

- SECOND EDITION •


## ESSENTIAL

ENESE



## ANSWER KEY

## UNIT 1

## EXERCISES

A

1. poor
2. surge
3. trend

B

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

## C

1. b
2. d
3. c
4. C
5. a
6. d
7. a
8. b
9. c
10. a

## READING COMPREHENSION

## Part A

1. $F$ / There is a link between social media use and a surge in health issues.
2. F / Social media may be more addictive than tobacco and alcohol.
3. T
4. F / A keyboard warrior is someone who writes negative posts while hiding their identity.
5. T

## Part B

1. c
2. They use social media to target victims and spread rumors.
3. It can lead to loneliness because digital friends aren't real friends.

## UNIT 2

## EXERCISES

A

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

B

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

## c

1. technique / substance
2. substantially / integrate
3. emit / enable
4. prompt / reject
5. carbon / powder
6. heal / grind
7. dust / skeptic

## READING COMPREHENSION

## Part A

1. T
2. F / Enhanced weathering is a technique used to speed up natural weathering.
3. T
4. T
5. T

## Part B

1. d
2. This happens when rain, which contains carbon, comes in contact with rocks.
3. A disadvantage is that grinding rocks produces dust, which can be harmful to health.

## UNIT 3

## EXERCISES

## A

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

## B

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

C

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

## READING COMPREHENSION

## Part A

1. F / Some places in Europe worked to help save the Jews during the war.
2. T
3. T
4. F / The villagers did everything they could to defy the Germans.
5. T

## Part B

1. a
2. The Huguenots were Protestants who once endured persecution in Catholic France.
3. The residents of Le Chambon-sur-Lignon hid the Jews in their own homes, barns, and public buildings such as orphanages and schools.

## C

1. a
2. $b$
3. $b$
4. d
5. c
6. d
7. c
8. b
9. d
10. a

## READING COMPREHENSION

## Part A

1. F / Impressionism began in France.
2. T
3. T
4. T
5. F / Impasto means "mixture" in Italian.

## Part B

1. b
2. Impressionists liked to paint landscapes and contemporary life.
3. Traditional painting focused on historical, literary, mythological, and religious themes.

## UNIT 6

## EXERCISES

## A

1. b, d
2. $a, b$
3. $c, d$
4. $a, b$
5. c, d

## B

$\begin{array}{lllll}\text { 1. a, c } & \text { 2. a, b } & \text { 3. c, d } & \text { 4. b, c } & \text { 5. a, d }\end{array}$

## C

1. mobilize 2. landing 3. prisoner
2. tribute
3. beyond
4. wounded
5. Many young women are discouraged because they view the technology sector to be too maledominated.
6. Men need to listen to women and foster a comfortable work culture in the tech industry.

## UNIT 5

## EXERCISES

A

1. canvas
2. realistic
3. practice
4. width

B

1. b, c
2. c, d
3. a, d
4. $a, b$
5. a, c
6. wild
7. Thus

## D

1. landing, n .
2. originally, adv.
3. outbreak, n.
4. prisoner, n.
5. mobilize, v.

## READING COMPREHENSION

## Part A

1. $F$ / The joint mission was to capture what is now present-day Istanbul.
2. T
3. T
4. F / The Australian troops did not achieve victory at the end of 1915.
5. T

## Part B

1. a
2. The troops arrived on the Gallipoli peninsula on April 25, 1915.
3. They sing the national anthem.

## UNIT 7

## EXERCISES

A

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

B

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

## C

1. reference
2. reason
3. diversity
4. earthquake
5. endangered
6. cease
7. extinction
8. genocide
9. assimilate
10. percent

## READING COMPREHENSION

## Part A

1. T
2. F / Dominant languages have major effects on endangered languages.
3. F / Once Hindi was made the official language, more people began to speak Hindi, and less people spoke other languages in India.
4. F / The number of Hindi speakers increased.
5. T

## Part B

1. d
2. There are about 500 languages that are officially endangered.
3. People in rural areas stop using their native languages because they want to assimilate into mainstream culture.

## UNIT 8

## EXERCISES

## A

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

## B

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

## C

1. b, d
2. $a, c$
3. a, b
4. b, c
5. a, b

## D

1. performance, n.
2. management, n .
3. powerful, adj.
4. summary, n.
5. metabolic, adj.

