

## ***Reading and Vocabulary Focus 4***

### **Answer Key**

#### **UNIT 1**

##### ***Reading 1 Above Manhattan***

###### **Reading Preview**

###### **Exercise A, page 4**

*Answers will vary.*

###### **Exercise B, page 4**

1. architect, community, officials, residents, tourists
2. elevated structure, rails, steel, tracks
3. grasses, weeds, wildflowers

###### **Exercise C, page 4**

*Answers will vary.*

##### **Reading Comprehension**

###### **Big Picture**

###### **Exercise A, page 9**

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

###### **Exercise B, page 10**

*Answers will vary.*

###### **Close-Up**

###### **Exercise A, page 10**

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

###### **Exercise B, page 10**

*Answers will vary. Possible answers:*

1. T

2. After the 1990s, many wealthy people started moving to Chelsea.
3. T
4. After September 11, 2001, there was increased interest in the High Line project.
5. Hammond and David didn't expect a lot of people to submit proposals for the competition.
6. The city of New York agreed to pay some of the operating costs of the park.
7. T
8. Tourists and locals like to spend time relaxing on the High Line.

##### **Reading Skill**

###### **Determining Chronology**

###### **Exercise A, page 11**

1934, 1980, 1984, 1996, 1999, 2001, 2003, 2006, 2009

###### **Exercise B, page 11**

*Answers will vary. Possible answers:*

1934: High Line railway line opens  
1980: final train travels down the rack  
1984: Peter Obletz buys the abandoned railway structure for \$10  
1996: Peter Obletz dies  
1999: Joshua David and Robert Hammond meet at a community meeting; form an organization called Friends of the High Line  
2001: World Trade Center attack; people supported the Friends of the High Line  
2003: Friends of the High Line holds an "ideas competition"  
2006: funds are in place and construction begins on the park  
2009: park opens to the public

###### **Exercise C, page 11**

*Answers will vary.*

**Vocabulary Practice**  
**Academic Vocabulary**  
**Exercise A, page 11**

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

**Exercise B, page 12**

1. transformation
2. abandoned
3. persistence
4. generated
5. innovative
6. annual
7. integrated
8. ceases

**Multiword Vocabulary**  
**Exercise A, page 12**

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

**Exercise B, page 12**

1. realize their full potential
2. surrounded by
3. price tag
4. in a sense
5. submit a proposal
6. precisely the opposite
7. charity event
8. come up with

**Use the Vocabulary, page 13**

*Answers will vary.*

**Think and Discuss, page 13**

*Answers will vary.*

**Reading 2 Under Paris**

**Reading Preview**

**Exercise A, page 14**

1. *cataphiles* are people who love the Paris underground and who spend time below ground in secret
2. *catacombs* are underground cemeteries
3. the sewer

**Exercise B, page 14**

1. archaeologist, cheesemaker, police, sewer worker, tour guide
2. art, bones, flashlights, sewer worker, tunnels
3. explore, mine, paint

**Exercise C, page 14**

*Answers will vary.*

**Reading Comprehension**

**Big Picture**

**Exercise A, page 20**

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

**Exercise B, page 20**

*Answers will vary. Possible answers:*

1. Yopie is a cataphile who explores underground and enjoys being in a place with no rules.
2. Philippe Charlier is a forensic archaeologist who spends time underground in order to study the bones of ancient Parisians.
3. Pascal Quignon is a sewer worker who works underground fixing water leaks and whose father and grandfather also worked in the sewers.
4. Jean Valjean is an ex-convict in Victor Hugo's novel *Les Misérables*.

### Close-Up

#### Exercise A, page 21

1. They built more tunnels in order to connect isolated networks.
2. When the king decided to close one of the cemeteries, he asked Guillaumot to move the bones.
3. No. Before the 1980s, it was possible to walk in through forgotten doors in school basements.
4. Tourists are allowed to visit specified areas of the catacombs, but they must follow tour guides.
5. Jean Valjean goes into the sewers to evade the police.

#### Exercise B, page 21

*Answers will vary. Possible answers:*

1. it is illegal to enter the catacombs.
2. each of the skulls tells a story of a person's life.
3. it is dirty in the sewers.
4. he spends so much time in the sewers that he is accustomed to it.

### Reading Skill

#### Annotating a Text

##### Exercise A, page 22

1. 5
2. 2
3. 8
4. 3
5. 9
6. 10
7. 4
8. 7

##### Exercise B, page 22

*Answers will vary.*

### Vocabulary Practice

#### Academic Vocabulary

##### Exercise A, page 22

1. b
2. b
3. a

4. a
5. a
6. b
7. a
8. b

##### Exercise B, page 23

1. isolated
2. inspector
3. evade
4. stabilize
5. specified
6. commission
7. network
8. accompany

##### Exercise C, page 24

1. accompany the president
2. evade questions
3. an isolated area
4. stabilize the situation
5. a specified date
6. an extensive network
7. commissioned a study
8. health inspectors

### Multiword Vocabulary

##### Exercise A, page 24

1. in
2. out
3. purpose
4. as a
5. of
6. solving
7. contact
8. in the

##### Exercise B, page 24

1. come into contact with
2. in the open air
3. as a consequence
4. solve the mystery
5. of sorts
6. spread out
7. in secret
8. served an additional purpose

**Use the Vocabulary, page 25***Answers will vary.***Think and Discuss, page 25***Answers will vary.***Vocabulary Review****Exercise A, page 26**

1. generate interest
2. came up with
3. ceased operations
4. as a consequence
5. precisely the opposite
6. in a sense
7. in the open air
8. innovative approach
9. extensive network
10. price tag

**Exercise B, page 26***Answers will vary.***Exercise C, page 26***Answers will vary.***Exercise D, page 27***Answers will vary.***Connect the Readings****Exercise A, page 27**

	The High Line	The Paris Underground	Both
1. It's illegal to visit without a permit.		<input type="checkbox"/>	
2. Tourists and locals enjoy it.			<input type="checkbox"/>
3. It tells a story of the past.			<input type="checkbox"/>
4. It changes during different seasons.	<input type="checkbox"/>		
5. It's dangerous.		<input type="checkbox"/>	
6. It is ugly in parts.			<input type="checkbox"/>
7. People feel passionately about it.			<input type="checkbox"/>
8. It was in danger of disappearing.	<input type="checkbox"/>		

**Exercise B, page 27***Answers will vary.***Exercise C, page 27***Answers will vary.*

## UNIT 2

### **Reading 1 The Snow Patrol**

#### **Reading Preview**

##### **Exercise A, page 30**

1. In northern Greenland, around 2008 until the present.
2. The Sirius Patrol is the world's only military dogsled patrol, and for 60 years it has patrolled northeast Greenland's coast.
3. Johan, Sally, Indy, and Armstrong are sled dogs.

##### **Exercise B, page 30**

1. ropes, sled dogs, supplies, tent
2. fog, frostbite, injuries, polar bears, wind
3. brutal, unruly; brutal wind, unruly sled dogs

##### **Exercise C, page 30**

*Answers will vary.*

#### **Reading Comprehension**

##### **Big Picture**

##### **Exercise A, page 35**

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

##### **Exercise B, page 35**

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

#### **Close-Up**

##### **Exercise A, page 36**

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

##### **Exercise B, page 36**

*Answers will vary. Possible answers:*

1. T
2. A patroller's job is difficult and low-paying.
3. T
4. T
5. Jesper and Rasmus have a friendly relationship.
6. T
7. On the Sirius Patrol, there has only been one death in its history.
8. The dog Armstrong is a legend because he has pulled a sled at least 25,000 miles, the same distance as the Equator.

#### **Reading Skill**

##### **Dealing with Unknown Vocabulary**

##### **Exercise A, page 36**

*Answers will vary. Possible answers:*  
anticipated, blade, thigh

##### **Exercise B, page 37**

*Answers will vary. Possible answers:*

1. . . . sleeping in a snow cave that he dug with a tin cup and hunting arctic hare and musk ox for food.
2. They also make a specific polar bear warning sound, a hissing growl—that lets patrollers know when to be alert.

