



普通高中教科书

英语

必修
第三册



外语教学与研究出版社

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前言

本教材是外语教学与研究出版社根据教育部制定的《普通高中英语课程标准（2017年版）》，在充分调研和科学论证的基础上推出的中小学“一条龙”英语教材——《英语》（新标准）的高中部分。

本教材的主编为北京外国语大学陈琳教授，副主编为张连仲教授，编写团队包括国内高校的知名专家学者、教研人员和一线教师。陈琳教授秉承周恩来总理提出的“一条龙”外语教学理念，总结自己从事外语教育工作70年的经验，提出了符合中国外语教育实践的教育理论——辩证实践外语教育途径，并在《英语》（新标准）教材中贯彻实施。

根据教育部2017年新课程标准的精神，我们启动了《英语》（新标准）高中教材的修订工作。本次修订全面依托新课程标准要求，坚持陈琳教授的特色理论，由陈琳教授、张连仲教授指导编写团队，在充分考虑我国英语教育实际学情和教情的前提下，进行了全面的框架重建和内容设计，保证了理论与实践的紧密结合。

《英语》（新标准）高中教材共分10册：1—3册为必修课程教材，4—7册为选择性必修课程教材，8—10册为选修课程中的提高类教材。

必修课程教材具备良好的体系性、延伸性和接续性，能够帮助学生根据自己的需求不断提升个性化的语言能力，确保学生达到高中毕业基本要求，为日后进入选择性必修课程打下坚实的基础。《英语》（新标准）必修课程教材的主要特色如下：

- 一、坚持立德树人根本任务。在教材的选材、内容、语言等各个方面突出学科的育人本质，帮助学生更好地培育中国情怀，坚定文化自信，拓展国际视野，形成正确的世界观、人生观和价值观。
- 二、突出学科核心素养的重要性，全面培养学生的语言能力、文化意识、思维品质和学习能力，帮助学生逐步形成正确的价值观念、必备品格和关键能力。
- 三、坚持理论与实践的辩证关系。从语言实践的角度设计教材的主题架构、内容结构直至每一项具体活动，确保有实践、可实践，并通过实践促进提升，帮助学生形成素养，发展素养。
- 四、遵循“理解—发展—实践”的原则，以“主题”为纲设计单元任务，重要题材在各册教材中均得到体现，且内容逐步扩展加深、螺旋式上升，符合语言教学规律。
- 五、语篇题材多样、体裁丰富，语言地道鲜活、难度适中，符合学生的兴趣特点，同时能够提升学生的语篇意识，丰富语言感知与学习体验，有利于学生通过与主题语篇互动，培养在获取信息、处理信息、重构信息过程中的逻辑思维、多元思维和批判性思维。
- 六、活动设计紧密围绕主题语境，注重整合语言技能和学习技能，充分体现了英语学习活动观；同时强调交际情境的真实性和丰富性，帮助学生掌握语言技能、建构完善的知识基础，在实践中逐步形成交际能力。
- 七、强调学习策略的培养，鼓励学生通过体验、实践、讨论、合作、探究等方式，利用各种学习资源完成学习任务，解决学习中的困难，从而形成自主学习能力。
- 八、突出文化意识（尤其是跨文化意识）的建构与发展。通过介绍及比较中外文化，帮助学生更好地理解文化异同，学会理解和包容不同文化，提升道路自信、文化自信，将文化知识内化为正确的文化价值观和有利于国家和个人发展的跨文化态度与意识。
- 九、为教师编写了流程清晰、内容丰富的教师用书，帮助教师快速理解教材内容和相关背景知识，明确教学目标，掌握教学节奏；同时开发了配套的网络教材和其他多媒体配套资源，丰富课程资源，拓展教学模式。

我们希望，《英语》（新标准）高中必修课程教材能够初步培养学生的语言能力、文化意识、思维品质和学习能力等英语学科核心素养，为他们继续学习英语和终身发展打下坚实的基础。