## READING COMPREHENSION

## Part A

1. F / The ketogenic diet is a low-carbohydrate/ high-fat diet.
2. $\mathrm{F} /$ The average person gets their energy from glucose.
3. T
4. T
5. F / People should check with their doctor before going on the ketogenic diet.

## Part B

1. b
2. The health benefits of the ketogenic diet are weight loss, diabetes management, increased mental focus and energy, and epilepsy control.
3. Some side effects of the ketogenic diet are cramping, constipation, heart palpitations, and reduced physical performance.

## UNIT 9

## EXERCISES

## A

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

## B

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

## C

1. week, excel
2. theoretical, intregral
3. collision, competent
4. geology, area
5. minimum, job
6. psychology, sociology
7. radioactive, analytic
8. cognitive, relativity
9. keen, intellect
10. bachelor, diploma

## READING COMPREHENSION

## Part A

1. T
2. F / He knew the movements of celestial objects and how to harness the power of radioactive substances.
3. T
4. F / Studying geology didn't give the bachelor a wonderful feeling
5. F / Helping others, not his cognitive talents, had made him feel this great.

## Part B

1. a
2. As soon as he had received his diploma, he asserted to everyone he met that he was the smartest person in town.
3. One day while strolling through the town, the bachelor witnessed a collision between two cars.

## READING COMPREHENSION

## Part A

1. F / Mr. Watson was an administrator at a big factory.
2. F / Some of the changes made to the factory were not legitimate.
3. T
4. F / Mr. Watson violated the law by disposing of the factory's rubbish in the river.
5. F / Changes to the factory's infrastructure created more revenue.

## Part B

1. d
2. According to the officials, Mr. Watson manipulated the law in order to get more money.
3. When all transactions stopped, the factory lost money, and Watson lost his job.

## UNIT 11

## EXERCISES

## A

1. d
2. a
3. d
4. a
5. C
6. $d$ 7. d

## B

## UNIT 10

## EXERCISES

A

1. c
2. b
3. a
4. d
5. c
6. a
7. d
8. b
9. c
10. a

B

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

## C

1. incentive
2. transaction
3. legislated
4. bribed
5. retail
6. administrator
7. headquarters
8. corrupt
9. legitimate
10. revenue

| 1. terminal | 2. extract | 3. impulse |
| :--- | :--- | :--- |
| 4. subsequent | 5. assess | 6. ongoing |
| 7. essence | 8. fabulous | 9. astonished |
| 10. publicity |  |  |

## C

1. haste
2. significance
3. molecules
4. commenced
5. proximity
6. latter
7. synthetic
8. assess
9. remedy
10. inhibit

## READING COMPREHENSION

## Part A

1. T
2. T
3. F / The infection caused by the bacteria he was working on was terminal.
4. T
5. F / Whenever the fungus was close to the bacteria, the bacteria died.

## Part B

1. c
2. The significance of the fungus was that it could kill the bacteria.
3. The scientist extracted molecules from the fungus.

## UNIT 12

## EXERCISES

A

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

B

1. biography
2. acute
3. virtue
4. narrated
5. aggression
6. classical
7. legacy
8. partiality
9. notorious
10. compel

## C

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

## READING COMPREHENSION

## Part A

1. T
2. T
3. F / It was inevitable that Beethoven would lose his hearing altogether.
4. T
5. F / Beethoven's legacy lives on because great music never becomes outdated.

## Part B

1. b
2. The young Beethoven developed a partiality for classical music.
3. He first learned to play the piano when he was five.

## UNIT 13

## EXERCISES

## A

1. c
2. a
3. c
4. b
5. a
6. b
7. a
8. d
9. b
10. a

## B

1. b
2. a
3. a

## C

1. Humanitarian, informative
2. premise, rack
3. undertook, disproves
4. bud, wax
5. tie, credit
6. assignment, hypothesis
7. aspect, asset
8. spatial, awareness
9. Renaissance, optic
10. coordinate, specify

## READING COMPREHENSION

## Part A

1. T
2. F / At first, Sam is a skeptic. He thinks the assignment will be easy.
3. F / When Sam goes into the kitchen, he can't read the newspaper.
4. T
5. F / Without his sense of sight, Sam has worse spatial awareness and isn't able to coordinate his movements easily.

## Part B

1. c
2. According to the teacher, the premise of the experiment is to help the students understand what it's like to be blind.
3. Sam noticed that the bud seemed to be covered with wax.

