

Unit 01 There's a Pig in the House!

Key Words (p. 07)

- A. 1. pet
2. treat
3. trick
4. tear up
5. rodents
6. cage

- B. 1. cage
2. pets
3. tricks
4. Tear up
5. treat
6. Rodents

While you read (p. 09)

They need exercise, so their cage should be big.

Comprehension (pp. 10-11)

A. ①

B. 1. T 2. T 3. F

C. 1. ③ 2. ①, ② 3. ②

D. safe, big, full, treat, pet, tricks

Link to Write (p. 11)

How to Care for My Pet

I want to have an **iguana**. It's important to take care of it properly.

First, it is happy when **it is alone**.

Next, it needs **a big cage and fine sand**.

Finally, it likes to **eat fruit and vegetables**.

** Answers may vary.*

Unit 02 Can You Guess My Name?

Key Words (p. 13)

- A. 1. peek
2. guess
3. criminal
4. backwards
5. pipe
6. cartoon

- B. 1. backwards
2. pipe
3. cartoon
4. criminal
5. guess
6. peek

Think about it (p. 14)

He might be a detective, policeman, or professor.

** Answers may vary.*

Comprehension (pp. 16-17)

A. clues, mysteries

B. 1. F 2. F 3. T

C. 1. ② 2. ①, ② 3. ③

D. guess, English, criminals, hat, Sherlock

Link to Write (p. 17)

Guess Who?

- Rules: Try to guess who this person is.

Don't **search the Internet to find the answer**.

- Clues: 1. He is not a real person.
2. **He saves many people from danger.**
3. **He uses supernatural power.**
4. **He wears blue pants and a red cape.**
- Answer: **Superman**

** Answers may vary.*

Unit 03 Let's Eat Local!

Key Words (p. 19)

- A. 1. temperature
2. transport
3. distance
4. atmosphere
5. fuel
6. ocean

- B. 1. distance
2. ocean
3. fuels
4. temperature
5. atmosphere
6. transport

While you read (p. 21)

Imported food uses the most fuel.

Comprehension (pp. 22-23)

A. ©

B. 1. T 2. F 3. T

C. 1. ⑥ 2. © 3. ①, ⑥

D. distance, fuel, heat, warming

Link to Write (p. 23)

What Food Used the Most Fuel?

What foods do you usually eat, and where do they come from? Look in your refrigerator. Then fill in the chart below.

Local Foods	Imported Foods (Country)
milk	butter (Australia)
apples	mushrooms (China)
pork	oranges (the US)

Among those foods, **oranges** used the most fuel because it travels a long distance from **the US**.

** Answers may vary.*

Unit 04 How Many out of a Hundred?

Key Words (p. 25)

- A. 1. count
2. pie chart
3. formula
4. survey
5. graph
6. school lunch

- B. 1. graph
2. survey
3. school lunches
4. count
5. formula
6. pie chart

Think about it (p. 26)

Yes, I like it very much because it has various delicious food.

** Answers may vary.*

Comprehension (pp. 28-29)

A. school lunches, like

B. 1. T 2. F 3. T

C. 1. © 2. ① 3. ⑥

D. survey, lunch, results, percentages

Link to Write (p. 29)

How Is **Your School Uniform**?

I want to know your opinion. Please check below.

1. **I like its design.** ☐



2. **I like its color.** ☐



3. **Its price is good.**



- Thanks for your participation. -

** Answers may vary.*

Unit 05 I'm out of Control!

Key Words (p. 33)

- A. 1. concentrate
2. reward
3. timer
4. self-control
5. stay up
6. delete

- B. 1. timer
2. self-control
3. stayed up
4. delete
5. reward
6. concentrate

Think about it (p. 34)

I would tell him that he should delete the game from his computer and phone right away.

** Answers may vary.*

Comprehension (pp. 36-77)

A. stop, fix

B. 1. F 2. F 3. T

C. 1. a 2. c 3. b

D. concentrate, completely, 10(ten), reward, start

Link to Write (p. 37)

Dear Agatha,

I'm having a problem with self-control. I can't stop **eating sweets after meals**. Should I **completely stop eating them at once**?

Help me,
Sweets' Lover

** Answers may vary.*

Unit 06 Round or Flat?

Key Words (p. 39)

- A. 1. half
2. stretch
3. sphere
4. map
5. globe
6. shrink

- B. 1. shrink
2. sphere
3. stretch
4. half
5. globe
6. map

While you read (p. 40)

We cut globes into two equal halves, and the shortest distance is on the line the cut makes.