《英语》（新标准）系列教材
高中阶段编委会

Scope and sequence

Unit	Starting out	Understanding ideas	Using language	
			Grammar	Vocabulary
1 P1 Knowing me, knowing you	Video: Mind your manners!	Absolute agony!	-ed as adverbial	Interpersonal relationships
Project: Setting up a problem-solving workshop P73				
2 P13 Making a difference	Video: Always ready to help	The well that changed the world	-ed as attributive	Personal qualities
Project: Setting up a volunteer group P74				
3 P25 The world of science	Video: Life in the year 3000	The new age of invention	Present perfect passive	Careers in science <i>Learning to learn:</i> Word formation
Project: Designing a new invention P75				
4 P37 Amazing art	Video: Cities for art fans	Live from the Louvre	Present continuous passive	Chinese art forms
Project: Making an "in-class" art gallery P76				
5 P49 What an adventure!	Video: Xu Xiake	Climbing Qomolangma: worth the risks?	Past future	First aid
Project: Making a poster about a modern-day adventurer P77				
6 P61 Disaster and hope	Video: A city frozen in time	Hot! Hot! Hot!	Ellipsis	Types of natural disasters
Project: Making a poster about a major natural disaster P78				
Appendices	Communication bank P81 Learning aid P88 Words and expressions P114	Vocabulary P120 Names and places P127 Review of everyday communication (Book 1–Book 3) P130	Irregular verbs P133	

		Developing ideas		Presenting ideas
Listening and Speaking		Reading	Writing	
Saying no politely <i>Function:</i> Making requests and refusals <i>Learning to learn:</i> Making polite refusals		Little white lies <i>Learning to learn:</i> Understanding the structure of an essay	Writing an essay	Sharing your understanding of a quotation
To be a volunteer <i>Function:</i> Making a phone enquiry <i>Learning to learn:</i> Identifying key points of a phone enquiry		The power of good <i>Learning to learn:</i> Organising biographical timeline	Writing a biography	Recommending a "Person of the Year"
Invention stories <i>Function:</i> Telling the story behind an invention <i>Learning to learn:</i> Using exclamatory sentences		Franklin's experiment: how much is true? <i>Learning to learn:</i> Using essay titles	Writing an experiment report	Making predictions about future
Contemporary art <i>Function:</i> Expressing opinions <i>Learning to learn:</i> Pauses in a conversation		Han Gan and his horses <i>Learning to learn:</i> Applying existing knowledge	Writing about an artwork	Recommending a local artist
Amazing road trips <i>Function:</i> Talking about experiences <i>Learning to learn:</i> Note-taking tips		Twenty thousand leagues under the sea (adaptation) <i>Learning to learn:</i> Ways of dealing with new words	Writing about a diving experience	Telling an adventure story
Extreme weather conditions <i>Function:</i> Talking about weather <i>Learning to learn:</i> Listening to weather forecasts		Stars after the storm <i>Learning to learn:</i> Using emotional language	Writing safety guidelines	Telling a story about hope in a disaster

同学们，欢迎大家继续学习《英语》（新标准）高中教材！

由教育部制定并颁布的《普通高中英语课程标准（2017年版）》明确规定：普通高中英语课程作为一门学习及运用英语语言的课程，与义务教育阶段的课程相衔接，旨在为学生继续学习英语和终身发展打下良好基础。普通高中英语课程强调对学生语言能力、文化意识、思维品质和学习能力的综合培养。也就是说，发展学科素养是同学们高中阶段英语学习的方向和目标。时光飞逝，必修课程的学习已进入尾声，大家对必修阶段的学习要求已有了充分的认识，并为进一步发展英语学科核心素养打下了坚实的基础。

《英语》（新标准）高中必修课程教材遵循“为用而学，在用中学，在学中用，学而能用”的原则，为同学们提供了语言地道、优美的阅读文章和灵活多样的学习活动，力图使大家逐步获得独立学习和自主学习的能力。

必修课程教材第三册进一步拓展话题，从自我认知、社会责任，到科技发展、艺术欣赏，再到探索及认识自然，帮助大家提升对人与自我、人与社会、人与自然三大主题语境的认识，为选择性必修阶段的学习做好准备。本册共六个单元，单元结构如下：

（1）背景激活（Starting out）

该板块旨在激活同学们已有的背景知识和语言知识。我们把“看”（viewing）的活动作为预热和导入，通过视频、文字、图片、表格等多模态语篇，帮助同学们更好地了解本单元主题。

（2）主题理解（Understanding ideas）

该板块通过语篇和阅读活动聚焦核心语言、结构，帮助大家在达成主题理解、实现语言形式与意义深度加工的同时培养文化意识和思维品质。

（3）功能运用（Using language）

该板块是对语言技能的综合学习和运用。通过语法、词汇及听说三个部分的大量语言实践活动，发展大家的语言技能，为真实生活中的语言交际做好铺垫。

（4）思维拓展（Developing ideas）

该板块为大家提供新的阅读语篇，从不同角度进一步呈现单元话题，调动大家的逻辑思维、批判性思维和创造思维，并以一项读写结合的活动来检验大家前述学习活动的成果。

（5）观点表达（Presenting ideas）

该板块主要以讨论、评选、演讲、辩论等口头表达形式进一步促进同学们对所学内容的复习与掌握。开放或半开放性的活动有利于大家彼此合作，展示个性，充分表达自己对主题思想的理解和认识。

