

经全国中小学教材审定委员会2004年初审通过

普通高中课程标准实验教科书

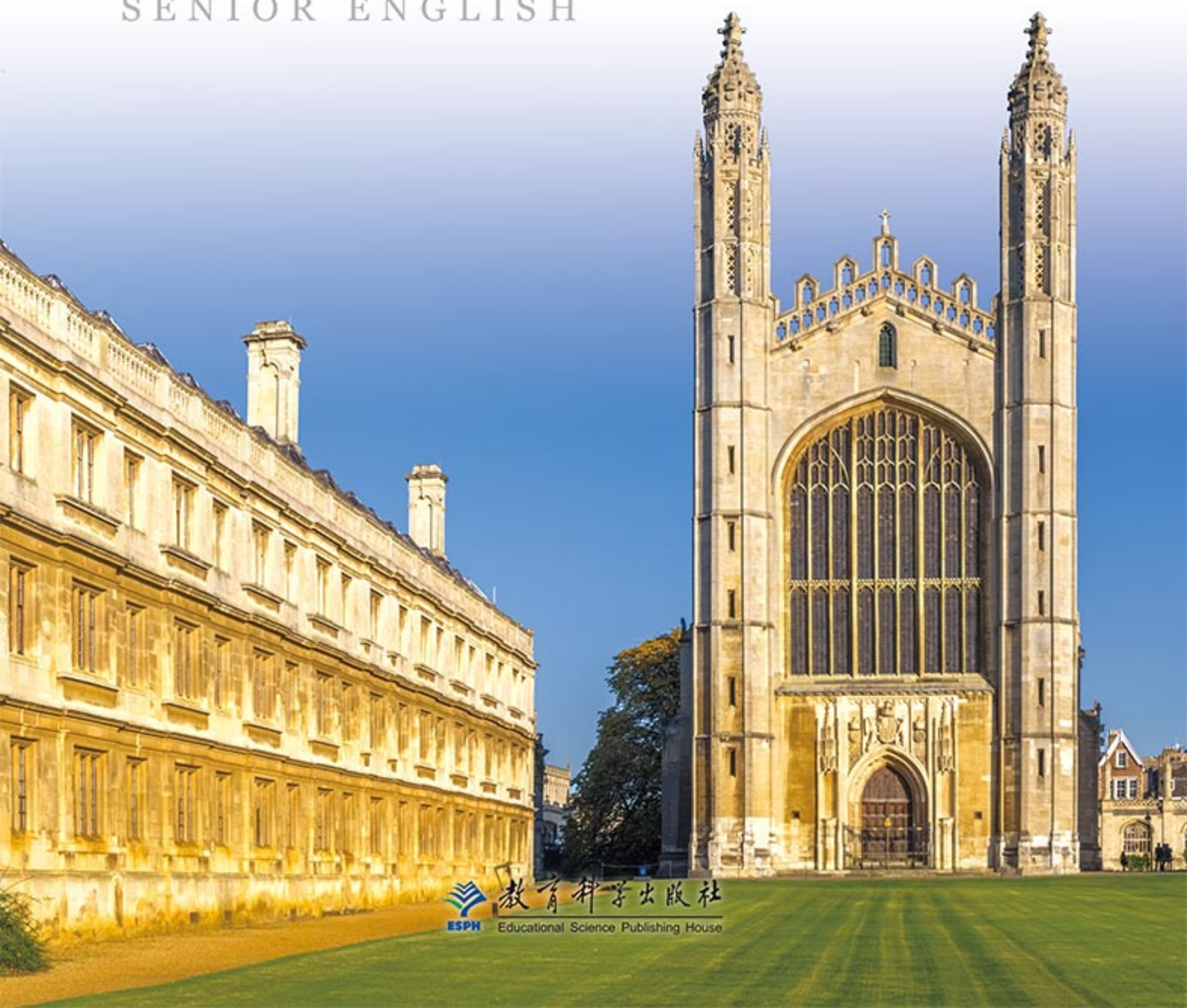
ENGLISH

英语

必修

4

SENIOR ENGLISH



教育科学出版社

ESPH Educational Science Publishing House

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· 北京 ·





亲爱的同学们：

高中这段时光，常被喻为人生的花季，也是你们学习和成长过程中的一个重要转折点，对外语学习而言尤其如此。高中阶段的三年是学好英语最为关键的一段时间，希望这套普通高中《英语》教科书能够为你们学好英语提供指导和帮助。

本教科书根据教育部 2003 年 4 月颁布的《普通高中英语课程标准(实验)》编写。课程标准的特点是强调语言运用能力的培养，并把这种能力看作“语言知识”“语言技能”“学习策略”“情感态度”和“文化意识”等综合素养的体现。这一特点对英语教学提出了新的要求。首先，你们必须彻底告别原来那种以单词、语法等单纯语言知识为中心的教学模式。事实上，即便是一个最简单的英语单词，在你们完全掌握了它的拼写、读音、词义和词性等知识之后，可能仍然达不到课标对“综合语言运用能力”的要求。例如，在下面的例子中你们很可能就听不清 her 这个词：

1. I'm waiting for her.

2. Fill her up.

3. —I adore her.

—Dora indeed!

不错，her 就在那儿，在每句话中。但是，如果请你们的老师或外国朋友用日常交谈的正常语速说出这三句话，恐怕难觅“她”的芳踪。你们知道 her 读作 /hɜ:(r)/，但这只是 her 在孤立状态下的一种理想读音。在正常的语句环境中，代词 her 因为很少重读，常常被弱化为 /hər/、/ə/ 或 /ə/，并可能通过连读，以同一读音的不同变体形式隐身于连续的语流当中\*。“众里寻他千百度，蓦然回首，那人却在，灯火阑珊处”，幼安词的意境，正是语言学习中这种彷徨状态的写照。不过，对于英语学习而言，要想真正掌握一个单词，单凭“蓦然回首”的机缘是远远不够的，你们还必须在听、说这两种“语言技能”上多下功夫，通过实际语言交流去体会句子的语音、语调、重音和节奏规律，特别要注意对弱化、同化和连读等语音过程的把握。

再进一步，就词义的理解而言，her 又是什么意思？问这样一个问题，绝不是小视各位同学的智力水平。事实上，我们通常认为符号意义的理解就是一个由书写符号到语音符号，再由语音符号到意义的解码过程。对于语言符号的这种理解尽管与我们的常识一致，而且还可能有着某种深厚的哲学和文化传统的支持，但是，对于“综合语言运用能力”的培养来说，这种看法则可能是有害的。过度依赖符号的

\* 在真实的日常谈话的正常语流中，这三句话的读音可能分别是：

I'm waiting for her. — /aɪm 'weɪtɪŋ fəɹə/

Fill her up. — /fɪlə'ʌp/

I adore her. — /aɪə 'dɔ:ɹə/

声音和视觉特征，容易使你们忽略对社会、文化等其他方面信息的有效利用。在“Fill her up.”这句话中，her是谁？“她”可能是一辆车！在加油站你们常常听到有人这样吩咐工作人员：Fill her up. ——加满油！英美人通常是用she或her等作为对爱车的昵称。同样，例3的两句对话源于英国小说家狄更斯的名著《大卫·科波菲尔》。小说主人公在和姨婆谈到其女友Dora时，情不自禁地感叹道：I adore her (with my whole soul)! 由于弱化和连读，I adore her听起来就成了I a Dora，招来姨婆善意的嘲讽：Dora indeed. ——真是句句不离Dora呀！这里不得不叹服作家的机智和对母语得心应手的运用。以上两个例子似乎能够说明“文化意识”作为“综合语言运用能力”要素的重要性。了解有关目的语文化的知识以及对其民族优秀文化的认同这些非语言因素，不仅有助于提高你们自身的人文素质和思想修养，也是你们语言运用能力的有机组成部分。

当然，你们的情感、态度——学习的兴趣和动机、遭遇困难时应有的意志力和自信心——在“综合语言运用能力”的培养过程中也起着重要的作用，在此不赘述。最后，我想问一句，你们是否经常上网？在互联网以及多媒体技术迅猛发展的今天，网上的英语学习资源相当丰富，有效选择、利用这些资源是学好英语的一个重要途径，你们所采取的学习策略——与人交往的愿望、策略，对于学习资源的运用等——同样是综合语言运用能力的一个表现。

本套教科书力图从形式和内容两个方面来反映课程标准的要求。每个模块突出一个中心主题，课文的选材涵盖了学校生活、社会文化、自然地理、科学技术和文学艺术等多方面的内容，鼓励同学将自身文化知识、人文素养的提高与英语学习有机地联系起来。每个单元为你们设计了热身、阅读、听说、讨论、轻松一刻、自我评估以及任务型的作业练习等栏目。课文和大多数栏目都配备了录音材料，以便你们能够在真实的语境中学习、体会每一个单词。

你们有机会在普通高中学习，是自己选择和努力的结果。这其中有父母的支持，同时也离不开整个社会的付出，包括你们周围许多不能上学的同龄人的付出。因此，希望你们能够珍惜这个机会，在愉快、健康成长的同时，努力学习，顺利完成高中阶段的学业！

编者



# Contents

UNIT	TITLE	TOPIC	COMMUNICATIVE FUNCTION
1	DOES WEATHER AFFECT OUR LIVES?	Weather: describing weather, extreme weather	Talking about weather; Likes and dislikes
2	AGRICULTURE: OUR LIFELINE	Nature: farming, crops; Marketing	Price; Similarity and difference
3	SOMETHING GOOD TO EAT	Nature: plants	Surprise; Response
4	THINK GLOBALLY, ACT LOCALLY	The world and the environment: pollution, water use, environmental conservation	Existence; Frequency; Worries
5	WHAT ANIMALS CAN WE RAISE?	Nature: farm animals	Attitudes; Advice
6	WHAT DO WE KNOW ABOUT PLANTS?	Nature: green plants, trees	Surprise; Worries
7	A GIANT FISH OUT THERE	Nature: animals, sharks, pets	Features
8	NATURAL LAWS OR HUMAN LAWS?	Nature: the laws of nature	Similarity and difference; Reminding; Preference

Words and Expressions in Each Unit  
Vocabulary



EXPRESSIONS	WORD STUDY	GRAMMAR	
lead to, match, while, cancel, depend on	-ness	Pronouns(2): indefinite, WH-, demonstrative	P1
cross one's mind, make up for, turn out, hand over, eat up, end up	-ology, compound noun	Countable nouns & their plural forms	P13
sweet potato, native, mature, cutting, add, decrease, similar, moist, flesh, nutritious	noun+-ed=adjective	Proper nouns & the possessive case of nouns	P25
as well as, leave...(adj.), result in, impact on, approach to; adverbs of frequency	-hood	Direct speech & indirect speech	P37
make sense, get out, come down with, step by step, a matter of, in hopes that, instead of	-al	Nominal clauses	P49
manage to, take a leaf out of sb.'s book, turn sth. into	multi-	Predicative & appositive clauses	P61
feed on, hide from, find out, look forward to	animal words	Attributive clause(1): restrictive	P73
stick to, speak of, no sense in doing, the same is true for	-ics	Attributive clause(2): non-restrictive	P85
			P97
			P105





# DOES WEATHER AFFECT OUR LIVES?

## WARM-UP

1. Try to list the weather-related adjectives according to the weather signs.

			
			
			
			
others		others	

2. Listen to the passage about the weather in Britain. Answer the following questions according to what you hear.

- (1) Why do British people often talk about weather?
- (2) What is the weather like in November in Britain?
- (3) When does it usually snow in Britain?

3. Try to retell the passage in your own words with a partner.

## READING

### Weather and Our Lives

People like to talk about weather, but weather is more than a polite subject of conversation. It directly affects our lives in many ways.





Weather affects our moods and the things that we do every day. In springtime, everything comes alive. The snow **melts**, the grass turns green, and the flowers begin to **bloom**. People feel happy seeing these beautiful sights and spend more time outside enjoying the sunshine. In summer, people enjoy water sports, such as surfing, water skiing, or sunbathing on the beach. However, people feel upset when they have to **cancel** a family picnic **due to** a sudden rainstorm, or when they have to wait long hours for planes because of heavy fog.



*What a pity! We have to cancel the picnic.*

In winter, people stay at home and sleep more to get away from the cold. If they enjoy the world of ice and snow, they can go skiing and skating, make snowmen and throw snowballs at each other.



*The bright sunshine makes me happy and healthy!*

Weather affects **local** industry and culture, too. In cold areas, ice **lanterns** and ice or snow **sculpture** skills develop rapidly. In



*I like the snow world!*

places where the four seasons are distinct, people naturally pay more attention to their clothes to **match** the seasonal changes, and as a result, the fashion design industry grows rapidly. Fashions come and go in these places.

Weather also affects people's **diet**. In cold areas, people prefer hot food while in warm places people like cold dishes more.

*This is the latest fashion this summer.*

Weather affects transportation as well. A heavy rain or snow will slow traffic and **lead to** traffic jams and even cause accidents. Heavy snow and fog will cause even more trouble for the air companies. They may have to **delay** or cancel some flights and **arrange** hotels and meals for passengers.



*I don't have enough money to follow the fashion.*

Weather affects the farmers' lives **in particular**.

Many farmers depend upon nature, especially the weather for their living. When there is extremely dry weather, their crops die from lack of water and their cows die from lack of green grass and water. A flood will wash away farmers' crops and land and leave people homeless. Sometimes the farmers lose all the things they own in the flood. In that case, weather can be said to be a life-and-death matter for farmers.

## COMPREHENSION

1. In what ways does weather affect people's lives?
2. What is spring like? How does it affect people's moods?
3. When will people get upset by the weather?
4. Do you agree that weather is a life-and-death matter for farmers? Why or why not?

## EXPRESSIONS

1. Find out how the italicized words and expressions are used in the following sentences.

- (1) Heavy rain or snow usually slows traffic and *leads to* traffic jams.
- (2) He has good taste and his necktie always seems to *match* his suit.
- (3) Jane was dressed in brown *while* Mary was dressed in blue.
- (4) We have to *cancel* the outing because of the heavy rain.
- (5) It's natural that children *depend on* their parents for food and clothing.

2. Complete the following sentences with the italicized words or expressions above.

- (1) Whether we will go out for a picnic tomorrow \_\_\_\_\_ the weather.
- (2) Modesty helps one go forward \_\_\_\_\_ conceit makes one lag behind.
- (3) I want to get a pair of black shoes to \_\_\_\_\_ my suit.
- (4) His carelessness in driving \_\_\_\_\_ a serious accident.
- (5) He \_\_\_\_\_ the trip to Beijing in order to take care of his mother.

## WORD STUDY

Word-formation: *-ness*

Do you know that “*-ness*” can be added to form other words? Give the “*-ness*” form of the following words.

*ill* → *illness*

*happy* → *happiness*

- kind —
- weak —
- selfish —
- eager —
- sad —
- thick —

*“-ness” works as a suffix to form the noun form of an adjective, that is, adjective + -ness = noun.*

- friendly —
- lazy —
- silly —



## Grammar from the text

Combine the following pairs of sentences, following the given examples.

**Example:**

Weather affects *things*. We do *those things* every day.

Weather affects *the things that (which)* we do every day.

(1) *The house* will be pulled down soon. We bought *the house* last year.

\_\_\_\_\_.

(2) *The book* was lost. I borrowed *the book* from my friend yesterday.

\_\_\_\_\_.

**Example:**

*The man* is a famous scientist. *The man* wrote the book.

*The man who* wrote the book is a famous scientist.

(3) *The girl* is my sister. *The girl* is drawing a picture.

\_\_\_\_\_.

(4) *The boy* is in the hospital now. *The boy* was bitten by a snake.

\_\_\_\_\_.

(5) *The man* is our manager. You saw *the man* just now.

\_\_\_\_\_.

**Example:**

*In places*, the four seasons are distinct. *In these places* people will naturally pay more attention to their clothes to match the seasonal changes.

*In places where* the four seasons are distinct, people will naturally pay more attention to their clothes to match the seasonal changes.

(6) This is *the place*. I spent my childhood at *the place*.

\_\_\_\_\_.


(7) *The school* is not far from here. I work *in the school*.


\_\_\_\_\_.

**Step-by-step grammar: pronouns (2): indefinite pronouns, WH-pronouns and demonstrative pronouns**

**1. Indefinite pronouns: Choose one or more answers to fill in the blanks.**

- (1) \_\_\_\_\_ of the farmers has a tool in hand.  
A. Each      B. Every      C. All      D. Every one
- (2) \_\_\_\_\_ has stolen my horse.  
A. Someone/Somebody    B. Some    C. Anybody    D. Nobody
- (3) What was hidden in the barn could be \_\_\_\_\_ .  
A. anything    B. something    C. everything    D. nothing
- (4) \_\_\_\_\_ of the two boys has any money.  
A. Both      B. Anyone/Anybody    C. Any      D. Neither
- (5) \_\_\_\_\_ of the team is on the field.  
A. No one      B. Nobody      C. Neither      D. None

**Learning Tip** 

Pronouns can be used as subjects, objects, attributes, and predicates. 

**2. WH-pronouns: Fill in each of the blanks with a proper pronoun given below.**

*who    whom    whose    what    which*

- (1) Referring to persons:
  - \_\_\_\_\_ is your teacher?
  - \_\_\_\_\_ do you wish to meet during your visit here?
  - \_\_\_\_\_ are these shoes?
- (2) Not referring to persons:
  - \_\_\_\_\_ does your father do?
  - \_\_\_\_\_ tractor do you like best?
  - \_\_\_\_\_ do you prefer, potatoes or tomatoes?
  - \_\_\_\_\_ gave him the courage to fight to the end?

**3. Demonstrative pronouns: Fill in each of the blanks with a proper pronoun given below.**

*this    that    these    those    such*

- (1) My point is \_\_\_\_\_ .
- (2) We must understand \_\_\_\_\_ rules before we can operate the machine.
- (3) You missed my point. \_\_\_\_\_ is why your answer is wrong.
- (4) I don't like \_\_\_\_\_ books.

## LISTENING AND SPEAKING



### 1. Listen to the dialogue between Li Ming and Tom. Supply the missing information according to what you have heard.

Li Ming: So, Tom, you have \_\_\_\_\_ in Beijing \_\_\_\_\_ .

Tom: \_\_\_\_\_ three years.

Li Ming: Do you like the weather here?

Tom: \_\_\_\_\_ .

Li Ming: Which \_\_\_\_\_ do you \_\_\_\_\_ ?

Tom: Well, autumn is my \_\_\_\_\_ . It is not \_\_\_\_\_ winter and not \_\_\_\_\_ summer, either.

Li Ming: \_\_\_\_\_ spring?

Tom: I \_\_\_\_\_ , too. It is warm and \_\_\_\_\_ in spring, \_\_\_\_\_ it is sometimes \_\_\_\_\_ . The \_\_\_\_\_ are terrible.

### 2. Pair work. You are on your first visit to China, and your partner is your host. Make a dialogue about the weather in each other's hometown. Use the dialogue above as a model, or with the help of the following sentence patterns.

- What is the weather like in...?
- ... is my favorite season.
- The air is clear, and the hills are covered with red leaves.
- The hot weather/winter/spring lasts/is from... to...
- We sometimes get really heavy rainstorms/dust storms that last all day.
- It gets smoggy, too. Your eyes hurt, and you can't see the sun in the sky.
- The local people here know neither hot summer nor freezing cold winter.

## TASK 1

Apart from farmers, many other people are affected by weather. Work in groups to put on a short play. Suppose you have different jobs, say, as gardener, electrician, firefighter, policeman, builder, pilot, or taxi-driver, etc. Imagine you run into each other on a rainy day and talk about how your lives are affected by the weather.



# SELF-ASSESSMENT

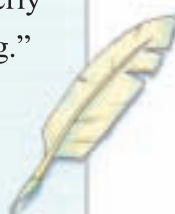
**1. Rate your own performance in the tasks.**

- A. "Excellent!"
- B. "Pretty good!"
- C. "Not bad, but I need some improvement."
- D. "Work harder next time!"


Independent work	Cooperation with classmates	Sentence management	Vocabulary	Speaking, listening, and writing

**2. Go over the new words and expressions in this unit and classify them into the following groups.**


**Group 1:** "I have mastered the usage of these words and expressions. I have used them properly in speaking and writing."




**Group 2:** "I think I know how to use these words and expressions, but I seldom use them."



**Group 3:** "I know the meaning of these words, but I don't know how to use them."



**Group 4:** "I simply don't know what these are!"



3. Assess your achievement in this unit, using A(remarkable achievement), B(much achievement), C(little achievement), or D(no achievement).

Listening	Speaking	Reading	Writing	Vocabulary	Understanding	Grammar

## FUN TIME

1. Challenge your memory (time limit: 5 minutes). Read the poem several times to see if you can recite it.

### When

*When it rains, people get pains.  
 When it rains strong, it doesn't rain for long.  
 When it hails, the sky goes pale.  
 When it storms, it's best to be warm.  
 When it's cold, there's no need to be bold.  
 When the weather's a pest, do what's best!*

2. Guess work. Explain the following weather-related expressions in your own words.

- It rains cats and dogs.
- It never rains but it pours.
- You should make hay while the sun shines.
- Rain or shine, we'll go there tomorrow.
- I feel a little bit under the weather this morning, and I'll go to see my doctor later.

3. Read the weather riddles and find each answer.

(1) I keep your balloon flying high. I sail your kite up in the sky.

I am \_\_\_\_\_.

(2) I help the plants and trees to grow. I fall from clouds gray and low.

I am \_\_\_\_\_.

(3) I am a star shining bright. I give you heat, I give you light.

I am the \_\_\_\_\_.

(4) I am icy crystals, lacy and white. As I fall to the earth, I'm a beautiful sight.

I am \_\_\_\_\_.

## FURTHER READING

### ***Greenhouse Effect and Global Warming***

Have you ever seen a greenhouse? A greenhouse is a building made of glass or plastic. It is used by gardeners to grow fruits and vegetables, especially in winter. Greenhouses work by trapping heat from the sun. The glass or plastic of the greenhouse lets in sunlight but keep heat from escaping. This makes the greenhouse an ideal place for growing fruits or vegetables in cold places or when the weather is not warm enough for certain plants.

What is the greenhouse effect? It works in the same way as a gardener's greenhouse. Every day people burn fossil fuels. There are three major forms of fossil fuels: coal, oil, and natural gas. All the three were formed millions of years ago before the time of dinosaurs—hence the name fossil fuels. The burning of fossil fuels produces carbon dioxide, a greenhouse gas. Carbon dioxide rises into the atmosphere and forms a layer. Sunlight can get through the layer and shine on the earth, but much of the energy is trapped and cannot escape back into space. This makes the earth warmer and warmer.

What is the consequence of the global warming? It is said if the situation is not brought under control, the "ice caps" in the polar regions will begin to melt, then some low-lying countries, such as Holland, will disappear under the sea. A warmer earth may lead to changes in rainfall patterns, a rise in sea level, and a wide range of effects on plants, wildlife, and human beings.

There is new and stronger evidence that many greenhouse gases come from man's daily activities. What can man do? If we try, most of us can do our part to reduce the amount of greenhouse gases. For example, cars also cause pollution and give out a lot of greenhouse gases into the air. Then people can carpool to reduce greenhouse gases. That is, four people ride together in one car instead of each driving a car to work. Planting trees is fun and a great way to reduce greenhouse gases, too, because trees absorb carbon dioxide. Whenever we use electricity, we help put greenhouse gases into the air. By turning off the lights, the television, and the computer when you are through with them, you can help a lot.



