

## Contents

| Part    | Real Life                       | Con V       |    |
|---------|---------------------------------|-------------|----|
| Unit 01 | Whoops an Invention!            | Non-fletion | 06 |
| Unit 02 | The Very Special Jack-o-Lantern | Fiction     | 12 |
| Unit 03 | Make Your Own Dirt              | Non-flotion | 18 |
| Unit 04 | A UFO? An IFO!                  | Fiction     | 24 |





| Part<br>IV | Art&PE                  |             |     |
|------------|-------------------------|-------------|-----|
| Unit 13    | A Different Museum Tour | Fiction     | 84  |
| Unit 14    | The Sound of Strings    | Non-flotion | 90  |
| Unit 15    | Let's Stay in Shape!    | Non-flotion | 96  |
| Unit 16    | Animalympics            | Fiction     | 102 |
|            |                         |             |     |

About My Best Reading 108
 Word Index 110
 Scope & Sequence 112

Dite - all





# **Real Life**

#### Whoops ... an Invention!

1

2

Unit 3

4

A new oven was born by accident.



#### The Very Special Jack-o-Lantern

This year, Holly has her best Halloween ever.



#### Make Your Own Dirt

You can grow your own dirt. How?

Non-fiction

A UFO? An IFO! A UFO is heading right for us!



## whoops ... an Invention!

Unit



## **Key Words**

🔕 Look and listen. Then repeat the word. 🛞







invention

microwave oven

3







radio wave

scientist

melt

#### Fill in the blank to complete the sentence.

- 1 There is a(n) \_\_\_\_\_ in a lamp. It produces light.
- 2 The computer is a wonderful \_\_\_\_\_.
- 3 If you are interested in science, why don't you become a(n) ?
- 4 A(n) \_\_\_\_\_ cooks food very quickly using electric waves.
- 5 In summer, ice cream cones fast.
- 6 A microwave is a small .



## 

Most inventions take a long time and hard work. Edison wasn't the first inventor of the light bulb. He only made the first good one. And many people tried before him. Altogether, the light bulb took about 70 years! But some inventions come from accidents. You have one in your kitchen: the microwave oven. A microwave is a small radio wave. Radio waves can send information through the air. Your radio and TV use large radio waves. Scientists first made tiny radio waves for radar. Radar finds things that are far away.

In 1945, a scientist tested his radar. At that time, he had a candy bar in his shirt pocket. It **melted**! Next, he tried popcorn. It popped very quickly!

"Aha!" he thought. "Tiny radio waves can cook food, and fast!"

A new oven was born. (138 words)

 Radar uses radio waves and detects
 objects like motor vehicles, ships, and aircraft.

**More Words & Phrases** 

While you read

light bulb?

Who invented the first good

accident an event that happens by chance

tiny very small
 far away distant.

#### Mhat is the passage mainly about?

- the invention of radar
- (b) an oven invented by accident
- © dangerous kitchen accidents

#### B Choose the right one according to the passage.

- 1 Most inventions need (lucky accidents / hard work).
- 2 TV uses ( large / small ) radio waves.
- 3 The first use of microwaves was ( finding / melting ) things.

#### Choose the best answer to each question.

- 1 What took about 70 years to get right?
  - ③ kitchens

(b) the light bulb (c) the microwave

© radar

2 What was the inventor of microwave ovens testing?

a radio

(b) ovens

3 Which things use small radio waves? (Pick two.)

adar

b light bulbs

© microwave ovens

| In   | ventions around Us            |          |
|--|-------------------------------|----------|
| Most take long and hard u                      | work: the light bulb          |          |
| <ul> <li>After many people tried,</li> </ul>   | Edison made the first good on | е.       |
| Some come from accident                        | s: the                        |          |
| <ul> <li>A scientist tested his rad</li> </ul> | lar.                          |          |
| • A(n)   | in his pocket melted          | ę.       |
| He found out radio wave                        | es can                        | quickly. |



# The Very Special Jack-o-Lantern

Do you have a festival in your town? What is the most interesting part of it?

Unit

## **Key Words**

🔕 Look and listen. Then repeat the word. 🔘 🕮







jack-o-lantern

maze





0,9

cornfield



bumpy



#### Fill in the blank to complete the sentence.

We're thrilled when the car runs on the \_\_\_\_\_ road.
 Every year, we visit the \_\_\_\_\_ and enjoy music and plays.
 My uncle grows corn in his \_\_\_\_\_.
 I couldn't find a way out of the \_\_\_\_\_.
 Finally, we put the last piece in the \_\_\_\_\_.
 People cut out a face on a pumpkin to make a \_\_\_\_\_.

# The Very Special Jack-o-Lantern ••••

Holly loved Halloween, and especially jack-o-lanterns.
But last year, Dad bought a plastic jack-o-lantern.
"It's not very special," she said.
"We'll get a special one next year," Dad promised.
This year, they visited the Pomona Pumpkin Festival in California. "It's the most popular festival," Dad explained. "There's a corn maze. That's a comfield you walk through, like a giant puzzle."

> Think about it What else is there at the pumpkin festival?