（6）自我反思（Reflection）

该板块列出了本单元话题下可以实现的学习目标，通过自我评价和总结的方式，帮助大家反思自己的学习成果，进而认识到自己的进步与不足，逐步培养自主学习的能力。

（7）项目实践（Project）

该板块提供真实的语境和任务，每个项目活动均由小组合作完成，力求培养大家获取信息、相互合作、学以致用能力。

我们希望同学们通过使用本教材，全面提高综合语言运用能力，发展英语学科的核心素养，成为具有中国情怀、国际视野和跨文化沟通能力的社会主义建设者和接班人。

1

Knowing me, knowing you

Starting out

- 1 Look at the picture and describe what each person is doing. Talk about what kind of person they might be.



- 2 Watch the video and answer the questions.

- 1 What do the three conversations have in common?
- 2 What would you do in similar situations?

1 Look at the problems you may face at school. Discuss which you think is the most difficult to overcome and why.

- bad performance in a subject
- pressure to look good
- conflict with classmates
- difficulties fitting in with others

Now think about who you turn to for help when you face a problem.

- friends
- parents
- teachers
- online forums
- no one – you prefer to keep things to yourself
- other _____

2 Read the letters and find out what kind of problems Ben has and who he turns to for help.

Dear Agony Aunt,

- 1 I'm in a total mess here – hope you can help me out!
- 2 I'm 17, and a member of our school basketball team. I'm crazy about basketball, and pretty good at it too, which is probably why I was so mad when we lost our last match. We played well, but I felt the team were let down by one member, our point guard. The point guard is a key player, but it was like he wasn't even on the court! Disappointed by his behaviour, I said all this to my best friend. I was just letting off steam really, because I was so angry, but then my friend went and told everyone else what I'd said.
- 3 This is so totally awkward. I'm really angry with my friend – what should I say to him? And should I say anything at all to my teammate?
- 4 Embarrassed and ashamed, I can't concentrate on anything. Please help!

Ben



Dear Ben,

- 1 There is an old American saying, “Loose lips sink ships.” This means that if you speak too much about something, especially to people who you don’t know so well, it’ll cause all kinds of trouble.
- 2 The situation here is so much worse because the “loose lips” were your best friend’s. Treated this way, you’re sure to feel hurt – we should always be able to trust those closest to us, and it hurts even more when we find we can’t.
- 3 But I have to say that it’s partly your fault, isn’t it? You admit that you were “letting off steam”. It is understandable in that situation, but we should always think before we speak.
- 4 Here’s what you need to do. First, apologise to your teammate. If you ever want to win any more basketball games (and I’m sure you do!), you need to work together, and that means communicating with each other clearly and resolving conflicts. So have a chat with your teammate. Tell him directly and honestly that you were talking without thinking.
- 5 Then, talk to your friend. Friendship should be one of the greatest things in the world, but sometimes it can be difficult. Again, your strategy is clear communication. Tell your friend you’re angry with him for repeating what you said and making the situation worse, but that you want to move on. Approached in this way, your friendship will soon be repaired.
- 6 Thirdly, and perhaps most importantly, think about your own behaviour. Don’t say too much when you’re angry! Filled with anger, you tend to say whatever comes to your mind. This gives people the wrong signal. Take a deep breath, calm down, and always remember: think first, speak later. If you feel one of your teammates isn’t pulling their weight, then raise your concerns in a professional way with your team coach.
- 7 If you think about other people’s feelings as well as your own, you’ll soon find everything works out.
- 8 Good luck!

Agony Aunt



Absolute agony!

Our Agony Aunt answers your questions.

3 Choose the best summary of the letters.

- 1 Ben said something bad about his best friend, and Agony Aunt told him to apologise to his friend.
- 2 Ben was angry that his team was let down by some members, and Agony Aunt told him to take it easy.
- 3 Ben didn't play well in the match, and Agony Aunt advised him to apologise to his teammate.
- 4 Ben was in an awkward situation, and Agony Aunt gave him suggestions as to how to deal with his problems.