## COMPREHENSION

### 1. Decide whether each of the following statements is true (T) or false (F).

- (1) A greenhouse can also be made of wood and metal. (     )
- (2) Greenhouses are used only in winter. (     )
- (3) In addition to coal, oil, and natural gas, there are other forms of fossil fuels. (     )
- (4) Carbon dioxide is the only greenhouse gas. (     )
- (5) According to the text, the major cause of global warming is carbon dioxide. (     )

### 2. Match the words in Column A with their meanings in Column B.

A	B
(1) trap	A. to take (sth.) in
(2) absorb	B. to make sth. smaller in size, number, degree, etc.
(3) escape	C. to be no longer visible; to stop existing
(4) form	D. to give out or reflect light
(5) produce	E. to keep (sth.) in a particular place
(6) shine	F. (of gases, liquids, etc.) to find a way out
(7) reduce	G. to create sth. by making, growing, etc.
(8) disappear	H. to give shape or structure to sth.; to produce sth.

## DISCUSSION

1. What causes global warming and what are the dangerous results?
2. What can you do to reduce the amount of greenhouse gases?
3. How does the greenhouse effect affect your life? What can you do to help protect the earth?

### TASK 2

**Write 100~150 words about how weather affects your life. You can use the following passage as an example.**

Weather causes changes in our daily lives. In winter I go to bed early at night and use extra blankets. I become lazy in winter. I sleep more. I wake up in summer at 5: 30 in the morning, but in winter I wake up at 7: 30. In winter my heater is on all day and all night to prevent colds and coughs. During the cold winter nights I use more hot water. Because it is cold, I feel like staying in the shower for a longer time. Most of the time during winter my cat, Pepper, is in the house when it is cold. He is always on the sofa, and he is always sleeping.

I don't like winter because I don't get anything done, but I like winter because I get a lot of sleep.

### TASK 3

**Work in groups and try to answer the following questions, using the Internet or other sources. Make a presentation to the class.**

- (1) We have learned about the dangerous results of the greenhouse effect, but does the greenhouse effect have its good side?
- (2) Apart from saving energy, what else can we do to protect the earth?



### TASK 4

**Farmers make weather predictions by observing the changes around them. Here are some examples.**

- When forest murmurs and mountain roars, close the windows and shut the doors.
- Moss dry, sunny sky; moss wet, rain you'll get.
- Before a rainstorm
  - cats will clean themselves more and meow more.
  - cows huddle together as if seeking comfort from each other.
  - insects fly low and bite more.
  - birds chirp more loudly.
  - dandelions close their blossoms tightly.

**Do you believe in such sayings? Collect some more and share them with your classmates.**

## FOR YOUR ENJOYMENT

Sing the song *Water Cycle* in any tune you like. Then the whole class will decide on one tune of the song.

### *Water Cycle*

*Meish Goldish*

*(tune of "It's Raining, it's Pouring")*

*It's raining, it's pouring,  
The oceans are storing  
Water from the falling rain  
While thunderclouds are roaring.  
The rain now is stopping,  
The rain's no longer dropping.  
Sun comes out and soaks up water  
Like a mop that's mopping.  
The water's still there now,  
But hidden in the air now.  
In the clouds it makes a home  
Until there's rain to share now.  
It's raining, it's pouring...*



# AGRICULTURE: OUR LIFELINE

## WARM-UP

### Pair work

1. Look at the picture on the right. Guess what the building is for.

- For farmers to live in?
- To store farm tools and machines?
- To store crops that farmers bring in from their fields?
- To have meetings in?
- To be used as a barn?
- Or...?



2. Have you ever been to or lived on a farm? Are there any differences between the building above and those in Chinese villages? Have you noticed any differences between farmhouses in North and South China? If yes, what are they?

3. What do you know about farms and farmers?

## READING



### *Another Beautiful Day*

We once had a **minister** at the little church not far from my farm, who began every Sunday's **worship** with the words, "It is a beautiful day!" No matter what the weather was like or how bad the week had been, the greeting never changed. That thought crossed my mind on Thursday morning as my machine ate up the last rows of corn and the 2003 harvest came to an end.

Before this year, the climate had been continuously **awful** for almost everyone working on a farm. Dry weather and high temperatures made them feel worried since they depended on nature for a good harvest. Year after year of similar conditions almost drove them mad. Fortunately for

me, my harvest had always been wonderful. It **owed** a great deal **to** a good start and modern technology that made up for poor conditions later in the growing season.

The weather in 2003 was even worse than before. There was much less rain during the last half of the summer, and it seemed even the **advanced** technology could not save my crop. I had been worried that it would be my turn this time to suffer what others had been **suffering**, but it turned out that most other areas had much lower **production** than mine.

The market was smiling at us. Every time the market tried to fall, new buyers appeared and prices ended up higher than they began. My late-harvested crop saw very high prices within two weeks' time, so I **hesitated** whether I should sell at once or store the crop for more money later. The market looked as if the price would go still higher. The price was the best I had ever had so I was determined to make a good profit out of the other half of my crop that had not been sold.

This was my last year as a full-time farmer. My **landowners** had already accepted new farmers to rent the land that I had been working on for so many years, but I had no hard feelings about that at all. I no longer had to worry about transporting grain up hill ten miles or getting caught with crops on the river bottom during a wet fall. I found that I was greatly relieved handing the work over to someone else.

As I watch the fires in California on the evening news, I am glad I live where I can cut the bush and **mow** the grass around my home while **chatting** with my wife. It really is a great day!

## COMPREHENSION

**Answer the following questions.**

- (1) Has the writer been lucky? List some main points from the text.
- (2) Why had he always survived the bad climate?
- (3) Tell the reason why he did not want to sell his crop the moment his harvest was over.
- (4) Was he feeling sad since the land he had been working on was rented to other farmers at the end of the harvest?
- (5) Compare this US farmer with a 60-year-old Chinese farmer in our countryside.
- (6) Why was it another beautiful day? Describe the farmer's feeling.



# EXPRESSIONS

## 1. Match the expressions in Column A with their meanings in Column B.

A	B
(1) to cross one's mind	A. to give sth. to sb. else
(2) to make up for	B. to happen without expectation
(3) to turn out	C. to get an idea or have a thought
(4) to hand over	D. to make a bad situation better or replace sth. that has been lost
(5) to eat up	E. to eat all; to finish
(6) to end up	F. to come to a state, esp. without planning to

## 2. Complete each of the following sentences with an expression from Column A in its proper form.

- (1) It never \_\_\_\_\_ that the crops could be growing so well.
- (2) It \_\_\_\_\_ that their harvest was wonderful.
- (3) It never \_\_\_\_\_ that I could get the scholarship.
- (4) The money was given to them to \_\_\_\_\_ what they had lost.
- (5) The parent \_\_\_\_\_ the tool to his son for him to do the field work.
- (6) It \_\_\_\_\_ that everybody enjoyed their performance.
- (7) The farmers could do nothing but watch the locusts \_\_\_\_\_ their crops.
- (8) If you go on driving as carelessly as now, you will \_\_\_\_\_ dead.

## WORD STUDY

### 1. Word-formation: *-ology*

In the word “technology”, the part “-ology” usually indicates a scientific study. The following are some other words that are formed in the same way.

- |                   |                |                    |                     |
|-------------------|----------------|--------------------|---------------------|
| <i>zoology</i>    | <i>biology</i> | <i>methodology</i> | <i>philology</i>    |
| <i>physiology</i> | <i>geology</i> | <i>astrology</i>   | <i>anthropology</i> |

All such words look difficult, but some of them can be recognized if you pay attention to the first part of the word. For example, in *zoology* we can see “zoo”, and in *methodology* we can see “method”. Now find out in your dictionary the meanings of other words listed above. As you probably cannot find out “*translatology*” (translate) and “*narratology*” (narrate), can you figure out their meanings by yourself?

## 2. Compound Noun

The word “*landowner*” is made of two words “*land*” and “*owner*”. Try to separate the following compound words (compounds) into two independent words.

*headmaster*      *daybreak*      *haircut*      *shortcut*      *heartfelt*  
*kindhearted*      *into*      *throughout*      *basketball*

Some compounds have “-” in between, as in “*man-made*” “*get-together*” “*foot-warmer*” and “*high-tech*”, while others do not need it, as in “*girl student*” “*table tennis*”. Some words even have a different meaning when separated: “*greenhouse*” ↔ “*green house*” “*blackbird*” ↔ “*black bird*”.

## GRAMMAR

### Grammar from the text

Combine each pair of sentences following the given example.

**Example:** He is not here today. He is ill. (because) →  
He is not here **because** he is ill.

- (1) He owns some fruit trees. These trees produce a lot of fruit each year. (that) →
- (2) The weather might be awful. He would work in the field. (no matter how) →
- (3) Tell me something about the countryside. You once lived there for ten years. (since) →
- (4) My uncle came to visit us. My uncle brought some sweets for me. (every time) →
- (5) He looks in high spirits today. He might have sold his cows at a high price. (as if) →

### Step-by-step grammar: *countable nouns and their plural forms*

1. Countable nouns can take an “-s” to form the plural while uncountable nouns cannot do so. Can you divide the following words into the two categories?

*tree sand fish milk potato butter bread money telephone book wall change*  
*monkey conversation retirement meat sugar cake dust grass corn salt*

Countable nouns:

Uncountable nouns:

**2. Notice those plural nouns do not always end in “-s”. Do the exercises below and find out the rules.**

- (1) match → matches potato → \_\_\_\_\_ glass → \_\_\_\_\_ box → \_\_\_\_\_ quiz → \_\_\_\_\_
- (2) half → halves wife → \_\_\_\_\_ wolf → \_\_\_\_\_ leaf → \_\_\_\_\_
- (3) mouse → mice louse(虱子) → \_\_\_\_\_
- (4) ox → oxen child → \_\_\_\_\_
- (5) foot → feet tooth → \_\_\_\_\_ goose → \_\_\_\_\_
- (6) fish → fish sheep → \_\_\_\_\_ deer → \_\_\_\_\_
- (7) phenomenon → phenomena datum → \_\_\_\_\_ crisis → \_\_\_\_\_ analysis → \_\_\_\_\_

**Some nouns, called collective nouns, refer to a group of people or things, e.g., *army, enemy, audience, police, family, government, public, press, committee, team, group...* These nouns can be used with a singular or plural verb, depending on whether the group is seen as one thing or as several things.**

- people → peoples      fish → fishes      authority → authorities

**Some nouns may take a singular or plural form, but they differ in meaning.**

- manner → manners      cloth → clothes      custom → customs

**Some nouns look like plurals, but they are singular, such as *physics, news, series* and *species*.**

**For compound nouns, there are three ways of forming the plural.**

- (1) girl student → girl students    breakdown → breakdowns  
grown-up → grown-ups    forget-me-not → forget-me-nots
- (2) man-of-war → men-of-war    passer-by → passers-by
- (3) gentleman farmer → gentlemen farmers    manservant → menservants  
woman doctor → women doctors

**LISTENING AND SPEAKING** 

**1. Listen to the passage and fill in the blanks.**

I was born in a mountain \_\_\_\_\_ in the Northeast of Sichuan. The village lay far from towns and cities. There were neither \_\_\_\_\_ nor \_\_\_\_\_. My home was on the \_\_\_\_\_ side, and near the top of a huge mountain. From there one could see the whole village \_\_\_\_\_.



sister and I were always happy because we had fresh \_\_\_\_\_ from spring to winter. Beside my house there was a small \_\_\_\_\_, which was full of fish. During the hot \_\_\_\_\_ holidays, we boys would secretly run off and \_\_\_\_\_ in the river. On the other side of the river in front of the village, stood \_\_\_\_\_ huge mountain. It almost blocked our view of the \_\_\_\_\_ world. I finally left the village and went to a big city at the age of \_\_\_\_\_, even though the way out was long and hard. But all these years I have been missing the beautiful \_\_\_\_\_ there.

**2. Use what you have heard from the CD as an example, and say something about your hometown.**

- (1) Is it in the city or in the countryside?
- (2) Describe what you feel most proud of your hometown.
- (3) What are the people like?
- (4) Would you like to leave your hometown to live in a totally different place?

### TASK 1

**Write a short passage about what you know about the country life. You may include the points you have made in the speaking activity.**

### TASK 2

**Read the following passage, and see what you can say about the history of agriculture in China. Or you may talk about the recent developments.**

Agriculture is one of the world's oldest industries. It began to develop about 11 000 years ago in the Middle East. At that time, certain Middle Eastern people discovered how to grow plants from seeds and how to raise animals in homes. By about 10 000 years ago, they had mastered these skills and had begun to depend chiefly on agriculture for food.

Before the development of agriculture, people got all their food by collecting wild plants, hunting, and fishing. They had to search for food every day, which left them little time for other activities.

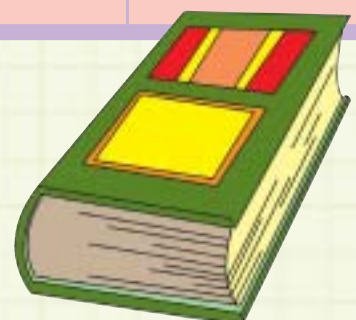
But as agriculture developed and farms produced more than ever before, fewer people were needed to produce food. The non-farmers could then develop the arts, crafts, trades, and other activities of civilized life. So agriculture greatly influenced the food supply and made civilization possible.

**SELF-ASSESSMENT**

**1. Rate your own performance in this unit.**

- A. "Excellent!"
- B. "Pretty good!"
- C. "Not bad, but I need some improvement."
- D. "Work harder next time!"

Independent work	Cooperation with classmates	Sentence management	Vocabulary	Speaking, listening, and writing



2. Go over the new words and expressions in this unit and classify them into the following groups.

**Group 1:** “I have mastered the usage of these words and expressions. I have used them properly in speaking and writing.”

**Group 2:** “I think I know how to use these words and expressions.”

**Group 3:** “I know the meaning of these words, but I don’t know how to use them.”

**Group 4:** “I simply don’t know what these are!”

3. Assess your achievement in this unit, using A(remarkable achievement), B(much achievement), C(little achievement), or D(no achievement).

Listening	Speaking	Reading	Writing	Vocabulary	Understanding	Grammar

## FUN TIME

### *The Laziest Man on the Farm*

A farmer had ten workers on his farm. As none of them liked to work hard, a thought crossed his mind, which he believed would help him discover the laziest man among them.

“Men,” he said one morning, “I have a nice, easy job for the laziest man on the farm. Will the laziest man step forward?”

Nine of the men stepped forward at once.

“Why don’t you step to the front with the others?” the farmer asked the only one left behind.

“Too much trouble,” came the answer.



## FURTHER READING

## *Agriculture in the United States*

In the United States, about one half of the country is farmland — nearly 1000 million acres. Nearly one half of the farmland grows crops, an area larger than any other country in the world. The other half is used for raising domestic animals or livestock.

The United States has about 2.1 million farms. The average size is around 473 acres each. Most farmland belongs to private owners. The government owns much grazing land in the Midwest and in the West. Meanwhile, certain areas are known for special farm products. The States in the Midwest, for example, are famous as the center of US corn and pig farming. In addition, more than two-thirds of the nation's wheat is grown there.

Most jobs in agriculture are directly related to the family farms and big farms (called ranches). There are fewer farms and farmers today than in the past, but there are still other job opportunities, such as agricultural science, business, education, and communications.

Farm workers include self-employed farmers, hired managers, supervisors, and laborers. Many people who plan to become farmers or farm managers go to an agricultural college. Some young people prepare for agriculture by taking special courses in high school and taking part in field experience activities. Most supervisors receive their training on the job. Many laborers move from one place to another — that is, they go into one area at harvest time to help with the crops and then move to another place after the harvest is done.

Agriculture teachers work with the young as well as with experienced people. Their jobs take them into traditional classrooms or to farms, homes, and businesses. These educators teach new methods and ideas and help farmers solve problems and make plans of many kinds.

Only about 2 percent of all American workers are employed on farms, yet they produce much of the world's farm products, including 25 percent of the beef and 15 percent of the grain, milk, and eggs. There are two main reasons why American farmers can produce so much food: (1) this country has vast areas of rich soil, and the climate in many of these areas is very good for agriculture, and (2) American farmers use scientific agriculture methods and farm machines.

## COMPREHENSION

**What follows is a summary of the text. First read the text, then find the details for each of the points in the summary. Write one or two sentences for each point.**

This text has two parts. The first part is a brief introduction about the importance of agriculture. The second part gives information about American agriculture, including (1) the total area of farmland in the country and its uses, (2) the make-up of the farmland and the main areas where the chief crops are grown, (3) possible jobs in agriculture, (4) the make-up of the people working on farms, and how they get each of the jobs, (5) a special introduction to agriculture educators' work on farms, and (6) a comparison between the number of people in agriculture and the amount of products they supply, and the two chief reasons why they can produce so much food.

## DISCUSSION



**Work in groups to find the answers to the following questions.**

- (1) Why can so small a number of farmers feed so big a population in America?  
Advanced technology? Rich soil?
- (2) Give some reasons why agriculture is the largest and most important industry in the world.
- (3) What kinds of jobs are there in agriculture?
- (4) According to the text, there are two major types of agriculture in the United States: crop growing and domestic animal (livestock) raising (animal husbandry). How about fruits? Can you identify the main types of agriculture in China?

FOR YOUR ENJOYMENT

William Wordsworth, one of the greatest Romantic poets in English literature, wrote the following poem. Read it with the help of the notes on the sides to see if you enjoy it.

## Daffodils

*I wandered lonely as a cloud  
That floats on high o'er vales and hills,  
When all at once I saw a crowd,  
A host, of golden daffodils,  
Beside the lake, beneath the trees,  
Fluttering and dancing in the breeze.*

*Continuous as the stars that shine  
And twinkle on the milky way,  
They stretched in never-ending line  
Along the margin of a bay:  
Ten thousand saw I at a glance,  
Tossing their heads in sprightly dance.*

*twinkle:* to shine in dark with unsteady light 闪烁  
*toss:* to move about without ending 摇晃  
*sprightly:* cheerful and active 轻快的

*daffodil:* 水仙花  
*wander:* to walk slowly and aimlessly 游荡  
*float:* to stay or move slowly 漂浮  
*o'er* = over  
*vale:* a wide, low area with a river 溪谷  
*beneath:* under  
*flutter:* to fly by moving wings slightly 拍(翅)  
*breeze:* a gentle wind 微风



*The waves beside them danced, but they  
Out-did the sparkling waves in glee:  
A Poet could not but be gay,  
In such a jocund company:  
I gazed — and gazed — but little thought  
What wealth the show to me had brought:*

*sparkle: to shine suddenly & brightly 闪耀*  
*glee: a feeling of happiness 欢乐, 高兴*  
*gay: cheerful and excited 欢快的*  
*jocund: merry 欢乐的*  
*gaze: to look at sth. long 凝视*

*oft = often*  
*couch: bed 长榻*  
*vacant: empty 空的*  
*pensive: thinking a lot about sth. 沉思*  
*bliss: perfect happiness and enjoyment 狂喜*  
*solitude: being alone 独处*

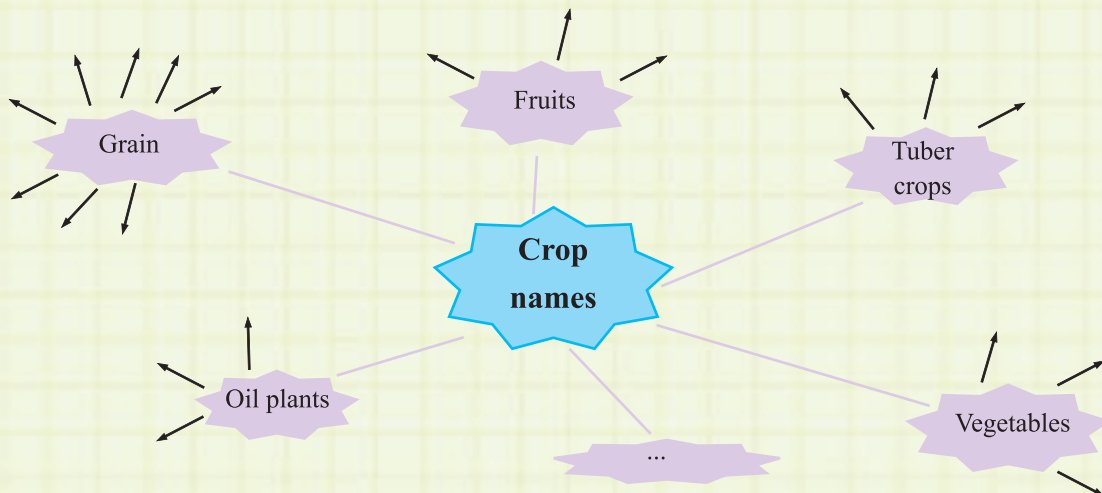
*For oft, when on my couch I lie  
In vacant or in pensive mood,  
They flash upon that inward eye  
Which is the bliss of solitude;  
And then my heart with pleasure fills,  
And dances with the daffodils.*



# SOMETHING GOOD TO EAT

## WARM-UP

1. **Brainstorm:** try to list as many crop names as possible, and then put them into the following groups.



2. **Do you know about sweet potato?** If yes, try to describe it to your partner, tell him/her whether you like it or not, and give your reasons; if not, listen to your classmates, and try to ask questions. Here are some expressions you may use.

A: Hey, do you know about sweet potato?

B: Of course I do. Among the crops I know, I like sweet potato best.

Or: Sweet potato? No, what is that?

A: Well, can you describe it to me?

B: Sweet potato is a kind of... in my hometown...

Or: Sweet potato is a kind of... in my hometown...

Or: Oh, I see. (I have eaten it before. It tastes good.)

A: Why do you like...?

B: Because I like its beautiful leaves... It tastes delicious...



## Sweet Potatoes

**Sweet potato**, which is **native** to Central and South America, is a warm-weather vegetable that needs a long, **frost-free** growing season to get large, useful tubers. It is one of the most important food crops in **tropical** and subtropical countries where both the **tubers** and leaves can be eaten.



There are two basic types of sweet potatoes: **moist** (orange-fleshed) and dry (yellow-fleshed). The moist-**fleshed** sweet potatoes are often called “**yams**” by Americans, but this is the wrong name. The true yam, grown in Africa and Asia and rarely seen in the Western world, is what Americans call a tropical yam. It has a **firm root** with white flesh, is larger (up to 100 pounds), and has a long shape (7 feet long).

Three steps are taken to plant sweet potatoes. First, **cuttings** should be made as long as 6~10 **inches**. Then **manure** is **added to** soil to help early growth. At last, cuttings are inserted into the prepared earth to a **depth** of half their **length**.

Two kinds of sweet potato harvesting may take place: leaf harvesting and tuber harvesting. Leaves (used for greens) may be harvested 30~40 days after planting, after which the leaves become hardened. Tubers are harvested 90 days after planting, by digging. Heavy leaf harvesting will **decrease** the growth of tubers in the earth. For this reason, plants grown only for tuber production remain un-picked till the tubers become mature.

Now we come to the question of how to choose this kind of vegetable. Select **smooth** and hard sweet potatoes that are heavy for their size, and buy similar-sized potatoes if you plan to cook them whole, so that the cooking time will be the same.

Despite their rough look, sweet potatoes have a thin skin that is easily damaged. To help keep them, growers store them in a warm, wet place for about 10 days before sending them to market. This increases their natural sweetness. In fact, when sweet potatoes are stored at low temperatures, their natural sugars turn into something else, which does not taste so good anymore.

Sweet potatoes, which may have a skin color of yellow, orange-red or purple, are among the most **nutritious** vegetables. The skin contains a good amount of **fiber** (about half of which can be absorbed). And this naturally sweet food also supplies vitamins C and B<sub>6</sub> and other useful elements.