## UNIT 14

## EXERCISES

## A

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

## B

1. courtyard
2. chaotic
3. corresponded
4. cited
5. fraud

## C

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

## D

1. brainstorm, outlook
2. fraud, budget
3. cite, refined
4. addict, estate
5. prehistoric, archeological

## READING COMPREHENSION

## Part A

1. $F$ / There is no archeological evidence that the Chinese actually made parachutes.
2. F / A Leonardo da Vinci drawing of a parachute corresponds with modern parachute design.
3. T
4. $\mathrm{F} / \mathrm{He}$ used two umbrellas to restrict his speed as he traveled to the ground.
5. T

## Part B

1. a
2. Lenomand used umbrellas because he had a small budget.
3. Lenomand jumped off a tall building on a French estate and landed safely in the courtyard.

## UNIT 15

## EXERCISES

A

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

B

1. viral
2. antibiotic
3. database
4. ratio
5. phase
6. magnet
7. input
8. immune

## C

1. microchip, magnet
2. metabolism, antibiotic
3. prevalent, equivalent
4. quantum, complements
5. ratio, phase
6. spiral, viral
7. input, aggregate
8. intimate, immune
9. circuit, database
10. compresses, pinch

## READING COMPREHENSION

## Part A

1. T
2. $\mathrm{F} / \mathrm{Chips}$ express the aggregate number of immune and infected cells in a ratio.
3. T
4. T
5. F/ Putting microchips in humans is becoming more prevalent.

## Part B

1. a
2. The special magnet copies the chip's data.
3. The next phase of the process involves putting it underneath the person's skin.

## UNIT 16

## EXERCISES

## A

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

## B

1. manufactures 2. mechanisms
2. administration
3. cholesterol
4. deceptive
5. explicit
6. coalition
7. framework
8. reigm
9. straightforward

## C

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

## D

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

## READING COMPREHENSION

## Part A

1. F / Bioco as a biotechnology company manufactured drugs to treat diabetes and high cholesterol.
2. T
3. T
4. T
5. F / After the company minimized air pollution, the motto became apt.

## Part B

1. b
2. Jack stood up to give a speech.
3. The workers threatened to quit.

## UNIT 17

## EXERCISES

A

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

B

1. landlord
2. employ
3. hygiene
4. utility
5. personnel
6. conform
7. furnish
8. lease
9. mortgage

## C

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

## READING COMPREHENSION

## Part A

1. F / If the tenants didn't pay the lease, the landlord could not pay his mortgage and would be bankrupt.
2. T
3. T
4. F / The carpenter mended the holes in the floors and walls.
5. T

## Part B

1. d
2. In addition to dressers, the tenants furnished some of the apartments with new beds and chairs.
3. If the landlord did not conform to the city's mandatory hygienic standards, his tenants would have to leave by the end of the month.

## B

1. therapy
2. biological
3. fantasy
4. adapt
5. cellular
6. rigid
7. dynamic
8. pioneer
9. sequence
10. transfer

## C

1. b, d
2. $a, b$
3. c, d
4. b, c
5. a, d

## D

1. internal, transition
2. biological, substitute
3. respective, heredity
4. minimal, dynamic
5. transplant, pioneer

## READING COMPREHENSION

## Part A

1. F / Internal organ transplants were a fantasy before 1954.
2. F/ Dr. Murray was a pioneer of new surgical procedures.
3. T
4. T
5. T

## Part B

1. d
2. They had the exact same biological traits and cellular features.
3. Doctors prescribed physical therapy to revive Richard's strength.

## UNIT 19

## EXERCISES

## A

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

## B

| 1. frantic | 2. soothed | 3. deviate |
| :--- | :--- | :--- |
| 4. stranded | 5. volatile | 6. nuisance |
| 7. latitude | 8. erroneous | 9. mariners |

C

1. soothe, stranded 2. latitude, equation
2. couple, mariner
3. a
4. c
5. c
6. b
7. a

## READING COMPREHENSION

## Part A

1. F / Even today, sailors opt to navigate by using Polaris on clear nights.
2. T
3. F/ Lost people's problems can be alleviated by gazing up at a starry night sky.
4. T
5. T

## Part B

1. a
2. The permanence of Polaris in the north sky has helped countless people find their destinations.
3. By figuring out the angle between the star and the horizon.