4 Complete the sentences with expressions from the passage.



Ben's problems

- I was disappointed with my teammate because I felt ¹ _____ by him.
- I told my best friend that my teammate was to blame, just ² _____.
- My best friend ³ _____. I don't know what to do.



Agony Aunt's suggestions

- You should ⁴ _____. You need to work together, and that means ⁵ _____ and ⁶ _____.
- Tell your best friend you're angry with him for ⁷ _____ and ⁸ _____, but that you want to move on.
- Don't ⁹ _____ when you're angry. Always remember: ¹⁰ _____.

Now match the suggestions to Ben's problems.

- 1 What do you think of Agony Aunt's advice? What other advice would you give to Ben?
- 2 What is your understanding of the saying "Loose lips sink ships"? Do you know any similar sayings in Chinese?

Think & Share

-ed as adverbial

1 Look at the sentences from the reading passage and answer the questions.

- a **Disappointed** by his behaviour, I said all this to my best friend.
- b **Approached** in this way, your friendship will soon be repaired.

- 1 Who was disappointed in sentence (a)? What is approached in sentence (b)?
- 2 Why does the author use *-ed* instead of *-ing* here?

Compare them with the following sentences and answer the questions.

- c Because I **was disappointed** by his behaviour, I said all this to my best friend.
- d If it **is approached** in this way, your friendship will soon be repaired.

- 3 What is the difference between the two groups of sentences?
- 4 Why does the author choose to use *-ed* instead of an adverbial clause in the reading passage?

Now look for more sentences with *-ed* as adverbial in the reading passage.

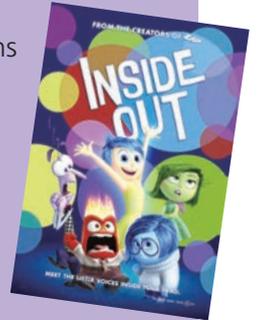
2 Rewrite the underlined sentences with the *-ed* form.

Last week, Anne was attracted by a particular article in a magazine, so she bought it. Three days ago, to complete her homework quickly, she grabbed the magazine from her desk drawer and copied part of the article without thinking. Her teacher was very satisfied with her homework. Anne was praised in class, and she felt happy as well as ashamed. Then, the teacher wanted to enter her homework into a writing competition. Anne was shocked by the decision and did not know what to do. If she told the truth, the whole class would find out and accuse her of cheating. They would look down on her. If she kept silent, maybe no one would ever find out...?

What should Anne do?

3 Read the plot summary and choose the correct form of the words.

Inside Out is an animated film about the five emotions of a girl called Riley: Joy, Sadness, Fear, Disgust and Anger. **Influencing / Influenced** mainly by Joy, most of Riley's memories are happy ones.



Believing / Believed that she is Riley's most important emotion, Joy always tries to take the lead. **Preventing / Prevented** from playing her role in Riley's emotional development, Sadness feels annoyed. When Riley moves to a new city, she has a hard time adjusting to her new surroundings. Sadness wants to do her duty but by accident causes the loss of Riley's happy core memories with Joy. Now **separating / separated** from her friends and her beloved hockey team, Riley starts to feel lost and helpless, and wants to run away from her parents and new school. Worried about her, Joy and Sadness try to work together to ensure she gets her core memories back.

Eventually, **realising / realised** that every emotion has a role, Joy understands it is okay for Riley to feel sad sometimes. Accepting sadness as part of life helps Riley deal with the emotional complexity of growing up, and settle down in her new life.