*Don't you think they are beautiful?*



**COMPREHENSION**

1. Read the text quickly. Write down in the table the main features of sweet potatoes.

Native to	
Types	
Size	
Skin	
Nutrition information	
High-quality	
Growing method	
Storage condition	

2. Read the text again and complete the following passage using the words and expressions in the box.

less tasty    damaged    at low temperatures    takes three steps  
 cuttings    insert...to    depth    add manure to    tuber harvesting  
 hardened    keep    length    leaf harvesting    inches

Planting sweet potatoes \_\_\_\_\_. First, \_\_\_\_\_ should be made as long as 6~10 \_\_\_\_\_. Then we \_\_\_\_\_ the soil, in which sweet potatoes are to be planted. At last we \_\_\_\_\_ them into the prepared earth \_\_\_\_\_ a \_\_\_\_\_ of half their \_\_\_\_\_.

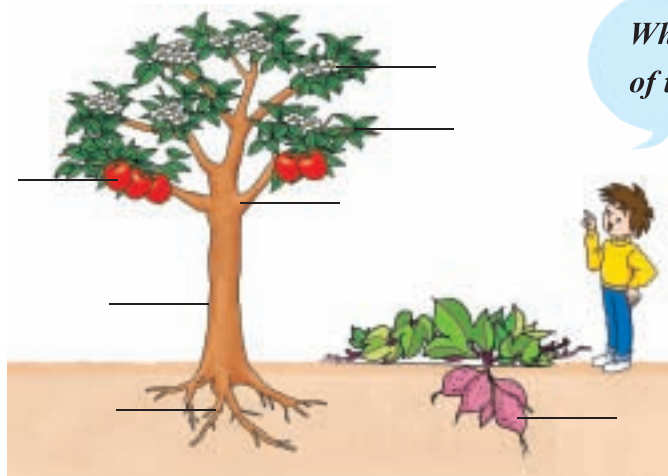
For sweet potatoes, there are two kinds of harvesting: \_\_\_\_\_ and \_\_\_\_\_ . Leaves may be cut for a month, after which time they become \_\_\_\_\_ .

Sweet potatoes are easily \_\_\_\_\_ because they have a thin skin. In order to \_\_\_\_\_ them, planters store them in a warm, damp place for about 10 days before sending them to market. The buyer should not keep them \_\_\_\_\_, which will make sweet potatoes \_\_\_\_\_.

3. Group discussion.

- (1) Find all the sentences in the passive voice in the text. Why is the passive voice used much more often in this text than in other texts you have read?
- (2) Are sweet potatoes grown in your hometown? Can you provide more information about this crop?

**1. Try to list the names of the parts of a plant.**



*What do I call this part of the plant?*

**2. Find the words that match the following expressions from the text.**

- (1) a tropical American climbing plant with a fleshy, tuberous, orange-colored root and cooked as a vegetable \_\_\_\_\_
- (2) originating, growing, or produced in a certain place or region \_\_\_\_\_
- (3) having reached full natural growth or development \_\_\_\_\_
- (4) a part, such as a stem, leaf, or root, removed from a plant to grow a new plant, as through rooting or grafting \_\_\_\_\_
- (5) to join or unite so as to increase in size, quantity, quality, or scope \_\_\_\_\_
- (6) to grow or cause to grow gradually less or smaller, as in number, amount \_\_\_\_\_
- (7) related in appearance or nature; alike though not identical \_\_\_\_\_
- (8) slightly wet; damp or humid \_\_\_\_\_
- (9) the pulpy, usually edible part of a fruit or vegetable \_\_\_\_\_
- (10) providing nourishment; nourishing \_\_\_\_\_

**3. Complete the sentences with some of the words above in their proper forms.**

- (1) You are a \_\_\_\_\_ man now; you are no longer a boy.
- (2) The ship is a little bit short. Please \_\_\_\_\_ 12 inches to the deck.
- (3) The so-called “yams” in the US are actually \_\_\_\_\_ with relatively \_\_\_\_\_ texture and orange flesh.
- (4) Dry weather in springtime will \_\_\_\_\_ the growth of wheat in the Northern area.
- (5) Hot peppers are \_\_\_\_\_ to South America, but today they are grown all around the world.



### Give examples to illustrate the features of proper nouns.

- (1) Proper nouns are names of specific people (Bush), places (Hong Kong), countries (China), months (January), days (Monday), holidays (Christmas), newspapers (China Daily), and so forth.
- (2) Proper nouns do not take articles, but when they refer to geographical concepts, sometimes they can, such as *the English Channel*.

Proper nouns can also come from some common nouns; then they keep the articles, such as *the Great Wall*.

- (3) Proper nouns are written with initial capital letters.

## 2. The possessive case of nouns.

- (1) With a singular noun referring to a person or an animal, you add “’s” to form the possessive. With a plural noun ending in “-s”, simply add an apostrophe ( ’ ).

e.g., *a child’s dream*    *an actress’ career*    *a bird’s eye view*  
*a girls’ school*    *at arm’s length*

What if a name is ended in “-s”? Find it out by yourselves.

*Charles’ Christmas present*    *Mrs. Jones’ dressing-table*  
*the statue of Prince Charles’ grandfather King George VI*

- (2) Sometimes the possessive case is formed by an “of” phrase.

e.g., *the gate of our school*    *the future of the world*  
*the monitor of our class*    *the price of success*  
*the cost of living*    *the bottom of the box*

### Tell whether the expressions are right or wrong and work out the rules.

the table’s legs	the computer’s advantage
the girl’s name	the song’s title
the room’s windows	the text’s new words
the boy’s eyesight	our country’s policy





Can you tell the difference between *Jim's and Tom's car* and *Jim and Tom's car*?  
 Can you tell the difference between *children's books* and *the books of these children*?

**LISTENING AND SPEAKING**



**1. Listen to the CD and complete the following passage. Pay attention to the problem Australian banana growers meet and the solution they suggest.**

**A NEWS REPORT**

***Banana Growers Push for Pricing Change***

Some of Australia's biggest banana growers say the way their fruit is priced \_\_\_\_\_  
 \_\_\_\_\_, otherwise \_\_\_\_\_.  
 \_\_\_\_\_ in Australia, and they're paid  
 per carton.

One of them, Mort Johnston from North Queensland, says \_\_\_\_\_  
 and \_\_\_\_\_ to ensure the whole industry makes money.  
 Good business is \_\_\_\_\_, and in this case \_\_\_\_\_.  
 There are the farmers, there are the merchants, and there are the retailers.

**2. Listen to the CD and complete the dialogue below. Guess what the title means.**

***Beating the Blues with Greenery***

*(Bud, a journalist, is shopping around the Flower Market when he runs into his friend and colleague, Flora.)*

B: Flora! I didn't know \_\_\_\_\_!

F: Hey, Bud. I'm just shopping around. Buying something for your wife?

B: No, for my stressed-out son, actually. I've just finished writing an article about how \_\_\_\_\_, and it really hit home.

F: That piece about the Cornell psychologists' findings? I remember that study dealt with \_\_\_\_\_, not \_\_\_\_\_.

B: No, the study took into account both the external and internal environments. Apparently, \_\_\_\_\_ is really good for kids' psychological well-being.

F: Maybe a touch of nature might help my daughter: she gets pretty stressed sometimes \_\_\_\_\_ . However, moving to the country isn't feasible for us.

B: No need to relocate. \_\_\_\_\_ can have the desired effect. The Cornell research suggests that \_\_\_\_\_ helps kids to focus more clearly, allowing their cognitive resources more rest.

F: And the rest gives them the strength to cope with stress. In that case, \_\_\_\_\_ !

**3. Pair work: Imagine you are a farmer in North China and your partner is from Shanghai and has never been to the Northern countryside. Talk about Northern crops. You can use the following expressions to help you.**

- Rice is your principle food in the south, while ours is...
- Wheat is one of the important food crops...
- In addition to wheat, there is corn/millet/barley/peanut/potato/tomato...
- It is harvested in...
- What, how, when do you plant/harvest/sow (seeds)/water/plough/dig/loosen/harrow/clear/weed/grow/transplant...?

**TASK 1**

**Write a composition about a familiar plant. You may use information from your science lessons, if you like. Your composition should include at least the following points. Let's take tomatoes as an example.**

- (1) History: The tomato is native to Mexico. It was not known by the Europeans until...
- (2) Family: The tomato is a member of... family.
- (3) Color: In their early vegetative days, tomato fruits are green. They turn orange-red when they are ripe.
- (4) Taste: The tomato tastes sweet, slightly sour.

- (5) Selection and storage: In the market, you should choose hard tomatoes if you want to make dishes with them. If you want to eat raw ones, select the softer ones. When you take them home, you should put them in a dry, cool place and enjoy them as quickly as possible, because they spoil easily.
- (6) Nutrition: The tomato is rich in vitamin A and C. Some people eat it as a healthy fruit.

**SELF-ASSESSMENT**

1. Write a few sentences to describe sweet potatoes with words and expressions you can remember from this unit.
2. Use the table below to evaluate your performance in this unit.

	Difficulties	Why difficult?	What have I done to overcome the difficulties?
Words and expressions			
COMPREHENSION			
Word-formation			
GRAMMAR			

**FUN TIME**

Read aloud, and find the rhymes in the poem.



### A Carrot Poem

What can help you see in the dark  
 While going for your full mark?  
 They're fun to eat because they crunch  
 And you can have them with your lunch!  
**CARROTS! Munch a bunch!**

## FURTHER READING

### Garlic

Garlic is one of the most popular flavors used in the kitchen. It not only tastes wonderful but also is very good for your body.



Garlic is a member of the Lily Family and a cousin to onions. It's a root crop, with the head growing underground. It is harvested in mid-July and hung to dry and then has the best flavor in late July or early August.

There are over 300 varieties of garlic grown throughout the world, such as American garlic, Italian garlic, Mexican garlic, elephant garlic, and so on. American garlic, with its white skin and strong flavor, is one of the most common ones. Italian and Mexican garlic, both of which have pink to purple-colored skins, are slightly milder-flavored types. Elephant garlic, however, is not true garlic.

Dating back over 6000 years, garlic is native to Central Asia and has long been a chief product in South Europe, as well as Africa. It was once highly prized and even used as currency by some people, but it was also regarded as an evil thing by others.

What causes that garlic smell, you may ask? When garlic cells are cut or pressed, they produce something that may cause chemical changes, resulting in that sharp garlic smell. If you eat too much, then your whole body will give off that smell. So it's wise to stay with those who have the same interest if you are a garlic-lover.

Believe it or not, one raw garlic, when well pressed, will let go more flavor than a dozen when cooked whole. But when it is cooked whole, the flavor changes so much that it no longer tastes the same as the raw garlic. This adds a surprisingly nice flavor to desserts, such as ice cream.

There are some methods to follow in choosing or storing garlic. Choose heads that are hard to the touch. Store garlic in an open container in a cool, dry place away from other foods. Do not put it in the refrigerator.

Garlic has long been considered a medical food and was used to protect against disasters by monks of the Middle Ages. In ancient Greece, a famous doctor once used garlic steam to treat cancer. During World War II, garlic was placed on wounds, which was inexpensive and apparently quite effective.

Now science is beginning to prove the medical characteristics of garlic that our ancestors took for granted. Studies have shown that garlic can stop the growth of tumors and is good for the heart as well as for the blood, thus helping people avoid a heart attack or stroke. All that is needed is only a small amount of garlic!

(Note: Middle Ages: the period in European history between antiquity and the Renaissance, often dated from A.D. 476 to 1453.)



**COMPREHENSION**

1. Read the text quickly, and write down in the table the main characteristics of garlic.

Family	
Color	
Smell	
Types	
History	
Selection	
Storage method	
Function	

2. Match the words in Column A with their explanations in Column B.

A	B
(1) variety	A. forefather, more remote than one's grandfather
(2) currency	B. according to appearances; as it seems
(3) cell	C. event that causes great harm and damage
(4) raw	D. set of twelve
(5) dozen	E. class of things that differ from others in the same general group
(6) dessert	F. uncooked
(7) disaster	G. any sweet dish eaten at the end of a meal, e.g., pie, ice cream
(8) ancestor	H. money system in use in a country
(9) apparently	I. microscopic unit of living matter, containing a nucleus

**DISCUSSION**

1. Why is garlic very good for your body?
2. Why does the author say “it’s wise to stay with those who have the same interest if you are a garlic-lover”?
3. What differences are there between the raw and the cooked garlic?

4. How do you like to eat garlic? The raw or the cooked? Why?
5. If one of your close friends is a garlic-hater, what advice would you give him/her?


## TASK 2

Name a few, say 5 to 7, crops and divide the class into several groups, each standing for one kind of crop. Work together to find out more information about your crop. A representative from each group will report their findings to the class.


## FOR YOUR ENJOYMENT

Can you give your classmates more tips about other familiar vegetables or fruits? Have a try!

### Carrot Tips




*The bright orange color of carrots tells you they're an excellent source of vitamin A.*




*Vitamin A is important for good eyesight, especially at night. vitamin A helps your body fight infection and keeps your skin and hair healthy!*



*Peeled baby carrots are a great snack with a low-fat dip.*



*One handful of peeled baby carrots or one medium fresh carrot counts as one serving of your vitamin A every day.*



*Carrots are crunchy and delicious! Pick carrots that are smooth, firm and well-shaped, and bright orange to orange-red in color.*

# THINK GLOBALLY, ACT LOCALLY

## WARM-UP



### 1. Listen carefully and answer the following questions.

- (1) What is the biggest pollution problem? What causes this problem?
- (2) Why do animals want to move?
- (3) Why is it difficult for animals to move?



### 2. Pair work. Discuss with your partner what you know about environmental pollution, and express your opinions about the environment. Your discussion should cover at least one or two of the following points.

- (1) What kinds of environmental problems are there in your hometown?
- (2) Are you worried about environmental pollution?
- (3) Do you think the earth environment is too large to be damaged?
- (4) Can you talk about the relationship between the natural environment and human health?
- (5) What can we students do to protect the natural environment from pollution?
- (6) If you were a local officer in charge of environmental protection, what would be the first thing you would want to do?

## READING



### *Water, Water, Water!*

Water is one of the most important **resources** for environmental, social, and economic reasons. The natural surface water and groundwater shaped human **settlements**, providing us with fresh water for drinking and agricultural and industrial use, as well as habitats for aquatic plants and animals. However, our use of these resources has had some harmful effects. Many countries have developed plans to guide the **management** of water resources.

In some areas, rivers, wetlands, and streams support local plants and animals that are not found in other places. Rivers and streams are generally flowing water habitats, although they may dry out seasonally. In the **arid** areas rivers may only flow occasionally but can flood across extremely large areas. Wetlands are found along rivers and on **floodplains** and **occasionally** in arid areas, where they occur as springs from small hills and seasonal lakes. Wetlands can also be found along the coast and generally have areas of standing water rather than flowing water. They can be permanently, **seasonally**, or episodically full, with periods of complete dryness.

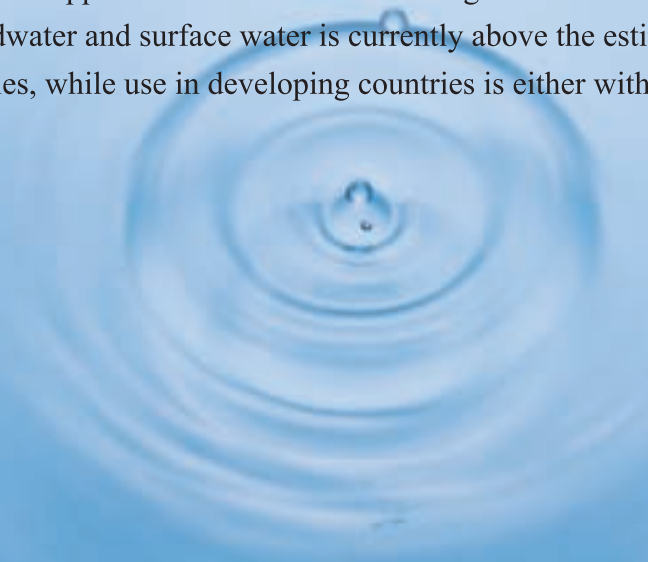


**Damming, diversion, and extraction** of water for agricultural and industrial use have left many of our rivers, streams, and wetlands **deprived** of water. This has affected the health of aquatic plants and animals and resulted in a decline in water quality. The return of wastewater, rising **salinity**, and agricultural **runoff** have further made the quality of the water poorer and poorer in many areas. Habitat **destruction** in streams and those areas alongside a watercourse and the introduction of plants and animals from elsewhere have also had severe **impacts** on water resources.



The most **significant** of these problems can be seen in some rivers, where controlled flows have greatly changed the river **ecology** and water quality. There are significant opportunities to improve water use efficiency and land management practices to reduce the impacts on this river system.

Human beings mainly use water from two sources — groundwater and surface water, in particular water from big rivers. Groundwater is water that occurs naturally below ground level. This is drawn from wells. Surface water is any water that occurs on the land surface including runoff, streams, dams, and **reservoirs**. There has been a more **integrated** approach to water use and management in many places over the last five years. Use of groundwater and surface water is currently above the estimated sustainable limit in developed countries, while use in developing countries is either within **sustainable** limits or uncertain.





**COMPREHENSION**

**1. Match the words in Column A with the explanations in Column B.**

A	B
(1) resource	A. very dry
(2) shape	B. the area of land that is near the sea
(3) aquatic	C. to take sth. out
(4) arid	D. a supply of sth.
(5) affect	E. a process of becoming weaker or smaller
(6) coast	F. taking place in, on, or near water
(7) extract	G. the greatest or smallest of sth. that is possible
(8) decline	H. to make sth. into a particular form
(9) limit	I. to influence sb./sth.

**2. There are five paragraphs in the text. Find out the theme of each paragraph by filling the paragraph numbers in brackets.**

- (     ) A description of rivers, wetlands, and streams.
- (     ) A combined way to guide water use and management.
- (     ) Reducing the impact of water shortage.
- (     ) The cause and impact of water shortage.
- (     ) The importance of water.

**EXPRESSIONS**

**1. Find out how the italicized words or expressions are used in the following sentences.**

- (1) The natural surface water and groundwater shaped human settlements, ... *as well as* habitats for aquatic plants and animals.  
John wrote this composition *as well as* a news report.  
It is in his best interests *as well as* yours.
- (2) Damming, diversion and extraction of water for agricultural and industrial use *have left* many of our rivers, streams, and wetlands *deprived of* water.  
He *left* the work *undone*.  
My father *left* the car lights *on* yesterday.
- (3) This has... *resulted in* a decline in water quality.  
A large proportion of heart attacks *result in* death.  
An accident on the highway *results in* long delays.  
The game *resulted in* a draw.  
His hard work *resulted in* good performance this term.

(4) ... to reduce the *impacts on* this river system.

The accident had an *impact on* the family.

I can't stand the *impact of* his speech *on* the audience.

(5) There has been a more integrated *approach to* water use and management in many places over the last five years.

The path serves as an *approach to* the library.

We are trying different *approaches to* solving this problem.

**Fill in the blanks with the italicized words or expressions above in their proper forms.**

(1) Our plan will take a scientific \_\_\_\_\_ to the subject.

(2) The window \_\_\_\_\_ open.

(3) His careless driving \_\_\_\_\_ an accident.

(4) Mr. Li's return from abroad will make a great \_\_\_\_\_ on the school.

(5) Christiana is kind \_\_\_\_\_ gentle.

(6) Don't \_\_\_\_\_ the computer on when you are not using it.

(7) Wearing a hat \_\_\_\_\_ carrying a briefcase can make all the difference.

(8) We expect the educational reform to have a marked \_\_\_\_\_ on high school education.

(9) He tried a different \_\_\_\_\_ to the topic.

**2. Choose one of the adverbs in the box for each of the following sentences.**

*generally seasonally occasionally permanently regularly episodically*

(1) The geologist said that the rain comes at irregular and infrequent intervals in the desert. \_\_\_\_\_

(2) Water is found in this lake all the time. \_\_\_\_\_

(3) On most occasions, women are good at cooking. \_\_\_\_\_

(4) There is heavy rain in the summer in Beijing. \_\_\_\_\_

(5) He lost his temper sometimes, but not regularly. \_\_\_\_\_

(6) His temperature goes up every morning. \_\_\_\_\_

**WORD STUDY**

**Word-formation: -hood**

**Learning Tip**

The suffix “-hood” can be used with a noun or an adjective to form a new noun, indicating state or condition.



**Decide which word in the box can take the “-hood” suffix, and try to find more words formed in this way.**

*adult connect work boy love philosophy brother*  
*village child assist man locate combine false*

**GRAMMAR**

**Grammar from the text**

**Underline the object clauses in the following sentences and classify the clauses according to the linking words before them.**

- (1) I think (that) you will like the pictures.
- (2) I consider it important that they finish their own tasks in time.
- (3) They are worrying about whether they can get there in time.
- (4) You can write on what you are interested in.
- (5) Are you sure of what you will do next?
- (6) I'm afraid that he will fail the exam.
- (7) Annie saw how pollution affected local people.
- (8) The doctor could tell where in the town a person had lived, depending on the color of his or her lungs.
- (9) I began to see that protecting the environment is directly related to protecting human health.
- (10) She explained what she meant by "upstream".
- (11) Why don't you find out who's throwing garbage into the river?
- (12) She says there's a long way to go before her work is done.

**Step-by-step grammar: *direct speech & indirect speech***

**1. Study the following examples and fill in the table.**

Changes	Direct speech	Indirect speech
Tense	am	was
Personal & possessive pronouns	I	he
Word order		
Determinative		
Spatial adverbial		
Temporal adverbial		
Several specific verbs		

(1) Tom said, "If I am free, I shall go swimming next week." →

Tom said that if he was free, he would go swimming the next week.

(2) She said, "If I had helped him, things would have been different." →

She said that if she had helped him things would have been different.

She said, "If I helped him, things would be different." →

She said that if she had helped him things would have been different.

(3) "When did she leave her hometown for the city?" asked the reporter. →

The reporter asked when she had left her hometown for the city.

(4) "Do you want to go by train or by air?" asked the travel agent. →

The travel agent asked me whether/if I wanted to go by train or by air.

## 2. In each of the following examples, you will find the choice of tense does not follow the previous rule. Why?

(1) She said, "The Earth goes around the sun." →

She said (that) the Earth goes around the sun.

(2) The tourist said, "Let's leave the luggage at the station." →

The tourist suggested that they leave the luggage at the station.

(3) "Let him not mention the unhappy thing again," she said. →

She required that he (should) not mention that unhappy thing again.

## 3. Change the following sentences into direct speech.

(1) Families I spoke with said that they often worked four to six hours a day to water their rice and vegetables.

---

(2) She said that her husband'd be back the following evening.

---

### *Learning Tip*

Verbs, such as ask, advise, beg, command, encourage, forbid, implore, invite, offer, order, recommend, remind, request, tell, urge, warn, etc. can be used with an infinitive verb in indirect speech.



### *Examples:*

The mother said to her daughter, "Be careful and brave when camping in the woods."

→ The mother *told her daughter to be careful and brave when camping in the woods.*

"Don't make so much noise," I shouted at my children.

→ I *warned my children not to make so much noise.*



**4. Change the following sentences into indirect speech.**

(1) "Would you join us in an uphill battle to protect the environment and human health?" he asked.

\_\_\_\_\_

(2) "Don't go into the rainforest without a good guide," Annie said to Mike.

\_\_\_\_\_

**LISTENING AND SPEAKING** 

**1. Listen to the dialogue and fill in the blanks.**

*(Mike and Wendy are in Vancouver, planning their vacation.)*

M: Let's go somewhere \_\_\_\_\_. How about Miami? There are great airfare sales on right now.

W: But just because \_\_\_\_\_ doesn't mean we should jet off to Florida.

M: Why not?

W: Because jet aircraft aren't exactly environmentally friendly, and I don't want to contribute to \_\_\_\_\_.

M: I can understand that; apparently a jumbo jet releases as much carbon dioxide into the atmosphere in one cross-Atlantic flight as the average British motorist does in an entire year.

W: And it's greenhouse gases such as carbon dioxide that cause \_\_\_\_\_.