And there were pumpkins! There were smooth, bumpy, and big ones. One was even taller than Holly! "Dad, I like that one!" she shouted. "Sorry," Dad said. "That's too big." Holly understood and picked another nice, normal pumpkin. At home, they cut out a face. "It's perfect!" Holly said. On Halloween, Holly was excited. She went outside, but stopped in shock. The big pumpkin was there with hers. They had the same face. (13) words)

**More Words & Phrases** 

promise to tell someone that you will definitely do something
 popular liked by a lot of people

smooth having no lu
 normal usual, typic

having no lumps on the surface usual, typical, or expected

#### Omplete the topic sentence of the passage.

| This Halloween, Holly | went to the P  | f | and |
|-----------------------|----------------|---|-----|
| got a special j       | as a surprise. |   |     |

#### Choose the right one according to the passage.

- 1 Holly's favorite part of Halloween was ( jack-o-lanterns / festivals ).
- 2 Last year, Dad bought a jack-o-lantern made of ( plastic / corn ).
- 3 Dad said the festival was ( typical / popular ).

#### Choose the best answer to each question.

1 What is a corn maze like?

|   | a pumpkin             | (b) a festival             | © a puzzle     |
|---|-----------------------|----------------------------|----------------|
| 2 | What interested Holly | at the festival?           |                |
|   | a big pumpkin         | (b) a cornfield            | © a funny face |
| 3 | Which kind of pumpk   | in did Holly finally pick? |                |
|   | a bumpy one           | (b) tiny one               | © normal one   |





# 13 Make Your Own Dirt

Do you make food garbage every day? What should we do to reduce it?

## **Key Words**

A Look and listen. Then repeat the word. Opp

2







earthworm







spray



feed

# Fill in the blank to complete the sentence. 1 I \_\_\_\_\_\_ water on the plant every day. 2 In the \_\_\_\_\_\_, we avoid sunlight and feel cool. 3 \_\_\_\_\_\_ are long brown worms that live in the soil. 4 After playing on the ground, the child was covered with \_\_\_\_\_\_ 5 You should \_\_\_\_\_\_ and wash your pet. 6 A shape with four straight sides and 90° angles is a(n) \_\_\_\_\_\_

## Make Your Own Dirt 🚥

- People grow plants inside. But did you know you can even grow dirt? Here's how.
  - 1. First, get a plastic bin. Rectangles are best.
  - Next, get some earthworms. That's right, worms! You can get them from fishing stores.
  - After that, get some garden dirt. Put it in the bin. Tear up some newspaper. Add it. Then spray water on it.
  - Now your worms have a lovely home! Put them in the bin. Then place it in the shade.







5. Now it's time to feed your worms. This part is fun. You can feed them food garbage! Vegetable scraps and fruit peels are good. Worms also eat eggshells and coffee grounds.

The worms eat the food and leave dirt behind. In a few months, you will have more dirt! And plants love dirt from worms. It's healthy! (139 words)



More Words & Phrases

tear up to rip into small pieces

scraps pieces of food that are left after eating
 peel the skin of some fruits and vegetables
 grounds small pieces of material, especially of coffee

#### Mhat is the passage mainly about?

- a growing dirt
- (b) feeding worms
- © making a garden

#### B Choose the right one according to the passage.

- 1 It is good to use bins that are ( circles / rectangles ).
- 2 You can get worms at a (pet / fishing ) store.
- 3 You need to add ( water / dirt ) to the newspaper.

#### Choose the best answer to each question.

- 1 Where should you put the worm bin?
  - (a) in the shade
    (b) in the sun
- © in the refrigerator
- 2 What can you feed your worms? (Pick two.)
  - eggshells
- (b) orange juice
- 3 What is the dirt from worms good for?
  - a water
- (b) plants

- © coffee grounds
- © your health

Read the passage again. Then complete the chart below.

|    |                      | To Grow Dirt Inside               |  |
|----|----------------------|-----------------------------------|--|
| 1. | Get a plastic bin.   |                                   |  |
| 2. | Get some             |                                   |  |
| з. | Put dirt and         | , and then spray water on it.     |  |
| 4. | Put earthworms in th | e bin, and place it in the shade. |  |
| 5. | Feed your worms      |                                   |  |

Link to Write

\* \* \*

Think of ways you can reduce food garbage. Then complete the list on your own.

#### **Reduce Food Garbage!**

We make a lot of food garbage every day. It's not good for the environment. To reduce food garbage, I'll do the things below.

- 1. I'll finish all the food on my plate.
- 2. I'll

3. I'll

. .



What is the difference between a square and a cube?

## **Key Words**

A Look and listen. Then repeat the word. I and a state of the word.



#### B Fill in the blank to complete the sentence.

When you make clothes, you should \_\_\_\_\_\_ your size.
 A(n) \_\_\_\_\_\_\_ is flat and has four equal sides.
 A(n) \_\_\_\_\_\_\_ has six sides, and they are all squares.
 People see a strange object in the sky. They believe it is a(n) \_\_\_\_\_\_.
 Both straight lines are 4 cm long. They are \_\_\_\_\_.
 A rectangle has four \_\_\_\_\_\_ with 90° angles.

## A UFO? An IFO!

"Mom, Sarah! Come outside quick!" Josh yells. "Let's go see what it is," Mom tells Sarah. "Wow!" Sarah shouts. "There's a UFO heading right for us!"

"It's a big, glowing square!" Josh adds.

"No," Sarah says, "it's a cube!"

Mom sees a shape glowing in the dark. She laughs and says, "Well, you're both almost right."

"How?!" the kids ask.

Think about it Do UFOs really exist? What shapes are they? "Squares are flat shapes with four equal edges. But cubes have six square sides, like a box," Mom explains. "I learned we measure a square two ways: length and width," Josh says proudly.

"You're right! But we measure a cube three ways: length, width, and height."

"So, that UFO is not just a square and not a whole cube," Sarah says.