3. He climbs out of his ski pants and examines the deep gash in his leg and the blood that continues to ooze.
6. a viable option
7. have no chance
8. At the very least

### Exercise C, page 37

*Answers will vary.*

### Vocabulary Practice

#### Academic Vocabulary

#### Exercise A, page 37

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

#### Exercise B, page 37

1. reliable
2. convinced
3. simulate
4. eligible
5. anticipated
6. virtually
7. inevitable
8. routine

### Multiword Vocabulary

#### Exercise A, page 38

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

#### Exercise B, page 38

1. made the cut
2. set out
3. first-aid
4. lighten your load
5. take into consideration

### Use the Vocabulary, page 39

*Answers will vary.*

### Think and Discuss, page 39

*Answers will vary. Possible answers:*

1. Jesper; after he didn't make the cut the first time he applied; he couldn't stop thinking about Greenland
2. Rasmus; the sled dogs; because they spend so much time together
3. the author of the article; Jesper's wound; to show how strong and resilient Sirius Patrollers have to be

### Reading 2 Into the Volcano

#### Reading Preview

#### Exercise A, page 40

Order: 3, 1, 2, 4

1. Paragraph 4
2. Paragraph 5
3. Paragraph 2
4. Paragraph 6

#### Exercise B, page 40

1. crater, eruption, lake, lava, ledge, summit
2. fresh, hardened; lava
3. mission, research, sample, volcanologist

#### Exercise C, page 40

*Answers will vary.*

### Reading Comprehension

#### Big Picture

#### Exercise A, page 45

1. Paragraph 1
2. Paragraph 5
3. Paragraph 6
4. Paragraph 4
5. Paragraph 9
6. Paragraph 2

**Exercise B, page 45**

*Answers will vary. Possible answers:*

1. next eruption = more deadly?
2. crater = special equipment
3. zero-age sample = danger!
4. lava lake = intense heat
5. Sims gets sample
6. mission = predict next eruption

**Close-Up****Exercise A, page 45**

1. b
2. a
3. c
4. b
5. a
6. a
7. c

**Exercise B, page 46**

*Answers will vary.*

**Reading Skill****Recognizing Causes and Effects****Exercise A, page 46**

1. A subsequent eruption in 2002 shot lava into downtown Goma. It destroyed 14,000 homes, buried buildings to the top of the first floor, and forced 350,000 citizens to flee.
2. Based on data from a zero-age sample, scientists are able to accurately date all other rocks in a volcano. This, in turn, can help to predict volcanic eruptions.
3. Sims, himself, has a scar on his right arm from Sicily's Mount Etna, where his shirt melted into his skin.
4. Suddenly, Sims's foot slipped and he smelled burning rubber. Looking down, he saw his shoe melting out from under him.

5. It [the piece of fresh lava] was shiny, black, and so hot that, even wearing thermal gloves, he had to juggle it from hand to hand.

**Exercise B, page 47**

*Answers will vary. Possible answers:*

1. zero-age sample (→) accurately date all rocks (→) predict eruptions
2. Sims's shirt melted (→) scar on arm
3. sample so hot (→) juggled from hand to hand
4. Sims's foot slipped (→) shoe started melting

**Exercise C, page 47**

*Answers will vary.*

**Vocabulary Practice****Academic Vocabulary****Exercise A, page 47**

1. briefly
2. fluctuated
3. accurately, subsequent
4. data
5. toxic
6. obtain, secured

**Exercise B, page 47**

*Answers will vary.*

**Multiword Vocabulary****Exercise A, page 48**

1. b
2. a
3. a
4. b
5. a
6. a
7. b
8. b

**Exercise B, page 48**

1. made up his mind
2. well suited
3. In a matter of minutes
4. surface level

5. the fact of the matter
6. scientific expeditions
7. for the sake of
8. capable of

**Use the Vocabulary, page 49**

*Answers will vary.*

**Think and Discuss, page 49**

1. *Answers will vary.*
2. Ken Sims said this when he reached the lava lake. It was the culmination of a lifetime of exploration and adventure and curiosity.
3. *Answers will vary.*

**Vocabulary Review**

**Exercise A, page 50**

1. morning routine
2. is capable of
3. Analyzing the data
4. a viable option
5. have no chance
6. toxic chemicals
7. for the sake of
8. scientific expeditions
9. simulate the experience
10. take this into consideration

**Exercise B, page 50**

*Answers will vary.*

**Exercise C, page 50**

*Answers will vary.*

**Exercise D, page 51**

*Answers will vary.*

**Connect the Readings**

**Exercise A, page 51**

*Answers will vary. Possible answers:*

Sirius Patrollers: cold; work on site for 2 years; rigorous training program; work with dogs; young; work in pairs; danger of wild animals  
Both: dangerous; isolated areas; out in nature; imminent threat from nature; helping others;

need to be physically strong; carry supplies with them; sleep outside; cliff ledges to fall off of; injuries possible

Volcanologists: work on site for 3 weeks; educated as scientists; no animals; age doesn't matter; work in larger teams; danger of melting skin and toxic fumes

**Exercise B, page 51**

*Answers will vary.*

**Exercise C, page 51**

*Answers will vary.*

## UNIT 3

### **Reading 1 Path of the Jaguar**

#### **Reading Preview**

##### **Exercise A, page 54**

*Answers will vary. Possible answers:*

1. where the known populations are, where the corridors are, and which corridors are threatened
2. Latin America and South America: Argentina, Belize, Bolivia, Brazil, Colombia, Costa Rica, Ecuador, French Guiana, Guatemala, Guyana, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, and Venezuela.
3. to save the jaguars and the land that they need in order to survive and roam freely

##### **Exercise B, page 54**

1. conservationists, epidemiologists, villagers
2. cattle ranches, endangered species, habitat, jaguar, predator, prey
3. blind, disease, epidemiologists, wounded

##### **Exercise C, page 54**

*Answers will vary.*

### **Reading Comprehension**

#### **Big Picture**

##### **Exercise A, page 58**

3. As predators, jaguars can prevent the spread of certain diseases.
4. Jaguars need to be able to travel in order to successfully breed.
5. The Panthera Foundation works with different governments to preserve land for jaguars.
7. As conservation efforts increase and awareness grows about the jaguar's role in preventing diseases, hopefully these "killers" will be saved.

##### **Exercise B, page 58**

7. As conservation efforts increase and awareness grows about the jaguar's role in preventing diseases, hopefully these "killers" will be saved.

#### **Close-Up**

##### **Exercise A, page 59**

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

##### **Exercise B, page 59**

*Answers will vary. Possible answers:*

1. The young jaguar leaves his home in the forest because his mother can no longer protect him.
2. The rancher does not see the young jaguar before he kills a calf.
3. The Panthera Foundation protects 36 species of cats around the world.
4. All jaguars live between Mexico and Argentina.
5. T
6. T
7. Jaguars only need one-and-a-half square miles of habitat as a temporary stepping stone.
8. The goal of Paseo del Jaguar is to create a jaguar preserve through pathways across South America.
9. T
10. T

## Reading Skill

### Making Inferences

#### Exercise A, page 60

*Answers will vary. Possible answers:*

1. kill him
2. be in danger of contracting new diseases
3. set aside small areas of land, rather than large areas of land.
4. they need to get their support, and the local population will know a lot about the jaguars because they've had firsthand experience

#### Exercise B, page 60

*Answers will vary.*

## Vocabulary Practice

### Academic Vocabulary

#### Exercise A, page 61

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

#### Exercise B, page 61

1. crucial
2. genetic
3. shelter
4. astounding
5. prime
6. regulate
7. incentives
8. ambitious

## Multiword Vocabulary

#### Exercise A, page 62

1. a
2. d
3. h
4. e
5. b
6. g

7. f
8. c

#### Exercise B, page 62

1. stepping stone
2. become a reality
3. keep anxiety in check
4. let alone
5. buffer zone
6. be out of the picture
7. write off
8. just around the corner

