- _____ The chef supplemented the dessert menu with fruit after he ran out of apple pie.
- _____ Preservation of the club depends on raising enough money to keep it from breaking up.

Practice for Tests

Fill in the bubble next to the answer that best completes the sentence or answers the question.

1. Read this sentence.

The student council president acted as an *advocate* for student rights.

In this sentence, *advocate* means:

- A supporter
- B debater
- C opponent
- D challenger

2. An invention is an *innovation* when it:

- A continues
- B repairs
- C breaks
- D modernizes

3. If something is NOT *civilian*, it can be:

- A professional
- B official
- C military
- D populous

4. In which group can all the items or events normally be seen in *succession*?

- A note taking, studying, tests
- B cameras, shoes, earthquakes
- C cars, mountains, hopes
- D stoves, baseballs, practice

5. A word closely associated with *civil* is:

- A sergeant
- B company
- C citizen
- D individual

Some students may choose answer A in Item 5 if they confuse *civil* with *civilian* and are considering its antonyms.

6. Read this sentence.

The police ensure the *welfare* of the town's citizens at night.

Welfare means:

- A sleep
- B well-fed
- C wealth
- D well-being

7. Matter is described as *nuclear* if it is:

- A exterior
- B atomic
- C visible
- D miniature

8. Which of these do *radioactive* materials need to give off energy?

- A a reaction
- B chemistry
- C science
- D living beings

9. You might detect an *interval* in a:

- A beam
- B flow
- C series
- D solid

10. The size of *particles* most closely compares to:

- A sheets of paper
- B points of pins
- C width of dimes
- D shape of ice cubes



Watch a video introduction to this passage at vocabularyforsuccess.com.



Listen to this passage at vocabularyforsuccess.com.

The Tennessee Coal Ash Case

<editorial>

January 2009: When the tragic coal ash spill occurred last month in eastern Tennessee, the government promised immediate action. They assured us they'd create new national standards for disposing of coal ash. It's been a month and nothing has happened in response to this enormous environmental disaster.

When coal is burned, one thing left over is an extremely fine powder called coal ash. Because coal ash is hard to capture, it's often mixed with water and stored in a collection pond.

The dirt dam surrounding such a pond broke last month. When it did, it released a flood of 500 million gallons of liquid ash. This river wasn't harmless. It contained mercury, arsenic, and other sinister toxins – all known to cause birth defects. Not only did the spill destroy nearby properties, but it is feared it may also have polluted the water supply.

It is not the first time that a dirt dam has failed. It is clear that the government must immediately prohibit this kind of coal ash



Land damaged by the coal ash spill

Explain to students that an editorial is an essay in a print or online publication that gives opinions about a topic and may suggest actions.

VOCABULARY

sinister	status
properties	differentiate
prohibit	tolerate
professional	endeavor
protocols	remedy

storage. Professional environmental engineers agree that different protocols and methods of storage must be used in order to prevent further disasters. We also believe that the government needs to change the status of coal ash. While it is currently labeled a “special waste,” it should be labeled “hazardous.” It is wrong to differentiate coal ash from other hazardous materials.



A map of Tennessee. The flag marks the location of the coal ash spill.

At the same time, companies and agencies that burn coal have responsibilities. Using safer, more effective ways to deal with coal ash may prove initially more costly. However, in the long run, they would save the millions or billions of dollars it costs to clean up after a spill.

Tennessee has just experienced the largest coal ash spill in our history. As citizens, we cannot tolerate this situation any longer. We must immediately endeavor to remedy it. How many more spills will it take before our government does the right thing and puts environmental safety first?

TALK ABOUT IT

With a partner, answer the questions below. Use as many of the highlighted words in the selection as you can.

1. Should the government step in to help *remedy* the situation? Why or why not?
2. Why is this situation so difficult for people to *tolerate*?

Word Meanings

For each highlighted word on pages 90–91, the meaning is given below. For practice with other meanings, see pages 95–97. For synonyms and antonyms, see page 100.