"And it's not a UFO, actually." Mom catches and shows them, a sky lantern. (135 words)



#### **More Words & Phrases**

IFO an identified flying object
 glowing producing a soft steady light

length how long something is from one end to the other
 width how wide something is from side to side
 height how tall someone or something is

#### Omplete the topic sentence of the passage.

| Jo | sh and S | Sarah think the | y saw a U | , but it is |  |
|----|----------|-----------------|-----------|-------------|--|
| a  | s        | 1               |           |             |  |

#### Choose the right one according to the passage.

- 1 Josh was ( inside / outside ) looking at the sky.
- 2 Sarah thinks the object is a (square / cube).
- 3 Josh learned how to measure a(n) ( edge / square ).

#### G Choose the best answer to each question.

1 What does a cube have?

| ③ a flat shape | (b) square sides |
|----------------|------------------|
|                |                  |

© different edges

© neither

- 2 Who got the right answer about the object?
  - a Josh

- ⑤ Sarah
- 3 What is a cube most similar to?
  - a box

- (b) a kite
- - © a square





# Social Studies

m

H H

....

Part

#### Who Would Get Up First?

Brian took the last seat on the bus.

## 6 Nauru

8

5

werful countries can

Powerful countries came and found valuable rocks on the island.

#### Ook and Aak

They live in the same place, but at different times.



The DMZ: An Untouched Nature Reserve

Should we continue to protect the DMZ?





## **Key Words**

A Look and listen. Then repeat the word. Opp







sweat

dizzy

throw up







interview

#### B Fill in the blank to complete the sentence.

Feeling \_\_\_\_\_\_, John couldn't stand on the top floor.
 When it is hot and humid, we \_\_\_\_\_\_ a lot.
 Tom is a real star, so many people want to \_\_\_\_\_\_\_him.
 Jenny had too much pizza, and she wanted to \_\_\_\_\_\_\_.
 Every \_\_\_\_\_\_ on the bus should fasten their seat belts.
 When cameras \_\_\_\_\_\_, a sudden bright light comes out.

## Who Would Get Up First? 🚥

Brian's stomach hurt, and he was sweating. His teacher sent him home early. He got on the bus and took the last seat. He was dizzy and wanted to throw up. An old woman walked slowly by the sitting passengers. But they all looked away.

#### Think about it

What would you do in the same situation? "Close your eyes," said a voice in Brian's head. "Pretend you're asleep!"

#### More Words & Phrases

voice the sounds that you make when you speak
 pretend to act as if something is true

"That's not right," said a second voice. "Get up!" "But he's sick, and nobody else is moving!" said the first voice. "Who will know?"

"Brian will know. He'll get better soon. But this decision will last forever."

Finally Brian got up. He gave up his seat to the old woman.

When he got off the bus, cameras flashed! The bus had hidden cameras. It was a TV show! The host interviewed Brian. He became famous!

decision a choice that you make
 hidden difficult to see or find

#### What is the passage mainly about?

- a TV show
- ⑤ giving up a seat
- © going to a doctor

#### B Choose the right one according to the passage.

- 1 Brian was sweating because he was ( sick / exercising ).
- 2 (The host / An old woman ) walked by the sitting passengers.
- 3 Brian heard two voices in ( his head / the bus ).

#### Choose the best answer to each question.

1 How did Brian feel on the bus?

③ dizzy

(b) angry

- 2 Why did the first voice say Brian should NOT get up?
  - He was sleeping.
     He was young.
     He was sick.
- 3 What did Brian finally do?
  - a) got better
- 6 fell asleep
- © gave up his seat

© sleepy







## **Key Words**

🔕 Look and listen. Then repeat the word. 🎯







island

native

rock





mine



wildlife

#### Fill in the blank to complete the sentence.

- 1 Please \_\_\_\_\_a hole in the ground.
- 2 An American Indian is a(n) \_\_\_\_\_ of America.
- 3 The country is a(n) . It is surrounded by the sea.
- 4 People get coal and gold from a(n)
- 5 The forest is in danger. We need to protect the
- 6 There are many kinds of \_\_\_\_\_\_ underground, like marble or limestone.

Have you heard of the people of Nauru? What happened to them?

## Nauru 🚥

Nauru is an island near Australia. It is a tiny country with a troubled history.

Long ago, Nauru natives did not have much. But it was enough. They had coconuts on the island and fish in the sea.

In the 1800s, powerful countries came to the area. They found special rocks on Nauru. The rocks were valuable. So they dug mines everywhere on the island. They took the rocks, and they took control of Nauru.



More Words & Phrases

valuable worth a lot of money
 control the power to make decisions about a country

In 1968, Nauru got control again. Now the natives owned the rock mines! They grew rich very quickly. But they took a lot of rocks too fast. The mining hurt plants and wildlife. In the end, the rocks ran out.

Today Nauru has very little business. Its people need help from other countries. And their environment is in danger. (194 words)



run out to use all of something
 environment the air, water, and land on the Earth

#### A Complete the topic sentence of the passage.

| Nauru once had valuable r | , but now the e |
|---------------------------|-----------------|
| is in danger.             |                 |
| is in danger.             |                 |

#### Choose the right one according to the passage.

- 1 Nauru is near (Australia / the UK).
- 2 (Nauru natives / Powerful countries ) found rocks on Nauru.
- 3 After Nauru got control again, the people soon grew ( poor / rich ).

#### G Choose the best answer to each question.

- 1 What did the powerful countries do on Nauru?
  - a bought land
- took rocks
   © helped the people
- 2 What got hurt after the people took too many rocks?
  - ③ wildlife
- (b) business (C) mines
- 3 What do the people of Nauru need to live now?
  - (a) fish and coconuts (b) special rocks
- © help from others







# **Ook** and Aak

Do you know something interesting about the Stone Age?