M: But are we sure it's really a problem? I mean, \_\_\_\_\_ has always changed irregularly.

W: But it's never warmed this fast. The planet's average temperature could be \_\_\_\_\_.

M: That's a lot. \_\_\_\_\_ because of a similar-sized shift.

W: Ice caps are already melting, and the consequent rising sea levels could mean that low-lying coastal areas will one day be history.

M: Including cities such as Miami. I wish there were something we could do to help the situation.

W: There is! \_\_\_\_\_ the flight to Miami and take \_\_\_\_\_ camping trip instead!

**2. Answer the following questions.**

- (1) What does "airfare sales" mean? Try to guess its meaning from the context.
- (2) Do you know what a jumbo jet is?
- (3) What is the pollution problem Mike and Wendy talk about?

**3. Work together with your partner and talk about environmental pollution right around you. You can use the following expressions to help you.**

- My mom (dad, grandpa, grandma, etc.) told me that...
- There is a paper mill (a chemical plant, an open dump, a power plant, etc.) nearby.
- air pollution, water pollution, global warming, acid rain, dust storm, soil erosion
- percentage of forest cover
- “three wastes”(waste gas, waste water, and waste residues), tailpipe emissions, etc.
- ecological forest, environmentally-friendly agriculture

## TASK 1

**Collect as many pollution words as possible. You may find the words from TV news, newspapers, the Internet, etc. Compare your collection with that of your classmates.**

## TASK 2

**Write about the environmental changes (good or bad) you are experiencing. Your writing should include the following points.**

- (1) What were the environmental conditions before the change?
- (2) What are the environmental conditions after the change?
- (3) Is the change good or bad? Why?
- (4) In the future, what will (not) be done to make the environment better for animals, plants, or human beings?

## SELF-ASSESSMENT

**Check the statements that describe your performance best in this unit.**

- ( ) I know the importance of environmental protection.
- ( ) I can express my views about environmental protection.
- ( ) I have learned how to collect information or data.
- ( ) I know how to write something about my findings.
- ( ) I am a good friend to other students in the class.

**Now rate your performance in this unit.**

- A. “Excellent!”
- B. “Pretty good!”
- C. “Not bad, but I need some improvement.”
- D. “Work harder next time!”

Independent work	Cooperation with classmates	Sentence management	Vocabulary	Speaking, listening, and writing

## FUN TIME

Do you know what a rap is? It comes from the first letter of three words, *Rhythm and Poetry*. Raps are talk songs. They are not sung. They are spoken. They have a very strong beat and a lot of rhyme.

Read aloud the following rap, and enjoy its beat and rhyme.

### *The Pollution Rap*

*Pollution is a problem we must repair  
For everyone who lives here, it just ain't fair  
Recycling is the way that we must begin  
So let's toss those cans in the recycling bin.*

*I don't mean to sound like a country hick  
But seeing all the plants die, makes me sick  
The animals are losing their fight to survive  
We gotta' do something to keep them alive.*

*Breathing is a sport I like to try  
But smokers want to spoil it, I ask you why  
When I try to walk I step on trash  
Half of it's bottles that are good for cash.  
So don't throw out that hardly used paper  
Use it again. Be a giver, not a taker  
Turn down that heater and wear an old sweater  
Let's all join in to make this world better.*

*Come on everybody, let's turn off those lights  
We'll save some power for our Saturday nights  
Pick up some litter, it's for you and for me  
It takes all of us to be pollution free.*



## FURTHER READING

### *Growing More Food with Less Water*

Some people live in Asia and Africa, where long dry seasons make it difficult or even impossible for crops to grow. The cheapest pumps for drawing groundwater cost about \$350. That would be the amount of money a farmer would earn by working for much of one year.

In some places, where people do have the money to buy the machine, their farming is quite successful.

I traveled to Bangladesh in 1998 to see one of these successes with my own eyes. In Bangladesh, there is too much rain for several months but too little for the rest of the year. Many fields lie unplanted during the dry season, even though there is groundwater less than 20 feet below the surface. People there made a kind of simple pump, and made it work by using their feet. Over the past 17 years, it has delivered water to much of the land and made it productive all year round.

Families I spoke with said that they often worked four to six hours a day to water their rice and vegetables. But the hard work paid off: not only were they no longer hungry during the dry season, but also they had more vegetables than needed to take to market. The pump costs less than \$35, and it has increased the average net income for these farmers — which is often as little as a dollar a day — by \$100 a year. By the time I visited them, the farmers in this country had bought some 1.2 million pumps, raising the production ability of more than 600 000 acres of farmland. The making and selling of the pumps had added at least an extra \$350 million a year to the state economy.

In other water-poor areas, poor farmers are enjoying the newly-designed low-cost watering systems. These systems help farmers with different income levels and different farm sizes water their land. In 1998 I met with farmers in Northern India, where crops were being grown with a poor water supply. They hoped to increase their planted area by twice as much with the systems.

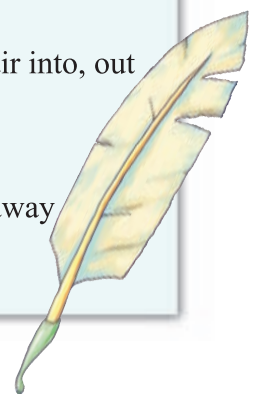
It is a good idea to apply these low-cost watering technologies to other places where there is not enough water. People will be needed to make and sell the systems, thus offering more jobs. Some people believe that these simple and easy systems may reduce the hunger and backward state of 150 million of the world's poorest people in the rural areas over the next 15 years. If this can be realized, it would increase their net income by \$3 billion a year.



**COMPREHENSION**

**1. Match the words in Column A with the explanations in Column B.**

A	B
(1) water ( <i>vt.</i> )	A. measure of land, about 4050 m <sup>2</sup>
(2) acre	B. result of adding several amounts together and dividing the total by the number of amounts
(3) pump	C. to make practical use of sth.
(4) pay off	D. to become or make sth. greater in number, quantity, size, etc.
(5) increase	E. (of a risky policy, course of action, etc.) to bring good results; to be successful
(6) average	F. machine or device for forcing liquid, gas, or air into, out of or through sth., e.g., water from a well
(7) net ( <i>adj.</i> )	G. to absorb; to accept
(8) apply	H. remaining when nothing more is to be taken away
(9) take in	I. to pour or sprinkle water on sth.



**2. Read the text twice and answer the questions.**

- (1) How many kinds of watering technologies are mentioned in the text? What are they?
- (2) Why are the conventional watering technologies too expensive?
- (3) People in Bangladesh made a kind of simple pump. How does this kind of pump work? Are people satisfied with it? Why?
- (4) Why is it a good idea to apply those low-cost watering technologies to other places where there is not enough water?
- (5) Why should new watering technologies be applied in water-poor countries?

**DISCUSSION**

**1. This text tells us about watering technologies in Asian and African agriculture. What do you know about watering technologies in Chinese agriculture?**

**2. Do you understand the following proverbs? Try to explain their implications for environmental protection.**

- *An ounce of prevention is worth a pound of cure.*
- *Filthy water cannot be washed.*

## TASK 3

**Garbage, garbage, garbage! Every day people generate tons of garbage. Work in groups to find out how much garbage you produce every day in school.**

**Group 1** examines the contents of the classroom wastebasket. Ask the group to identify the various types of waste materials generated in the classroom. Categorize the waste materials as paper products, glass, metals, plastics, organic wastes, etc. Record the findings on the blackboard.

**Group 2** determines the types of waste generated in special subject areas of the school (arts and crafts, gym, home economics, industrial arts, etc.), the school cafeteria, the office, or the maintenance area. Is this waste handled in the same manner as the classroom waste? Determine what other waste is generated by the school. Where does this waste go?

**Group 3** examines the flow of the waste materials after they are collected from the school. Where are the wastes disposed of?

**Share your findings among the three groups, and write a report on the waste generation and the waste disposal in your school.**

## FOR YOUR ENJOYMENT

### **Mother Earth**

*Thunder Snowsnake*

*Why? Why does Mother Earth  
Moan like the dying wind?  
Wailing to the lonely night,  
As if it was full of fright.*

*Why? Why does Mother Earth  
Cry out like an injured dog?  
Whining to the long lost owner,  
Yet there is no answer.*

*Why? Why does Mother Earth  
Close her eyes?  
Losing all her will,  
As if she had passed over the frequently  
Traveled hill.*

*Why? Why does Mother Earth  
Let go of the last breath?  
Sighing at the lost attempt,  
So full of contempt.*

# WHAT ANIMALS CAN WE RAISE?

## WARM-UP

1. Write the names of these animals under the pictures.



(1) \_\_\_\_\_



(2) \_\_\_\_\_



(3) \_\_\_\_\_



(4) \_\_\_\_\_



(5) \_\_\_\_\_



(6) \_\_\_\_\_



(7) \_\_\_\_\_



(8) \_\_\_\_\_



(9) \_\_\_\_\_



(10) \_\_\_\_\_



(11) \_\_\_\_\_



(12) \_\_\_\_\_



(13) \_\_\_\_\_



(14) \_\_\_\_\_



(15) \_\_\_\_\_



(16) \_\_\_\_\_



(17) \_\_\_\_\_



(18) \_\_\_\_\_



(19) \_\_\_\_\_



(20) \_\_\_\_\_

## 2. Divide these animals into two groups. Some of them can be in both.

(1) Animals that can be raised on a farm:

(2) Animals that can live in the wild:

READING



### *Grazing: Let Us Farm*

It's a beautiful September morning, and Andy Kauffman can't stop talking about grass. Quite simply, he is a man who has more love for grass grazing other than **feed rations**. **Grazing** allows him to **farm**, and he wants to tell the world in hopes that other farmers will share his feelings for this **low-cost**, low-tech production system.



"Grazing makes such **perfect sense**," says Kauffman.

"I don't spend as much money as the **conventional** dairies, yet I get paid the same amount of money for milk." He is one of those who support grass grazing.

But why grass? "It's a matter of money," says Kauffman. During the grazing season, he produces milk to be sold for half of the conventional dairy cost. "My purpose is to keep my family farming. With grazing, we think we can."

The key to success on any dairy farm, says Kauffman, is **per-cow** profit. "If we were a conventional dairy, we would have to milk 100 cows to match our profit on 65. Some bank **officers** want their farm customers to either get out of the business or borrow half a million dollars to get big. If I can't make money on 65 cows, why would I want 500?"





Make no mistake here! Grazing-based **livestock** production **systems** “are not just another way to feed **cattle**”. The system is simple, yet requires a lot of management. “It can be **complex**, but it is also a lot of fun,” says Kauffman. “Out here I can make a mistake, and it doesn’t cost me. On a conventional dairy, if you make a mistake with your feed rations, half your cows come down with bad feet.”

While some books **suggest** that one can graze cattle when the grasses are six to eight inches high, Kauffman allows his grass to grow a few more inches. “Grazing at six inches can **destroy** some of the weaker types of native grass.”

Kauffman **advises** anyone who wants to join in the business and enjoy working on a farm, “Learn from our experience, so you don’t make the same mistakes.” He and two neighbors agreed to have meetings from time to time and visit each other’s farms during the grazing season. They even invite people to visit their farms each month and see how the grazing works.

These activities are better than a simple visit, he says, because it allows learners to see the growing process **step by step**, month by month, instead of just at the best season.

“You can’t farm by **calendar** dates; you have to let the grass tell you when it’s time,” he **explains**. “Use **nature**. The key to the whole system is keeping it simple.”



## COMPREHENSION

### 1. Consider the following issues, and then share your answers with your classmates.

- (1) The text mentions two kinds of milk production: one through grass grazing and the other through the conventional dairy. What are the chief differences between the two?
- (2) When Kauffman says, “If we were a conventional dairy, we would have to milk 100 cows to match our profit on 65”, is it that, to make the same amount of money, the conventional dairy has to milk 100 cows, but the grass grazing way requires milking only 65 cows?
- (3) What are the three important suggestions Kauffman makes for grass grazing?
- (4) Do you think milk produced through grass grazing is better than that produced through feed rations?
- (5) What are the usual ways for milk to be produced in China? Is grass the only food for family livestock?

**2. Find the following words from the text. Determine their meanings according to the context.**

Words	Line number	Meaning
support		
purpose		
match		
destroy		
native		
advise		
livestock		
explain		
nature		
process		
system		
perfect		
farm		
amount		
low-tech		
management		
customer		
complex		

**EXPRESSIONS**

**Find out how the words and expressions in the box are used in the text, and then fill in the blanks with them.**

*make (perfect/no/much/any) sense    get out    come down with  
step by step    a matter of    in hopes that    instead of*



- (1) When he \_\_\_\_\_ after ten years in prison, he found life had changed greatly.
- (2) The old farmer has a cool mind and what he does \_\_\_\_\_.
- (3) He is too old and doesn't \_\_\_\_\_ much these days.
- (4) The farmer went out into the heavy snow without warm clothes, so he has \_\_\_\_\_ a bad cold.
- (5) What he said did not \_\_\_\_\_ to any of us. None of us understood him.
- (6) Our teacher is not here today because he \_\_\_\_\_ the flu.
- (7) The family has formed the habit of raising only goats and chicken \_\_\_\_\_ cows and horses.
- (8) Making a donation is not \_\_\_\_\_ money but \_\_\_\_\_ care.
- (9) He learned to play the piano \_\_\_\_\_.

- (10) He spent all his time and money in taking care of the livestock \_\_\_\_\_ the same mistake would not happen again.
- (11) He drove all his ducks out into the pond \_\_\_\_\_ holding them in the duck house.
- (12) To raise pets is not an easy job. You have to learn it \_\_\_\_\_.
- (13) —Why does he keep so many cats in the house?  
—Well, it's \_\_\_\_\_ interest. In fact, he likes cats better than dogs.

## WORD STUDY

### Word-formation: *-al*

#### 1. See how these words are formed and write down the rule.

*Examples:* conventional, traditional, national

The rule is: \_\_\_\_\_

#### 2. Make adjectives out of the following words, using the rule given above.

Make changes when necessary.

classics      magic      politics      verb      nation      practice

\_\_\_\_\_

## GRAMMAR

### Step-by-step grammar: *nominal clauses*

- Nominal clauses are clauses that function as nouns.
- Nominal clauses can function as subjects, objects, or predicatives.
- The word “that” connects the nominal clause to the main clause.
- “That” is optional when the nominal clause functions as the object.

#### 1. The classification of nominal clauses.

(1) Underline the clauses in the following sentences.

- ① That is why she is so sad.
- ② Whoever arrives first will be given the prize.
- ③ This is what I want to get.
- ④ How the boy won the first prize is interesting to all of us.
- ⑤ I cannot believe that someone has stolen the necklace from the safe.
- ⑥ The question is whether this job can be finished before five o'clock.
- ⑦ I think it improper that he will be chosen as the candidate for the championship.
- ⑧ Our rule is that everyone is to come back before midnight.
- ⑨ That men have learned much from the behavior of animals is hardly news.

(2) Classify the clauses you underline as:

Subject clauses: \_\_\_\_\_

Object clauses: \_\_\_\_\_

Predicative clauses: \_\_\_\_\_

## 2. Nominal clauses as objects.

(1) Read the following sentences carefully, and complete the tasks listed below.

- Identify the function of the underlined clauses.
- Identify the wh-words or other conjunctions that introduce the clauses.
- Explain briefly how you identified the clauses.
- Diagram the sentences in the table.

- ① We believe that the Earth goes around the sun.
- ② I am sure that Joan can be chosen for this position.
- ③ I wondered whether you were still interested in being friends with me.
- ④ I wonder if there is an interesting film on TV tonight.
- ⑤ Do you know when we are going to the sports center?
- ⑥ Does your neighbor know who stole your newspaper?
- ⑦ I was wondering what my husband was doing now.
- ⑧ Does anyone know why such an important meeting should be put off until tomorrow?
- ⑨ I am very surprised by what he said.
- ⑩ This weekly schedule will make you aware of how you spend your time.

No.	Subject	Verb	Clause as Object					
			Wh-word or other conj.	Subject in the clause	Verb in the clause	Object in the clause	Adverbial in the clause	Complement in the clause
①	we	believe	that	the Earth	goes	/	around the sun	/
②								
③								
④								
⑤								
⑥								
⑦								
⑧								
⑨								
⑩								



(2) Connect the expressions in Column A with the sentences in Column B to make complex sentences with object clauses. Pay attention to the word order in the object clauses.

**Examples:**

Do you know what his name is?

Can you tell me how old he is?

I don't know what language he studies.

A	B
Do you know...?	How old is he?
	Where does he live?
Can you tell me...?	What language does he study?
	What is his name?
I don't know...	How many English words has he learned?

**LISTENING AND SPEAKING** 

**1. Listen to the CD and decide whether each of the following statements is true (T) or false (F).**

- (1) The second speaker came from the countryside. ( )
- (2) Each day there were three classes in the school. ( )
- (3) Class began at about three o'clock in the afternoon. ( )
- (4) The teachers were also farmers in addition to being teachers. ( )
- (5) Music was one of the most important lessons the students had to learn each day. ( )
- (6) The school was about one kilometer away from his home. ( )
- (7) The child had to go to the field to work with his parents. ( )
- (8) The second speaker did a lot of homework about what he learned in class. ( )



—Where is the cowboy?

—He must be playing outside!

## 2. Read the following two passages about livestock and dairy cattle in the US.

- (1) There are five very important kinds of milk cows in the United States. All kinds are considered good milk producers, but some kinds produce more milk than others. Dairy cows normally produce milk for about five or six years, but some still produce it at the age of 20 or older. When cows no longer give milk, they usually are sent to a livestock market for making into beef. Dairy cattle provide about 25 percent of the beef in the US.
- (2) Livestock are domestic animals that are used to produce food and many other valuable products. The skins of some livestock provide important materials, such as leather. Livestock may supply drugs used by countless people. The chief kinds of livestock raised throughout the world are cattle, pigs, poultry, sheep, and horses. Other kinds of livestock include donkeys, goats, mules, and rabbits. The science of raising, breeding, and caring for livestock is called animal husbandry. At one time, people moved from place to place, hunting animals and gathering plants for food. Several thousand years ago, people began to raise various kinds of livestock in their houses. The use of these animals as a source of food and power made it possible for people to settle in one place. They then were able to begin farming.

## 3. Work in groups and discuss the following topics.

- (1) the way animal husbandry has come into being through human history
- (2) the use of domestic animals
- (3) the importance of dairy cattle in the United States
- (4) In what way animal husbandry is an industry according to the text and the materials here?

### TASK 1

#### Write a short passage about country life. You can base your writing on:

- (1) what you have read in the textbook
- (2) what you have heard or learned from other books or magazines
- (3) your life experiences in the countryside
- (4) the information your teacher supplies
- (5) other sources

You are expected to read your passage to the class.





### TASK 2

#### Raising animals is different from keeping pets. Discuss the differences and write down your points.





**SELF-ASSESSMENT**

**1. How many domestic animals can you name now? Write them down without looking at the text and evaluate your achievements yourself.**





**Domestic animals:**

Excellent	Quite good	Not very good	Poor
			
More than 10	About 7	About 4	2 or less

**2. How many new words and expressions from this unit can you put to use now?**

Excellent	Quite good	Not very good	Poor
			
All of them	About 25	About 15	10 or less

**3. Have you been good at all the activities?**

Excellent	Quite good	Not very good	Poor
			
All of them	Most of them	Some of them	None of them

**FUN TIME**

**Proverbs and popular sayings relating to animals.**

- All his geese are swans.
- All's fish that comes to his net.
- The best fish swim near the bottom.
- Better to be the head of an ass than the tail of a horse.
- Birds of a feather flock together.
- A cat has nine lives.

- Don't count your chickens before they are hatched.
- Don't kill the goose that laid the golden eggs.
- Never swap horses in mid-stream.
- When the cat's away, the mice will play.
- There are plenty of other fish in the sea.

## FURTHER READING

### *Trace-back System to Protect Animal Agriculture*



Recently, an official plan has been formed to create a system called Trace-back System to protect animal agriculture. It is aimed at finding all sick animals and any possible foreign animal disease within 48 hours after discovery.

The 48-hour trace-back system calls for people in charge to record where an animal comes from and where it moves to. People will start carrying out the plan in two steps: first, identifying before next summer all the farms throughout the country where livestock are kept, and then recording each of the cattle or other food animals and livestock offered for sale.

The plan aims at recording all home-grown cattle, pigs, sheep, goats, deer, horses, game birds, water animals and others and documenting whether they are planned for giving birth, for sale, or for personal use only.



The main purpose for setting up such a trace-back system is to rapidly control animal diseases and to get rid of them when they appear. It will also help the agriculture industry supply people with secure food.

Canada has a similar trace-back system that was put to the test in May when a single case of mad cow disease was found. This month, a group of US experts gave a point-by-point report of how the Canadian system works and why it was so successful in helping cattle-disease researchers find out where and how the sick animal got the disease.

One of the authors says that, usually, the Canadians do not read carefully the record where an animal comes from. That's how the sick animal was found sick without knowing the cause. But he pointed out that there are differences between the Canadian and US programs—“Their system cannot provide 48-hour trace-back”.



“The US calls for reading the record every time food animals change owners. Thus the US will need to have readers in all



those spots where cattle change living places,” he says.

A Canadian farmer says he thinks the price of trace-back is worth it. If it is a matter of health and safety, then even local products need the trace-back. “Since the North American market has decided to join together before May 20, it is difficult to say exactly what the risk of a sick case in the US would be. But it would be nice to be able to do some damage control in case.”

“We had a trace-back system in Canada, but a lot of cows had already been infected before the start of the system. It would have been an impossible task without the trace-back. The US will be in a bad way without some system. Two years have been lost already, but the delay might lead to a superior system.”



## COMPREHENSION

Answer the following questions before looking back into the text.

(1) Recently, an official plan has been formed to create a system to protect animal agriculture. It is aimed at finding all sick animals and any possible foreign animal disease within 48 hours after discovery. What is this system called?

(2) People will start carrying out the plan in two steps. What are they?

(3) What kinds of animals is the plan aimed at?

(4) How does the Canadian system work? What is the

attitude of the US experts? What is the suggestion they gave for setting up the system?

(5) What is the attitude of one of the Canadian farmers toward the system?

What is the advantage?

(6) What is this text about?



## FOR YOUR ENJOYMENT

What follows is a song, but only part of it is given here. If you are interested, please try to find the rest of it on the Internet.

### *Do Your Ears Hang Low?*

*Do your ears hang low?  
Do they wobble to and fro?  
Can you tie them in a knot?  
Can you tie them in a bow?  
Can you throw them o'er your shoulder  
Like a Continental Soldier?  
Do your ears hang low?*

*Do your ears hang high?  
Do they reach up to the sky?  
Do they wrinkle when they're wet?  
Do they straighten when they're dry?  
Can you wave them at your neighbor  
With an element of flavor?  
Do your ears hang high?*

# WHAT DO WE KNOW ABOUT PLANTS?

## WARM-UP



Listen to the passage and tell us what you know about plants.

- (1) What are plants?
- (2) What are the main parts of plants?
- (3) Is there any difference between plants and trees?

## READING



### *The Life of the Methuselah Tree*

You live 11 thousand feet up in the White Mountains of California, with a climate so **harsh** that little else can stay alive. It's no surprise you look more dead than alive. The harsh situation is the secret to your success. Keeping away from green grass down below, you've taught yourself to grow in this very dry landscape with little food or water. Your body looks **withered** on the outside while keeping a hidden strength within. You survive by a lifeline only ten inches wide, a narrow **ribbon** of living bark, which manages to carry all important **nutrients** from your roots to your needles. The slow pace of life keeps you slim. We humans could take a leaf out of your simple life. It takes a hundred years to add an inch to your waistline. Could it be that deep within your **cells** you hold the key to such a long long life?