1. **sinister**
(SI-ni-stur) (adj.) When something is *sinister*, it is evil or causes a person to be fearful.
2. **properties**
(PRO-pur-teez) (n.) Land and houses or other buildings are called *properties*.
(n.) Qualities or traits that are specific to a person, animal, or object are its *properties* or characteristics.
3. **prohibit**
(proh-HI-bit) (v.) When you *prohibit* an activity, you use your authority to forbid anyone from doing it.
4. **professional**
(pruh-FE-shuh-nuhl) (adj.) Something that is *professional* is related to a job that requires a specialized education or knowledge.
(n.) Someone who has worked in a career field that requires special knowledge and training is a *professional*.
5. **protocols**
(PROH-tuh-kawlz) (n.) The rules that establish the correct way to behave or act are *protocols*.
6. **status**
(STA-tuhss) (n.) *Status* is the legal state or condition of something or someone. For example, marital *status* indicates whether or not a person is married.
7. **differentiate**
(di-fur-REN-shee-ayt) (v.) When you *differentiate* between things, you detect a difference between them.
8. **tolerate**
(TO-luh-rayt) (v.) When you put up with or allow something to continue, you *tolerate* it.
9. **endeavor**
(en-DE-vur) (v.) When you *endeavor* to do something, you work with the purpose of accomplishing a task.
(n.) An *endeavor* is a serious effort or a purposeful, determined attempt.
10. **remedy**
(RE-muh-dee) (v.) When you correct, cure, or make something better, you *remedy* it.
(n.) Any medicine, treatment, or solution that relieves a problem or cures an illness is a *remedy*.



Word Talk

Each lesson word has been placed in a category. With a partner, discuss and list items that belong in each category. Compare your results with those of another pair of students.

Things That Might Seem *Sinister* in the Dark
bats

A *Status* a Person Might Hold
parent

Activities Students Might *Endeavor* to Do

become editor of the school paper

Things That Help You *Differentiate* Between Identical Twins
freckles

Ways to *Remedy* a Cold
eat soup

Jobs That Require *Professional* Training
lawyer

Bad Habits That You *Tolerate*
nail biting

Dog Behaviors That You Would *Prohibit*
chewing on furniture

Types of *Properties*
farms

Protocols Enforced at Home
no playing ball inside

Check for Understanding

Choose the lesson word that completes each sentence. Write the word on the line provided. Some words will be used twice.

differentiate	prohibit	sinister
endeavor	properties	status
professional	protocols	tolerate
	remedy	

- The council member with the most votes will earn the status of mayor.
- A few weeks of rest will remedy a sprained ankle.
- Wearing dark clothing and an angry expression, the man looked sinister.
- Leaf color helps people differentiate between types of trees in the fall.
- A sign beside the pool lists the activities that the rules prohibit, such as running, rough play, or eating on the deck.
- In an attempt to break the world record, my uncle will endeavor to run up the stairs of the world's tallest building.
- Carmen's brother has vacation properties in different parts of the U.S.
- One way Desiree followed the protocols of the formal dinner was by using her salad fork and soup spoon for the appropriate courses.
- In the doctor's professional opinion, the patient will be cured in less than a week if he takes the medicine as prescribed.
- Our cat cannot tolerate being teased and will run away to avoid it.
- After graduation, my cousin will change her status from student to employee.
- The parks in our town prohibit dogs but allow people to ride bikes.

Some students may choose *tolerate* as an answer for Item 5. Remind them that the examples are activities that would be banned, not put up with.



Expand Word Meanings

Read the paragraph below to learn other meanings for some of the lesson words.

Zinc has healing properties, but it can also be dangerous. In fact, if you are a professional who works with it, you must avoid direct contact. Recently, senior citizens began showing symptoms of zinc poisoning. Dentists noticed that the zinc found in denture cream harmed some patients. In 2008, more than 35 million people wore dentures. Scientists began an endeavor to determine how a cream so many older people use could harm them. It turns out that if false teeth don't fit well, they fall out. So people use far too much cream as a remedy to keep their teeth in, and as a result, they absorb too much zinc.

Notice that the lesson's words are used in a different way here. For example, in this paragraph, *endeavor* and *remedy* are nouns that are similar in meaning to their verb forms. Look at the other highlighted words. Can you figure out the meanings of the words as they are used here? Refer to page 92 to confirm meanings.

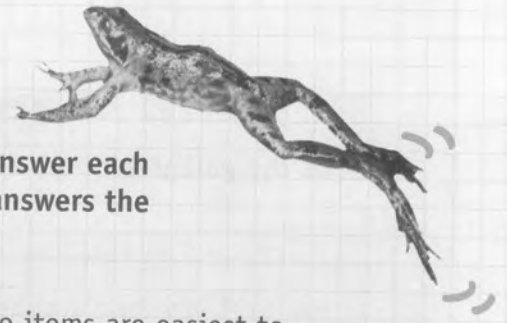
Apply Other Meanings

Complete each sentence with a highlighted word from the paragraph above.