The Stone Age

8,000 B.C.

the New Stone Age

3,000 B.C.

the Old Stone Age

5 million B.C.

How were things different from today?

## **Key Words**

A Look and listen. Then repeat the word. Opp



#### B Fill in the blank to complete the sentence.



## **Ook and Aak**

Ook and Aak live in the same place, but at different times. Ook lives in the Old Stone Age. And Aak lives in the New Stone Age. Let's watch as they get up. Ook grabs a spear with a stone tip. Aak grabs an axe with a stone blade. They both make things with stone. Ook hunts animals. They always move, and Ook follows. So he has a tent. But Aak grows his own food in his garden. So he always stays in his mud hut. At lunch time, Ook is hungry. So he finds nuts and berries. Look, a rabbit! Bye, Ook. He'll be gone for hours. Aak is hungry too. But he gets vegetables from his garden and milk from his goat. Ook has to find his food. But Aak makes his own. That's the biggest difference. (109 words)

Think about it Whose life is more interesting, Ook's or Aak's?

More Words & Phrases

grab to take hold of something quickly
 tip the pointed end of something

difference a way in which things are not like each other

#### Mhat is the passage mainly about?

- (a) why farming is smart
- b how two ages are different
- © how Ook and Aak look alike

#### Choose the right one according to the passage.

- 1 Ook and Aak live in the same ( place / time ).
- 2 Aak has a(n) (axe / spear) with a stone blade.
- 3 Ook has a tent and ( keeps / hunts ) animals.

#### Choose the best answer to each question.

- 1 What do both Ook and Aak make things with?
  - a mud b stone
- © trees
- 2 What does Aak have that Ook does NOT? (Pick two.)
  - (a) a tool (b) a garden
- 3 Why will Ook be gone for hours?
  - (a) to chase a rabbit
     (b) to feed a goat

© a hut





# The DMZ: An Untouched Nature Reserve

**Key Words** 

A Look and listen. Then repeat the word. 20







agreement







protect

B Fill in the blank to complete the sentence.

The point in the middle shows the \_\_\_\_\_\_.
 The \_\_\_\_\_\_\_ is filled with tall trees and green plants.
 The fences \_\_\_\_\_\_\_ the animals from danger.
 \_\_\_\_\_\_\_ of the yellow area. The train is coming in.
 The waterfall lies on the \_\_\_\_\_\_ between the US and Canada.
 Both countries came to a(n) \_\_\_\_\_\_ to stop fighting.

Where is the DMZ? What is found there?

Unit

## The DMZ: An Untouched Nature Reserve 🕬

The DMZ is a strip of land between South and North Korea. It's around 4 kilometers wide. The real country border is in the center. But South and North Korea have an agreement. Both countries stay out of the DMZ. This began in 1953 after the Korean War.

Soon after, both countries developed their land. That hurt the environment. But people couldn't go to the DMZ. So it became a special, safe place for wildlife. Red-crowned cranes and white-naped cranes are most famous. Some endangered animals, such as black bears and musk deer, also live in the DMZ.

Now the DMZ is home to many rare animals and plants. Some are the last of their kind in Korea. They are hard to find anywhere else. The DMZ also has natural, untouched forests.

Many people hope the Koreas will become one country again. But some also worry about the wildlife in the DMZ. They want to protect it forever. (135 words)

| When did the agreement<br>about the DMZ begin? | $\cdots \leftarrow \checkmark \qquad \leftarrow \leftarrow$ |                              |
|--|--|------------------------------|
|  |  |                              |
| More Words & Phras                             |  | not seen or found very often |

kind

one of the different types

untouched

strip

not changed or damaged

a long, narrow piece of land

#### A Complete the topic sentence of the passage.



#### B Choose the right one according to the passage.

- 1 The DMZ is ( outside / between ) South and North Korea.
- 2 The country ( border / town ) is in the center of the DMZ.
- 3 Both countries ( protected / developed ) their land.

#### Choose the best answer to each question.

- What is NOT found in the DMZ?
  - (a) tall buildings
    - (b) rare animals (C) forests
- 2 What keeps people out of the DMZ? (a) a strip of land (b) a war
- © an agreement
- 3 What do many people hope for about two Koreas?
  - a) one country
- (b) more DMZs (c) less development







# Science

#### A Bird's-Eye View during her family trip.

Unie 9

10

12

## Maria rode on a hot-air balloon

#### The Longest Voyage

The space probe Voyager 1 will continue its journey until 2030. Non-fictio

#### 11 A Look Underground

Plant roots play two important roles.



**Sweet Science** 

Juan didn't want to do hisscience fair project.

Non-fictio



## **Key Words**

🔕 Look and listen. Then repeat the word. 🔘 🛛







hot-air balloon

pilot







scream

# **B** Fill in the blank to complete the sentence. 1 A \_\_\_\_\_\_ controls airplanes and helicopters. 2 If you ride on the \_\_\_\_\_\_, you can see beautiful scenery. 3 Some people \_\_\_\_\_\_ as soon as they see a snake. 4 When you are surprised or excited, you \_\_\_\_\_\_. 5 We \_\_\_\_\_\_ balloons with air. 6 Wear a life jacket, and you will \_\_\_\_\_\_ in the water.



Maria's family was visiting Turkey. Mom wanted a hot-air balloon ride. But Maria wanted to see Pamukkale — a mountain of special white rock.

"We'll do both," Mom said.

When they went to the balloon, Maria froze.