#### Use the Vocabulary, page 62

*Answers will vary.*

## Think and Discuss, page 63

*Answers will vary.*

## Reading 2 Champion of the Underdog

### Reading Preview

#### Exercise A, page 64

*Answers will vary. Possible answers:*

2, 3, 6, 7

#### Exercise B, page 64

1. amphibian, cute, fluffy, shiny, odd, shiny, unlovable
2. amphibian, frog, sloth
3. blog, research, support

#### Exercise C, page 64

*Answers will vary.*

## Big Picture

#### Exercise A, page 70

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

#### Exercise B, page 70

3. To describe how Lucy Cooke raises awareness of endangered creatures

## Close-Up

### Exercise A, page 70

*Answers will vary. Possible answers:*

1. cuter or fluffier
2. 1/3; became extinct
3. all over the world
4. raising awareness, educating the public, and finding alternative sources of income for locals

### Exercise B, page 70

*Answers will vary. Possible answers:*

1. lives in tops of trees; glides from tree to tree
2. measures 1 cm; enough poison to kill 10 men
3. male gets pregnant
4. lives on lake floor; endangered because it is used as a medicinal cure; breathes through its skin; has evolved with many flaps and folds
5. bad reputation; body processes toxins by using its slow metabolism; moving slowly keeps them safe from predators
6. close to extinction; come ashore to lay their eggs

## Reading Skill

### Choosing the Correct Definition

#### Exercise A, page 72

1. 2, the act of supporting (helping) st
2. 2, to remark, express an opinion

#### Exercise B, page 72

1. noun
2. noun
3. noun
4. noun
5. noun
6. verb
7. verb

### Exercise C, page 72

*Answers will vary. Possible answers:*

1. a reaction to something
2. the central meaning of something

3. a small number of something
4. parts of something that are placed over other parts
5. the healing of a disease
6. has as its size, length, or width
7. to understand or value the importance of something

## Vocabulary Practice

### Academic Vocabulary

#### Exercise A, page 72

1. a
2. b
3. a
4. a
5. a
6. b
7. a
8. b

#### Exercise B, page 73

1. b
2. b
3. c
4. a
5. b
6. c
7. b

### Multiword Vocabulary

#### Exercise A, page 74

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

#### Exercise B, page 74

1. goes viral
2. wider audience
3. on the brink of
4. stick around
5. key to success

6. at the end of the day
7. are onto something
8. in the spotlight

### Use the Vocabulary, page 74

*Answers will vary.*

### Think and Discuss, page 75

*Answers will vary.*

### Vocabulary Review

#### Exercise A, page 76

1. sense of humor
2. wide audience
3. in the spotlight
4. charismatic personalities
5. on the brink of
6. buffer zone
7. crucial role
8. vulnerable to danger
9. ambitious project
10. at the end of the day

#### Exercise B, page 76

*Answers will vary.*

#### Exercise C, page 76

*Answers will vary.*

#### Exercise D, page 77

*Answers will vary.*

### Connect the Readings

#### Exercise A, page 77

Animal Conservationists		
	Alan Rabinowitz	Lucy Cooke
Occupation	Zoologist, conservationist, Head of Panthera Foundation	Zoologist, conservationist, blogger, TV hosts
Major goal	Protect jaguar habitats	Promoting awareness for amphibians and other lesser-known animals in danger of extinction
How the goal affects humans	Lack of jaguars can lead to a rise in human diseases.	Without amphibians, entire environments can be disrupted.
How he or she is working to achieve this goal	Working with governments; engaging villagers to explain the importance of the project	Videos/blogs showcasing animals from around the world
How he or she connects with the public	Explain about zoonotic diseases, how the animals are sleek and powerful	Humor and quirky situations that will interest the viewing public
The science and technology used	Satellite photography of jaguar corridors; DNA testing to determine how similar jaguars are from Mexico to Argentina	Through videos and blogs, she explains research about the animals in her videos.

#### Exercise B, page 77

*Answers will vary.*

#### Exercise C, page 77

*Answers will vary.*

## UNIT 4

### *Reading 1 Sun Struck*

#### Reading Preview

##### Exercise A, page 80

1. Solar storms are electromagnetic outbursts that send billions of tons of charged particles toward Earth.
2. The Carrington Event; the strongest known solar storm.
3. Enlil is a computer model that can predict when a CME will hit earth.

##### Exercise B, page 80

1. amateur astronomer, magnetic field, satellite, solar, sunspot, telescope
2. currents, electrical grid, transformer
3. destroy, impact, interact

##### Exercise C, page 80

*Answers will vary.*

### Reading Comprehension

#### Big Picture

##### Exercise A, page 85

1. 10
2. 7
3. 3
4. 4
5. 8
6. 11
7. 6
8. 5
9. 2
10. 9

##### Exercise B, page 85

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

### Close-Up

#### Exercise A, page 85

	1859	1989	Tomorrow
Effects of solar storms	auroral displays; campers thought it was morning; people thought cities on fire; electrical currents burned telegraph lines; other stations operated on the electricity from the sun	a third less powerful than in 1859, but destroyed a power grid that served 6 million	no credit card transactions; GPS signals lost; no electricity for months OR the satellite predicts the storm and the power grids are disconnected for the duration of the storm

##### Exercise B, page 86

*Answers will vary. Possible answers:*

1. No, it wasn't. It was just the first solar storm that was identified.
2. CMEs usually reach Earth 40–60 hours after erupting.
3. Because the first CME had shrunk Earth's magnetosphere.
4. They can predict the storm, and they can take transformers offline for short periods of time so that the transformers don't burn.
5. Enlil predicted a storm and was only off by 45 minutes.

### Reading Skill

#### Understanding In-Text Definitions

##### Exercise A, page 86

1. The sun's magnetism powers a "solar wind" that flings one million tons of plasma outward every second  plasma that travels at one million miles per hour.

2. Sometimes this event can create powerful plasma explosions called *solar flares*.
3. The combined strength of these two CMEs compressed Earth's magnetosphere, the area where the planet's magnetic field interacts with the solar wind.
4. The Carrington Event was due to a powerful solar flare that produced two coronal mass ejections (CMEs) enormous magnetic eruptions of heated plasma.
5. Auroral displays or bursts of red, green, and purple light, usually seen in the far north, were observed in the skies as far south as Hawaii and Panama.
6. Taking the transformers offline or disconnecting them from the power source, protects the grids for the duration of the storm.

### Exercise B, page 86

*Answers will vary. Possible answers:*

1. solar wind = plasma that travels at 100 million mph
2. solar flares = powerful plasma explosions
3. magnetosphere = the area where the planet's magnetic field interacts with the solar wind
4. CME = coronal mass ejections; enormous magnetic eruptions of hot plasma
5. auroral display = colorful light in the sky
6. offline = disconnected from a power source

### Vocabulary Practice

#### Academic Words

#### Exercise A, page 87

1. adjusted
2. monitor
3. potentially
4. recovery, efficiency
5. forecasted, intensity
6. insight

#### Exercise B, page 87

*Answers will vary.*

### Multiword Vocabulary

#### Exercise A, page 88

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

#### Exercise B, page 88

1. the full extent of
2. time frame
3. on end
4. wreak havoc on
5. as we know it
6. come to a halt
7. be caught off guard
8. science-fiction

### Use the Vocabulary, page 88

*Answers will vary.*

### Think and Discuss, page 89

*Answers will vary.*

### Reading 2 Tracking Tsunamis

#### Reading Preview

#### Exercise A, page 90

*Answers will vary. Possible answers:*

1. What is a tsunami?
2. Where do tsunamis occur?
3. How can people prepare for a tsunami?

#### Exercise B, page 90

1. fishing port, seafloor, seawall, surge, waves
2. Earth's crust, fault, seismologist
3. detect, evacuation route, seismologist, stabilize, warning system

#### Exercise C, page 90

*Answers will vary.*

### Reading Comprehension

#### Big Picture

**Exercise A, page 95**

1. a. MI; b. SD
2. a. SD; b. MI
3. a. SD; b. MI
4. a. MI; b. SD

**Exercise B, page 95**

1. *Answers will vary. Possible answer:* that tsunami detection systems are improving, but there is still danger for the many people who live in coastal areas
2. *Answers will vary. Possible answer:* show that tsunamis can have tragic consequences, even in a country that takes serious preventive measures
3. *Answers will vary.*

**Close-Up****Exercise A, page 95**

1. 16,000
2. more
3. 8,000
4. 6
5. 50
6. 200
7. did not do

**Exercise B, page 96**

1. subduction zone = faults on the seafloor
2. tsunameter = an instrument attached to the seafloor that detects tsunamis
3. seismometer = an instrument that helps forecast the scale of a tsunami
4. supercycles = a cluster of big earthquakes that occur at regular intervals

**Reading Skill****Connect Visual Material to a Text****Exercise A, page 96**

1. The map shows the time it took for the tsunami wave from the underwater earthquake in Indonesia in December 2004 to move across the Indian Ocean. The map helps demonstrate how quickly it moved and how forceful it was.