1. Sam asked friends to sponsor her endeavor to bike across the country.
2. Jeanne possesses all the properties of a leader—intelligence, personality, dedication, and charm.
3. When the first remedy didn't heal my infection, the doctor prescribed a stronger medicine.
4. The plastic window's special properties helped it resist breaking when the ball hit.
5. Don't try to repair your cell phone yourself; you need a/an professional who has had proper training.
6. Eating more food isn't a/an remedy for your stomachache; it will make you sicker.
7. A/An professional gets paid to play a sport that amateur athletes play for enjoyment.
8. In ancient times, doctors used leeches, small blood-sucking creatures, as a/an remedy to aid blood circulation.
9. Juan succeeded in his endeavor to read every *Harry Potter* book a second time.
10. My remedy for feeling sad is to ride my bike to the pet shop with my friend.

Word Associations

Use what you know about the lesson word in *italics* to answer each question. Circle the letter next to the phrase that best answers the question. Be prepared to explain your answers.



- Which word describes someone's *status*?
 - power
 - position
 - beginning
- Which person could be considered a *professional*?
 - college student
 - community volunteer
 - doctor in a hospital
- Which activity would be a *remedy* for boredom?
 - bungee jumping
 - doing nothing
 - taking medicine
- Which noise from a baby could you best *tolerate*?
 - crying
 - giggling
 - screaming
- Which task would most likely be considered an *endeavor*?
 - visiting with friends
 - watching TV
 - learning to swim
- Which two items are easiest to *differentiate*?
 - an orange and a tangerine
 - two white poodles
 - a polar bear and a panda bear
- Which words describe sand's *properties*?
 - soft and tiny
 - sunshine and castles
 - ocean and lake
- Which animal seems most *sinister*?
 - a noisy squirrel
 - a growling dog
 - a leaping frog
- Which activity might a parent *prohibit* if a child misbehaved?
 - doing homework
 - playing games
 - being punished
- Which of the following is one of the usual *protocols* at a formal affair?
 - using table manners
 - arriving late
 - wearing expensive clothing



Check Again

Use what you know about the lesson word in italics to complete each sentence. Be sure your sentences make sense.

1. If you wanted to *prohibit* your cat from going outside, you could _____ shut all windows and doors.

2. To become a *professional*, a person must _____ complete years of training
3. If you needed a *remedy* for a problem, you might _____ talk to someone who has experienced
the same issue.

4. Most parents and other adults will not *tolerate* _____ children who yell at them.
5. One way to *differentiate* between brands of food is to _____ do a taste test and see which is best.
6. World leaders need *protocols* when they deal with other countries because _____ all societies have
different traditions and manners.

7. After completing his driver's education class, Kyle officially changed his *status* by _____ getting
his license.

8. The *properties* of a piece of sandpaper are _____ roughness and flatness.
9. Movies often indicate that something *sinister* is about to happen by _____ playing scary-sounding
music.

10. You might take part in a bold *endeavor* because _____ you want to challenge yourself.

Challenge Yourself

Follow the directions to write sentences with the lesson words in italics. Be sure your sentences make sense both grammatically and in meaning.

Write
Your Own

1. Write a sentence with the word *professional* in the eighth position.

The doctor applied for membership in a professional association.

2. Write a sentence exactly eleven words in length using the word *remedy*.

The remedy for my sore throat was gargling with salt water.

3. Write a question with the word *sinister* in the ninth position.

Did you think that his voice had a sinister quality to it?

Word-Solving Strategies: Prefixes

The prefix *pro-*: “forward,” “before”

You’ve already learned how to use a word’s root as well as its suffix and prefix to determine its meaning. The lesson words *professional* and *prohibit* have the prefix *pro-*, which means “forward” or “before.”

The lesson word *prohibit* comes from the Latin word *prohibere*, meaning “to keep off.” The prefix *pro-*, which means “forward,” was added to the Latin word *habere*, meaning “to hold.” To *prohibit* is to keep someone from going forward with an action or activity.