## UNIT 20

## EXERCISES

A

1. $b$
2. $a$
3. b
4. d
5. c
6. a
7. a
8. d
9. c
10. b

## B

1. strap
2. feminine
3. attire
4. reputable
5. pads

## c

1. hierarchy
2. style
3. strap
4. crzae
5. aristocracy
6. excess
7. protocol
8. reputable
9. feminine

## D

1 hierarchy, excess
2. signify, tangled
3. vanity, style

## READING COMPREHENSION

## Part A

1. T
2. F / Just like the ladies, the men wore lipstick and rouge.
3. T
4. F / Women's hair was a tangle of wigs, jewels, flower, and stuffed birds.
5. T

## Part B

1. d
2. The predominant style in women's attire was enormous dresses.
3. The clothing signified wealth and status.

## UNIT 21

## EXERCISES

## A

1. b
2. $b$
3. a

## B

1. embryos
2. publicized
3. surplus
4. theorized
5. verify

## C

1. c
2. a
3. b

## D

1. ashore, survived
2. contradicts, counterpart
3. theorize, publicize
4. devoid, major
5. embryo, gazette
6. individual, homogenous
7. finally, obstruct
8. prolong, plunged
9. vigorous, surplus
10. verify, diverges

## READING COMPREHENSION

## Part A

1. T
2. T
3. F / Scientists verified that baby komodo dragons don't have the same genes as their mothers and are devoid of genetic problems.
4. F/ Scientists theorize that the special ability helps komodo dragons fend off extinction.
5. T

## Part B

1. b
2. It is possible because komodo dragons are vigorous swimmers and can plunge into the water.
3. The baby will be weaker and have genetic problems.

## UNIT 22

## EXERCISES

A

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

B

1. credible
2. psychotic
3. interpret
4. altar
5. arthritis
6. psychic
7. dung

C

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

D

1. scope
2. pneumonia
3. text
4. dusk
5. deception
6. sinister
7. deceased
8. botany
9. interpret

## READING COMPREHENSION

## Part A

1. F / The Greek Magical Papyri was hard to decipher because it was written in at least three different ancient languages.
2. $F$ / The book is about magic.
3. T
4. F / A spell was spoken at dusk to gratify the gods.
5. T

## Part B

1. a
2. A person trying to heal arthritis should build an ornate altar and place mashed herbs on it. Then he or she should say a spell at dusk.
3. The sinister part of the book focuses on causing strife and deception.

## UNIT 23

## EXERCISES

## A

1. a
2. c
3. d
4. a
5. b
6. d
7. a
8. c
9. a
10. b

## B

1. pests
2. magnify
3. savage
4. induce
5. arteries

C

1. a
2. a
3. b
4. a
5. c
6. d
7. b
8. a
9. c
10. b

## READING COMPREHENSION

## Part A

1. $\mathrm{F} /$ The mamushi attacks people if it is stunned.
2. F / The effects of a mamushi bite seem negligible, but they are very serious.
3. T
4. T
5. F / Scientists think that the mainstream idea that animal bites are the most dangerous is invalid.

## Part B

1. C
2. The mamushi bite can impede respiration, induce paralysis and cause the person to be susceptible to kidney deterioration.
3. A tiger's savage nature prevails if her babies are threatened.

## UNIT 24

## EXERCISES

## A

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

## B

| 1. d | 2. $b$ | 3.a | 4. c | 5. b |
| :--- | :--- | :--- | :--- | :--- |
| 6. c | 7. d | 8. c | 9.a | 10. $d$ |

## C

1. b
2. b
3. c
4. a
5. c
6. b
7. a
8. c
9. d 10.d

## READING COMPREHENSION

## Part A

1. F / People were envious of King Croesus because he controlled a precious commodity: gold.
2. T
3. F / The wise man said that the king's good luck wouldn't last.
4. T
5. F / The Oracle's prophecy was that if king Croesus went to war, a great civilization would be destroyed.

## Part B

1. a
2. The messenger was in a festive mood and jolly mood because he thought the Oracle's prophecy was good for Lydians.
3. The civilians who joined Lydian army had high morale because they thought they would win.