Interpersonal relationships

4 Read the tips and underline the words that describe behaviour towards others.

Tips for happy and healthy relationships

1 Try to forgive someone when they apologise. It's not easy for anyone to say sorry.

2 It's not a good idea to criticise someone in front of others. This can cause embarrassment.

3 It's important to tell the truth. Don't lie.

4 Don't judge someone too quickly. It takes time to understand a person.

5 Don't always complain about people. Try to look on the bright side.



5 Describe the situations with the words you underlined in Activity 4.

1 I'm really sorry. I didn't mean it. _____

2 You're so selfish! _____

3 I know you're sorry. It's OK. Don't worry about it. _____

4 I can tell he is not easy to get along with. _____

5 I don't want to wait for him all the time. _____

6 My pet parrot flew away with my homework. _____

6 Work in pairs. Discuss what you should do in the following situations and explain your reasons.

1 You forgot your best friend's birthday, and you feel bad about it.

2 Your neighbour always makes a lot of noise late at night. You cannot stand it.

3 I slipped at art class and spilt some paint on my classmate's favourite jeans.

4 Your friends have asked you to watch a boxing match with them, but you don't like boxing.

5 Your colleague says that a person's sex matters a lot in the workplace, but you don't agree.

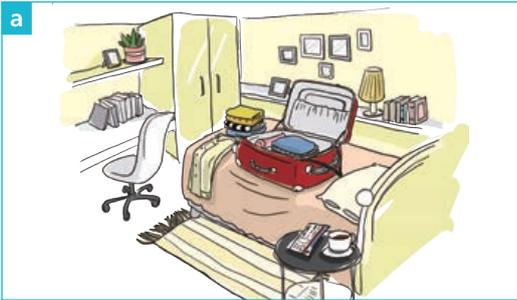
Saying no politely