The lesson word *professional* comes from the word *profess*, which means “confess or claim.” It is a combination of *pro-*, meaning “before,” and the Latin word *fateri*, meaning “acknowledge.” The meaning of *professional* comes from the idea that one publicly states, or acknowledges before others, a career.

Examples

Look at these examples of words that begin with the prefix *pro-*. Think about how the Latin prefix *pro-* affects the meaning of the English words. If you are not sure what a word means, look up its definition in the dictionary.

pro- + *gradi* (to go) →
progress

pro- + *jacere* (to throw) →
project

pro- + *legein* (to speak) →
prologue

pro- + *movere* (to move) →
promote

Not all words that begin with *pro-* come from the prefix *pro-*. The lesson word *properties* comes from the Latin word *proprietas*, which means “own.” The lesson word *protocols* comes from the Greek word *protokollon*. The prefix *protos*, which means “first,” was added to the Greek word *kola*, meaning “glue.”

BE CAREFUL!

Practice

Use what you’ve learned about the prefix *pro-* to write sentences using words with the prefix *pro-*.

1. protest After their wages were cut, the workers held a protest outside the factory.
2. provide Please provide your address so we can submit your application.
3. propose I’m going to propose that each athlete bring a healthy snack to practice.
4. pronoun The pronoun “he” could refer to the father, brother, or uncle in the story.
5. proclamation Her proclamation that Friday will be a holiday made us cheer.
6. promenade The promenade along the waterfront was full of walkers and bikers.

If students are unsure about the meanings of any words, suggest they consult a dictionary.

Practice for Tests

Fill in the bubble next to the answer that best completes the sentence or answers the question.

1. Read this sentence.

She will *endeavor* to win championships in three sports.

Endeavor means:

- A try
- B fail
- C succeed
- D go beyond

2. One way to *differentiate* items would be to:

- A put everything together
- B choose them randomly
- C store them neatly
- D sort them based on what's unlike

3. The opposite of *prohibit* is:

- A remove
- B confuse
- C allow
- D preserve

4. Which group lists *professional* people?

- A nurse, lawyer, teacher
- B student, policeman, helper
- C psychiatrist, builder, intern
- D politician, apprentice, farmer

5. A word closely associated with *status* is:

- A opinion
- B country
- C condition
- D question

6. Read this sentence.

The wealthy movie star has *properties* in six different countries.

Properties means:

- A fans
- B vacations
- C money
- D homes

7. A person may be *sinister* if he or she:

- A gives you a gift
- B frightens you
- C greets you
- D introduces you to a sibling

8. When you *remedy* a problem, it does NOT:

- A continue
- B cure
- C improve
- D retreat

9. One of the *protocols* at an orchestra concert is:

- A booing when you don't like it
- B playing a musical instrument
- C clapping at the end of each song
- D eating in your seat while listening

10. A person will *tolerate* something when he:

- A walks over to it
- B puts up with it
- C continues without it
- D reaches for it

If students choose answer C in Item 6, review the alternate definition of *properties*.

Synonyms and Antonyms

In the following Word Bank, you will find synonyms and antonyms for some of the words in Lessons 7–9. (Remember: Some words have both synonyms *and* antonyms.) Study these words; then complete the exercises below.

weaken interests valuable opponent scary rude
compete strengthen ban follow amateur explain

A. For each sentence, fill in the blank with a **SYNONYM** for the word in boldface.

1. Government policies **prohibit** smoking and _____ ban _____ the use of any tobacco product in public buildings.
2. If you want to **intensify** the flavor of hot cocoa, add a bit of cinnamon to _____ strengthen _____ the taste.
3. When my little brother dreams about _____ scary _____ monsters, Mom comforts him by explaining that the **sinister** creatures do not exist.
4. Our teacher will _____ explain _____ the assignment to the class and **clarify** anything that we do not understand.
5. The candidate supports the _____ interests _____ of only one group of people even though he talks about the **welfare** of all citizens.

B. For each sentence, fill in the blank with an **ANTONYM** of the word in boldface.

6. Our new neighbor is _____ rude _____. Still, I ignore his bad manners and treat him in a **civil** way.
7. A family breakfast will **precede** the graduation ceremony, and an afternoon party will _____ follow _____.
8. As a/an _____ amateur _____ golfer, I know I won't be able to repeat the amazing shots that **professional** golfers make.
9. My grandmother is an **advocate** of the candidate, and she will debate anyone who is a/an _____ opponent _____ of this man.
10. We hoped the hurricane would not **intensify** before it reached land, and we were relieved when we found out that it would _____ weaken _____.