*Looking More Dead than Alive... Well-known for its old age.*

Your roots go a long way back, thousands of years ago. Twenty-six feet tall and still growing, you are the oldest living thing on earth. In 2566 B.C., not long after you'd taken root, the largest stone building in the world was to be **occupied**. King Khufu had built the Great Pyramid of Giza as a tomb for himself. While lying on his deathbed, the **Pharaoh** breathed out his last breath, which contained millions of **carbon dioxide** molecules. Imagine those **molecules** of spent breath



**cast adrift** in the **atmosphere**, riding the wind, crossing oceans and continents. A few reached a land later to be called America. Perhaps you were too young to remember. You were a **mere** young tree when those molecules entered your body through a small hole on the tip of a needle. Drawing energy from the sun, you split

these molecules into oxygen and carbon. The oxygen is for humans, the carbon for you. Your complex chemistry turns the carbon atoms into sugar — the food for your growth. That’s how a molecule from a dying breath can give life to one of your new cells.



## COMPREHENSION

### 1. What can you do as a tree part?

Imagine you are a tree part. In the table below, describe how you look and explain what important jobs you do for the tree.

Tree parts	How you look	Jobs you do
leaves		
branches		
trunk		
roots		

### 2. A simple life vs. a wasteful life.

Those who live a simple life do not eat much or spend much on themselves. Compared with Methuselah, what can you say about human life? Just down the mountains in Nevada, there lies a large city: Las Vegas. What do you know about this city and how would you describe people’s lives there?

### 3. The Pharaoh’s Last Breath.

Who is the Pharaoh mentioned in the text and what did he do to make himself so memorable? Retell the story of the Pharaoh’s last breath and discuss what the story reveals about plant life and human life, or about life and death in general.



**EXPRESSIONS**

1. Find in the text the right word to match each definition in Column B.

A	B
(1) _____	A. to succeed in doing sth., especially sth. that is difficult
(2) _____	B. to follow sb.'s example, to take sb. as a model
(3) _____	C. a thing that makes you able to understand or achieve sth.

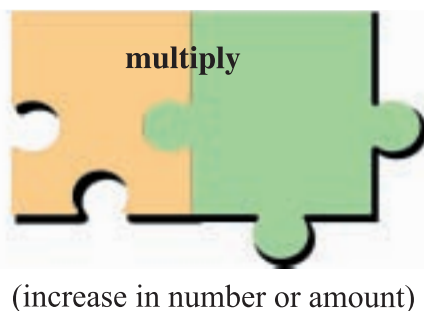
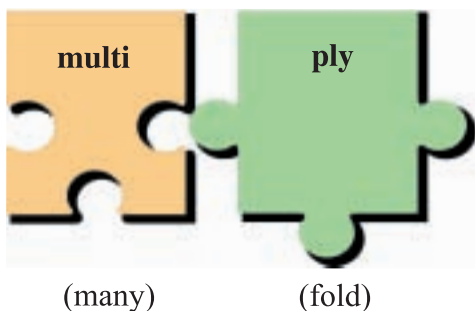
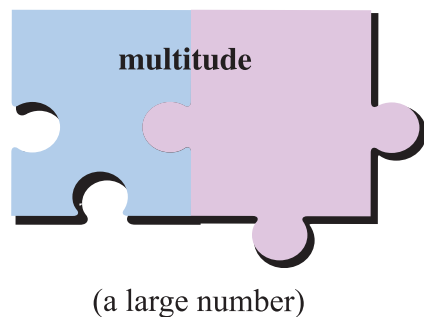
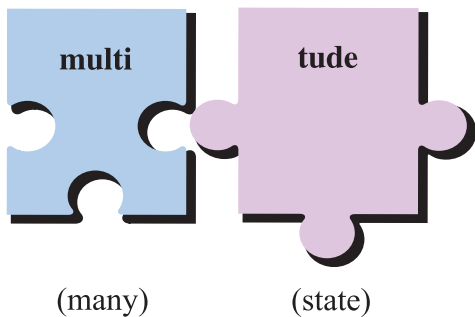
2. Complete each of the following sentences with a word from Column A in its proper form.

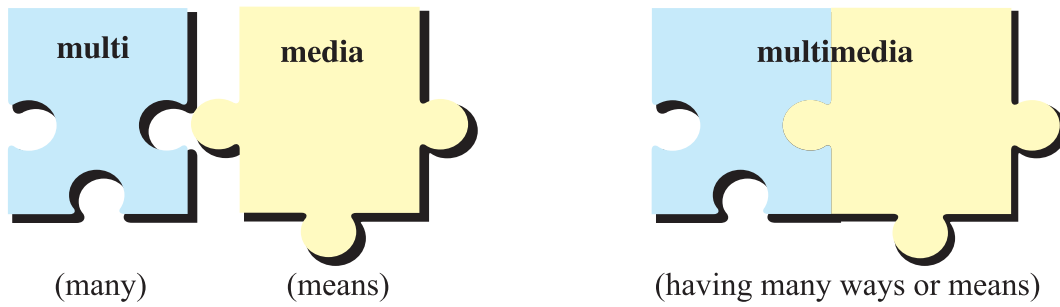
- (1) She holds \_\_\_\_\_ solving the crime.
- (2) Somehow, he \_\_\_\_\_ to persuade the man to leave.
- (3) I finally \_\_\_\_\_ to open the door.
- (4) Many young people \_\_\_\_\_ Bill Gates' fantastic career.
- (5) She hoped that being happy is \_\_\_\_\_ him into a normal confident man.
- (6) The girl tries \_\_\_\_\_ the recent book by that famous woman writer.

**WORD STUDY**

**Word-formation: multi-**

Words are made up of letters, so you may think that to learn a word is simply to memorize the letters — *b-o-o-k-s*, *y-e-l-l-o-w*, *h-e-l-l-o*. But do you know words can also be made from meaningful parts? Thus, by combining the prefix “*bi-*” (meaning two) and the stem *cycle* (meaning wheel), we get *bicycle*. Here are some other examples:





**“Multi-” is also a powerful prefix that can be combined with many words. See how your vocabulary will multiply with “multi-”, such as:**

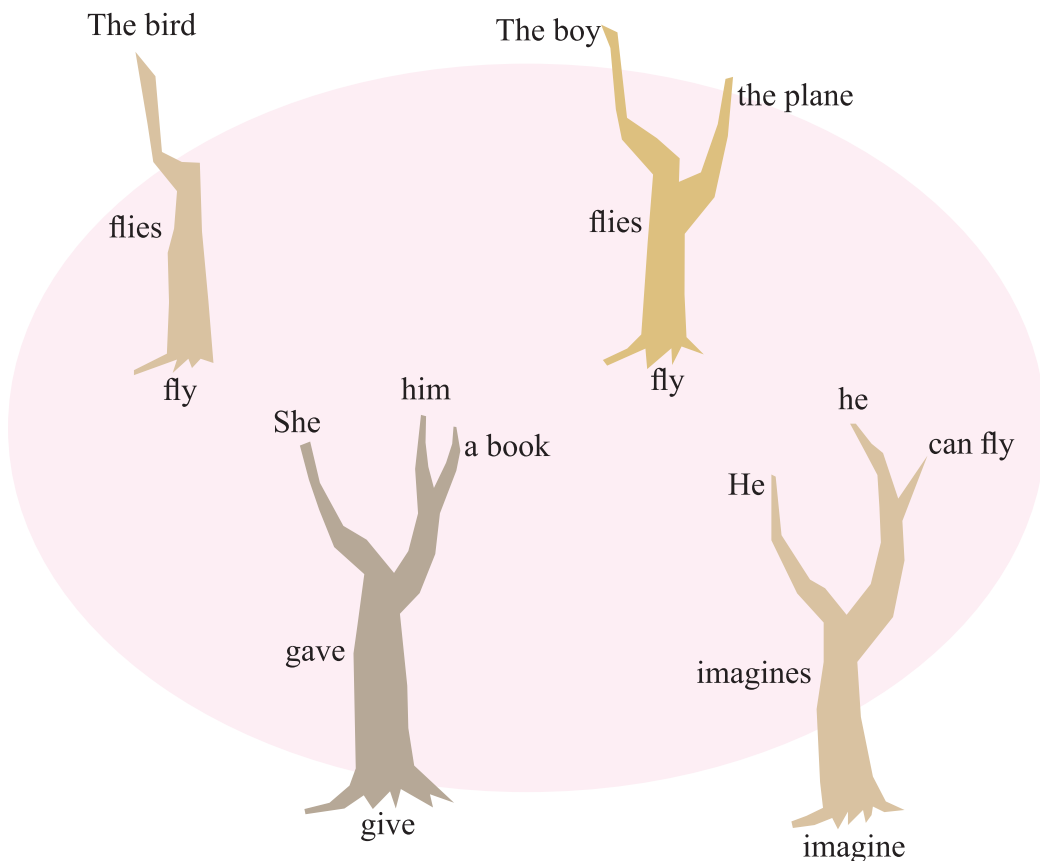
*multimedia multicolored multicolor multicultural multiculturalism multiengine multifaced multifamily multiform multifunction multilevel multilingual multimillion multiplane multiprocessor multipurpose multiroomed multiskilled multistage multistoried multitask multiuser multivoice multiyear...*

## GRAMMAR

### Grammar from the text

#### 1. Sentence trees.

To use the tree metaphor, we can think of a verb as a seed and a sentence as a tree sprouting and growing out of that seed. We can have different kinds of trees depending upon what kind of seeds we have.



So, you see, a one-branch seed gives us a one-branch tree, a two-branch seed gives us a two-branch tree, and a three-branch seed gives us a three-branch tree. Some other seeds give us a tree with another tree growing on top of it. Now, pick out any five verbs from the text. Can you tell what kind of verbs they are?

## 2. Dealing with long complicated sentences.

A sentence can run on and on until it gets very long and complicated, just like a tree that grows very big by sprouting many branches. Here is such a sentence from the text.

*Imagine those molecules of spent breath cast adrift in the atmosphere, riding the wind, crossing oceans and continents.*

To read a long complicated sentence, you can break it down into several simple sentences. Remember in each verb we have a seed out of which a tree can grow:

*cast* — *Those molecules of spent breath were cast into the atmosphere.*

*adrift* — *Those molecules of spent breath were moving adrift in the atmosphere.*

*riding, crossing* — *They rode the wind and crossed oceans and continents.*

Thus, the sentence as a whole reads as:

*Imagine that those molecules of spent breath were cast into the atmosphere. They drifted around, rode the wind and crossed oceans and continents.*

## 3. For the sentences below, pick out the adjective or verbs, and expand them into the full sentences.

- (1) Twenty-six feet tall and still growing, you are the oldest living thing on earth.
- (2) Keeping away from green grass down below, you've taught yourself to grow in this very dry landscape with little food or water.
- (3) A few reached a land later to be called America.
- (4) Drawing energy from the sun, you split these molecule into...
- (5) The slow pace of life keeps you slim.

### Step-by-step grammar: *predicative and appositive clauses*

#### 1. Can you tell how the noun clauses are used in the following sentences?

- (1) His view is that everybody can do something to help protect the environment.
- (2) His suggestion is that we should put off the sports meet until next week.
- (3) People all over the world accept the rule that all men have two ears.
- (4) The fact that the Earth moves around the sun is known to all, even ten-year-olds.



### Learning Tip 1

Predicative clauses come after the link verb *be* and are introduced by *that*.



### Learning Tip 2

The *that* that introduces an appositive clause does not serve any grammatical function in the appositive clause.

## 2. Combine each pair of the following sentences.

(1) The natural law is true everywhere. The natural law is that all men will die.

\_\_\_\_\_.

(2) He will tell you the result. The result is that you have been elected monitor of our class for this term.

\_\_\_\_\_.

(3) He had an idea. We should donate money to people in the flood-stricken area.

\_\_\_\_\_.

(4) He made a promise. He would never take up smoking again.

\_\_\_\_\_.

## LISTENING AND SPEAKING



### 1. Listen to the dialogue between Zhang Ming and Mike. Supply the missing information according to what you hear.

Zhang Ming: Hi, Mike. You won't believe \_\_\_\_\_!

Mike: What did you do?

Zhang Ming: I planted ten trees, \_\_\_\_\_!

Mike: You're kidding! How come \_\_\_\_\_?

Zhang Ming: It was March 12 yesterday, National Arbor Day. We went to Miyun to plant trees, \_\_\_\_\_. Why? Don't you celebrate Arbor Day in the United States?

Mike: Yes, we do. But we celebrate our National Arbor Day \_\_\_\_\_.

Zhang Ming: \_\_\_\_\_ in the US must be very different from ours. I think that's why you celebrate Arbor Day in late April.

Mike: \_\_\_\_\_. \_\_\_\_\_ to plant trees varies with the climate. In the US many individual states \_\_\_\_\_ a different day \_\_\_\_\_. Many Southern states celebrate Arbor Day \_\_\_\_\_. In some Northern areas, you know, \_\_\_\_\_.





Zhang Ming: But yesterday in China, hundreds of thousands of citizens \_\_\_\_\_ to plant trees. God knows how many trees they planted in \_\_\_\_\_. Sometimes I get really \_\_\_\_\_...

Mike: You worried? \_\_\_\_\_?

Zhang Ming: Well, about the trees, \_\_\_\_\_, \_\_\_\_\_.

Mike: \_\_\_\_\_? Don't you think trees will \_\_\_\_\_, \_\_\_\_\_...

Zhang Ming: And prevent \_\_\_\_\_ erosion and \_\_\_\_\_. Yes, that's correct. But do you know \_\_\_\_\_ it took me to plant a tree? One hour. It takes one hour \_\_\_\_\_, ten years for the tree to grow. But \_\_\_\_\_,

Mike: \_\_\_\_\_. The most important thing is to stop people from cutting down trees. We need to start Arbor Day educational programs to inform people about trees, tree care, and the natural environment.

**2. Listen to the following paragraphs, and then talk with your partner about the history of Arbor Day. If there is any difficulty in catching the meaning, you may read the following transcription.**

**To start the conversation, you may begin with:**

A: I hope it's a nice day tomorrow.

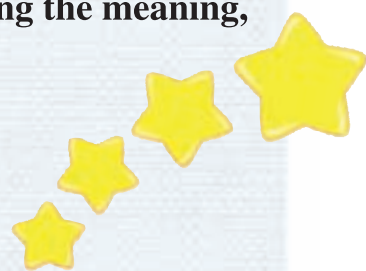
B: How come?

A: It's March 12 tomorrow.

B: It's National Arbor Day. We are going to plant trees in Miyun.

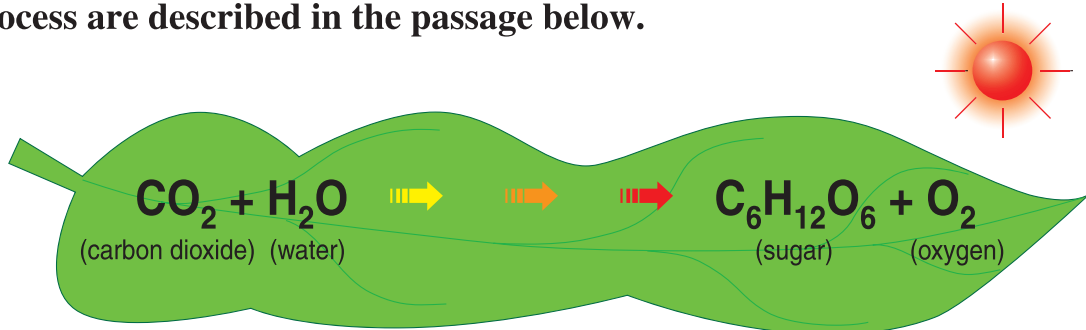
Arbor Day is a holiday set aside for the planting and conservation of trees. On Arbor Day, many people plant trees and bushes in their communities. Arbor Day educational programs provide information about trees, tree care, and the natural environment. In the United States, National Arbor Day is observed on the last Friday in April. However, because the ideal time to plant trees varies with the climate, many individual states observe Arbor Day on other dates. Many Southern states observe Arbor Day as early as January or February, while in some Northern areas Arbor Day is not held until May.

The man who first thought of the idea of Arbor Day was Julius Sterling Morton, a Nebraska newspaper editor. Like many pioneers who settled in the treeless plains of Nebraska, Morton believed that planting trees would help beautify the state, provide shade, and prevent soil erosion by creating windbreaks. In 1872 he proposed a tree-planting day at a meeting of Nebraska's Board of Agriculture. The first Arbor Day celebrations were held on April 10 of that year, with prizes awarded to the individual or group who planted the most trees. Sponsors estimated that more than one million trees were planted on the first Arbor Day.



## TASK 1

The diagram below shows what actually happens within green leaves when a plant makes food with the help of energy from sunlight. The details of this process are described in the passage below.



A plant's roots collect water and minerals from the soil. The water rises up the stem, flowing through the tiny pipeline to the leaves. In the leaves, a small amount of water ( $\text{H}_2\text{O}$ ) is combined with carbon dioxide ( $\text{CO}_2$ ) from the air, producing energy-rich simple sugar ( $\text{C}_6\text{H}_{12}\text{O}_6$ ). In doing so, green leaves give off pure oxygen ( $\text{O}_2$ ) for breathing. The plant uses much of the sugar to build roots, leaves, flower, and seeds and stores the rest in the form of starch in leaves, roots and seeds.

Use the passage as a model and write a similar paragraph describing how the Methuselah tree makes its own food. Your paragraph may begin like this:

The Methuselah tree is the oldest living thing on earth...

## SELF-ASSESSMENT

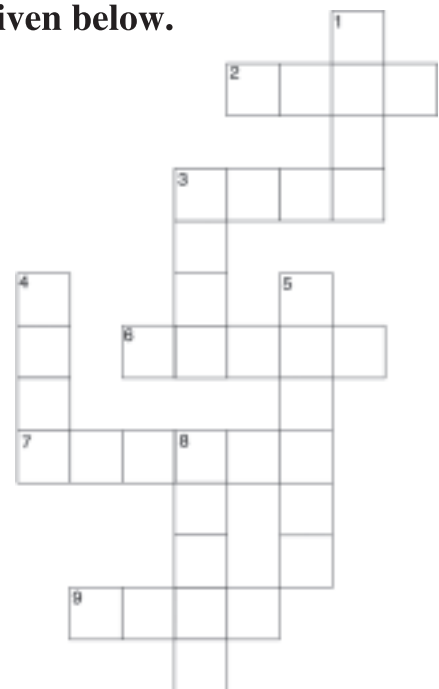
1. Complete the crossword puzzle, using the clues given below.

### Across

2. It holds the plant in place.
3. New plants grow from it.
6. It grows in soil and makes its own food.
7. It looks pretty, but its real job is to make seeds.
9. It grows very high.

### Down

1. A hard surface built for vehicles to travel on.
3. What do you see in the sky at night?
4. It collects energy from the sun and makes food for the plant.
5. It comes from the sun.
8. What do you drink?



2. You and a partner may enjoy checking what you have learned about plants and trees. You will need to cut out several cards. On each separate card, write down one word from the word bank. Find in the text (or elsewhere) related words or information about the word and write what you have found on the back of the card. Show your partner either side of the cards and see if he/she can tell what are on the other side.

### WORD BANK

tropical	jungle
humid	rainforest
trunk	leaves
compete	energy
nutrients	nourished

**Jungle**

a place where plants and trees grow very close together

### FUN TIME

Read aloud the little rhymes below. There is a riddle telling you about the jobs of the tree parts. Can you find out the answer to each of the riddles?

Green and flat  
Or needle-like,  
We make food by day  
And rest at night.

From roots to branches,  
Short or long,  
My tough wood  
Keeps me tall and strong.

Scattered by wind  
When breezes blow,  
I'll make a new tree  
When I sprout and grow.

Thin-like hair,  
Or thick and round,  
We hold the tree  
Firmly in the ground.

Rough or smooth,  
A very tough cover,  
I keep out insects,  
Fire and weather.

*A rhyme is a poem or song with lines ending in words that have very similar sounds.*

### FURTHER READING

## The Tropical Rainforests

Imagine we're travelers in time. It is 400 million years ago. Some of the oldest plants, the ferns, cover almost all the land. Now a hundred million years have passed. The dominance of ferns is ending and trees with different leaves, with trunks, and with spreading branches are beginning to appear. We have entered a new, fantastic era — tropical rainforests have begun.

Imagine now it's 60 million years ago. The dinosaurs have come and gone. The insects, who were here before, still thrive. The forest forms a dense jungle. Plants grow very close together,



competing for nutrients and light. Multitudes of life forms are emerging. Static life — the fungi, plants and trees — support the mobile world, the insects and the rest, who move about in search of food.

Every morning, damp and sun-warmed air starts rising, turning into the midday clouds. Every afternoon the rain falls as tropical rainforests around the planet live up to their hot and humid name. Every day since time on the earth began, the sun has sent out beams of energy and heat around the earth's equator. The daily supply of sunshine and water keeps the tropic landscape nourished, slowly shaping and changing every form of life. And still, there's 50 million years or more to go before the early humans come.



*Dense Jungle*  
The rainforest flourishes due to the year-round warm and humid weather.

In the rainforest grows the largest single living thing the land has ever seen — the tree, the very fabric of the forest. Individual trees may live a hundred years or more. While alive, they provide food and homes for a wide variety of species. When they fall or die, these toppled giants leave behind a wide opening in the forest, which plants and younger trees will rush to fill. The energy contained within the wood of trees is never lost or wasted. Termites quickly go to work and soon the forest floor reclaims what it supplied as everything recycles through the system. New trees race to fill the gap. Within a year or so the forest canopy has been restored. Everything is used and used again.

## COMPREHENSION

### 1. Hot and humid name.

The tropical rainforests around the world are famous for their hot, damp climate. Discuss how rainforests live up to their hot and humid name.

### 2. Termites the hateful.

Termites are widely-hated insects because they do a lot of damage by eating wood. What else do they do besides eating up your furniture or home?

### 3. Who is afraid of new words?

In this activity you'll learn how to guess the meaning of a new word by using the context clues. The context of a word is the words, phrases, or sentences that come before or after it. For the words listed below, guess the meaning of each word, using the information that you find in context. Write down your answers in the blank space in the following table. The answer to the first question is given as an example.