2. The photos show a visual of how within a short period of time, so much damage was caused.
3. The photo is a visual of works putting a seismometer in the water. The caption gives more detail of where they are (off Sumatra Island, Indonesia).

**Exercise B, page 96**

*Answers will vary.*

**Vocabulary Practice****Academic Vocabulary****Exercise A, page 97**

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

**Exercise B, page 97**

1. to
2. live
3. sheer
4. amount
5. worked
6. take
7. process

**Multiword Vocabulary****Exercise A, page 98**

1. Preventive measures
2. in the wake of
3. at any moment
4. at regular intervals
5. got credit
6. Human nature
7. relatively minor
8. a false sense of security

**Exercise B, page 98**

1. preventive measures
2. In the wake of

3. human nature
4. a false sense of security
5. at regular intervals
6. at any moment
7. got credit
8. relatively minor

### Use the Vocabulary, page 99

*Answers will vary.*

### Think and Discuss, page 99

1. Miki Endo said, "Please head to higher ground." She did this to alert the public that a tsunami was coming. While Miki did not survive, she saved many lives.
2. Kerry Sieh said, "We got credit we didn't deserve." *Answers will vary.*
3. Kerry Sieh said, "There's never been a more precise forecast of a giant earthquake, period." *Answers will vary.*
4. Kerry Sieh said, "What are you going to do? Move the whole city for something that happens once every 200 years?" *Answers will vary.*

### Vocabulary Review

#### Exercise A, page 100

1. In the wake of
2. taking precautions
3. monitor the progress of
4. wreak havoc on
5. relatively minor
6. at any moment.
7. alerts the public
8. sheer magnitude of
9. human nature
10. the efficiency of

#### Exercise B, page 100

*Answers will vary.*

#### Exercise C, page 100

*Answers will vary.*

#### Exercise D, page 101

*Answers will vary.*

### Connect the Readings

#### Exercise A, page 101

*Answers will vary. Possible answers:*

Natural Disasters		
	Tsunamis	Solar Storms
<b>How they (usually) begin</b>	Underwater earthquakes move the water above the seafloor, causing huge waves	Powerful plasma explosions or solar flares release energy that heads towards Earth
<b>Effects</b>	Waves surging over land can destroy harbors and towns, and kill thousands	Destroy power grids
<b>Detection</b>	Tsunameters and seismometers in the ocean detect underwater earthquakes	Satellites and computer models like Enlil could predict storms
<b>Preventative measures</b>	Broadcast warnings, stabilize old buildings, equip new ones, build seawalls, well-marked evacuation routes, distribute safety information	Predicting storms, going offline to minimize the damage

#### Exercise B, page 101

*Answers will vary.*

#### Exercise C, page 101

*Answers will vary.*

## UNIT 5

### **Reading 1 Finding Fakes**

#### **Reading Preview**

##### **Exercise A, page 104**

1, 3, 4, 5

##### **Exercise B, page 104**

1. apprentice, art historian, expert, master artist, museum curator
2. auction house, workshop
3. a fake, imitation, masterpiece

##### **Exercise C, page 104**

*Answers will vary.*

#### **Big Picture**

##### **Exercise A, page 109**

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

##### **Exercise B, page 109**

*Answers will vary. Possible answer:*

There is a new way to analyze art, which can determine whether a painting was created by a great master or if it is an imitation.

#### **Close-Up**

##### **Exercise A, page 109**

*Answers will vary. Possible answers:*

1. A fake is a deliberate attempt to pass a painting off as that of a master, to fool people.
2. A sincere imitation is painted in the style as a great master, and later mistakenly attributed to that master.
3. An estimated 15 percent of all paintings sold in auction houses may be imitations.
4. Art forensics is the science of determining if a painting was really painted by the artist to whom it is attributed.

5. X-rays and digital authentication are the two different techniques that art historians use to authenticate art.
6. They are talking about apprentices in the workshops who painted parts of the painting.

##### **Exercise B, page 110**

*Answers will vary.*

#### **Reading Skill**

##### **Assessing Problems and Solutions**

##### **Exercise A, page 110**

1. imitations/fakes
2. digital authentication technique; determine the painting's authenticity
3. analyzes and classifies; the artist's style; baseline; brush strokes
4. a. this will play an important role in art forensics  
b. this could revolutionize identifying imitations from the same time period  
c. they need to test more paintings  
d. it will lead to a new way to study workshop practices as long as the studies can prove they work

##### **Exercise B, page 111**

*Answers will vary*

#### **Vocabulary Practice**

##### **Academic Vocabulary**

##### **Exercise A, page 111**

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

##### **Exercise B, page 111**

1. era
2. attributed

3. exhibit
4. inconsistencies
5. indicates
6. authentic
7. revolutionize
8. complement

### **Multiword Vocabulary**

#### **Exercise A, page 112**

1. b
2. b
3. a
4. a
5. b
6. a
7. a
8. b

#### **Exercise B, page 112**

1. caused a sensation; dirty little secret
2. beyond a reasonable doubt
3. to say the least
4. works of art
5. in conjunction with
6. pass off; was found out

#### **Use the Vocabulary, page 113**

*Answers will vary.*

#### **Think and Discuss, page 113**

*Answers will vary.*

### **Reading 2 The Lost Leonardo**

#### **Reading Preview**

##### **Exercise A, page 114**

*Answers will vary. Possible answers:*

1. *The Mona Lisa/The Last Supper*
2. 500 years ago
3. hundreds of millions

##### **Exercise B, page 114**

1. mysterious, poised, royal; mysterious, royal, valuable
2. auction catalog, frame, vault
3. art restorer, collector, patron, scholar

#### **Exercise C, page 114**

*Answers will vary.*

### **Big Picture**

#### **Exercise A, page 119**

1. 11
2. 7
3. 3
4. 12
5. 5
6. 2
7. 6
8. 8
9. 10
10. 4
11. 1
12. 9

#### **Exercise B, page 119**

*Answers will vary. Possible answer:*

The author wanted to describe the process of authenticating a painting through a specific example.

### **Close-Up**

#### **Exercise A, page 119**

1. Oxford, England
2. New York City, USA
3. Zurich, Switzerland
4. Milan, Italy
5. Warsaw, Poland
6. Florida, USA

#### **Exercise B, page 120**

*Answers will vary. Possible answers:*

1. was poised and contemplative; followed Leonardo's idea that a portrait should reveal "motion of the mind"
2. distinctive hairstyle indicated she belonged to the Milanese court of the 1490s; Leonardo lived in Milan in the same time period and accepted commissions for court portraits
3. distinctive left-handed strokes like Leonardo's

4. Bianca Sforza was the daughter of the Duke of Milan, married to Galeazzo Sanseverino, a patron of Leonardo's art
5. the stitching in the book and the portrait matched; the portrait fit perfectly

### Exercise C, page 120

*Answers will vary. Possible answers:*

1. The painting didn't look like a Leonardo.
2. It looked too "sweet."
3. They wondered where it came from, where it was hiding—too mysterious and sudden.
4. There was no record of the painting.
5. There were no known copies.
6. There was no record that Leonardo had ever painted on vellum.