Comprehension (pp. 42-43)

A. 1. c

B. 1. T 2. T 3. F

C. 1. b, c 2. b 3. a

D. Globes: melon, circle, halves, real
Maps: shortest, stretch

Link to Write (p. 43)

Globes or Maps?

In my opinion, **maps** have more advantages than **globes**. For example, **they are easy to carry with**. They also have some disadvantages like **they do not show the exact locations**. However, I think they are still better than **globes**.

** Answers may vary.*

Unit 07

Athens: Birthplace of Democracy

Key Words (p. 45)

- A. 1. law
2. population
3. dispute
4. vote
5. property
6. equal

- B. 1. Property
2. population
3. vote
4. laws
5. equal
6. dispute

While you read (p. 46)

A direct democracy is the government in which each citizen voted on the laws.

Comprehension (pp. 48-49)

A. democracy, different

B. 1. T 2. F 3. T

C. 1. a 2. b 3. b

D. laws, land, foreigners, power

Link to Write (p. 49)

Government System in My Country

The government system of my country is different from ancient Athens'. First, we have a **direct democracy in which the citizens have equal votes.**

Citizens are **equal in terms of gender, property, and religion.**

They vote **for choosing law makers or the president.**

** Answers may vary.*

Unit 08

The Great Train Adventure

Key Words (p. 51)

- A. 1. view
2. backpacking
3. luxurious
4. dining
5. landscape
6. railway

- B. 1. view
2. railway
3. luxurious
4. dining
5. landscapes
6. backpacking

Think about it (p. 52)

The train has luxurious rooms and dining places, so it is just like staying in a hotel while you're traveling.

** Answers may vary.*

Comprehension (pp. 54-55)

A. 1. c

B. 1. F 2. T 3. T

C. 1. b 2. a, b 3. c

D. historic, country, magical, end, planes

Link to Write (p. 55)

My Travel Plan

- Period: **7** days **8** nights
- Transportation: **Train & Bus**
- Route: from **Beijing** to **Shanghai**
- Routes or attractions:
 1. **The Forbidden City**
 2. **Summer Palace**
 3. **the Great Wall of China**

** Answers may vary.*

Unit 09 As the World Turns

Key Words (p. 59)

- A. 1. top
2. space
3. spin
4. rise
5. set
6. flashlight

- B. 1. rises
2. top
3. flashlight
4. set
5. space
6. spins

While you read (p. 60)

It takes 24 hours.

Comprehension (pp. 62-63)

A. night, spins

B. 1. F 2. T 3. F

C. 1. a, b 2. b 3. c

D. 24, light, shadow, night

Link to Write (p. 63)

Day and Night Date: **2016 / 09 / 20**

The sun rises at **6:30 am** today.
It becomes bright, and I get up at **7:00 am**.
Daytime starts. It will last 12 hours.

At night, the sun **sets at 7:20 pm today**.
It becomes dark, and I **go to bed at 10:00 pm**. Night starts. It will last another 12 hours.

** Answers may vary.*

Unit 10 Keep Your Enemies Closer

Key Words (p. 65)

- A. 1. skin
2. peck
3. cut
4. swallow
5. itch
6. worm

- B. 1. peck
2. Worms
3. skin
4. itches
5. swallow
6. cut

Think about it (p. 67)

I think Crocodile benefits more because he ate the plover whole.

** Answers may vary.*

Comprehension (pp. 68-69)

A. b

B. 1. F 2. T 3. T

C. 1. c 2. b 3. a

D. Hippo and the oxpeckers: worms, cuts,
oxpeckers
Crocodile and a plover: teeth, shut

Link to Write (p. 69)

They Help Each Other

Some animals help each other to live together. They benefit equally. It is called "symbiosis."

Ants and **aphids** are a good example.

In their relationship, **ants protect aphids from predators, and aphids provide ants with food.**

** Answers may vary.*

Unit 11

CO₂ : The One-Way Gas

Key Words (p. 71)

- A. 1. stick
2. ultraviolet light
3. atom
4. molecule
5. gas
6. greenhouse

- B. 1. gas
2. greenhouse
3. stick
4. ultraviolet light
5. molecule
6. atom

While you read (p. 72)

Infrared rays have the longest.

Comprehension (pp. 74-75)

A. ③

B. 1. F 2. F 3. T

C. 1. ① 2. ③ 3. ②

D. light, UV(Ultraviolet), infrared, inside

Link to Write (p. 75)

How to Reduce CO₂

The greenhouse effect causes many problems in our environment. So we have to reduce CO₂. To do so, ...