Emotional quotient (EQ), or emotional intelligence quotient, is a measurement of the ability to recognise one's own and other people's emotions. It is believed that EQ plays an even more important role than IQ (intelligence quotient) in people's lives. Being able to say no politely is one of the features of emotional intelligence.



Did You Know ?

7 Listen to three conversations and match them to the pictures.



8 Listen again and complete the table.

	Request	Refusal
1	Tina has to leave her flat ¹ _____. She wants to stay at Kerry's place.	Kerry thinks that ² _____ is too long. Tina is welcome to stay for ³ _____.
2	Mike invites Ryan to ⁴ _____ on ⁵ _____.	Ryan cannot come, because he has to ⁶ _____ to New York at the weekend.
3	Jane would like to see Becky's ⁷ _____ for some ideas.	Becky refuses because she thinks it is better for Jane to ⁸ _____.

Now talk about how the speakers make requests and refusals. Listen again if necessary.

Learning to learn

If you have to say no to a request, your refusal will sound more polite if you begin with a statement of regret, such as *I'm sorry...*, *I'd really like to, but...* Then explain why your answer is no, eg *I'm really busy right now*. If possible, suggest an alternative – *How about next week?*

9 Work in pairs. Act out the conversation about asking for a favour and refusing politely.

Student A: Turn to Page 81.

Student B: Turn to Page 84.

10 Work in pairs. Think of another situation and have a similar conversation.

- 1 Look at the pictures. What would you say if you were student B?



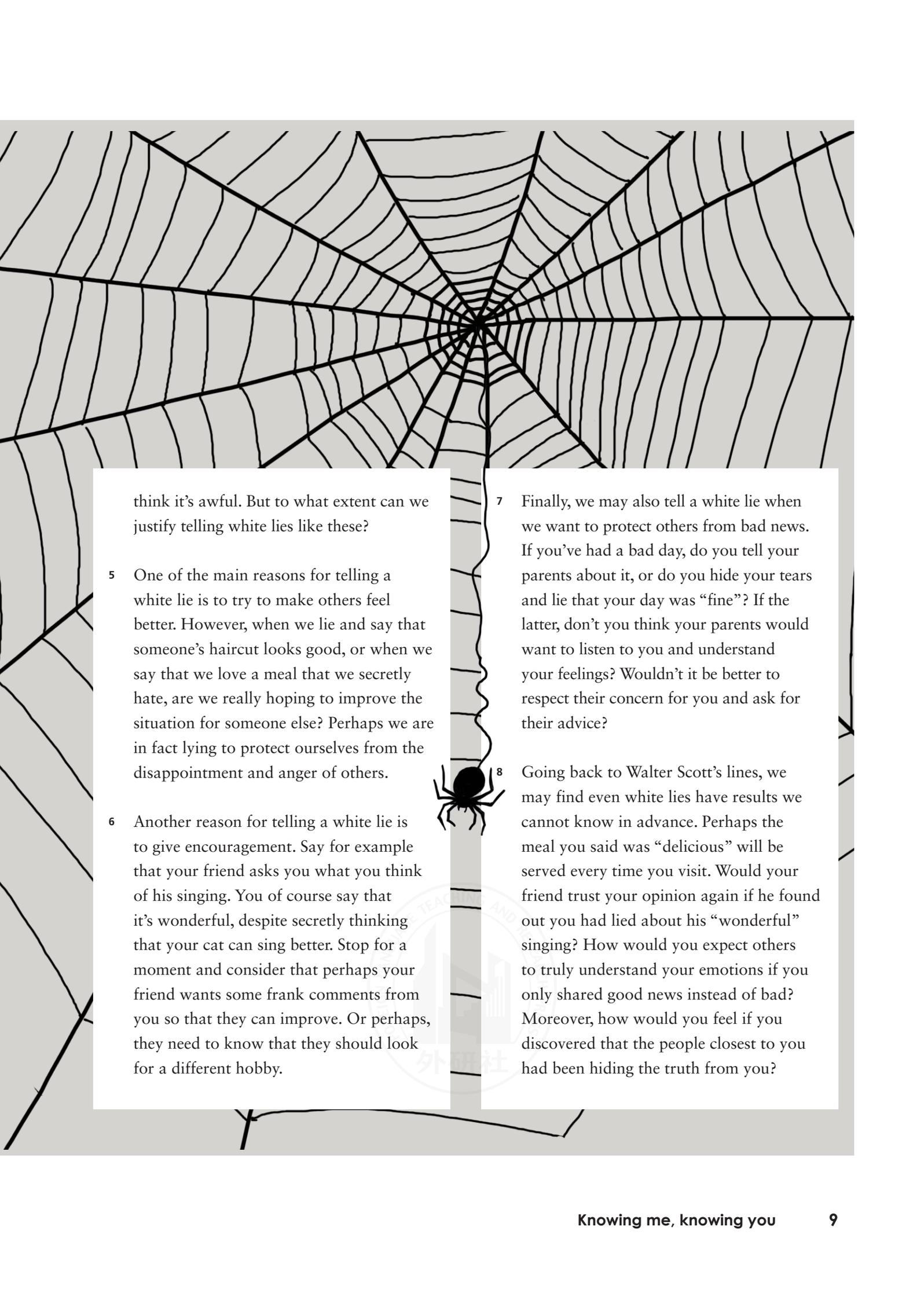
- 2 Read the passage and find out the meaning of "white lies".