### Reading Skill

#### Determining Certainty and Uncertainty in a Text

### Exercise A, page 120

1. In 2010, Kemp and Cotte published their findings in a book. Some Leonardo scholars agreed, but others were skeptical.
2. Wright suggested that the answer might lie in the National Library of Poland in Warsaw, inside a book called the *Sforziad*. This book commemorated the marriage of Bianca Sforza, and a Leonardo portrait could have been commissioned to mark the occasion.
3. Then researching the girl's distinctive hairstyle revealed that she must have belonged to the Milanese court of the 1490s.

### Exercise B, page 121

*Answers will vary.*

### Vocabulary Practice

#### Academic Vocabulary

### Exercise A, page 121

1. distinctive
2. purchased
3. restorations
4. vitality

Answer Key for Reading and Vocabulary Focus 4

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5. commemorated
6. portrait
7. contemplative
8. preliminary

### Exercise B, page 121

*Answers will vary.*

### Multiword Vocabulary

### Exercise A, page 122

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

### Exercise B, page 122

1. changed hands
2. stems from; attract much attention
3. not to mention
4. marked the occasion
5. take a closer look
6. thanks to; making a comeback

### Use the Vocabulary, page 123

*Answers will vary.*

### Think and Discuss, page 123

*Answers will vary.*

### Vocabulary Review

### Exercise A, page 124

1. paint a portrait
2. commemorate events
3. a dirty little secret
4. pass photographs off as
5. be found out
6. take a closer look
7. inconsistencies in
8. clearly indicate
9. Thanks to
10. revolutionize the way

**Exercise B, page 124**

*Answers will vary.*

**Exercise C, page 124**

*Answers will vary.*

**Exercise D, page 125**

*Answers will vary.*

**Connect the Readings****Exercise A, page 125**

*Answers will vary. Possible answers:*

<b>Tools for Determining Authenticity</b>	<b>Questions</b>
Digital authentication technique	Is there already a baseline of this artist's work that we can compare to this painting? How many hands were present in this painting?
Macrophotography	When we enlarge the image, what other features can we notice?
Carbon dating	When were the material (vellum/paints) made?
Historical background	Was the artist at the right place at the right time? Are the clothes and hairstyle appropriate?
Distinctive style	Are there any preliminary drawings or copies of the painting?

**Exercise B, page 125**

*Answers will vary.*

**Exercise C, page 125**

*Answers will vary.*

## UNIT 6

### Reading 1 Mind over Matter

#### Reading Preview

##### Exercise A, page 128

- 1 (Paragraph 4)
- 2 (Paragraph 5)
- 3 (Paragraph 12)
- 4 (Paragraph 13)

##### Exercise B, page 128

- adversity, combat experience, hazardous, ordeal
- acting cool, impulsively, overwhelmed, paralyzed, surrender
- focus, mind-expanding, relaxed

##### Exercise C, page 128

*Answers will vary.*

### Reading Comprehension

#### Big Picture

##### Exercise A, page 132

Main Ideas	Survival Skill
1. Use your brain in new ways. Expanding your mind will help you adapt to new situations.	Get Out of Your Comfort Zone
2. If the big picture seems overwhelming, focus on small, manageable tasks. This will help you think clearly.	Do the Next Right Thing
3. Your thoughts make a difference. Try not to be discouraged, admit your mistakes, and know that the situation can improve.	Think Positively
4. Remember that everyone will die, but you can still keep going. Knowing this will help you act sensibly and not out of fear.	Surrender, But Don't Give Up
5. Choose a personal saying that you can repeat to yourself. This saying can have a deeper meaning.	Use a Mantra
6. Keep calm. Getting stressed can lead to bad decisions.	Stay Cool

##### Exercise B, page 133

*Answers will vary. Possible answer:*

How well people cope with adversity can be more important than equipment or training.

#### Close-Up

##### Exercise A, page 133

*Answers will vary. Possible answers:*

- individual character *or* ability to cope
- act impulsively *or* get upset *or* get angry when you are stuck in traffic
- survival *or* “Concentrate on now, on survival”; “Man of action”
- are not discouraged in the face of a challenge, are not afraid to make or admit mistakes, think positively, and learn and adjust faster and are able to overcome obstacles more easily
- makes mental maps of our surroundings; they have to learn the streets of London
- forcing your brain to think step-by-step in times of crisis and in day-to-day life can quiet dangerous emotions *or* it helped him think clearly
- give up

##### Exercise B, page 133

*Answers will vary.*

#### Reading Skill

#### Understanding Argument and Finding Support

##### Exercise A, page 134

- S
- S
- A
- S

**Exercise B, page 134**

Argument	Anecdotal Support	Research-Based Support
Stay Cool	Head of Navy Seals (Rambo)	<input type="checkbox"/> Siebert (The Survivor Personality) <input type="checkbox"/> Bruce McEwen (MRI results)
Use a Mantra	<input type="checkbox"/> Steve Callahan (raft) <input type="checkbox"/> Yossi Ghinsberg (jungle)	X
Think Positively	Jerry Long (diving accident)	Carol Dweck (growth mindset research—Stanford psychology professor)
Get Out of Your Comfort Zone	X	University College London study (London taxi drivers have enlarged hippocampi)
Do the Next Right Thing	Private Giles McCoy (cleaned his pistol)	John Leach (Lancaster University psychology professor)
Surrender, But Don't Give Up	Ahmed Fadaam (Iraqi journalist)	X

**Exercise C, page 134***Answers will vary.*
**Vocabulary Practice**  
**Academic Vocabulary**  
**Exercise A, page 135**

1. adaptable
2. attitude
3. capacity
4. Concepts
5. equation
6. irrelevant
7. outcome
8. cope

**Exercise B, page 135**

1. concepts
2. attitude
3. equation
4. capacity; cope
5. adaptable
6. irrelevant
7. outcome

**Multiword Vocabulary****Exercise A, page 136**

1. a
2. b
3. a
4. b
5. b
6. b
7. a
8. a

**Exercise B, page 136**

1. would be/are better off
2. make a conscious effort
3. comfort zones
4. obsess about; Let go of
5. day-to-day; overcoming obstacles; in the face of

**Use the Vocabulary, page 137***Answers will vary.***Think and Discuss, page 137***Answers will vary.*
**Reading 2 Journey to the North Pole**  
**Reading Preview**
**Exercise A, page 138***Answers will vary. Possible answers:*

Why do they decide to take this trip?

Who are these men?

What training do they have?

Who are their sponsors?

Do they make it to the North Pole?

**Exercise B, page 138**

1. airdrops, flare gun, fuel, satellite images, skis, sled, sponsors
2. frostbite, ice drift, polar bear
3. worry, willpower

**Exercise C, page 138**

*Answers will vary.*

**Reading Comprehension****Big Picture****Exercise A, page 143**

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

**Exercise B, page 143**

*Answers will vary. Possible answer:*

The author wanted to describe his difficult yet rewarding journey to the North Pole.

**Close-Up****Exercise A, page 143**

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

**Exercise B, page 143**

1. to find out about weather conditions
2. ice was drifting south, polar bears ate their food and destroyed their boat, and the wind blew the wrong way
3. blueberry crepes with sour cream and chocolate-covered marshmallows
4. sponsors, writing books, taking pictures, making films, presenting motivational speeches

**Reading Skill****Recognizing Contrasts****Exercise A, page 144**

1. Instead of frigid weather, there was a Siberian heat wave—temperatures in the teens and twenties.
2. Rather than minimal wind, there was a harsh gale, blowing the wrong way and in their faces.
3. And, finally, as opposed to the ice drifting in a direction that would help them, the floes carried them away from the Pole.
4. They aren't marking dots on a geographical map anymore. That was accomplished long ago. What they are doing now is exploring the inner map, the mental and emotional map.