Word Study: Proverbs

A **proverb** is a popular saying that expresses a widely held idea. These two proverbs express opinions about people who are not careful with their money: “Money burns a hole in your pocket” and “A fool and his money are soon parted.”

Some of the words in Lessons 7–9 have meanings that can be expressed as proverbs. There’s a proverb, for example, that defines what a good **remedy** (Lesson 9) is: “A stitch in time saves nine.” This proverb expresses the idea that it’s better to remedy a problem (like a hole in a sock) early before it gets worse.

Practice

Read each sentence. Use context clues to figure out the meaning of each proverb in bold print. Then, write the letter of the explanation for the proverb in the sentence.

- | | |
|---|--|
| <p><u>e</u> 1. They say you can’t teach an old dog new tricks, but my father started playing the piano in his forties.</p> <p><u>g</u> 2. Convinced that the early bird catches the worm, Trai got to the audition an hour early.</p> <p><u>c</u> 3. Bibi asked Gina to help her solve the puzzle, figuring two heads are better than one.</p> <p><u>b</u> 4. Because many hands make light work, our whole family helps clean the house every Saturday morning.</p> <p><u>d</u> 5. Instead of being happy with what he had, Silas always thought the grass was greener on the other side of the fence.</p> <p><u>f</u> 6. It seems that every cloud has a silver lining, because after missing the bus, Shana found money on the sidewalk.</p> | <p>a. It’s important to share rather than just take what you want.</p> <p>b. A job is done easily if many people share the responsibility.</p> <p>c. A second person might help figure out the answer to a question.</p> <p>d. Something different seems better than what you have.</p> <p>e. It’s difficult for adults to learn new things.</p> <p>f. Even in bad things, there is something good.</p> <p>g. Arriving first gives you an advantage.</p> |
|---|--|

Practice

Work with a partner to figure out the meaning of each proverb. (Use an online or print dictionary.) Then, work together to write a sentence for each proverb.

- | | |
|--|---|
| <p>1. Curiosity killed the cat.</p> <p>2. Waste not, want not.</p> <p>3. Let sleeping dogs lie.</p> <p>4. Still waters run deep.</p> | <p>5. A watched pot never boils.</p> <p>6. A rising tide lifts all boats.</p> <p>7. Good fences make good neighbors.</p> <p>8. Every dog has his day.</p> |
|--|---|

Vocabulary for Comprehension

Read the following passage, in which some of the words you have studied in Lessons 7–9 appear in boldface type. Then answer questions 1–6.

An Express Elevator to Space



The 1969 moon landing was long thought to be science's greatest achievement. That effort used rockets whose costs **prohibit** them from being used for frequent space travel.

- 5 Scientists have tried to **advocate** for a space elevator that would lift payloads into space on a cable. Payloads are the extra contents that a vehicle carries. Using **nuclear** power for this **endeavor** is both dangerous and impractical.
- 10 The **radioactive** waste it generates is one of the payloads we need to dispose of!

Recent competitions have attempted to **remedy** this problem. An important **element** of the space elevator is the cable. It must possess the

- 15 necessary **properties** of great strength and little weight.

- The winners of a 2009 competition built a true elevator. It was covered in cells that were powered by light. Laser beams aimed at it
- 20 provided the power, but scientists feel they will have to **intensify** these lasers to provide adequate thrust to get it into space. The winner was a two-foot by two-foot craft that could not lift a real payload, and it traveled only
- 25 about eight miles an hour. It will take more **innovation** to send machinery and people into space cheaply, but this space race is on.

Remind students to test their answers in place of the boldfaced word in the passage.

1. In sentence 2, **prohibit** means
 - A forbid
 - B require
 - C increase
 - D remind
2. When you **advocate** (line 5), you
 - A dedicate
 - B oppose
 - C plan
 - D encourage
3. An **element** (line 13) is a
 - A kind
 - B way
 - C part
 - D technology
4. Another word for **properties** (line 15) is
 - A characteristics
 - B expenses
 - C responses
 - D looks
5. Something that would NOT **intensify** (line 21) would be
 - A just getting started
 - B underpowered
 - C at its limit
 - D completely rebuilt
6. Science always needs **innovation** (line 26) to
 - A show what's wrong
 - B save money
 - C use old technology
 - D solve problems