*New words, new words!*  
*There are always so*  
*many new words!*



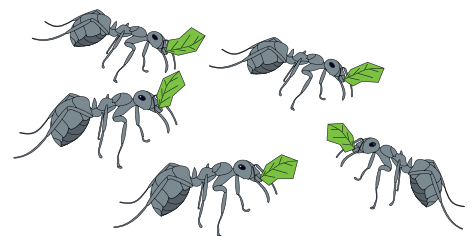


photosynthesis	a process by which plants make their own food by collecting energy from the sun through green leaves
ferns	
dominance of ferns	
static life	
the mobile world	
toppled giant	
their hot and humid name	
recycle	

**TASK 2**

**Look at these small creatures. They are called leafcutter ants. Go to your school library or go online to find out more about these lovely creatures. Use the research form as your guide.**

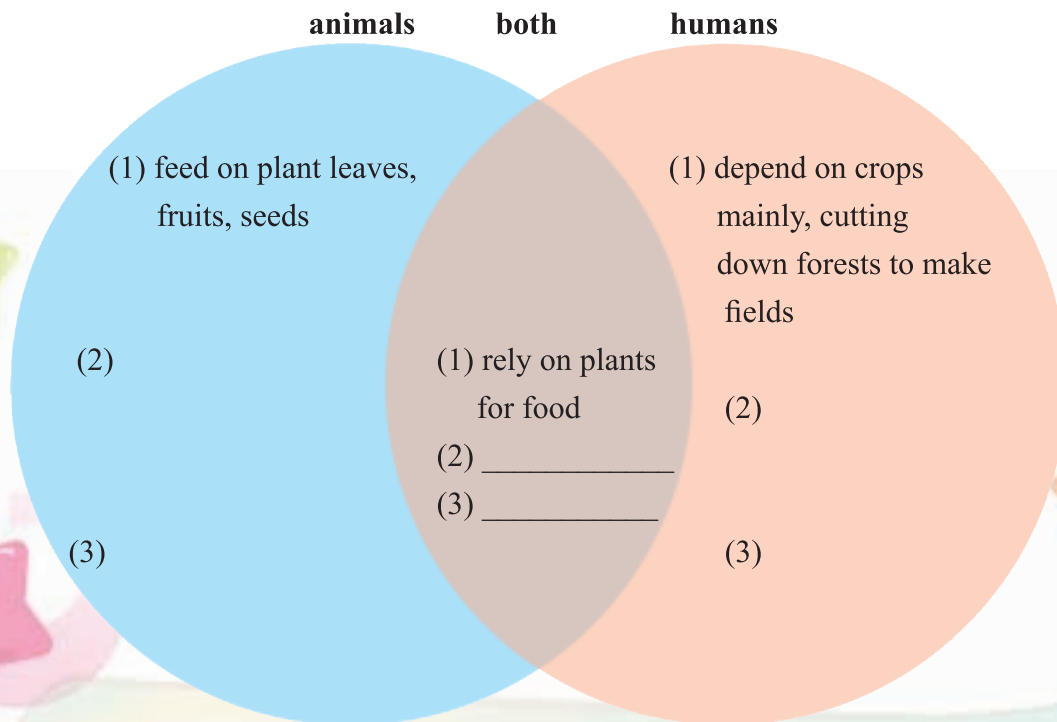
- (1) What kind of animal is a leafcutter ant?
- (2) Where do they live and what does their habitat look like?
- (3) What do they do with the pieces of leaves they cut off?
- (4) How do they influence their surroundings?



**TASK 3**

**Human beings have evolved and used trees in ways no animals have done before. Use the diagram below to compare how human beings and animals use trees. Write down the animal ways in the animal circle, human ways in the**

human circle, and shared ways in the middle.



**FOR YOUR ENJOYMENT**

## Leaves of Grass

Walt Whitman

*A child said What is the grass? fetching it to me with full hands;  
How could I answer the child? I do not know what it is anymore  
than he.*

*I guess it must be the flag of my disposition, out of hopeful green stuff  
woven.*

*Or I guess it is the handkerchief of the Lord,  
A scented gift and remembrancer designedly dropt,  
Bearing the owner's name someway in the corners,  
That we may see and remark, and say Whose?*

*Or I guess the grass is itself a child, the produced babe of the  
vegetation.*

*Or I guess it is a uniform hieroglyphic,  
And it means, Sprouting alike in broad zones and narrow zones,  
Growing among black folks as among white,  
Kanuck, Tuckahoe, Congressman, Cuff, I give them the same,  
I receive them the same.*

# A GIANT FISH OUT THERE

## WARM-UP



First tell your partner what you know about sharks, and then listen to learn about the sleeper shark. Fill in the blanks with the information you have heard.

- (1) It grows more than \_\_\_\_\_ long.
- (2) It can weigh \_\_\_\_\_ ton.
- (3) People have found in their stomachs \_\_\_\_\_, seals, many different kinds of small \_\_\_\_\_, pieces of \_\_\_\_\_, \_\_\_\_\_ blubber, and in one case, an \_\_\_\_\_ reindeer.
- (4) Where food is plentiful, the sleeper shark can move over the bottom of the \_\_\_\_\_ and suck up its \_\_\_\_\_ like a vacuum cleaner.
- (5) The shark will also eat \_\_\_\_\_ when it can.
- (6) Sleeper sharks have been known to eat \_\_\_\_\_.
- (7) At times, two or three sharks have been caught on the \_\_\_\_\_ hook. The first shark swallows the \_\_\_\_\_. While it hangs helplessly on the \_\_\_\_\_, it is swallowed by another shark, \_\_\_\_\_ is eaten by yet \_\_\_\_\_.
- (8) The sleeper shark goes to the trouble of hunting \_\_\_\_\_.
- (9) Blubber is the most important source of \_\_\_\_\_ for big animals in the Arctic.
- (10) A large \_\_\_\_\_ of blubber might keep a shark satisfied for \_\_\_\_\_.





## The Mystery of the Sleeper Shark

*Nancy Roe-Pimm*

Only one kind of shark is known to live in the cold waters of the Arctic **Circle**. The **Greenland** shark swims beneath the white, icy **surface** of the Arctic Ocean. It won the name “sleeper shark” because of its slow movement.

Almost all Greenland sharks are at least partially blind because of small **creatures** that hang from their eyes. Each one of these creatures spends its life feeding on the eye of a Greenland shark.

Fish experts are amazed that, among other things, fish and **seals** have been found in the sharks’ stomachs. Scientists wonder how this mostly blind, slow-moving shark finds such fast-moving food.

Does the shark eat only dead or **dying** animals? Or has it found some way to catch live ones?

A team of scientists led by Dr. George Benz is working to find out whether the sharks may actually hunt **live** seals. To study the sleeper shark, they came to a town in Northeastern Canada. There, they dug holes through the eight-foot-thick ice, **baited** their fishing hooks with blubber, and lowered their fishing lines into the holes. Oh! Up came a sleeper shark.

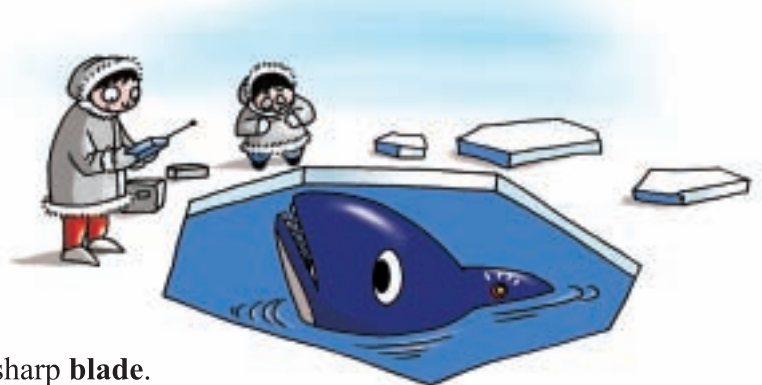
When they removed the **hook**, they got a good look at the shark’s teeth. The small upper teeth were knife-like. The **lower** teeth **overlapped** one another and formed a long, sharp **blade**.

With the hook removed, the scientists worked quickly to fix an electronic **device** to the shark’s **fin**. Then the shark was set free unharmed into the icy waters.

The scientists **tracked** the shark as it swam just **underneath** the ice. Sometimes the giant fish dived **steeply** and then rose. Could these movements be clues to how Greenland sharks hunt seals near the ice surface?

The seals live in holes in the ice, feeding in the water while hiding from hungry polar bears. Throughout the Arctic winter, the ice gets thicker, and the seal holes become long and **tunnel**-like. Scientists and the native people of the area know that Greenland sharks sometimes **investigate** ice tunnels. So it’s possible that an **unsuspecting** seal may be attacked by a hungry Greenland shark from below while the seal hides from polar bears above.

Dr. Benz says, “We thought that if we could show that the sharks spent time swimming just under the ice, then we would have some **evidence** that they may be hunting seals at these holes. Our tracking evidence shows that the sharks do spend time there.”







## COMPREHENSION

### 1. Read the text quickly and then answer the questions.

- (1) Why is the Greenland shark called the sleeper shark?
- (2) Why are most Greenland sharks partially blind?
- (3) Which moves faster, the shark or the seal?
- (4) How thick was the ice through which the scientists dug holes?
- (5) How did the scientists catch the sleeper shark?
- (6) What are the upper teeth of the shark like?
- (7) Why did the scientists catch the shark?
- (8) Where do the seals live?
- (9) Where do the seals get food?
- (10) Which animal does the seal hide from?

### 2. Guess at the meaning of the new words.



TIP

**Learning Tip**

Sometimes we can work out the meanings of new words from the context.

**Make a guess at the meaning of the new words, using information from the context. Then look up the words in your dictionary and see if you have made it right.**

Word	Meaning
dying	
bait	
remove	
hook	
giant	
dive	
clue	

## EXPRESSIONS

### 1. Find in the text the right word to match each definition in Column B.

A	B
(1) _____	A. the water of the stated river, lake, sea, etc.
(2) _____	B. below, directly under
(3) _____	C. to get sth. that one deserves because of one's qualities or actions
(4) _____	D. to fix at the top so that the lower part is free
(5) _____	E. filled with great surprise or wonder
(6) _____	F. to cover partly
(7) _____	G. to follow the marks left by a person, animal, vehicle, etc., that has passed before
(8) _____	H. to try to find out more information

### 2. Complete each of the following sentences with a word from Column A in its proper form.



- (1) The ship sank \_\_\_\_\_ the waves.
- (2) She \_\_\_\_\_ a lot of praise from the teacher for her good deeds.
- (3) This is where the \_\_\_\_\_ of Amazon flow out into the sea.
- (4) Scientists are \_\_\_\_\_ the causes of cancer.
- (5) His coat was \_\_\_\_\_ on the door.
- (6) We were \_\_\_\_\_ to hear the news.
- (7) His visit and mine \_\_\_\_\_ .
- (8) They \_\_\_\_\_ the criminal to his hiding-place.



3. Study how the following expressions are used in the text. Complete the following sentences with the correct forms of these expressions.

*feed on    hide from    find out    look forward to*

- (1) These bears \_\_\_\_\_ the leaves of this special tree.
- (2) I'm \_\_\_\_\_ some warmer weather after this bitter winter.
- (3) \_\_\_\_\_ the present \_\_\_\_\_ your father until his birthday.
- (4) The teacher was very angry when she \_\_\_\_\_ that the students had been cheating.
- (5) The cows \_\_\_\_\_ grass.
- (6) I know you children are \_\_\_\_\_ me in there. Come out now and have your dinner!
- (7) How do you \_\_\_\_\_ where to catch the right bus?
- (8) We are all \_\_\_\_\_ seeing you again soon.



**WORD STUDY**

**Animal Words**

1. Which animal makes that noise? Match the animal name in Column A with the word in Column B.

A	B
duck dog cat goat horse pig sheep	bleat neigh grunt bark meow quack

## 2. What are they called when they are young?

A	B
cow, bull elephant dog cat duck bear	kitten calf puppy, pup cub duckling

## GRAMMAR

### Step-by-step grammar: *attributive clause (1): restrictive*

#### 1. If there is one dancer whom we know as Marisol and one dance called the Jarabe Tapatio, we may have the following sentences.

- The young people *who* enjoy folk dancing meet twice a week to practice.
- Marisol is a good friend to the dancers *who* practice with her.
- The dancers with *whom* Marisol dances are all students at her high school.
- The house on the street *where* Marisol lives is always filled with music.
- The music *that* is used by the dancers is usually pre-recorded.

#### From the sentences above, you may find:

- Attributive clauses are clauses that function as adjectives.
- Attributive clauses provide information about the noun that precedes them.
- Attributive clauses answer the questions “who” “whom” “what” or “where”.



- Attributive clauses are placed after the noun they modify.
- Attributive clauses are dependent clauses. They are never independent clauses.
- If an attributive clause is not accompanied by an independent clause, it becomes a fragment.
- An attributive clause must refer to the noun that directly precedes it. This noun is known as a referent (also called an antecedent).

### Learning Tip

Attributive clauses are also called adjectival clauses or relative clauses.

## 2. Complete the following sentences with *that*, *which*, *who*, *whom*, *whose*, *when*, *where*, or *why*.

- (1) A man \_\_\_\_\_ doesn't try to learn from others can't hope to achieve much.
- (2) The girl with \_\_\_\_\_ I talked is an old friend of mine.
- (3) The teacher had talked with the students \_\_\_\_\_ compositions hadn't been handed in.
- (4) This is the factory \_\_\_\_\_ makes washing-machines.
- (5) Do you have everything \_\_\_\_\_ you need?
- (6) Who is the man \_\_\_\_\_ is standing over there?
- (7) The meeting \_\_\_\_\_ was held at our school was a success.
- (8) I shall never forget the day \_\_\_\_\_ I joined the League.
- (9) Have you been to the small village \_\_\_\_\_ you were born?
- (10) Nobody knows the reason \_\_\_\_\_ he is often late for school.

## 3. Combine each pair of the following sentences into one that includes a restrictive attributive clause.

### Example:

Mr. Zhu taught us English in middle school.

We shall never forget him.

→ We shall never forget Mr. Zhu who taught us English in middle school.

- (1) Those people want to go.  
Those people should sign their names here.
- (2) You recommended the doctor.  
I telephoned him.
- (3) Somebody's home is in Shanghai.  
Do you know who he/she is?
- (4) They live in a house.  
The house was built in 1950.
- (5) He told a story.  
The story moved us deeply.

### Learning Tip

*That*, not *which*, is used after words such as *everything*, *nothing*, *something*, *anything*, *all*, *little*, *much*, etc. to introduce the restrictive attributive clause.

## LISTENING AND SPEAKING



**1. Listen to the passage about how the Appalachian Bear Center helps bear cubs. Decide whether each of the following statements is true (T) or false (F).**

- (1) The bears live in the woods. (    )
- (2) Mother bears give birth to cubs in spring. (    )
- (3) Mother bears feed their babies bear milk until summer-time. (    )
- (4) Sometimes cubs lose their homes. (    )
- (5) Sometimes a mother bear does not want to keep her baby. (    )
- (6) The Appalachian Bear Center is ready to help mother bears. (    )
- (7) This Center began helping bears in 1986. (    )
- (8) People who work there have returned more than thirty cubs to the forest. (    )



**2. Are you interested in the work of the Appalachian Bear Center? Suppose you are a journalist of a children' magazine and have a chance to interview a man called David, who manages the center. What information do you want from him? Think of five or more questions.**

(1)
(2)
(3)
(4)
(5)

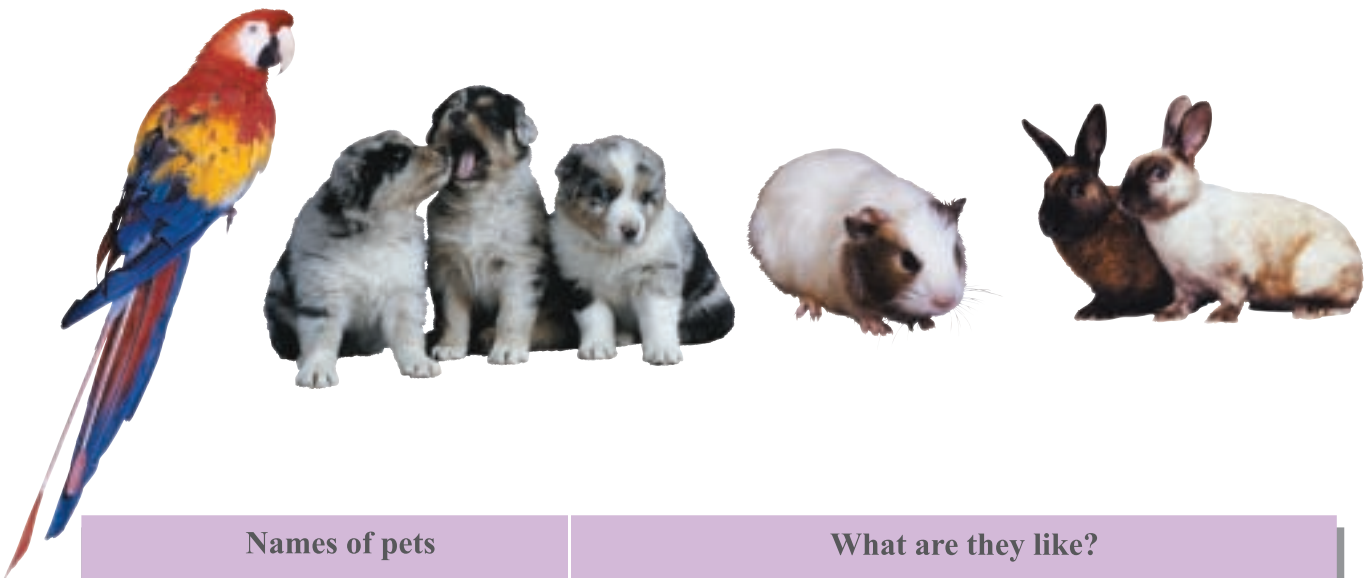
**3. Listen to an interview carried out by a journalist. Take down the key words.**

Question	Answer

- Practice the interview in pairs using the key words. Then prepare an oral report on the topic “How People Help Little Lost Bears”.
- Present your report to the class.

**TASK 1**

- Do a class survey to see how many students keep pets and what pets they keep. Write down the names in the column for pets.
- Write the words that best describe the pets in the right hand column, and then share your work with your classmates.



Names of pets	What are they like?
parrot	lovely, clever, noisy...

**TASK 2**

Many people love pets, but some hate them. Have a class debate over the

topic “ Pets or No Pets”. Then write a composition on the debate topic.



### SELF-ASSESSMENT

1. You have done two tasks together with your classmates. Rate your performance.



“Very good!”



“Good!”



“Pass!”



“Work harder next time!”

2. Do you think you can benefit from cooperating with your classmates? Write a few words about it.

My reflection on the tasks I did in this unit

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### FUN TIME

#### What Bird Is It?

It is a bird with a flat face, large eyes, and a small sharp beak. It’s light brown. This bird gets its food by hunting small animals at night. It is helpful to humans. It often gives out a sorrowful cry at night. It is seen as an unlucky animal. What bird is it?





## FURTHER READING

## *Elephant Talk*

*Jack Myers*

Elephants are highly social animals. In Africa they live together in groups of related females with their calves, often led by the grandmother of the family. When the males reach their teens, they become independent. Scientists naturally expected that animals living so closely together would have a lot of communication. They had listened to sounds of an elephant herd. But until recently no one had heard what could be called elephant talk.

Katy Payne, a scientist at Cornell University, had been studying the songs and other sounds of whales. She was curious also about other big social animals and was excited when she got a chance to spend a week with elephants in a zoo. She spent every day of that week watching and listening to elephants. “Elephants may not have been the only interesting animals in the zoo, but I had eyes, or ears, only for them,” she wrote later. She also learned from the keepers, who told her about some of the things their elephants had done. She began to think of those elephants as individuals, each with its own personality. On her way home from that first experience, she realized how little she had learned about elephant talk.

In a few months Katy and two friends were back at the elephant house with special equipment they could use to record the sound of the elephant, which is below the frequency that human ears can hear. In the laboratory they played back the tapes, but at ten times the recording speed. That increased the frequency of the recorded sounds so people could hear them. Now there was a lot to hear. Katy says it sounded something like cows in a barn. She had learned how to listen to elephant talk.

Now that Katy had learned about the sound of the elephant, she wondered how wild African elephants actually talked to one another. That question took her to East Africa. There she teamed up with two other scientists. By watching elephants while recording their sounds, the team was able to figure out several different calls.

When two related elephant families met, there was a lot of excitement, with trumpeting, screaming, and special rumbles of greeting. There was a let’s-go call used by an elephant that seemed to want the family to get moving. There were contact calls used by an elephant that had wandered off and wanted to locate her family. In response there were answering calls from the family. When an elephant heard a distant call, it had a special “listening” response. It stood still, spread its ears, and moved its head from side to side as if locating the direction of the call.

## COMPREHENSION

**Explain the following sentences in the text.**

- (1) Elephants are highly social animals.
- (2) When the males reach their teens, they become independent.
- (3) Elephants may not have been the only interesting animals in the zoo, but I had eyes, or ears, only for them.
- (4) She began to think of those elephants as individuals, each with its own personality.
- (5) That question took her to East Africa.
- (6) There were contact calls used by an elephant that had wandered off and wanted to locate her family.

## DISCUSSION

1. What can you learn from this text? What else do you know about the elephant?
2. Do you think it possible for human beings to understand animal talk?

## FOR YOUR ENJOYMENT

### *What Does the Bee Do?*

*Christina G. Rossetti*



*What does the bee do?  
Bring home honey.  
And what does Father do?  
Bring home money.  
And what does Mother do?  
Lay out the money.  
And what does baby do?  
Eat up the honey.*



# NATURAL LAWS OR HUMAN LAWS?

## WARM-UP

Discuss the following questions.

- (1) What does the word “law” remind you of?
- (2) Are all laws made by man?
- (3) Which of the following are human laws and which are natural laws? Try to tell their differences.
  - ① The density of a gas is proportional to its pressure.
  - ② The volume of a gas is proportional to the temperature.
  - ③ All men have two ears.
  - ④ All children must have nine-year compulsory education.
- (4) Give more examples of both kinds.



## READING



### *The Laws of Nature*

The phrase “a law of nature” is not often used in modern scientific writing. This is partly because of the **objection** to the use of the word “law” in two different senses. Human societies have laws. A human law is something that is true only over a **certain** number of people for a certain period of time.

Laws of nature, however, are not **commands** but **statements** of facts. It would be better to speak of **uniformities** of nature. It is quite **probable** that every law of nature so far stated has been stated incorrectly. Certainly many of them have.

Jeffreys has something new to say about the statement of laws of nature. There are two opposite theories about the laws of nature. The older view is that they are **absolute**, though of course they may have been inexactly expressed. The view by Vaihinger is that we can only say that it seems as if certain laws held. There is no sense in making any **definite** statements, though it is **convenient** to do so.

Jeffreys points out that, if a number of observations have been found to be in agreement with a law, it is highly probable that the next one will do so whether the law is true or not.



Many laws of nature have turned out to be inexact, and all may do so. But that is absolutely no reason for saying that there are no **regularities** in nature. One might as well say that because no maps of England give its shape exactly, it has no shape.

What is **remarkable** about the laws of nature is the exactness of simple **approximations**. One might see a hundred thousand men before finding an **exception** to the rule that all men have two ears, and the same is true for many of the laws of physics. Boyle's law that the **density** of a gas is **proportional** to its pressure, and Charles' law that the volume is proportional to the temperature, would be exact if gas molecules were points that had no **volume** and did not attract one another. These laws are very nearly true for gases at ordinary temperatures and **pressures** because the molecules occupy only a small part of the space containing the gas and are close enough to attract one another only during a very small part of any short period of time.

Jeffreys points out that it is often much better to **stick to** the theoretical law rather than the **observed data**.

## COMPREHENSION

### 1. Answer the following questions after first reading.

- (1) What are the two senses in which the word "law" is often used?
- (2) Which two noun phrases in the text are more scientific expressions for "laws of nature"?
- (3) Are stated laws of nature statements of facts?
- (4) Did you find the text difficult to understand? Mark out the difficult sentences.

### 2. Decide whether each of the following statements is true (T) or false (F).

- (1) The phrase "a law of nature" is not very often used in modern scientific writing because people don't like to use the word "law" in two different senses. ( )
- (2) Sometimes laws of nature can be incorrect. ( )
- (3) Do you agree that stated laws of nature are actually statements of facts? ( )
- (4) Of the two opposite theories, the older view is that laws of nature exist objectively even though they may have been stated inexactly. ( )
- (5) According to Vaihinger, it is unnecessary to make any definite statements of laws of nature because there are no regularities in nature. ( )
- (6) "One might see a hundred thousand men before finding an exception to the rule that all men have two ears." The author's point here is that exceptions to the rule are very rare. ( )



- (7) Jeffreys points out that a law of nature will probably continue to lead to conclusions that are in agreement with it even if it does not state the fact. ( )
- (8) The laws of nature are statements that are nearly true. ( )
- (9) Charles' law and Boyle's law are based on observations made at ordinary temperatures and pressures. ( )
- (10) The author as well as everyone else agrees with the statement that because no maps of England give its shape exactly, it has no shape. ( )

### 3. Complete the following sentences.

- (1) ... if a number of observations have been found to be in agreement with a law, it is highly probable that the next one will do so whether the law is true or not. "One" stands for \_\_\_\_\_ and "do so" means \_\_\_\_\_.
- (2) There is no sense in making any definite statements, though it is convenient to do so. "To do so" means \_\_\_\_\_.
- (3) Certainly many of them have. "Them" refers to \_\_\_\_\_ and "have" means \_\_\_\_\_.
- (4) One might as well say that because no maps of England give its shape exactly, it has no shape. "It" refers to \_\_\_\_\_.
- (5) ... the same is true for many of the laws of physics. "The same" refers to \_\_\_\_\_.