Little White Lies

- 1 Written more than two hundred years ago, these lines by Walter Scott remain one of the most well-known excerpts of Scottish poetry:

*Oh, what a tangled web we weave,
When first we practise to deceive!*

- 2 We all know that honesty is an important value and that lying is wrong, but who can honestly say that they've never told a lie? Perhaps we comfort ourselves with the knowledge that most of the lies we tell are "white lies": little lies that we tell to protect others from the truth.
- 3 We've all surely had the experience of someone cooking a meal for us that we don't like. The majority of us of course don't tell the truth – we lie and say that the food is "delicious".
- 4 Or if a friend asks us what we think of their new haircut, we say "It's great!", even if we



think it's awful. But to what extent can we justify telling white lies like these?

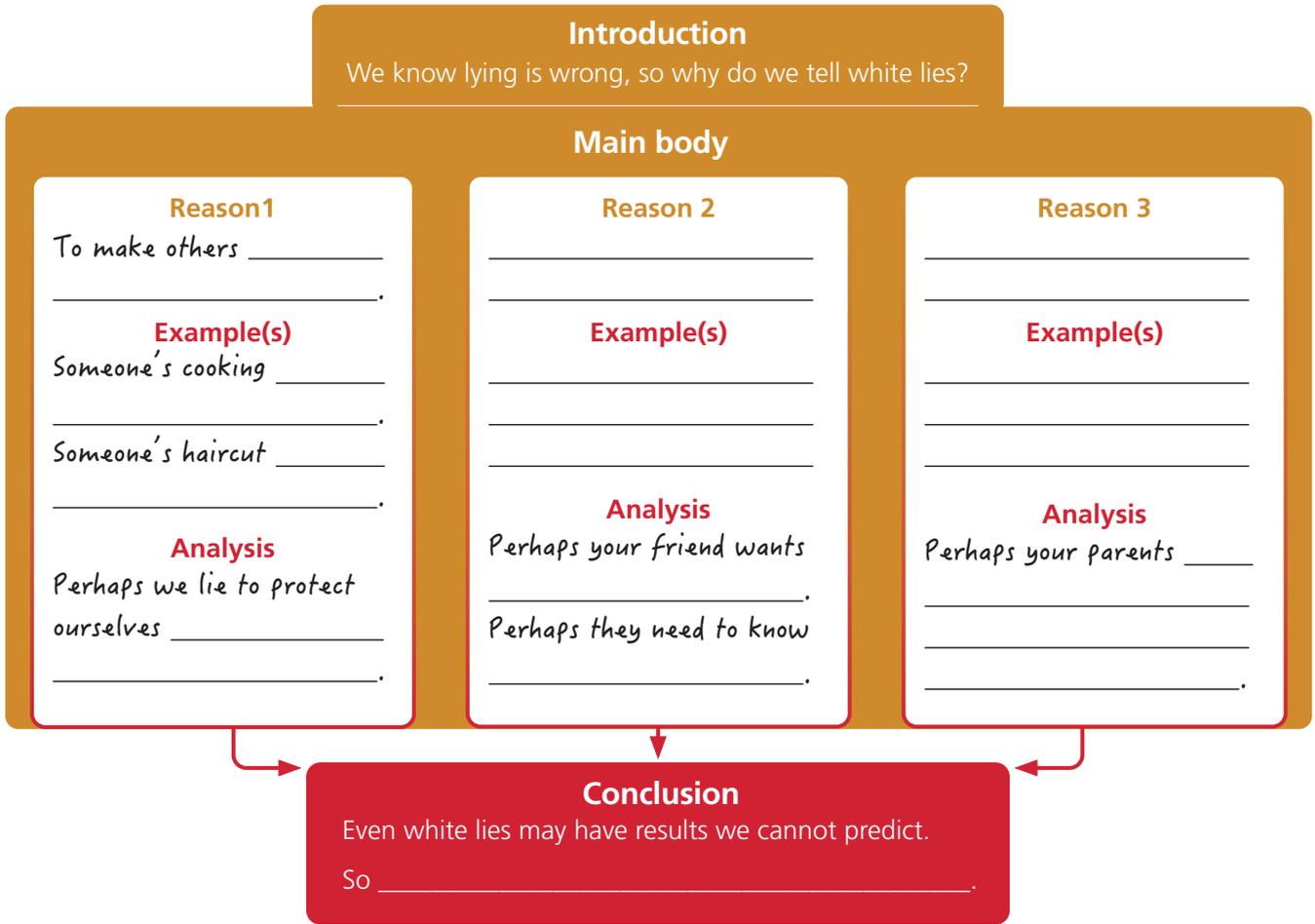
5 One of the main reasons for telling a white lie is to try to make others feel better. However, when we lie and say that someone's haircut looks good, or when we say that we love a meal that we secretly hate, are we really hoping to improve the situation for someone else? Perhaps we are in fact lying to protect ourselves from the disappointment and anger of others.

6 Another reason for telling a white lie is to give encouragement. Say for example that your friend asks you what you think of his singing. You of course say that it's wonderful, despite secretly thinking that your cat can sing better. Stop for a moment and consider that perhaps your friend wants some frank comments from you so that they can improve. Or perhaps, they need to know that they should look for a different hobby.

7 Finally, we may also tell a white lie when we want to protect others from bad news. If you've had a bad day, do you tell your parents about it, or do you hide your tears and lie that your day was "fine"? If the latter, don't you think your parents would want to listen to you and understand your feelings? Wouldn't it be better to respect their concern for you and ask for their advice?

8 Going back to Walter Scott's lines, we may find even white lies have results we cannot know in advance. Perhaps the meal you said was "delicious" will be served every time you visit. Would your friend trust your opinion again if he found out you had lied about his "wonderful" singing? How would you expect others to truly understand your emotions if you only shared good news instead of bad? Moreover, how would you feel if you discovered that the people closest to you had been hiding the truth from you?

3 Complete the diagram with information from the passage.



Learning to learn

An essay usually consists of three parts: introduction, main body and conclusion. Start with an introduction that contains the aims and an overview of the essay. The main body of an essay is a series of paragraphs that explore and develop your argument. The conclusion contains a summary of your ideas – do not introduce any new material here! End your essay by linking your conclusion back to the essay title.

Think & Share

- 1 What does the "web" in the poem represent?
- 2 What would you do in the situations described in the passage?
- 3 What do you think is the difference between a lie and a white lie?
- 4 How would you feel if you were told a white lie? Share your experience with the class if this has happened to you.

4 Work in groups. Give a talk on the importance of honesty following the steps below.

- Explain what honesty is.
- Give reasons for the importance of being honest.
- Support your reasons with examples.
- End with your conclusion.

Writing an essay

5 Read the fable and choose the message you think it conveys.

- 1 Porcupines are not sociable animals.
- 2 The more independent you are, the better your life will be.
- 3 There should be boundaries in interpersonal relationships.