1. We can plant many trees in mountains.
2. **We can mainly eat local food.**
3. **We can use public transit.**

** Answers may vary.*

Unit 12

Now I See the Stars!

Key Words (p. 77)

- A. 1. doorknob
2. germs
3. telescope
4. scattered
5. lens
6. microscope

- B. 1. doorknob
2. telescope
3. microscope
4. lens
5. Germs
6. scattered

Think about it (p. 79)

I would like to see Mars and Venus with a telescope.

** Answers may vary.*

Comprehension (pp. 80-81)

A. telescope, lenses

B. 1. T 2. F 3. F

C. 1. ①, ② 2. ② 3. ③

D. Telescopes: bigger, far away, moon(stars)
Microscopes: tiny, germs

Link to Write (p. 81)

Lenses Are around Us!

There are many tools that have lenses. We use them for different purposes.

- Magnifying glass: We use it to see small things.
- Camera: We use it **to take pictures.**
- **Sunglasses: We use them to avoid sunlight.**
- **Binoculars: We use them to see things that are a long distance away.**

** Answers may vary.*

Unit 13

Uncovering and Saving the Past

Key Words (p. 85)

- A. 1. remove
2. artworks
3. varnish
4. repair
5. art restorer
6. fade

- B. 1. faded
2. repairs
3. Varnish
4. remove
5. artworks
6. art restorer

While you read (p. 86)

They clean, repair, and protect old artworks.

Comprehension (pp. 88-89)

A. ①

B. 1. T 2. F 3. F

C. 1. ② 2. ③ 3. ①, ③

D. time, badly, old, damage, change, generations

Link to Write (p. 89)

Art Jobs

There are many different jobs related to art. Among them, I'd like to introduce you to the **curators**. This person's main jobs are **to collect artworks for a gallery and provide the audience with good explanations about them**. These jobs are important because **many people do not know about art**.

** Answers may vary.*

Unit 14

The Painted Village

Key Words (p. 91)

- A. 1. shine
2. dome
3. village
4. earthquake
5. cliff
6. reflect

- B. 1. shines
2. reflect
3. earthquake
4. village
5. cliff
6. dome

Think about it (p. 93)

Narrow alleys between houses and stone steps are also pretty. And the sunset makes the village the most beautiful place in the world.

** Answers may vary.*

Comprehension (pp. 94-95)

A. white, island

B. 1. T 2. F 3. F

C. 1. ①, ② 2. ③ 3. ①

D. light, walls, heat, Short

Link to Write (p. 95)

The Most Beautiful Building

The most beautiful building I know is the **Taj Mahal**. It is located in **Agra, India**. It is beautiful because **its walls and poles are decorated with elaborate designs and jewels**.

** Answers may vary.*

Unit 15

William Tell, the Opera

Key Words (p. 97)

- A. 1. storm
2. thunder
3. march
4. dawn
5. hero
6. orchestra

- B. 1. Thunder
2. Storms
3. heroes
4. Dawn
5. orchestra
6. march

While you read (p. 98)

It is the musical introduction of an opera.

Comprehension (pp. 100-101)

A. ©

B. 1. T 2. F 3. F

C. 1. ⑥ 2. ④ 3. ③

D. cello, rages, over, flute, calm, trumpets, win

Link to Write (p. 101)

Title: ***Moonlight***

I like to listen to ***Moonlight***. It was written by **Ludwig van Beethoven**. It is played by a **piano**. I like this music because **the beautiful melody makes me calm and pleasant**.

** Answers may vary.*

Unit 16

Coastal Safety

Key Words (p. 103)

- A. 1. hurricane
2. flooding
3. pantry
4. beams
5. generator
6. firefighter

- B. 1. beams
2. flooding
3. Firefighters
4. generator
5. hurricane
6. pantry

Think about it (p. 105)

I need some batteries and a flashlight. Or candles might be useful in case the power goes out.

** Answers may vary.*

Comprehension (pp. 106-107)

A. ⑥

B. 1. F 2. T 3. F

C. 1. ④ 2. ⑥ 3. ⑥, ③

D. Outside: flooding, shutters, winds
Inside: generator, pantry

Link to Write (p. 107)

How to Prepare for an **Earthquake**

An **earthquake** occurs every year in this area. I have some tips to prepare for it.

1. **Go under desk or table when you're inside.**
2. **Quickly run to an open place when you're outside.**
3. **Don't use elevators.**

If you're prepared, you can reduce the damage.