"Don't be scared," the pilot said. "I'll explain how it works. Get in!"

Maria stepped inside carefully.

"Hot air is lighter than cold air," he explained. "So the balloon's hot air floats above the heavy, cold air outside. And it takes us up in the sky!" "But we're heavier than air!"

"True," the pilot continued. "But the balloon fills up space. It's like a cup, with us in it. Fill the same cup with colder air. That's still heavier."

Maria understood. Then she screamed. They were already in the air.

"You're safe," he said.

"No, not that," Maria said. "Look! Pamukkale is beautiful!" (139 words)

> Think about it How does a hot-air balloon land?

Pamukkale is a natural site in Turkey. The weather is always warm and nice. There are many hot springs and historical places in the area.

**More Words & Phrases** 

a bird's-eye view a view of something from high above it
 creater of the someone about something in an easy way

continue to keep or not stop doing something
 space an area, room, etc. that is empty

#### Mhat is the passage mainly about?

- (a) how hot-air balloons work
- (b) what Pamukkale looks like
- © what Maria did on the mountain

#### Read the passage again. Then complete the chart below.

|   | A Hot-Air Balloon Ride                       |
|---|--|
| The balloon has                         | inside.                                      |
| Hot air is                              | than cold air.                               |
| <ul> <li>Even with people, a</li> </ul> | hot-air balloon will float above colder air. |
| <ul> <li>From the balloon, P</li> </ul> | amukkale looks                               |

#### Choose the right one according to the passage.

- 1 Pamukkale is mostly ( white rock / hot air ).
- 2 At first, Maria was ( excited / scared ) by the balloon.
- 3 (Mom / The pilot ) explained how balloons work.

#### Choose the best answer to each question.

1 What did Mom decide to do?

|   | ③ see Pamukkale         | b ride in a balloon      | © both |
|---|-------------------------|--------------------------|--------|
| 2 | What does a balloon n   | eed to rise? (Pick two.) |        |
|   | a people                | (b) air                  | © heat |
| 3 | How did Maria feel at t | the end?                 |        |
|   |                         |                          |        |

(a) amazed (b) scared (c) safe

|  | f a special experience you had on a<br>en complete the paragraph. |
|--|---|
| How Amazing!                           | How Amazing!  |
| Last summer, I went to Turkey          | Last summer, I went to  |
| with my family . We visited many       | . We visited mar  |
| places and had fun. But Pamukkale      | places and had fun. But   |
| was most impressive. We <b>rode in</b> | was most impressive. We   |
| the hot-air balloon there.             | there   |
| It was wonderful!                      | It was wonderful  |



### **Key Words**

🔕 Look and listen. Then repeat the word. 🎯







space probe

solar system





record



B Fill in the blank to complete the sentence.

- 1 The \_\_\_\_\_ has some old songs from the past.
- 2 The planets in the circle the Sun.
- 3 The moon's \_\_\_\_\_\_ takes it around the Earth.
- 4 We tried to the rocket several times but failed.
- 5 Someday, we will contact living in another world.
- 6 NASA sent the to space. It gathered data.

## The Longest Voyage 🚥

A lonely machine speeds through space. It's more than 20 billion kilometers away. This is *Voyager 1*. It's a NASAspace probe.

*Voyager 1* lounched in 1977. It reached Jupiter in 1979. And it got to Saturn in 1980. It gathered important data in both places. It discovered Jupiter's rings. It also studied Titan. That's one of Saturn's moons. Titan has air like Earth.

> NASA (National Aeronautics and Space Administration) is a US organization that Ocontrols space travel and the study of space.

*Voyager 1* left our solar system in 1990. Now it's going to the Oort cloud. That's a cloud of ice and dust. It's outside Pluto's orbit. *Voyager 1* will keep going until 2030.

The probe carries a golden **record**. This record makes sounds and pictures. They are examples of human culture and nature on Earth. They include animal sounds, human languages, and famous landmarks. Will aliens find the record someday? We hope so. (135 words)



#### **More Words & Phrases**

speed to go quickly
 billion the number 1,000,000,000
 discover to find someone or something

dust fine powder or small bits of earth
 landmark an important place or event in history

#### Omplete the topic sentence of the passage.

| <i>Voyager</i> 1 is | a space P | th | at NASA launched. It carries a |
|---------------------|-----------|----|--------------------------------|
| 9                   | r         | 1  |                                |

#### Choose the right one according to the passage.

- 1 Voyager 1 discovered ( Jupiter's rings / Saturn's moons ).
- 2 Voyager 1 left our solar system in (1980 / 1990 ).
- 3 The Oort cloud is a cloud of ( air / ice ) and dust.

#### G Choose the best answer to each question.

1 What is Titan?

| <li>an orbit</li> | (b) Saturn's moon | © a cloud |
|-------------------|-------------------|-----------|
|-------------------|-------------------|-----------|

2 What is closest to the Oort cloud?

(a) Saturn (b) Jupiter (c) Pluto

- 3 What does the golden record include? (Pick two.)
  - animal sounds (6)

(b) alien messages (c) pictures of landmarks



|                                      | OSTAG                                |
|--------------------------------------|--------------------------------------|
| Dear Aliens,                         | Dear Aliens,                         |
| Hi, there! I'm Jane from Earth.      | Hi, there! I'm from Earth.           |
| I have some things to show you. Here | I have some things to show you. Here |
| are pictures of my family and        | are pictures of                      |
| friends . Also, here are some        | . Also, here are some                |
| sounds of birds in the park .        | sounds of                            |
| I hope I will see you someday.       | I hope I will see you someday.       |
| From Earth                           | From Earth                           |

## A Look Underground

Unit

Do you like potatoes? Did you know they are the roots of a plant?