### 4. Pick out from the text the terms used in physics. Add more if you can.

#### EXPRESSIONS

#### 1. Fill in the blanks with words or expressions from the text that are related in meaning to those in brackets.

- (1) I admit that what you say is \_\_\_\_\_ (part) true.
- (2) \_\_\_\_\_ (science) breakthroughs have always amazed the world.
- (3) It would be better to speak of uniformities of nature, or \_\_\_\_\_ (regular) of nature.
- (4) He always works best under \_\_\_\_\_ (press).
- (5) Laws of nature are sometimes incorrectly or \_\_\_\_\_ (exact) stated.

(6) What he told us was in exact \_\_\_\_\_ (agree) with what had actually happened.

## 2. Fill in the blanks with the proper prepositions.

(1) Objections \_\_\_\_\_ the plan will be listened to.

(2) He pointed \_\_\_\_\_ the finest pictures to me.

(3) It is not easy to find an exception \_\_\_\_\_ the rule.

(4) The payment is proportional \_\_\_\_\_ the work done.

(5) The laws are nearly true for gases \_\_\_\_\_ ordinary temperatures and pressures.

(6) \_\_\_\_\_ what sense are you using the word?

(7) Give me your reasons \_\_\_\_\_ doing it.

(8) The church is close \_\_\_\_\_ the shop.

## 3. Find out how the italicized words and expressions are used in the text.

(1) It is often much better to *stick to* the theoretical law rather than the observed data.

(2) It would be better to *speak of* uniformities of nature.

(3) There is *no sense in making* any definite statements, though it is convenient to do so.

(4) One might see a hundred thousand men before finding an exception to the rule that all men have two ears, and *the same is true* for many of the laws of physics.

## Fill in the blanks with the italicized words or expressions above in their proper forms.

(1) We have heard him \_\_\_\_\_ it.

(2) He \_\_\_\_\_ the task until it was finished.

(3) \_\_\_\_\_ in doing that. It's meaningless.

(4) The food is good, and \_\_\_\_\_ of the service.

## WORD STUDY

### Word-formation: *-ics*

**“-ics” works as a suffix to form nouns, indicating the science or study of something, for example, “electronics”. Can you give more examples?**

the study of genes: \_\_\_\_\_

the study of economy: \_\_\_\_\_

the study of nature: \_\_\_\_\_

the study of morals: \_\_\_\_\_

**GRAMMAR**

**Step-by-step grammar: *attributive clause (2): non-restrictive***

**Distinguish the non-restrictive attributive clauses from the restrictive ones. Find out the relatives used in the non-restrictive attributive clauses and the nouns they refer to, and then fill in the table below.**

- (1) Galileo lived in the city of Pisa, where there is a leaning tower about 180 feet high.
- (2) Choose potatoes that are smooth and hard, without any decay.
- (3) Ralph Waldo Emerson, whose original profession was a minister, became one of America's best known and best loved writers in 19th century.
- (4) A human law is something that is true only over a certain number of people for a certain period of time.
- (5) Molecules occupy only a small part of the space that contains the gas.
- (6) The laws of nature are the exactness of simple approximations, which is remarkable.
- (7) He can plant a rose in his garden, which I can't.
- (8) The description of the man that he saw was exact.
- (9) Human societies have laws, which are something true for a certain period of time.
- (10) They have invited me to visit their country, which is advanced in computer science.

Number	Referent	Relative
1	the city of Pisa	where

**LISTENING AND SPEAKING** 

**1. You are going to hear a passage about America's Midwest. Which of the following do you think will be mentioned in the passage?**

- (1) exciting
- (2) big cities
- (3) Heartland of America
- (4) farmland
- (5) small hills
- (6) great scenery
- (7) simple lives
- (8) fishing and hunting
- (9) friendly people
- (10) much entertainment



## 2. Listen to the passage and check the items mentioned in the CD.

### 3. Speaking.

- (1) What are your likes or dislikes about America's Midwest? Discuss in groups.
- (2) Now summarize for the rest of the class the opinions that people expressed in your group. Describe what you like, and explain any differences in your opinions.
- (3) Compare the other groups' opinions with yours.

### TASK 1

**Pick out all the subordinate clauses from the text, discuss in groups, and then report to the class.**

### TASK 2

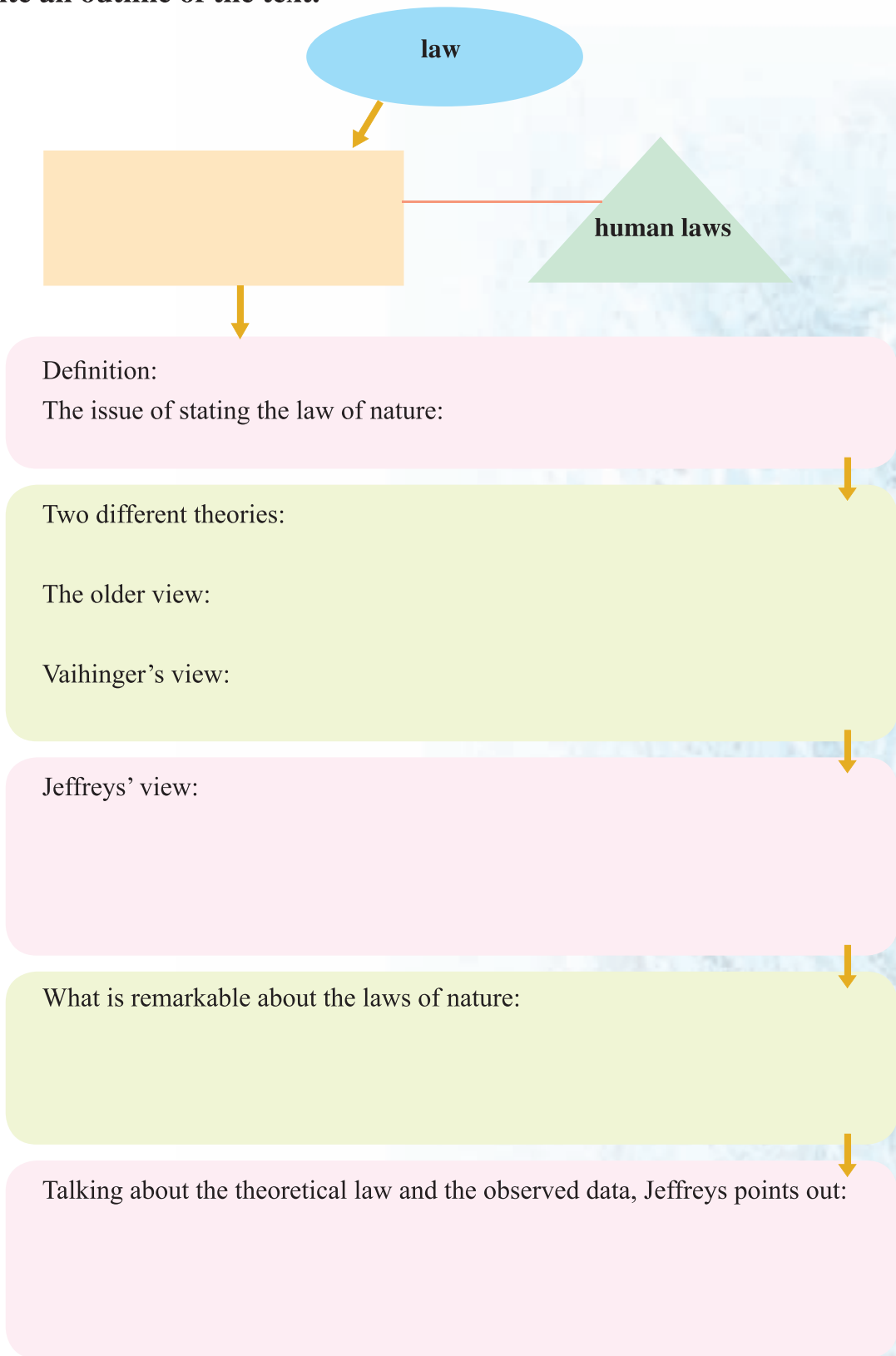
**Write down a simple law of nature and illustrate it with examples.**





**SELF-ASSESSMENT**

1. Write an outline of the text.



## 2. Fill in the blanks with the proper forms of the following words.

(1) object

- ① Tell me the names of the \_\_\_\_\_ in this room.
- ② He has a strong \_\_\_\_\_ to getting up early.

(2) state

- ① How many \_\_\_\_\_ are there in the United \_\_\_\_\_ of America?
- ② \_\_\_\_\_ your name and address.
- ③ Clarity of \_\_\_\_\_ is more important than beauty of language.
- ④ Water in a solid \_\_\_\_\_ is called ice.

(3) except

- ① You must all be here at eight a.m.; I can make no \_\_\_\_\_.
- ② Nobody was late \_\_\_\_\_ me.

(4) point

- ① The Earth and the sun are only small \_\_\_\_\_ in the universe.
- ② Both the hour hand and the minute hand \_\_\_\_\_ twelve. It was noon.
- ③ Don't \_\_\_\_\_ your finger \_\_\_\_\_ me.
- ④ I must \_\_\_\_\_ that delay is unwise.

(5) hold

- ① The girl \_\_\_\_\_ her father's hand.
- ② Americans \_\_\_\_\_ a General Election every four years.
- ③ \_\_\_\_\_ a minute! Not so fast! Don't go further in what you're doing.
- ④ Things happen as if certain laws \_\_\_\_\_.

## FUN TIME

### Practice the tongue twister.

*Jenny and Jimmy went to Jamaica and Germany in January, but Joan and John went to Jordan and Japan in June and July.*



## FURTHER READING

## The Sea

What do you know about the sea? We have seen it. Some of us have swum or bathed in it. We know that it looks very pretty when the sun is shining on it. We also know that it can be very rough when there is a strong wind. What other things do we know about it?

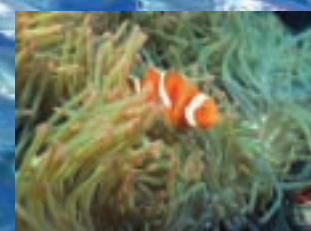
The first thing to remember is that the sea is very big. When you look at the map of the world, you will find there is more sea than land. The sea covers about three-quarters of the world!

The sea is also very deep in some places. It is not deep everywhere. Some parts of the sea are very shallow, but in some places the depth of the sea is very great. There is one spot, near Japan, where the sea is nearly 11 kilometers deep! The highest mountain in the world is about nine kilometers high. If that mountain were put into the sea at that place, there would be two kilometers of water above it! What a deep place!

If you have swum in the sea, you know that it is salty. You can taste the salt. Rivers, which flow into the sea, carry salt from the land into the sea. Some parts of the sea are more salty than other parts. There is one sea, called the Dead Sea, which is very salty. It is so salty that swimmers cannot sink! Fish cannot live in the Dead Sea! What a strange sea!

In most parts of the sea, there are plenty of fish and plants. Some live near the top of the sea. Others live deep down. There are also millions of tiny living things that float in the sea. These floating things are so small that it is hard to see them. Many fish live by eating these.

The sea can be very cold. Divers, who dive deep down in the sea, know this. Near the top the water may be warm. When the diver goes deeper, the sea becomes colder and colder.



## COMPREHENSION

### 1. Decide whether each of the following statements is true (T) or false (F).

- (1) The sea is always rough. ( )
- (2) There is less land than sea in the world. ( )
- (3) The deepest place in the sea is nine kilometers deep. ( )
- (4) The Dead Sea is very salty, and even fish cannot live in it. ( )
- (5) Millions of tiny living things that float in the sea are so small that it is difficult to see them. ( )

### 2. Complete the outline of the text.

The topic of the Further Reading text is:

Its appearance:

- (1)
- (2)

Its characteristics:

- (1)
- (2)
- (3)
- (4)
- (5)



**3. Tell the difference between the two sentences in each pair.**

(1) ... it can be very rough...

It is very rough.

(2) The sea can be very cold.

The sea is very cold.

**4. What are the statements of facts in the text, and what are the comments made by the author?**

**TASK 3**

**Describe orally the sea, a river, or any body of water that you know and then write it down. Here are some words and expressions from the text that you may use in your work.**

*pretty*

*rough*

*big*

*deep*

*shallow*

*salty*

*cold*

*a strong wind*

*the depth of*

*from the land into the sea*

*fish and plants*

*tiny living things*

*sink*

*float*

*dive*

**Compare your work with that of your partner and see who has used the words and expressions most appropriately.**

## The Wind of the Sea

Charles Fisher

*The wind of the sea kisses my face,  
Its cool salt tang cleanses the air I breathe;  
The wind of the sea caresses my skin,  
Its gentle touch, soft and cool, like that of a lover;*

*The wind of the sea blows in my hair,  
Its restless energy clears my head and gives me peace;  
The wind of the sea takes worries from my heart,  
It gives me infinite joy and cheer, like the sea's wide breast;*

*The wind of the sea takes me to a distant future,  
Where joy, passion and excitement are beckoning;  
Ah but the wind of the sea dies as the day ends,  
Leaving me with a transcending sense of tranquility,  
Of being alive, at peace with myself, and the world.*

*The wind of the sea will rise again, and...  
I will again feel its tender and refreshing breath,  
As I face a new day.  
I feel it now, the wind of the sea's caress, and shiver,  
It overwhelms my senses yet again,  
Ah... the pleasure comes!*

# Words and Expressions in Each Unit

## Unit 1

- melt** /melt/ *vi. & vt.* to become liquid through heating 融化
- bloom** /blu:m/ *vi.* to produce flowers 开花
- cancel** /'kænsəl/ *vt.* to say sth. (already arranged and decided upon) will not be done or take place; to call off 取消; 废除
- local** /'ləʊkəl/ *adj.* belonging to a particular place or district 地方的; 本地的; 地区的
- lantern** /'læntən/ *n.* light for use outdoors in a transparent case that protects it from the wind, etc. 灯笼; 提灯
- sculpture** /'skʌlptʃə/ *n.* art of making figures, objects by carving wood or stone or ice, etc. 雕塑; 雕刻
- match** /mætʃ/ *vt.* to be like or suitable for use with (sth. else) 和……相配
- diet** /'daɪət/ *n.* sort of food usually eaten 通常吃的食物; 饮食
- delay** /dɪ'leɪ/ *vi. & vt.* to put(sth. ) off until later 推迟(某事); 延期
- arrange** /ə'reɪndʒ/ *vt.* to plan the details

of (a future event); to organize in advance 筹备; 安排

**due to** *prep. phr.* If an event is *due to* sth. , it happens or exists as a direct result of that thing. 由于; 因为

**lead to** *v. phr.* to begin a process which causes a situation or event to happen 导致

**in particular** *adv. phr.* applying especially to one thing or person 特别地

## Unit 2

**minister** /'mɪnɪstə/ *n.* one who practices religious activities at a (Christian) church 牧师

**worship** /'wɜ:ʃɪp/ *n.* the religious practice to express love and respect for God 礼拜

**awful** /'ɔ:ful/ *adj.* terribly bad, very bad (口) 糟糕的

**owe (to)** /əʊ/ *v.* to be indebted or obliged (for) 感恩于; 应归功于

**advanced** /əd'vænst,əd'vɑ:nst/ *adj.* highly developed or complex 高度发达的;

先进的

**suffer(from)** /'sʌfə/ *vi.* to feel pain or very sad; to have loss, hurt or harm  
受苦; 受损失; 遭受伤害

**production** /prə'dʌkʃən/ *n.* the process of growing or making food, goods  
生产, 制造

**hesitate** /'hezɪteɪt/ *vi. & vt.* not to know whether to go on or to stop 迟疑; 动摇

**landowner** /'lændəʊnə/ *n.* sb. who owns land, esp. a large area of it 地主, 土地所有者

**mow** /məʊ/ *vt. & vi.* to cut grass using a machine 割; 修剪

**chat** /tʃæt/ *vi.* to talk in an informal, friendly manner with one another  
闲聊; 聊天

## Unit 3

**sweet potato** *n.* vegetables that look like large ordinary potatoes but taste sweet, and have pinkish brown skins and yellow flesh 甘薯, 红薯

**native** /'neɪtɪv/ *adj.* originating, growing, or produced in a certain place or region 原产的; 固有的; 在一特定地点

或地区起源、生长或生产的

**frost** /frɔːst, frɒst/ *n.* a deposit of tiny ice crystals formed when water vapor condenses at a temperature below freezing 霜冻

**tuber** /'tjuːbə/ *n.* a swollen, fleshy, usually underground stem, such as the potato, bearing buds from which new plant shoots arise 块茎

**tropical** /'trɒpɪkəl/ *adj.* of, occurring in, or characteristic of the Tropics 热带的

**moist** /mɔɪst/ *adj.* slightly wet; damp or humid 潮湿的

**flesh** /fleʃ/ *n.* the pulpy, usually edible part of a fruit or vegetable 果肉

**yam** /jæm/ *n.* a root vegetable which grows in tropical regions, similar to a potato in appearance and texture 山药

**firm** /fɜːm/ *adj.* resistant to externally applied pressure 坚硬的

**root** /ruːt/ *n.* any of various underground plant parts 根, 根部

**cutting** /'kʌtɪŋ/ *n.* a part, such as a stem, leaf, or root, removed from a plant to grow a new plant, as through rooting or grafting 插条, 插枝

**inch** /ɪntʃ/ *n.* a unit of length equal to



1/12 of a foot (2.54 centimeters) 英寸

**manure** /mən'njuə/ *n.* material, especially barnyard or stable dung, often with discarded animal bedding, used to fertilize soil 肥料

**add** /æd/ *vt.* to join or unite so as to increase in size, quantity, quality, or scope 添加

**add to** *v. phr.* If one thing *adds to* another, it makes the other thing greater in degree or amount. 增加

**depth** /depθ/ *n.* the condition or quality of being deep 深度

**length** /leŋθ/ *n.* the measurement of the extent of sth. along its greatest dimension 长度

**decrease** /dɪ'kri:s/ *vi. & vt.* to grow or cause to grow gradually less or smaller, as in number, amount, or intensity 减少

**smooth** /smu:ð/ *adj.* having a surface free from irregularities, roughness, or projections 平滑的, 光滑的

**nutritious** /nju:'trɪʃəs/ *adj.* providing nourishment; nourishing 有营养的; 滋养的

**fiber** /'faɪbə/ *n.* one of the elongated,

thick-walled cells that give strength and support to plant tissue 纤维细胞

## Unit 4

**resource** /rɪ'sɔ:s/ *n.* supply of raw materials 资源

**settlement** /'setlmənt/ *n.* a place where people have come to live in and have built homes 新拓居地

**management** /'mænidʒmənt/ *n.* control and organization 管理; 经营

**seasonally** /'si:zənəli/ *adv.* happening at a particular season, varying with the seasons 季节性地, 季节地; 随季节变化地

**arid** /'ærid/ *adj.* dry 干旱的

**occasionally** /ə'keɪzənəli/ *adv.* now and then, at times 偶尔地; 不时地; 有时

**floodplain** /'flʌdpleɪn/ *n.* a plain bordering a river and subject to flooding 泛滥平原; 河漫滩

**dam** /dæm/ *v.* to build a wall across a river or lake 建水坝  
*n.* a wall built across a river in order to control the flow or raise the level of water 水坝

**diversion** /daɪ'vɜːʒən, daɪ'vɜːʃən/ *n.*

action of turning sth. aside or  
changing its direction (河道的)偏离,  
改道; 转向

**extraction** /ɪks'trækʃən/ *n.* action of

extracting 提取; 抽取

**deprive** /dɪ'praɪv/ *vt.* to take sth. away from

剥夺

**salinity** /sə'lɪnɪti/ *n.* the high *salinity* of

sea water 盐浓度; 含盐量

**runoff** /'rʌnɒf/ *n.* an extra race held to

break a tie (平局后的) 加赛

**destruction** /dɪs'trʌkʃən/ *n.* destroying or

being destroyed 破坏; 摧毁灭; 毁灭

**impact** /'ɪmpækt/ *n.* effect, influence

影响; 效果; 作用

**significant** /sɪg'nɪfɪkənt/ *adj.* important

重要的

**ecology** /i:'kɒlədʒi/ *n.* (study of) the

relation of plants and living creatures  
to each other and to their surroundings  
生态; 生态学

**reservoir** /'rezəvɔː(r)/ *n.* natural or

artificial lake used as a source of water  
for a town, etc. 水库; 蓄水池

**integrated** /'ɪntɪɡreɪtɪd/ *adj.* with various

parts fitting well together 融为一体的;

综合的; 完整的

**sustainable** /sə'steɪnəbl/ *adj.* You use

*sustainable* to describe the use of  
natural resources when this use is kept  
at a steady level that is not likely to  
damage the environment. 可持续发展的

## Unit 5

**graze** /greɪz/ *vt.* (of an animal) to feed on

growing grass 放牧

**feed** /fi:d/ *vt.* to give food to (a person or

animal) 饲养; 喂养

**ration** /'ræʃən/ *n.* a fixed amount of food

or feed 配给量

**farm** /fɑ:m/ *vi.* to grow crops or rear

animals 种田, 务家; 饲养动物

*n.* area of land and the buildings on

it, used for growing crops or raising  
animals 农场

**cost** /kɒst/ *n.* the amount of money one

has to pay in order to buy, do or  
produce sth. 费用; 成本

**perfect** /'pɜːfɪkt/ *adj.* not having any

mistakes, faults, or damage, the best  
of its kind 完美的; 完满的

**sense** /sens/ *n.* meaning of a word,

phrase, etc. 意义

**conventional** /kən'venʃənəl/ *adj.* being the usual type of method or practice that has been used for a long time 常规的

**per** /pə, pɜː/ *prep.* (used to express rates, prices, etc. ) for each (unit of time, length, etc. ) 每, 每一

**officer** /'ɒfɪsə/ *n.* person with a position of authority or trust in the government or a society 政府官员; (团体的) 高级职员

**livestock** /'lɪvstɒk/ *n.* animals kept on a farm 家畜, 牲畜

**system** /'sɪstəm/ *n.* a group of related parts that work together as a whole for a particular aim or purpose 系统

**cattle** /'kætl/ *n.* cows or bulls raised on a farm for meat or dairy products 牛; 家畜

**complex** /'kɒmpleks/ *adj.* difficult to understand or explain because there are many different parts 复杂的

**suggest** /sə'dʒest/ *vt.* to put sth. forward for consideration 建议; 提议; 供考虑

**destroy** /dɪs'trɔɪ/ *vt.* to damage sth. so badly that it no longer exists or cannot be used or repaired 毁坏

**advise** /əd'vaɪz/ *vi. & vt.* to tell sb. what you

think they should do, especially when you know more than they do about sth. 建议

**step by step** *n. phr.* gradually and in a particular order 逐渐, 逐步

**calendar** /'kælɪndə/ *n.* a set of pages that show the days, weeks, and months of a particular year, that you usually hang on a wall 日历

**explain** /ɪks'pleɪn/ *vt. & vi.* to tell sb. about sth. in a way that is clear or easy to understand 解释

**nature** /'neɪtʃə/ *n.* everything in the physical world that is not controlled by humans, such as wild plants and animals, earth and rocks, and the weather 自然