** Answers may vary.*

Unit 01

There's a Pig in the House!

Word Practice (p. 04)

- A. 1. trick 2. treat 3. tear up
4. cage 5. rodents 6. pet
- B. 1. ⓑ 2. ⓐ 3. ⓑ 4. ⓐ

Sentence Practice (p. 05)

1. You have to take care of a pet guinea pig properly.
2. They need that to feel safe.
3. Give them a treat each time.
4. You can even teach them tricks!

Summary (p. 05)

- ① rodents ② properly ③ cage
④ treat ⑤ tricks

Unit 02

Can You Guess My Name?

Word Practice (p. 06)

- A. 1. peek 2. guess 3. pipe
4. cartoon 5. backwards 6. criminal
- B. 1. ⓐ 2. ⓑ 3. ⓐ 4. ⓑ

Sentence Practice (p. 07)

1. You try to guess who I am.
2. I have appeared in lots of cartoons.
3. I have a very good memory.
4. I find clues and solve mysteries.

Summary (p. 07)

- ① guess ② cartoons ③ memory
④ criminals ⑤ pipe

Unit 03

Let's Eat Local!

Word Practice (p. 08)

- A. 1. atmosphere 2. temperature 3. ocean
4. distance 5. transport 6. fuel
- B. 1. ⓑ 2. ⓑ 3. ⓐ 4. ⓐ

Sentence Practice (p. 09)

1. It came from a farm or the ocean.
2. It's all about the distance your food travels.
3. Transporting food burns fuel.
4. Burning fuel adds CO₂ to the atmosphere.

Summary (p. 09)

- ① distance ② fuel ③ atmosphere
④ temperature ⑤ local

Unit 04

How Many out of a Hundred?

Word Practice (p. 10)

- A. 1. pie chart 2. school lunch 3. formula
4. count 5. graph 6. survey
- B. 1. ⓑ 2. ⓐ 3. ⓑ 4. ⓐ

Sentence Practice (p. 11)

1. Make a percentage graph with the results.
2. They passed out survey sheets in the lunch line.
3. In math class, they counted the results.
4. By percentage, most kids like them.

Summary (p. 11)

- ① assignment ② passed ③ collected
④ counted ⑤ pie

Unit 05 **I'm out of Control!**

Word Practice (p. 12)

- A. 1. timer 2. delete 3. self-control
4. stay up 5. concentrate 6. reward
- B. 1. ⓐ 2. ⓑ 3. ⓐ 4. ⓑ

Sentence Practice (p. 13)

1. Should I delete it from my computer?
2. You're having a problem with self-control.
3. It's like cheese and crackers.
4. Play for ten minutes as a reward.

Summary (p. 13)

- ① concentrate ② self-control ③ fix
④ reward ⑤ timer

Unit 06 **Round or Flat?**

Word Practice (p. 14)

- A. 1. sphere 2. half 3. stretch
4. globe 5. shrink 6. map
- B. 1. ⓑ 2. ⓐ 3. ⓑ 4. ⓐ

Sentence Practice (p. 15)

1. You know the Earth is a sphere.
2. That's why we have globes.
3. Imagine you cut globes into two equal halves.
4. Some things stretch, and others shrink.

Summary (p. 15)

- ① sphere ② routes ③ Maps
④ rectangle ⑤ shrink

Unit 07 **Athens: Birthplace of Democracy**

Word Practice (p. 16)

- A. 1. law 2. equal 3. property
4. vote 5. dispute 6. population
- B. 1. ⓑ 2. ⓐ 3. ⓐ 4. ⓑ

Sentence Practice (p. 17)

1. The citizens have equal votes.
2. Each citizen voted on the laws.
3. Men without property were left out.
4. The courts settled disputes.

Summary (p. 17)

- ① democracy ② citizen ③ laws
④ property ⑤ equal

Unit 08 **The Great Train Adventure**

Word Practice (p. 18)

- A. 1. dining 2. view 3. luxurious
4. landscape 5. railway 6. backpacking
- B. 1. ⓐ 2. ⓑ 3. ⓐ 4. ⓐ

Sentence Practice (p. 19)

1. Enjoy world-class dining.
2. View beautiful landscapes unfolding every minute.
3. You'll be pleased by what unfolds outside your window.
4. We have tour options to meet your needs.