## **Key Words**

🔕 Look and listen. Then repeat the word. 🔘 🕮



root



spread



pull out







desert

sapling

#### B Fill in the blank to complete the sentence.

- 1 I spilt the ink, and it \_\_\_\_\_ over the carpet.
- 2 In the \_\_\_\_\_, the air is dry, and there's little water.
- 3 The curved side of a hammer is used to nails.
- 4 Soon after planting the seed, we saw a green
- 5 You can eat the orange of a carrot plant.
- 6 Brothers and sisters sometimes \_\_\_\_\_\_ for love from their parents.


# Underground 🕬

We don't think much about plant roots. Why? We don't see them often. But roots are very important and do amazing things.

Roots have two main jobs. One is keeping plants steady. Roots **spread** wide underground. They hold steady in the dirt, so plants don't fall down. And we can't **pull** them **out** easily.

Roots also gather food and water. Do plants really eat food? Sure! They get food from the dirt and even store it. They get water that way too. That's very important for desert plants.

Most plants compete for food and water. But some plants do something unusual. They don't just take in food and water. They share it! Many forest trees share food through their roots, but only with their own saplings. They never share with other plants. (132 words)





#### **More Words & Phrases**

underground steady under the earth's surface not moving or shaking

store to keep something until you need it
 share to use something with others

72

#### What is the passage mainly about?

- (a) how plant roots eat and drink
- (b) why plant roots need dirt
- © what plant roots do

#### B Choose the right one according to the passage.

- 1 Roots hold steady in the ( dirt / water ).
- 2 Gathering water and ( food / light ) is a main job of plant roots.

(b) underground

(b) food

3 Roots are especially important in ( deserts / saplings ).

#### Choose the best answer to each question.

- 1 Where do we find roots?
  - above plants
- 2 What do roots store? (Pick two.)
  - a dirt

- © water
- 3 What do many forest trees do with their saplings?
  - a share food
- (b) pull roots
- © kill insects

© around leaves

#### D Read the passage again. Then complete the chart below.

|                                      | Jobs of Plant Roots        |     |
|--------------------------------------|----------------------------|-----|
| Keeping plants ste                   | ady                        |     |
| <ul> <li>Roots spread wid</li> </ul> | de                         |     |
| They hold                            | in the dirt.               |     |
| We can't                             | them out easily.           |     |
| Gathering food and                   | l water                    |     |
| · Roots get food a                   | nd water from the dirt and | it. |
| <ul> <li>Some plants sha</li> </ul>  | re food with their         |     |



# 12 Sweet Science

What will you do for your science fair project?

### **Key Words**

🔕 Look and listen. Then repeat the word. 🔘 🗃



#### B Fill in the blank to complete the sentence.

Ice is the \_\_\_\_\_\_ state of water.
 When Jake feels \_\_\_\_\_\_, he likes to drink cola.
 I always add sugar to my coffee and \_\_\_\_\_\_ it.
 \_\_\_\_\_\_ a half cup of milk into the bowl.
 In the hot sun, the ice cream quickly turned to \_\_\_\_\_\_
 Students did a(n) \_\_\_\_\_\_ during the science class.

# Sweet Science 🚥

"Juan!" Dad says. "Your science fair project is due tomorrow!"

"Uh-oh," Juan says. "I completely forgot."

"Science fairs are boring," Juan adds. "Can I skip it this year?"

Dad frowns, and then thinks for a moment. "Okay, fine," he says.

Juan raises an eyebrow. Then Dad gets sugar, lemon juice, and soda water. He **pours** the juice and **stirs** in sugar.

"Are you making lemon soda?" Juan asks.

"Yeah ... I'm thirsty."

"Wait, there's too much sugar!" "How do you know that?" Think about it Why is Dad making lemon soda? Is he really thirsty? Juan points to the bottom of the glass. "That solid sugar will never become liquid."

"Aha!" Dad says. "I forgot about the soda!" He pours the soda water.

"See? There's still sugar left. We should measure it," Juan says.

"Really?" Dad asks. "Let's do an experiment and write it down!"

"And ... that makes my science project?" Dad smiles. (141 words)



No.

#### **More Words & Phrases**

project a piece of research work by a student
 due expected at a certain time
 moment a very short period of time

bottom the lowest

#### Omplete the topic sentence of this passage.

| Juan does not want to do |            | project. But Dad     |
|--------------------------|------------|----------------------|
| makes lemon s            | , and that | changes Juan's mind. |

#### D Read the passage again. Then complete the chart below.

|      |                     | Juan's Science Project       |
|------|---------------------|------------------------------|
| 1. J | luan wants to       | his science project.         |
| 2. C | Dad gets            | and tries making lemon soda. |
| 3. H | le puts in too muc  | h sugar, and Juan knows it.  |
| 4. J | luan thinks they sh | it.                          |
| 5. T | his becomes his s   | cience .                     |

#### Choose the right one according to the passage.

- 1 Juan thinks science fairs are ( fun / boring ).
- 2 Dad pours ( water / juice ) first to make a drink.
- 3 Dad puts in too much ( sugar / soda ), and Juan knows it.

#### G Choose the best answer to each question.

1 What does Dad add last?

|   | ③ sugar           | b juice         | © soda water |
|---|-------------------|-----------------|--------------|
| 2 | What does Juan su | uggest they do? |              |
|   | ③ measure         | (b) drink       | © write      |

- 3 Which states of sugar does Juan mention? (Pick two.)