## Unit 6

**harsh** /hɑːʃ/ *adj.* rough; unpleasant coarse and rough to the touch 严酷的; 粗糙的

**withered** /'wɪðəd/ *adj.* dry, reduced in size, faded 枯萎的; 凋谢的; 焉了的

**ribbon** /'rɪbən/ *n.* a long, narrow piece of cloth used for tying things together or as a decoration 丝带; 缎带; 带子

**nutrient** /'nju:triənt/ *n.* a chemical or food providing for life and growth  
营养物质

**cell** /sel/ *n.* a very small part of living matter, able to function independently for life 细胞

**occupy** /'ɒkjʊpaɪ/ *v.* to fill(a certain position, space, or time) 占据(位置、空间或时间)

**Pharaoh** /'feərəʊ/ *n.* a king of ancient Egypt 法老

**carbon dioxide** /'kɑ:bən daɪ'ɒksaɪd/ *n.* a heavy odorless colorless gas formed during respiration 二氧化碳

**molecule** /'mɒlɪkjʊ:l/ *n.* the smallest particle of substance which can exist by itself 分子

**cast** /kɑ:st/ *vt.* to throw or drop 抛; 投射

**adrift** /ə'drɪft/ *adv.* driven along by wind, waves, or currents 漂流; 漂浮

**atmosphere** /'ætməsfiə/ *n.* the mixture of gases that surrounds any heavenly body, esp. the Earth 大气; 大气层

**mere** /mɪə/ *adj.* nothing more than 仅仅, 只不过

## Unit 7

**Arctic** /'ɑ:ktɪk/ *adj.* of the regions around the North Pole 北极的

**Greenland** /'gri:nlənd/ *n.* 格陵兰岛

**surface** /'sɜ:fɪs/ *n.* The *surface* of sth. is the flat top part of it or the outside of it. 表面; 外表

**creature** /'kri:tʃə/ *n.* a living being, especially animals 生物(尤指动物); 生灵

**seal** /si:l/ *n.* A large animal with flippers, which eats fish and lives partly on land and partly in the sea, usually in Northern Hemisphere. 海豹

**dying** /'daɪŋ/ *adj.* about to die 垂死的; 即将死去的

**live** /laɪv/ *adj.* alive rather than being dead 活的; 有生命的

**bait** /beɪt/ *vt.* to place sth. in a trap or on a fishing hook to catch fish 在网子里或在鱼钩上放诱饵

**hook** /hʊk/ *n.* a curved or sharply bent device, usually of metal, used to catch, drag, or fasten sth. else; a fishhook 钩

**lower** /'ləʊə/ *vt. & vi.* to make sth. less in amount, value, degree or quality 降低; 减少



Unit 8

**overlap** /'əʊvə'læp/ *vt. & vi.* to lie over and partly cover sth. 互搭; 重叠

**blade** /bleɪd/ *n.* the cutting part of a knife  
刀刃

**device** /dɪ'vaɪs/ *n.* an invention serving a particular purpose, esp. a machine used to perform one or more relatively simple tasks 装置; 器具

**fin** /fɪn/ *n.* any of the winglike parts that a fish uses in swimming 鳍

**track** /træk/ *vt.* to observe the progress of; to follow 追踪观察……的进程; 追随

**underneath** /ˌʌndə'ni:θ/ *adv. & prep.* beneath, below 在……下面或底层

**steeply** /'sti:pli/ *adv.* rising or falling quickly or at a large angle 陡峭地

**tunnel** /'tʌnəl/ *n.* underground passage, for a road or railway through a hill or under a river or the sea 地下通道; 地道; 隧道

**investigate** /ɪn'vestɪgeɪt/ *vi. & vt.* to make an inquiry or examination 调查

**unsuspecting** /ˌʌnsəs'pektɪŋ/ *adj.* feeling no doubt about, trusting 不怀疑的

**evidence** /'eɪdɪdəns/ *n.* a thing or things helpful in forming a conclusion or judgment 证明; 证据

**objection** /əb'dʒekʃən/ *n.* a statement or feeling of dislike, disapproval, or opposition 厌恶; 不赞成, 反对

**certain** /'sɜ:tn/ *adj.* You use *certain* to indicate that you are referring to one particular thing, person, or group, although you are not saying exactly which it is. 某事, 某人, 某种

**command** /kə'mænd, kə'mɑ:nd/ *n.* an order 命令

**statement** /'steɪtmənt/ *n.* formal accounts of facts, views, problems, etc. 声明; 报告

**uniformity** /ˌju:nɪ'fɔ:mɪti/ *n.* sameness  
一致性

**probable** /'prɒbəbl/ *adj.* that may be expected to happen; that has a good chance of being true or correct 很可能的

**absolute** /'æbsəlu:t/ *adj.* perfect in quality or nature; complete 完全的; 绝对的

**definite** /'defɪnɪt/ *adj.* having very clear limits; without any uncertainty or unclearness 清楚的; 明显的

**convenient** /kən'vi:njənt/ *adj.* suited to one's needs; near; easy to reach 方便的; 舒适的; 便捷的

**regularity** /ˌregjʊ'lærɪti/ *n.* state of being

normal, customary, or usual 规律性;  
规则性

**remarkable** /rɪ'mɑ:kəbl/ *adj.* worth

speaking of; unusual 值得一提的; 异常的,  
奇异的

**approximation** /ə'prɒksɪ'meɪʃən/ *n.* almost

correct amount or estimate; being or  
getting near(in number or quality) 接近;  
走近; 近似值

**exception** /ɪk'sepʃən/ *n.* sb. or sth. that is

not included (人或事物的)例外

**density** /'densɪti/ *n.* the relation of the

amount of matter(the mass)to the  
space into which the matter is packed

(its volume) 密度; 浓度

**proportional** /prə'pɔ:ʃənəl/ *adj.* in(correct)

proportion 成比例的

**pressure** /'preʃə/ *n.* the act of pressing 压力

**volume** /'vɒlju:m/ *n.* amount of space

occupied by a solid, liquid, or gas 体积

**stick** /stɪk/ *vt. & vi.* to become fixed to sth. in

this way 粘贴

**observe** /əb'zɜ:v/ *vt.* to see and notice;to

watch carefully 观察; 看到; 注意到

observation *n.* action of noticing 观察

**data** /'deɪtə/ *n.* fact or information used

for analysis or make decision 数据; 资料

# Vocabulary

## A

**absolute** /'æbsəlu:t/ *adj.* perfect in quality or nature; complete 完全的; 绝对的 (U8)

**add** /æd/ *vt.* to join or unite so as to increase in size, quantity, quality, or scope 添加 (U3)

**add to** *v. phr.* If one thing *adds to* another, it makes the other thing greater in degree or amount. 增加 (U3)

**adrift** /ə'drift/ *adv.* driven along by wind, waves, or currents 漂流; 漂浮 (U6)

**advanced** /əd'vænst, əd'vɑ:nst/ *adj.* highly developed or complex 高度发达的; 促进的 (U2)

**advise** /əd'vaɪz/ *vi. & vt.* to tell sb. what you think they should do, especially when you know more than they do about sth. 建议 (U5)

**approximation** /ə,prɒksɪ'meɪʃən/ *n.* almost correct amount or estimate; being or getting near(in number or quality) 接近; 走近; 近似值 (U8)

**Arctic** /'ɑ:ktɪk/ *adj.* of the regions around

the North Pole 北极的 (U7)

**arid** /'ærɪd/ *adj.* dry 干旱的 (U4)

**arrange** /ə'reɪndʒ/ *vt.* to plan the details of (a future event); to organize in advance 筹备; 安排 (U1)

**atmosphere** /'ætməsfɪə/ *n.* the mixture of gases that surrounds any heavenly body, esp. the Earth 大气; 大气层 (U6)

**awful** /'ɔ:fʊl/ *adj.* terribly bad, very bad (口) 糟糕的 (U2)

## B

**bait** /beɪt/ *v.* to place sth. in a trap or on a fishing hook to catch fish 在网子里或在鱼钩上放诱饵 (U7)

**blade** /bleɪd/ *n.* the cutting part of a knife 刀刃 (U7)

**bloom** /blu:m/ *vi.* to produce flowers 开花 (U1)

## C

**calendar** /'kælɪndə/ *n.* a set of pages that show the days, weeks, and months of a particular year, that you usually hang on a wall 日历 (U5)

**cancel** /'kænsəl/ *vt.* to say sth. (already arranged and decided upon) will not be done or take place; to call off 取消; 废除 (U1)

**carbon dioxide** /'ka:bən dar'ɒksaɪd/ *n.* a heavy odorless colorless gas formed during respiration 二氧化碳 (U6)

**cast** /kɑ:st/ *vt.* to throw or drop 抛; 投射 (U6)

**cattle** /'kætl/ *n.* cows or bulls raised on a farm for meat or dairy products 牛; 家畜 (U5)

**cell** /sel/ *n.* a very small part of living matter, able to function independently for life 细胞 (U6)

**certain** /'sɜ:tn/ *adj.* You use *certain* to indicate that you are referring to one particular thing, person, or group, although you are not saying exactly which it is. 某事, 某人, 某种 (U8)

**chat** /tʃæt/ *vi.* to talk in an informal, friendly manner with one another 闲聊; 聊天 (U2)

**command** /kə'mænd, kə'mɑ:nd/ *n.* an order 命令 (U8)

**complex** /'kɒmpleks/ *adj.* difficult to understand or explain because there are many different parts 复杂的 (U5)

**convenient** /kən'vi:njənt/ *adj.* suited to one's needs; near; easy to reach 方便的; 舒适的; 便捷的 (U8)

**conventional** /kən'venʃənəl/ *adj.* being the usual type of method or practice that has been used for a long time 常规的 (U5)

**cost** /kɒst/ *n.* the amount of money one has to pay in order to buy, do or produce sth. 费用; 成本 (U5)

**creature** /'kri:tʃə/ *n.* a living being, especially animals 生物 (尤指动物); 生灵 (U7)

**cutting** /'kʌtɪŋ/ *n.* a part, such as a stem, leaf, or root, removed from a plant to grow a new plant, as through rooting or grafting 插条, 插枝 (U3)



## D

**dam** /dæm/ *v.* to build a wall across a river or lake 建水坝

*n.* a wall built across a river in order to control the flow or raise the level of water 水坝 (U4)

**data** /'deɪtə/ *n.* fact or information used for analysis or make decision 数据; 资料 (U8)

**decrease** /dɪ'kri:s/ *vi. & vt.* to grow or cause to grow gradually less or smaller, as in number, amount, or intensity 减少 (U3)

**definite** /'defɪnɪt/ *adj.* having very clear limits; without any uncertainty or unclearness 清楚的; 明显的 (U8)

**delay** /dɪ'leɪ/ *vi. & vt.* to put(sth.) off until later 推迟 (某事); 延期 (U1)

**density** /'densɪti/ *n.* the relation of the amount of matter (the mass) to the space into which the matter is packed (its volume) 密度; 浓度 (U8)

**deprive** /dɪ'praɪv/ *vt.* to take sth. away from 剥夺 (U4)

**depth** /depθ/ *n.* the condition or quality of being deep 深度 (U3)

**destroy** /dɪs'trɔɪ/ *vt.* to damage sth. so badly that it no longer exists or cannot be used or repaired 毁坏 (U5)

**destruction** /dɪs'trʌkʃən/ *n.* destroying or being destroyed 破坏; 摧毁; 毁灭 (U4)

**device** /dɪ'vaɪs/ *n.* an invention serving a particular purpose, esp. a machine used to perform one or more relatively simple tasks 装置; 器具 (U7)

**diet** /'daɪət/ *n.* sort of food usually eaten 通常吃的食物; 饮食 (U1)

**diversion** /daɪ'vɜ:ʒən, daɪ'vɜ:ʃən/ *n.* action of turning sth. aside or changing its direction (河道的)偏离, 改道; 转向 (U4)

**due to** *prep. phr.* If an event is *due to* sth., it happens or exists as a direct result of that thing. 由于; 因为 (U1)

**dying** /'daɪɪŋ/ *adj.* about to die 垂死的; 即将死去的 (U7)

## E

**ecology** /i:'kɒlədʒi/ *n.* (study of) the relation of plants and living creatures to each other and to their surroundings 生态; 生态学 (U4)

**evidence** /'evidəns/ *n.* a thing or things helpful in forming a conclusion or judgment 证明; 证据 (U7)

**exception** /ɪk'sepʃən/ *n.* sb. or sth. that is not included (人或事物的)例外 (U8)

**explain** /ɪks'pleɪn/ *vt. & vi.* to tell sb. about sth. in a way that is clear or easy to understand 解释 (U5)

**extraction** /ɪks'trækʃən/ *n.* action of extracting 提取; 抽取 (U4)

## F

**farm** /fɑ:m/ *vi.* to grow crops or rear animals 种田, 务农; 饲养动物  
*n.* area of land and the buildings on it, used for growing crops or raising animals 农场 (U5)

**feed** /fi:d/ *vt.* to give food to (a person or animal) 饲养; 喂养 (U5)

**fiber** /'faɪbə/ *n.* one of the elongated, thick-walled cells that give strength and support to plant tissue 纤维细胞 (U3)

**fin** /fɪn/ *n.* any of the winglike parts that a fish uses in swimming 鳍 (U7)

**firm** /fɜ:m/ *adj.* resistant to externally

applied pressure 坚硬的 (U3)

**flesh** /fleʃ/ *n.* the pulpy, usually edible part of a fruit or vegetable 果肉 (U3)

**floodplain** /'flʌdpleɪn/ *n.* a plain bordering a river and subject to flooding 泛滥平原; 河漫滩 (U4)

**frost** /frɔ:st, frɒst/ *n.* a deposit of tiny ice crystals formed when water vapor condenses at a temperature below freezing 霜冻 (U3)

## G

**graze** /greɪz/ *vt.* (of an animal) to feed on growing grass 放牧 (U5)

**Greenland** /'gri:nlənd/ *n.* 格陵兰岛 (U7)

## H

**harsh** /hɑ:ʃ/ *adj.* rough; unpleasant  
coarse and rough to the touch 严酷的; 粗糙的 (U6)

**hesitate** /'hezɪteɪt/ *vi. & vt.* not to know whether to go on or to stop 迟疑; 动摇 (U2)

**hook** /hʊk/ *n.* a curved or sharply bent device, usually of metal, used to catch, drag, or fasten sth. else; a fishhook 钩 (U7)



**impact** /'ɪmpækt/ *n.* effect, influence

影响; 效果; 作用 (U4)

**in particular** *adv. phr.* applying

especially to one thing or person 特别地 (U1)

**inch** /ɪntʃ/ *n.* a unit of length equal to

1/12 of a foot(2.54 centimeters)

英寸 (U3)

**integrated** /'ɪntɪɡreɪtɪd/ *adj.* with various

parts fitting well together 融为一体的;

综合的; 完整的 (U4)

**investigate** /ɪn'vestɪɡeɪt/ *vi. & vt.* to make an

inquiry or examination 调查 (U7)



**landowner** /'lændəʊnə/ *n.* sb. who owns

land, esp. a large area of it 地主, 土地所有者 (U2)

**lantern** /'læntən/ *n.* light for use outdoors

in a transparent case that protects it from the wind, etc. 灯笼; 提灯 (U1)

**lead to** *v. phr.* to begin a process which

causes a situation or event to happen

导致 (U1)

**length** /leŋθ/ *n.* the measurement of the

extent of sth. along its greatest

dimension 长度 (U3)

**live** /laɪv/ *adj.* alive rather than being

dead 活的; 有生命的 (U7)

**livestock** /'laɪvstɒk/ *n.* animals kept on a

farm 家畜, 牲畜 (U5)

**local** /'ləʊkəl/ *adj.* belonging to a

particular place or district 地方的; 本地的; 地区的 (U1)

**lower** /'ləʊə/ *vt. & vi.* to make sth. less in

amount, value, degree or quality 降低;

减少 (U7)



**management** /'mænɪdʒmənt/ *n.* control

and organization 管理; 经营 (U4)

**manure** /mə'nju:ə/ *n.* material, especially

barnyard or stable dung, often with

discarded animal bedding, used to

fertilize soil 肥料 (U3)

**match** /mætʃ/ *vt.* to be like or suitable

for use with(sth. else 和……相配 (U1)

**melt** /melt/ *vi. & vt.* to become liquid through

heating 融化 (U1)

**mere** /mɪə/ *adj.* nothing more than 仅仅,

只不过 (U6)

**minister** /'mɪnɪstə/ *n.* one who practices religious activities at a (Christian) church 牧师 (U2)

**moist** /mɔɪst/ *adj.* slightly wet; damp or humid 潮湿的 (U3)

**molecule** /'mɒlɪkjʊ:l/ *n.* the smallest particle of substance which can exist by itself 分子 (U6)

**mow** /məʊ/ *vt. & vi.* to cut grass using a machine 割; 修剪 (U2)

## N

**native** /'neɪtɪv/ *adj.* originating, growing, or produced in a certain place or region 原产的; 固有的; 在一特定地点或地区起源、生长或生产的 (U3)

**nature** /'neɪtʃə/ *n.* everything in the physical world that is not controlled by humans, such as wild plants and animals, earth and rocks, and the weather 自然 (U5)

**nutrient** /'nju:triənt/ *n.* a chemical or food providing for life and growth 营养物质 (U6)

**nutritious** /nju:'trɪʃəs/ *adj.* providing nourishment; nourishing 有营养的;

滋养的 (U3)

## O

**objection** /əb'dʒekʃən/ *n.* a statement or feeling of dislike, disapproval, or opposition 厌恶; 不赞成, 反对 (U8)

**observe** /əb'zɜ:v/ *vt.* to see and notice; to watch carefully 观察; 看到, 注意到 observation *n.* action of noticing 观察 (U8)

**occasionally** /ə'keɪzənəli/ *adv.* now and then, at times 偶尔地; 不时地; 有时 (U4)

**occupy** /'ɒkjʊpaɪ/ *v.* to fill (a certain position, space, or time) 占据 (位置、空间或时间) (U6)

**officer** /'ɒfɪsə/ *n.* person with a position of authority or trust in the government or a society 政府官员; (会社的) 高级职员 (U5)

**overlap** /'əʊvə'læp/ *vt. & vi.* to lie over and partly cover sth. 互搭; 重叠 (U7)

**owe (to)** /əʊ/ *v.* to be indebted or obliged (for) 感恩于; 应归功于 (U2)



## P

**per** /pə, pɜː/ *prep.* (used to express rates, prices, etc. ) for each (unit of time, length, etc. ) 每, 每一 (U5)

**perfect** /'pɜː fɪkt/ *adj.* not having any mistakes, faults, or damage, the best of its kind 完美的; 完满的 (U5)

**Pharaoh** /'feərəʊ/ *n.* a king of ancient Egypt 法老 (U6)

**pressure** /'preʃə/ *n.* the act of pressing 压力 (U8)

**probable** /'prɒbəbl/ *adj.* that may be expected to happen; that has a good chance of being true or correct 很可能的 (U8)

**production** /prɒ'dʌkʃən/ *n.* the process of growing or making food, goods 生产; 制造 (U2)

**proportional** /prə'pɔːʃənəl/ *adj.* in (correct) proportion 成比例的 (U8)

## R

**ration** /'ræʃən/ *n.* a fixed amount of food or feed 配给量 (U5)

**regularity** /ˌregjʊ'lærɪti/ *n.* state of being normal, customary, or usual 规律性; 规则性 (U8)

**remarkable** /rɪ'mɑːkəbl/ *adj.* worth speaking of; unusual 值得一提的; 异常的; 奇异的 (U8)

**reservoir** /'rezəvwaː(r)/ *n.* natural or artificial lake used as a source of water for a town, etc. 水库; 蓄水池 (U4)

**resource** /rɪ'sɔːs/ *n.* supply of raw materials 资源 (U4)

**ribbon** /'rɪbən/ *n.* a long, narrow piece of cloth used for tying things together or as a decoration 丝带; 缎带; 带子 (U6)

**root** /ruːt/ *n.* any of various underground plant parts 根, 根部 (U3)

**runoff** /'rʌnɒf/ *n.* an extra race held to break a tie (平局后的)加赛 (U4)

## S

**salinity** /sə'lnɪti/ *n.* the high *salinity* of sea water 盐浓度; 含盐量 (U4)

**sculpture** /'skʌlptʃə/ *n.* art of making figures, objects by carving wood or stone or ice, etc. 雕塑; 雕刻 (U1)

**seal** /si:l/ *n.* A large animal with flippers,

which eats fish and lives partly on land and partly in the sea, usually in

Northern Hemisphere. 海豹 (U7)

**seasonally** /'si:zənəli/ *adv.* happening

during a particular season, varying with the seasons 季节性地, 季节地; 随季节变化地 (U4)

**sense** /sens/ *n.* meaning of a word, phrase, etc. 意义 (U5)

**settlement** /'setlmənt/ *n.* a place where people have come to live in and have built homes 新拓居地 (U4)

**significant** /sig'nɪfɪkənt/ *adj.* important 重要的 (U4)

**smooth** /smu:ð/ *adj.* having a surface free from irregularities, roughness, or projections 平滑的, 光滑的 (U3)

**statement** /'stertmənt/ *n.* formal accounts of facts, views, problems, etc. 声明; 报告 (U8)

**steeply** /'sti:pli/ *adv.* rising or falling quickly or at a large angle 陡峭地 (U7)

**step by step** *n. phr.* gradually and in a particular order 逐渐, 逐步 (U5)

**stick** /strɪk/ *vt. & vi.* to become fixed to sth. in this way 粘贴 (U8)

**suffer (from)** /'sʌfə/ *vi.* to feel pain or very sad; to have loss, hurt or harm 受苦;

受损失; 遭受伤害 (U2)

**suggest** /sə'dʒest/ *vt.* to put sth. forward for consideration 建议; 提议; 供考虑 (U5)

**surface** /'sɜ: fis/ *n.* The *surface* of sth. is the flat top part of it or the outside of it. 表面, 外表 (U7)

**sustainable** /sə'steɪnəbl/ *adj.* You use *sustainable* to describe the use of natural resources when this use is kept at a steady level that is not likely to damage the environment. 可持续发展的 (U4)

**sweet potato** *n.* vegetables that look like large ordinary potatoes but taste sweet, and have pinkish brown skins and yellow flesh 甘薯, 红薯 (U3)

**system** /'sɪstəm/ *n.* a group of related parts that work together as a whole for a particular aim or purpose 系统 (U5)



**track** /træk/ *vt.* to observe the progress of; to follow 追踪观察……的进程; 追随的 (U7)

**tropical** /'trɒpɪkəl/ *adj.* of, occurring in, or characteristic of the Tropics 热带的 (U3)

**tuber** /'tju:bə/ *n.* a swollen, fleshy, usually underground stem, such as the potato, bearing buds from which new plant shoots arise 块茎 (U3)

**tunnel** /'tʌnəl/ *n.* underground passage, for a road or railway through a hill or under a river or the sea 地下通道; 地道; 隧道 (U7)

## U

**underneath** /,ʌndə'ni:θ/ *adv. & prep.* beneath, below 在……下面或底层 (U7)

**uniformity** /ju:nɪ'fɔ:mɪti/ *n.* sameness 一致性 (U8)

**unsuspecting** /,ʌnsəs'pektɪŋ/ *adj.* feeling no doubt about, trusting 不怀疑的 (U7)

## V

**volume** /'vɒljʊ:m/ *n.* amount of space occupied by a solid, liquid, or gas 体积 (U8)

## W

**withered** /'wɪðəd/ *adj.* dry, reduced in size, faded 枯萎的; 凋谢的; 蔫了的 (U6)

**worship** /'wɜ:ʃɪp/ *n.* the religious practice to express love and respect for God 礼拜 (U2)

## Y

**yam** /jæm/ *n.* a root vegetable which grows in tropical regions, similar to a potato in appearance and texture 山药 (U3)