**Exercise B, page 144**

*Answers will vary. Possible answers:*

Then he immediately fell fast asleep and started snoring. Børge, however, was wide awake; When the two men finally reached their destination, they were battered and bruised, they were utterly exhausted, had frostbite, but still in one piece.

**Vocabulary Practice****Academic Vocabulary****Exercise A, page 145**

1. a
2. a
3. b
4. a
5. b
6. a
7. a
8. b

**Exercise B, page 145**

1. daring
2. indispensable
3. minimal
4. patch
5. region
6. assured

7. Treacherous
8. essence

### Multiword Vocabulary

#### Exercise A, page 146

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

#### Exercise B, page 146

1. calculated risks
2. on behalf of
3. pitch dark
4. going to extremes
5. At this rate
6. checked in with
7. beyond their wildest dreams
8. a logical progression

#### Use the Vocabulary, page 147

*Answers will vary.*

#### Think and Discuss, page 147

*Answers will vary.*

### Vocabulary Review

#### Exercise A, page 148

1. geographic region
2. patch of ice
3. treacherous conditions
4. checked in with
5. be better off
6. let go of
7. on behalf of
8. pitch dark
9. part of the equation
10. positive outcome

#### Exercise B, page 148

*Answers will vary.*

#### Exercise C, page 148

*Answers will vary.*

#### Exercise D, page 149

*Answers will vary.*

### Connect the Readings

#### Exercise A, page 149

*Answers will vary. Possible answers:*

Reading 1: Survival Skills	Reading 2: Putting the Skills to Use
Stay Cool	Answers will vary.
Use a Mantra	I would tell Mike and Børge to repeat, "We can do it!" over and over again.
Think Positively	Answers will vary.
Get Out of Your Comfort Zone	"Both men had been adventuring since boyhood, taking incrementally higher and higher calculated risks. At some point, they left their comfort zones and never went back"
Do the Next Right Thing	"Sometimes it was all they could do to keep their eyes focused on the ends of their skis and move forward for the next hour, the next minute, the next yard, because it wouldn't do any good to think ahead."
Surrender, But Don't Give Up	"Børge, if you worry, you die. If you don't worry, you also die. So, why worry?"

#### Exercise B, page 149

*Answers will vary.*

#### Exercise C, page 149

*Answers will vary.*

## UNIT 7

### Reading 1 Golden Worms

#### Reading Preview

##### Exercise A, page 152

1. *yartsa gunbu*, or “golden worms”
2. “summer grass, winter worm”
3. \$30,000

##### Exercise B, page 152

1. herbalists, poachers, skeptics, yak herders
2. ailments, fatigue, ingest, prescribe
3. caterpillars, fungus, stalk, worms

##### Exercise C, page 152

*Answers will vary.*

### Reading Comprehension

#### Big Picture

##### Exercise A, page 158

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

##### Exercise B, page 158

Sentence 6; Caterpillar fungi have transformed the rural economy, leading to a modern-day gold rush.

#### Close-Up

##### Exercise A, page 158

*Answers will vary. Possible answers:*

1. No, yartsa occurs when a caterpillar is eaten by a fungus.
2. For centuries/since the 15<sup>th</sup> century, if not earlier.
3. back pain, fatigue, impotence, high cholesterol, poor eyesight, hair loss, asthma, bronchitis, hepatitis
4. No. Skeptics and some Western scientists say there needs to be more clinical trials and regulation.

5. They use finger signals under a cloth. This way, other people don't know how much they decide on for the price.
6. She wants her worms to be sold in the US.
7. Sengers (diggers) who pick ginseng are required to replant the berries where the root once was, so another ginseng plant will grow in its place.

##### Exercise B, page 159

*Answers will vary.*

### Reading Skill

#### Understanding Pronoun References

##### Exercise A, page 159

1. Caterpillar fungi have transformed the rural economy, leading to a modern-day gold rush. By the time these arrive at the shops of Beijing, they can be priced at more than twice their weight in gold.
2. The fungus is called *yartsa gunbu*. This means “summer grass, winter worm,” although it is technically neither grass nor worm.
3. The fungus eats the inside of the caterpillar, killing the creature, but leaving its exterior intact.
4. Though the process occurs underground, as the fungus flowers, it pushes its way out of the ground. This happens only in the fertile meadows around the Himalayan mountains.
5. One of the earliest known descriptions of yartsa comes from a 15th-century Tibetan text titled *An Ocean of Aphrodisiacal Qualities*, which describes the “faultless treasure” that “bestows inconceivable advantages” on those who ingest it.
6. Worms are piled in boxes and baskets or spread on pieces of cloth, and carefully examined by yartsa dealers. Their value depends on a number of factors: size, color, firmness.

**Exercise B, page 160**

*Answers will vary.*

**Vocabulary Practice****Academic Vocabulary****Exercise A, page 160**

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

**Exercise B, page 160**

*Answers will vary.*

**Multiword Vocabulary****Exercise A, page 161**

1. a
2. b
3. a
4. b
5. a
6. a
7. a
8. b

**Exercise B, page 162**

1. in full swing
2. In light of
3. ended up
4. clinical trials
5. status symbol
6. common practice
7. a piece of the action
8. of choice

**Use the Vocabulary, page 163**

*Answers will vary.*

**Think and Discuss, page 163**

*Answers will vary.*

**Reading 2 The Bite that Heals****Reading Preview****Exercise A, page 164**

*Answers will vary. Possible answers:*

1. the bite: venomous; healing: humans
2. snakes and other venomous creatures
3. toxicologist and herpetologist

**Exercise B, page 164**

1. antidote, arthritis, blood clotting, injection, toxins
2. lizards, scorpion, sting, venom
3. diluted, lethal (toxins, injection, venom, sting), promising (antidote)

**Exercise C, page 164**

*Answers will vary.*

**Reading Comprehension****Big Picture****Exercise A, page 169**

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

**Exercise B, page 169**

*Answers will vary. Possible answers:*

1. venom can be lethal, but it can also save lives
2. how venom can help people rather than harm them

**Close-Up****Exercise A, page 169**

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

8. T
9. T
10. F
11. F
12. T

### Exercise B, page 170

*Answers will vary. Possible answers:*

1. T
2. Michael is not certain that the scorpion sting is completely responsible for his recovery.
3. Venom toxins have different effects on a person's body.
4. T
5. T
6. Most snakebites are reported to the World Health Organization. Some are not reported because people can't access medical treatment or they use traditional remedies.
7. Approximately 100,000 people are killed by venomous bites every year.
8. T
9. T
10. In the 1900s, doctors might have killed their patients by prescribing too much venom.
11. "Toxin libraries" will have samples of every toxin in the world.
12. T

### Reading Skill

#### Categorizing Information

#### Exercise A, page 170

*Answers will vary. Possible answers:*

Effects of Venom	Uses for Venom	Venomous Animals
Fierce pain Clots blood Stops the heart	Allows animal to kill its next meal Medicine for humans	Snakes, scorpions, spiders, lizards, bees, octopuses, fish, and cone snails

### Exercise B, page 170

*Answers will vary.*

### Vocabulary Practice

#### Academic Vocabulary

#### Exercise A, page 171

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

### Exercise B, page 171

1. prolong; hasten
2. trigger
3. decline; presumed
4. advances; composition; derived

### Multiword Vocabulary

#### Exercise A, page 172

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

### Exercise B, page 172

1. made a name for himself
2. eat away at
3. stopped it in its tracks
4. walk a fine line
5. in the near future
6. on the agenda
7. be upwards of
8. packs a punch

### Use the Vocabulary, page 172

*Answers will vary.*

**Think and Discuss, page 173***Answers will vary.***Vocabulary Review****Exercise A, page 174**

1. derived from
2. of choice
3. colloquially known as
4. trigger the adverse reactions
5. in the near future
6. clinical trials
7. be upwards of
8. in light of
9. alleviate suffering
10. inconceivable that