## UNIT 25

## EXERCISES

A

1. b
2. d
3. a
4. C
5. d
6. c
7. b
8. a
9. d
10. a

B

1. c
2. c
3. a
4. C
5. d
6. c
7. b
8. d
9. b
10. d

## C

1. render
2. needy
3. compiled
4. rash
5. diagnosed
6. gross
7. transmitted
8. federation
9. humane
10. collaborate

## READING COMPREHENSION

## Part A

1. T
2. F / Smallpox rendered people blind and caused an intolerable rash.
3. T
4. F / Wealthier countries pledged to give any country that could not afford it a vaccine to counteract smallpox.
5. T

## Part B

1. c
2. This federation of countries collaborated to completely destroy smallpox.
3. Their countries could not afford the vaccine nor supply enough doctors to curb the spread of smallpox.

## UNIT 26

## EXERCISES

## A

1. b
2. c
3. b
4. b
5. a
6. c
7. d
8. b
9. a
10.d

## B

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

## C

| 1. upgrade | 2. imperative |
| :--- | :--- |
| 3. provision | 4. manifest |
| 5. viable | 6. adhere |
| 7. voluntary | 8. overcrowded |
| 9. administer | 10. compassionate |

## READING COMPREHENSION

## Part A

1. T
2. F / A deficiency of important fluids caused metabolic processes to stop working correctly.
3. T
4. F / The system used to filter water is being upgraded.
5. T

## Part B

1. d
2. Countries recognized the paramount need to contain the outbreak.
3. The doctors provided sterile drinking water and medication.

## UNIT 27

## EXERCISES

## A

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

B

1. seizure
2. definitive
3. novelty
4. lunar
5. ideology
6. utensil
7. psychiatry
8. personalized
9. reflexes
10. founded

## C

1. a
2. c
3. a
4. d
5. d
6. C
7. C
8. a
9. b
10. d

## D

1. personalized
2. session
3. Almighty
4. equated

## READING COMPREHENSION

## Part A

1. T
2. F / Doctors did not use outdated treatments after definitive treatments were developed.
3. F / The cause of seizures used to be equated to the work of evil spirits.
4. T
5. T

## Part B

1. a
2. He or she would be surprised by the treatment's novelty because doctors in the 1800s were influenced more by primal medical beliefs than science.
3. They were treated like they were insane.

## UNIT 28

## EXERCISES

A

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

## C

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

D

1. appetizing
2. piece
3. oversee
4. crisp

## READING COMPREHENSION

## Part A

1. T
2. T
3. F / The expert who oversaw the process made sure there wasn't discord between the workers.
4. T
5. F / The builders couldn't replicate the design from normal houses.

## Part B

1. a
2. There are warm rooms nearby, a courtesy to people who get too cold.
3. Erik stores his belongings in his ice locker.

## UNIT 29

## EXERCISES

## A

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

## B

1. notwithstanding
2. patent
3. overpopulation
4. habitual
5. sector
6. output
7. region
8. fumes
9. export
10. scraps

## C

| 1. synthesis | 2. suspend | 3. subscribe |
| :--- | :--- | :--- |
| 4. conversion | 5. subsist | 6. scrap |
| 7. defer |  |  |

## D

1. C
2. $b$
3. b
4. d
5. b

B

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

## READING COMPREHENSION

## Part A

1. T
2. F / The environmental sectors of many governments are setting strict standards.
3. T
4. F / A conversion to clean cars means petroleum can be saved for the future.
5. T

## Part B

1. b
2. Many car companies already have patents on prototypes for very efficient cars.
3. Many countries are also subscribing to the point of view that immediate action is needed to provide the world with enough food.

## READING COMPREHENSION

## Part A

1. F / The Chinese farmers became great acrobats while entertaining themselves during the winters.
2. T
3. T
4. T
5. F / Advocacy groups convinced the government to support Chinese acrobatics.

## Part B

1. b
2. In the past, people thought that acrobats were villains and just wanted to trick rich people.
3. The acrobats used vines to perform tricks high above the ground.

## UNIT 30

## EXERCISES

A

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

B

1. acrobats
2. fluid
3. communal
4. inventive
5. resourceful
6. statutes
7. industrious
8. Mandarin
9. rehearsed
10. metropolitan

## C

1. vine, statue
2. harmonized, mimic
3. technical, industrious
4. veterans, villain
5. communal, sensory
6. inventive, misguided
7. staple, advocacy
8. metropolitan, scorned
9. fluid, resourceful
10. Mandarin, acrobat