(a) liquid (b) solid

© gas

| Science Fair Project            | Science Fair Project |
|---------------------------------|----------------------|
| • Topic: how much sugar         | • Topic:             |
| melts in water                  |                      |
| • What to do: an experiment     | • What to do:        |
| • What I need: water, sugar,    | • What I need:       |
| a glass, and a spoon            |                      |
| • Result: Three spoons of sugar | · Result:            |

81





Do you like paintings? Who is your favorite painter?

### **Key Words**

🔕 Look and listen. Then repeat the word. 🎯







tour

wave

whisper







confused

focus

missing

#### B Fill in the blank to complete the sentence.

- When we \_\_\_\_\_, we speak quietly into someone's ear.
   Only \_\_\_\_\_\_ on one topic and do research about it.
- 3 It is time to say goodbye. I at him.
- 4 The police couldn't find the \_\_\_\_\_ diamond.
- 5 During the , we visited several museums and parks.
- 6 The kids looked \_\_\_\_\_\_ when the teacher asked a question.

# A Different Museum Tour 👓

Laura and Mom arrived at the Musée d'Orsay. Laura frowned.

"Another art museum?"

A group of other kids were there.

"This is a children's tour. Enjoy!" Mom said, waving goodbye.

"Not having fun?" the guide whispered, watching Laura's face.

"Nope." Laura sighed but followed the group. "Okay, kids," the guide said. "The parents are gone. Let's find the weird stuff!"

Laura smiled — a little.

Musée d'Orsay is an art museum in Paris, France. In this museum, there are artworks by famous painters including Monet, Manet, Degas, Gauguin, and Van Gogh.

#### **More Words & Phrases**

weird very strange or unusual
 stuff things or objects

First, they saw a Degas painting of people in a café. "What's wrong here?" asked the guide.

Laura looked carefully and laughed. "There're no table

legs!"

"Right!" the guide said. "Degas didn't need any legs!"

The kids looked confused.

"Degas knew a secret. We focus on faces and miss other details. Our brains trick us. So we don't notice small changes, like the missing legs. Now, who wants to find more secrets?"



How do you feel about the woman in the painting?

"Me!" Laura said. (140 words)



secret something few people know
 trick to fool someone

#### Mhat is the passage mainly about?

- (a) where to go see Degas paintings
- b how Laura changed her mind about art
- © what Laura thought about Paris

#### B Choose the right one according to the passage.

- 1 Laura did not want to visit a(n) ( art / science ) museum.
- 2 The guide and different ( parents / children ) were there.
- 3 (Mom / The guide ) noticed that Laura was not interested.

#### Choose the best answer to each question.

- 1 What does the group do first?
  - ③ take photos
- (b) go to a café
  (c) see a painting
- 2 What did Degas leave out?
  - a table legs
     b walls and mirrors
     c people
- 3 What do people often do when they focus on faces?
  - a paint pictures
- (b) find secrets (c) miss details

D Read the passage again. Then complete the chart below.









Have you heard of a string quartet? What instruments does it include?

### **Key Words**

A Look and listen. Then repeat the word. 3







string

similar

bow







B Fill in the blank to complete the sentence.
1 Could you \_\_\_\_\_\_ this pole until I come back?
2 I can't reach the top shelf, so I need a \_\_\_\_\_\_.
3 Each \_\_\_\_\_\_ of a guitar makes a different sound.
4 A \_\_\_\_\_\_ is a musical symbol that represents a sound.
5 Although the boys are twins, they don't look \_\_\_\_\_\_.
6 To play the violin, you pull a \_\_\_\_\_\_ across the strings.

# bouros edit scinitis io

Four string instruments are common in classical music. They look similar. They all use a bow and four strings. But they are different in size and sound. They are the violin, viola, cello, and double bass. Together, they're called a string quartet.

The violin is the smallest. Violinists can play it under the chin. It has the shortest strings. Short strings can reach high notes. Violas are bigger. But violists still play them under the chin. They have longer strings. So they reach lower notes. Cellos come next. They are too big to hold up. So cellists sit in chairs. Their cellos rest on the floor. Cellos have longer strings. So they reach even lower notes.

cello

double bass

The double bass is the biggest. It has the longest strings and reaches the lowest notes. Basses are tall. So bassists need high stools. (140 words)

#### While you read

What are the smallest and the biggest instruments in a string quartet?

Qviola

#### **More Words & Phrases**

classical belonging to a traditional style
 a group of four people or things

rest on to depend on something

#### A Complete the topic sentence of the passage.

| The four most comme | on string instruments have s |
|---------------------|------------------------------|
| shapes but d        | sizes and sounds.            |

D Read the passage again. Then complete the chart below.

#### A String Quartet

|       | Violin | > | Viol | a | > - |   |   | Double bas |
|-------|--------|---|------|---|-----|---|---|------------|
| Size  | small  | 2 | 2    | Ν | Ν   | > | > |            |
|       | short  |   | A    | ٨ | ^   | > | > | long       |
| Notes | high   |   | >    | > | >   | > | > |            |

#### B Choose the right one according to the passage.

- 1 Violas are ( smaller / bigger ) than violins.
- 2 Cellists put their instruments ( under the chin / on the floor ).
- 3 Bassists use stools because their instruments are ( tall / heavy ).