**Exercise B, page 174***Answers will vary.***Exercise C, page 174***Answers will vary.***Exercise D, page 175***Answers will vary.***Connect the Readings****Exercise A, page 175**

	<b>Yartsa Gunbu</b>	<b>Snake Venom</b>
1. Western scientists say that they need to study this more.	<input type="checkbox"/>	<input type="checkbox"/>
2. There is the potential to make a lot of money from this.	<input type="checkbox"/>	<input type="checkbox"/>
3. It has been used for centuries.	<input type="checkbox"/>	<input type="checkbox"/>
4. Its effects can change depending on the animal's diet.		<input type="checkbox"/>
5. This is sold at a market.	<input type="checkbox"/>	
6. It can only be found in the wild.	<input type="checkbox"/>	
7. It can help with asthma.	<input type="checkbox"/>	<input type="checkbox"/>
8. If you have too much, it could kill you.		<input type="checkbox"/>

**Exercise B, page 175***Answers will vary.***Exercise C, page 175***Answers will vary.*

## UNIT 8

### *Reading 1 Treasures of the Titanic*

#### Reading Preview

##### Exercise A, page 178

*Answers will vary.*

##### Exercise B, page 178

1. iceberg, lifeboats, wreck
2. artifacts, display, preservation, relics
3. coward, critical, distress, greed, sordid, wreck

##### Exercise C, page 178

*Answers will vary.*

#### Reading Comprehension

##### Big Picture

##### Exercise A, page 183

1. the sinking of the Titanic
2. 1
3. the Titanic exhibit
4. 4
5. 3
6. RMST and NOAA can work together

##### Exercise B, page 183

*Answers will vary. Possible answer:*

The RMS *Titanic*'s sinking left behind many valuable artifacts and clues about the past. Some people believe that these things should stay where they are underwater, but other people think they should be brought to the surface and preserved in a museum. Recent technology has allowed the government to take high-definition pictures of the shipwreck, so whether the artifacts are preserved or not, we will always be able to look back at the *Titanic*'s history.

#### Close-Up

##### Exercise A, page 183

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

5. F
6. T
7. F
8. F
9. F
10. T
11. T
12. T

##### Exercise B, page 183

*Answers will vary. Possible answers:*

1. T
2. There were 2,208 people on board the Titanic.
3. The members of the band did not leave on the first lifeboats.
4. Twenty-five million people have seen the RMST exhibit around the world / in 20 different countries.
5. One of the RMST exhibits includes a 15-ton piece of the Titanic's hull, reminiscent of a Tyrannosaurus Rex.
6. T
7. Robert Ballard does not work for RMST.
8. Robert Ballard said that RMST did not want to respect the wreck site.
9. In the past, most scientific and U.S. government organizations were not happy with the way that RMST operated.
10. T
11. T
12. T

#### Reading Skill

##### Distinguishing Facts from Opinions

##### Exercise A, page 184

1. F - 1.
2. O - 2. However, most men were honorable and many were heroic.
3. F - 3.
4. O - 4. They are mostly ordinary objects made extraordinary by the long, terrible journey that brought them here.

5. F - 5.
6. O - 6. These guys are driven by **greed**—just look at their **sordid** history.
7. F - 7.
8. F - 8.
9. O - 9. In years to come, this **historic map** **may give voice** to those people who were silenced, **seemingly forever**, when the cold water closed over them.
10. O - 10. **Hopefully**, this new direction will mean that the remains of the Titanic will be both protected and accessible to the public for many years to come.

### Exercise B, page 185

*Answers will vary.*

### Exercise C, page 185

*Answers will vary.*

### Vocabulary Practice Academic Vocabulary

#### Exercise A, page 185

1. heroic
2. immense
3. Lawsuits
4. sole
5. salvaged
6. accessible
7. advocated
8. reassess

#### Exercise B, page 185

1. sole, reassess
2. accessible
3. immense; heroic
4. advocated
5. lawsuits; salvage

### Multiword Vocabulary

#### Exercise A, page 186

1. b
2. a
3. b
4. b

5. b
6. a
7. a
8. a

### Exercise B, page 186

1. is reminiscent of
2. at the expense of
3. a change of heart
4. sheer size
5. state-of-the-art
6. a leap of faith
7. shifted its focus
8. captured our imagination

### Use the Vocabulary, page 187

*Answers will vary.*

### Think and Discuss, page 187

*Answers will vary.*

### Reading 2 Shipwreck Discovery

#### Reading Preview

#### Exercise A, page 188

- 1, 3, 5, 6

#### Exercise B, page 188

1. cargo, coins, ingots, personal possessions, spices, treasure
2. geologist, lease, monitor, off-limits
3. cameras, monitor, guarded, off-limits

#### Exercise C, page 188

*Answers will vary.*

### Reading Comprehension

#### Big Picture

#### Exercise A, page 193

1. 7, paragraph 8
2. 4, paragraph 5
3. 8, paragraph 9
4. 1, paragraph 2
5. 5, paragraph 6
6. 3, paragraph 4
7. 2, paragraph 3
8. 6, paragraph 7

**Exercise B, page 193**

*Answers will vary.*

**Close-Up****Exercise A, page 193**

*Answers will vary. Possible answers:*

<b>The Bom Jesus Shipwreck</b>		
<b>What we know for certain about the shipwreck</b>	<b>What is very likely to be true based on the evidence</b>	<b>What we suspect, but have no real proof that it is true</b>
The ship is from the 15th century.	The ship was the Bom Jesus.	Storms caused the boat to crash.
The ship was found on the coast of Namibia.	The ship was from Portugal.  The ship had approximately 300 men on board.	Many of the men could have survived the shipwreck.
The ship had many Portuguese coins and copper ingots on board.	The ship left Lisbon on March 7, 1533.	The men could have met Bushmen and fared all right in Africa.
There were few personal possessions on board.		The sailors never saw Portugal again.

**Exercise B, page 193**

*Answers will vary.*

**Reading Skill****Understanding Figurative Language****Exercise A, page 194**

1. S
2. M
3. M
4. S
5. S
6. M

**Exercise B, page 194**

*“Why” Answers will vary.*

1. These ships were the pride of Portugal, the space shuttles of their day, off on a 15-month journey to bring back a fortune in spices from distant shores.
2. When the ship hit a rock about 150 yards from shore, a large piece of the stern broke off and the Bom Jesus was sent to its grave.
3. The sailors were as lost as if they had been shipwrecked on Mars.

**Exercise C, page 194**

*Answers will vary. Possible answers:*

Recordings of sighs and groans of shifting metal add to the sensation of being trapped in the belly of a wounded beast (Paragraph 4); Impossibly immense and transported at great expense, it is an extinct species hauled back from a lost world (Paragraph 4); In the past, trying to understand Titanic was like trying to understand Manhattan at midnight in a rainstorm—with a flashlight (Paragraph 8).