Summary (p. 19)

- ① railway ② dining ③ landscapes
④ historic ⑤ pleased

Unit 09 **As the World Turns**

Word Practice (p. 20)

- A. 1. rise 2. top 3. space
4. spin 5. set 6. flashlight
- B. 1. Ⓑ 2. Ⓐ 3. Ⓐ

Sentence Practice (p. 21)

1. The sun rises in the east.
2. That's why we have day and night.
3. You may know the Earth spins like a top.
4. Imagine the sun as a flashlight.

Summary (p. 21)

- ① top ② spin ③ light
④ flashlight ⑤ night

Unit 10 **Keep Your Enemies Closer**

Word Practice (p. 22)

- A. 1. worm 2. cut 3. swallow
4. peck 5. skin 6. itch
- B. 1. Ⓑ 2. Ⓐ 3. Ⓑ 4. Ⓐ

Sentence Practice (p. 23)

1. Oxpeckers were pecking into the skin.
2. I hate the worms inside my skin.
3. They peck the worms but leave cuts on me.
4. Crocodile swallowed the bird whole.

Summary (p. 23)

- ① itch ② peck ③ cuts
④ benefit ⑤ swallow

Unit 11 **CO₂: The One -Way Gas**

Word Practice (p. 24)

- A. 1. gas 2. molecule 3. stick
4. ultraviolet light 5. greenhouse
6. atom
- B. 1. Ⓐ 2. Ⓐ 3. Ⓑ 4. Ⓑ

Sentence Practice (p. 25)

1. The Earth's air is made of many gases.
2. CO₂ is called a greenhouse gas.
3. Ultraviolet light has the shortest waves.
4. Molecules are atoms that are stuck together.

Summary (p. 25)

- ① Ultraviolet ② molecules ③ heats
④ infrared ⑤ greenhouse

Unit 12 **Now I See the Stars!**

Word Practice (p. 26)

- A. 1. scattered 2. lens 3. microscope
4. doorknob 5. germs 6. telescope
- B. 1. Ⓐ 2. Ⓑ 3. Ⓑ 4. Ⓐ

Sentence Practice (p. 27)

1. It has two kinds of lenses.
2. The big lens gathers scattered light.
3. Telescopes help us see big things that are far away.
4. You'll need a microscope for that.

Summary (p. 27)

- ① lenses ② scattered ③ microscope
④ Telescopes ⑤ close

Unit 13

Uncovering and Saving the Past

Word Practice (p. 28)

- A. 1. repair 2. fade 3. artworks
4. art restorer 5. varnish 6. remove
- B. 1. ⓑ 2. ⓐ 3. ⓑ 4. ⓑ

Sentence Practice (p. 29)

1. You don't think much about art restorers.
2. They repair and protect old artworks.
3. In classical painting, varnish is the last step.
4. It also keeps the colors from fading.

Summary (p. 29)

- ① repair ② restorers ③ varnish
④ remove ⑤ generations

Unit 14

The Painted Village

Word Practice (p. 30)

- A. 1. shine 2. village 3. reflect
4. dome 5. cliff 6. earthquake
- B. 1. ⓐ 2. ⓑ 3. ⓐ 4. ⓐ

Sentence Practice (p. 31)

1. The older brother, Nick loves his village.
2. Nick looked down the cliffs toward the water.
3. The white buildings with blue domes shone in the sun.
4. Because we sometimes have earthquakes.

Summary (p. 31)

- ① domes ② climate ③ reflect
④ heat ⑤ earthquakes

Unit 15

William Tell, the Opera

Word Practice (p. 32)

- A. 1. dawn 2. march 3. hero
4. storm 5. thunder 6. orchestra
- B. 1. ⓑ 2. ⓐ 3. ⓑ 4. ⓐ

Sentence Practice (p. 33)

1. This tells the story of a Swiss hero.
2. The first part is slow, peaceful cello music.
3. The full orchestra plays this part.
4. Swiss villagers enjoy the calm after the storm.

Summary (p. 33)

- ① hero ② Dawn ③ Storm
④ orchestra ⑤ March

Unit 16

Coastal Safety

Word Practice (p. 34)

- A. 1. pantry 2. beams 3. generator
4. firefighter 5. hurricane 6. flooding
- B. 1. ⓑ 2. ⓑ 3. ⓐ 4. ⓑ

Sentence Practice (p. 35)

1. A firefighter in full gear came into the classroom.
2. The house was raised high on beams.
3. Hurricane sometimes causes flooding.
4. Ms. Morales turned on the generator.

Summary (p. 35)

- ① beams ② flooding ③ generator
④ pantry ⑤ emergency