(b) viola

#### Choose the best answer to each question.

1 What is a string quartet?

| four singers | Ð | different | string |
|--------------|---|-----------|--------|
|--------------|---|-----------|--------|

gs © a group of instruments

2 What do the string instruments all use?

(a) floors

3

- (b) bows
- 3 What has longer strings than a cello?

violin

(6)

© stools

© double bass





### **Key Words**

🔕 Look and listen. Then repeat the word. 🞯







indoors

exercise

bounce





**61**2

rock climbing

stretch

muscle

#### B Fill in the blank to complete the sentence.

To stay in shape, you should do \_\_\_\_\_\_every day.
 Before an exercise, \_\_\_\_\_\_your arms and legs.
 Go outside with the ball! You cannot play soccer \_\_\_\_\_\_
 Don't \_\_\_\_\_\_on the bed. You could hit the ceiling.
 Eat meat and eggs. They are good for growing \_\_\_\_\_\_.
 \_\_\_\_\_\_ is a popular exercise, but it can be dangerous.

# Let's Stay in Shape!

There are many ways to stay in shape. Some are more fun than others. Plus, you can enjoy them indoors.

Ball exercises can be fun. There are many kinds of exercise balls. And there are different ways to use them. Body balls are the biggest ones. People use them for yoga and aerobics. You can also bounce on them or exercise your legs. Just don't run and bounce into each other. That may look funny, but it is very dangerous. Indoor rock climbing is another fun one. You can move up and down like a cat! Rock climbing stretches your muscles and makes them stronger. It also burns a lot of calories. The rock is not real and not very high. But people often fall from it. So always wear your helmet and elbow and knee pads. (137 words)

#### While you read

What do these two exercises have in common?

More Words & Phrases

in shape fit and healthy

burn calories to use up energy in your body
 pad a piece of soft material used to protect something

#### Mhat is the passage mainly about?

- (a) the benefits of two activities
- (b) basic skills of indoor climbing
- © the importance of safety in sports

Read the passage again. Then complete the chart below.



#### Choose the right one according to the passage.

- 1 Among exercise balls, body balls are the ( biggest / smallest ).
- 2 Rock climbing ( protects / strengthens ) muscles.
- 3 Bouncing into each other with exercise balls may be ( healthy / dangerous ).

#### Choose the best answer to each question.

- 1 What activities sometimes include body balls? (Pick two.)
  - a yoga
- (b) aerobics (c) climbing
- 2 What does rock climbing do?
  - (a) help you sleep (b) relax your body (c) burn calories
- 3 What protects rock climbers?
  - a helmets
- 6 artificial rocks
- © elbows and knees

| To Stay in Shape                  | To Stay in Shape                  |
|-----------------------------------|-----------------------------------|
| I do jogging every day.           | I do every da                     |
| It is good for my heart and       | It is good for                    |
| muscles . Also, I sometimes do    | Network Also, I sometimes d       |
| yoga . It stretches               | .It                               |
| my arms and legs . These          | . These                           |
| activities help me stay in shape. | activities help me stay in shape. |



### **Key Words**

A Look and listen. Then repeat the word. So





athlete



fan

high jump







v

winner

#### B Fill in the blank to complete the sentence.

My coach was a professional \_\_\_\_\_\_ in the past.
 Jake watches all of that team's games. He is a real \_\_\_\_\_\_.
 He ran very fast and set a new record in the 100-meter \_\_\_\_\_\_.
 The one who jumps the farthest is the \_\_\_\_\_\_.
 In the \_\_\_\_\_\_, players jump over a bar.
 Denny made a good start and took the \_\_\_\_\_\_ in the race.

# Animalympics 🚥

- "Sports fans! Welcome to the annual Animal Olympics!" "We've got some great athletes this year, Jim!" "That's right, Jane! Cheetah is famous for her speed. She set a new record last year!"
  - "Fabulous! Impala is pretty fast too!"
- "And we have some rookies for the high jump, like

Think about it

ump?

Cheetah

Who is likely to win the high

- Leopard and Klipspringer."
  - "Looks like some great matchups!"
  - "The 100-meter dash is about to begin!"

"Cheetah and Impala are the favorites. Let's see who wins!"

"And they're off! Wow, Impala has quite a lead. But Cheetah is catching up and ... and ... Cheetah wins! She broke her record! Are you there, Jane?"

"Yes! Here's the high jump. I think Leopard will do well."

"Maybe. Oh! Did you see that? Leopard jumped four meters! I think we have a winner!"

(Leopard

"Not so fast, Jim. Klipspringer just beat him by four meters! What a jump!" (142 words)

#### More Words & Phrases

Impala

 □ annual
 happening once a year

 □ record
 the fastest speed, longest distance, highest level, etc.

 □ rookie
 someone who has just started something

favorite a team or a p
 beat to win; to do

a team or a player that is expected to win something to win; to do better than someone

Klipspringer

#### A Complete the topic sentence of the passage.

| In the Ar | nimal Olympics, the | f runner and highest |
|-----------|---------------------|----------------------|
| j         | are C               | and Klipspringer.    |

71010000000

#### B Choose the right one according to the passage.

- 1 Cheetah races against ( Impala / Leopard ).
- 2 The winner of the 100-meter dash is the ( same / different ) as last year.
- 3 In the high jump, Klipspringer beats Leopard by (2 m / 4 m ).

#### Choose the best answer to each question.

- 1 Who are the rookies for the high jump this year? (Pick two.)
  - (a) Impala
    (b) Leopard
    (c) Klipspringer
- 2 Who was leading the race at the beginning of the 100-meter dash?
  - (a) Impala (b) Cheetah (c) Leopard
- 3 How high was the winning high jump?
  - (a) 3 m (b) 4 m (C) 8 m

Read the passage again. Then complete the chart below.