**Vocabulary Practice****Academic Vocabulary****Exercise A, page 195**

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

**Exercise B, page 195**

1. encounters
2. fare
3. contend
4. goods
5. issued
6. prospect; suspended
7. venture

**Multiword Vocabulary****Exercise A, page 196**

1. in the vicinity of
2. a strong indication
3. on the contrary
4. by a twist of fate
5. by the skin of their teeth
6. pieced together
7. in the hope of
8. as luck would have it

**Exercise B, page 196**

1. b
2. a
3. b
4. b
5. b
6. a
7. a

**Use the Vocabulary, page 197**

*Answers will vary.*

**Think and Discuss, page 197**

*Answers will vary.*

**Vocabulary Review****Exercise A, page 198**

1. captured the public's imagination
2. a change of heart
3. shifted its focus
4. immense popularity
5. a joint venture
6. fared well
7. sole purpose
8. canned goods
9. sheer size
10. in the vicinity of

**Exercise B, page 198**

*Answers will vary.*

**Exercise C, page 198**

*Answers will vary.*

**Exercise D, page 199**

*Answers will vary.*

**Connect the Readings****Exercise A, page 199**

*Answers will vary. Possible answers:*

Similar: collaborations between investors and scientists / shipwreck / everyday items on board / both famous in their day / great scrutiny during excavation / items perfectly preserved

Different: in the middle of the ocean vs. near the coast / people died vs. people may have died / survivors vs. ? / we know the stories vs. we don't know the stories / different centuries / iceberg vs. storm / luxury ocean liner vs. trade ship / famous now vs. relatively unknown / men, women, and children vs. only men

**Exercise B, page 199**

*Answers will vary.*

**Exercise C, page 199**

*Answers will vary.*

## UNIT 9

### **Reading 1 Kung Fu Battles**

#### **Reading Preview**

##### **Exercise A, page 202**

1. 495AD
2. The temple was burned down.
3. 1972; because there was a TV series about kung fu

##### **Exercise B, page 202**

1. karate chop, self-defense, training, warfare
2. brand, cash registers, employees
3. disciples, enlightenment, monks, robes, temple

##### **Exercise C, page 202**

*Answers will vary.*

### **Reading Comprehension**

#### **Big Picture**

##### **Exercise A, page 207**

1. b
2. a
3. c
4. a
5. b
6. a
7. c

##### **Exercise B, page 207**

*Answers will vary. Possible answer:*

There are conflicting ideas about the best ways to promote Shaolin Kung Fu and retain its traditional values.

#### **Close-Up**

##### **Exercise A, page 207**

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

9. F
10. F
11. F
12. T

##### **Exercise B, page 208**

*Answers will vary. Possible answers:*

1. A fifth century mystic taught kung fu forms and then the monks adapted them so that they could protect the temple.
2. T
3. Not everyone who works in the Shaolin Temple is a monk. (Employees are paid to look like monks.)
4. T
5. T
6. Hu Zhengsheng's main goal in life is not to be a film star like Bruce Lee. He wants to carry on the traditions of Shaolin kung fu.
7. T
8. Girls are allowed at the martial arts schools.
9. When Hu talks about his students eating bitterness, he means that they need to learn how to survive in adverse conditions.
10. When Hu was young, he did not apply to many martial arts academies. He became a servant to a coach.
11. Bruce Lee practiced and taught his own version of Kung Fu.
12. T

### **Reading Skill**

#### **Analyzing the Pros and Cons of an Issue**

##### **Exercise A, page 208**

*Answers will vary. Possible answers:*

1.

Pros	Cons
makes money	doesn't restore the "soul" of the Shaolin Temple.
more people know about Zen Buddhism	stretches the truth—pretend monks

2.

Pros	Cons
It would make money to pay the costs of the school.	Hu doesn't agree with the way that kung fu is portrayed in the movies.
It would increase awareness about the school.	Other kung fu masters might lose respect for him. Fame is not good for people.

### Exercise B, page 209

*Answers will vary.*

### Vocabulary Practice

#### Academic Vocabulary

#### Exercise A, page 209

- d
- g
- a
- b
- h
- c
- e
- f

### Exercise B, page 209

*Answers will vary.*

### Multiword Vocabulary

#### Exercise A, page 210

- e
- h
- b
- a
- g
- f
- c
- d

### Exercise B, page 210

- the leading role
- talk his way into
- made the case
- looked the part

5. stretched the truth

6. honed their skills

7. grit his teeth

8. keep up with

### Use the Vocabulary, page 211

*Answers will vary.*

### Think and Discuss, page 211

*Answers will vary.*

### Reading 2 Kwame Nyong'o: Film Animator

#### Reading Preview

#### Exercise A, page 212

- Best Animation at the African Movie Awards
- in the United States
- Kenya

#### Exercise B, page 212

- characters, humor, magical powers, ogre, village
- background artist, concept designer, consultant, illustrator
- creation, initiatives, kick-start, novelty

#### Exercise C, page 212

*Answers will vary.*

### Reading Comprehension

#### Big Picture

#### Exercise A, page 217

*Answers will vary. Possible answers:*

- Legend of Ngong Hills: creation story/Maasai folktale/ogre + girl
- Anansi: human + spider/folktales good for animation
- (African) folktales = moral dilemma/metaphor + humor
- Kwame's education = 1. U.S. college—fine arts 2. master's—art school 3. animation combined all his passions
- animation initiatives= trainer for UNESCO-sponsored Africa Animated!
- working in Kenya vs. working in the U.S.

**Exercise B, page 217**

*Answers will vary. Possible answers:*

1. more about a computer animator of African folktales
2. it provides an example of an African folktale that Kwame has animated

**Close-Up****Exercise A, page 217**

*Answers will vary. Possible answers:*

1. A creation story explains how things in the world came to exist and teaches a moral lesson.
2. Anansi is a fictional character who is at times a human and at times a spider.
3. African folktales are good material for animated stories because they have humor and elements of fantasy, for example talking animals and magical powers.
4. African folktales use humor because it helps people receive the message—people are more willing to listen to a humorous story.
5. No, Kwame majored in fine arts but he didn't know what he wanted to be until he went back to art school and computer animation was becoming a new field.
6. Africa Animated! was a UNESCO-sponsored project that trained animators across Africa.
7. In Kenya, he is involved in all parts of the process, whereas in the US he would probably be more specialized.
8. He would like to produce a feature length film about Africa—either a period piece or a fantasy piece.

**Exercise B, page 217**

*Answers will vary. Possible answers:*

1. How has technology in Kenya changed since 2010, and how has it helped Kwame?
2. What kind of difficulties did Kwame face while starting his animation company?

**Reading Skill****Recognizing Different Modes of Writing****Exercise A, page 218**

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

**Exercise B, page 218**

1. Narrative
2. Narrative
3. Cause and Effect and/or Narrative
4. Steps in a Process
5. Compare and Contrast
6. Cause and Effect
7. Persuasive

**Exercise C, page 218**

*Answers will vary.*

**Vocabulary Practice****Academic Vocabulary****Exercise A, page 219**

1. moral
2. folklore
3. aspect
4. perspective
5. portrayed
6. opted
7. scenic
8. medium

**Exercise B, page 219**

1. folklore
2. aspect
3. moral
4. perspective
5. portrayed
6. medium
7. opted
8. scenic

**Multiword Vocabulary****Exercise A, page 220**

1. f

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

### Exercise B, page 220

1. has a habit of
2. pit their wits against
3. fine arts
4. stands out
5. a jack-of-all-trades
6. was taken with
7. hand in hand with
8. lends itself to

### Use the Vocabulary, page 220

*Answers will vary.*

### Think and Discuss, page 221

*Answers will vary.*

### Vocabulary Review

#### Exercise A, page 222

1. scenic views
2. keep up with
3. insufficient funds
4. founded by
5. are taken with
6. an important aspect
7. rooted in folklore
8. as they matured
9. hone the skills
10. opt to stay

#### Exercise B, page 222

*Answers will vary.*

#### Exercise C, page 222

*Answers will vary.*

#### Exercise D, page 223

*Answers will vary.*

### Connect the Readings

#### Exercise A, page 223

*Answers will vary. Possible answers:*

	<b>Hu Zhengsheng</b>	<b>Kwame Nyong'o</b>
Profession	Martial arts instructor	Computer animator
Motivation	Wanted revenge on bullies	Listened to folktales as a child
Education	Worked with a performance troupe; Studied with Yang Guiwu	Majored in fine arts in the U.S., then went to art school
Goals	To teach traditional martial arts to a new generation	To introduce African folktales to a new generation
Difficulties	Needs money to cover the costs of the students Students more interested in the glamorous schools—a lot of competition	Needs money to fund the projects that he really wants to do—costs more than live action
Movies	Offered a leading role in a kung fu movie, but he is not sure if he will accept the role	Won an award for his movie <i>The Legend of Ngong Hills</i> His dream project is to create a feature length film about Africa
Moral lessons	Eat bitterness, work hard	Creation stories—characters such as Anansi

#### Exercise B, page 223

*Answers will vary.*

#### Exercise C, page 223

*Answers will vary.*