6 Make notes based on the passage in Activity 5 with your own opinions.

Introduction

Original author: _____

Summary of the fable: _____

Main body

Viewpoint: _____

Supporting examples in your real life: _____

Conclusion

Now write an essay. Use the expressions in the box to help you.

Useful expressions

- This fable describes...
- The fable teaches us that...
- One example of this from real life is...
- In conclusion, ...

7 Share your essay with the class.

The Porcupine Dilemma

Adapted from a work by Schopenhauer

One cold winter night, a group of porcupines gathered together to keep warm. As soon as they started to get closer, they hurt each other with their quills, so they had to move apart. After a short time, they started to feel cold again, so they moved closer together. But again they had to move away because of the pain caused by the other porcupines' quills. After repeating this process a few times, they eventually found the ideal distance where they could feel warm while managing not to hurt each other.



Presenting ideas

- 1 Work in groups. Read the quotations and discuss their meanings.

Do not do to others what you do not want others to do to you.

Confucius

Good fences make good neighbours.

Proverb

The most basic of all human needs is the need to understand and be understood.

Ralph G. Nichols

- 2 Choose one quotation and discuss the following points:

- its main message
- how it applies to everyday life, giving examples
- what we can learn from the quotation

- 3 Present your ideas to the class. Use the expressions in the box to help you.

Useful expressions

- We have chosen to talk about the quotation...
- The main message of this quotation is...
- In daily life, ...
- Another example is...
- In conclusion, this quotation teaches us that...



Reflection

- 1 After completing this unit, I can rate my performance 1 (excellent), 2 (good) or 3 (in need of improvement).

- interpret interpersonal behaviour
- make requests and refusals
- write an essay
- give suggestions to resolve interpersonal conflicts
- improve interpersonal skills and relationships

- 2 I've learnt to make use of the following words and expressions:

.....
.....
.....

- 3 I still need to improve:

.....
.....

2

Making a difference

Starting out

1 Watch the video and answer the questions.

- 1 What kinds of good deeds are shown in the video?
- 2 What idea does the video convey?

2 Look at the pictures of the three people and read the quotations. Talk about the following points:

- the contribution these people made to society
- the qualities you admire in each of them
- other people who have similar qualities

Bai Fangli, tricycle driver

I'm old. All I can do is ride a tricycle and make money for the students... Knowing that the kids now have money for school is what keeps me going and gives me more energy.



Florence Nightingale, founder of modern nursing

The amount of relief and comfort experienced by the sick after the skin has been carefully washed and dried, is one of the commonest observations made at a sick bed.

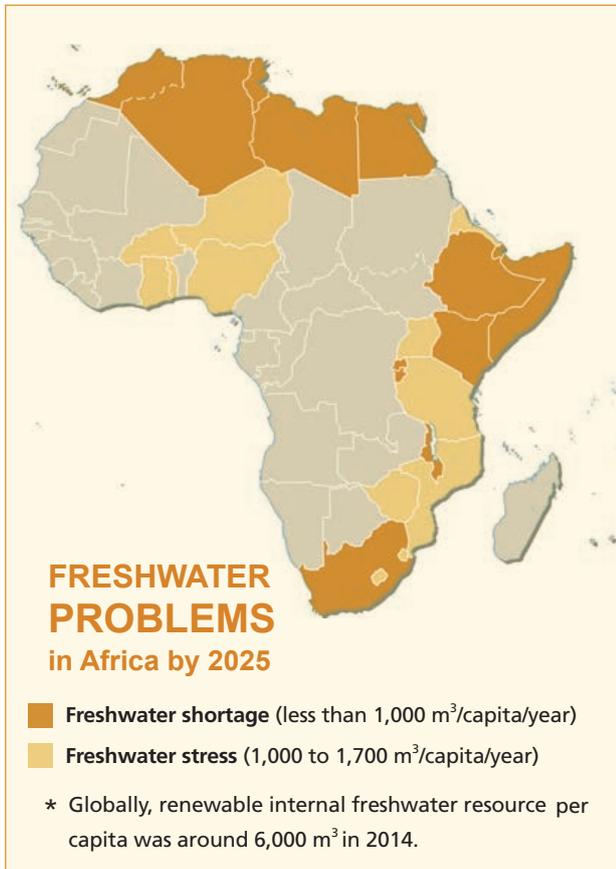


Red Adair, oil well firefighter

It scares you: all the noise, the rattling, the shaking. But the look on everybody's face when you're finished and packing, it's the best smile in the world; and there's nobody hurt, and the well's under control.



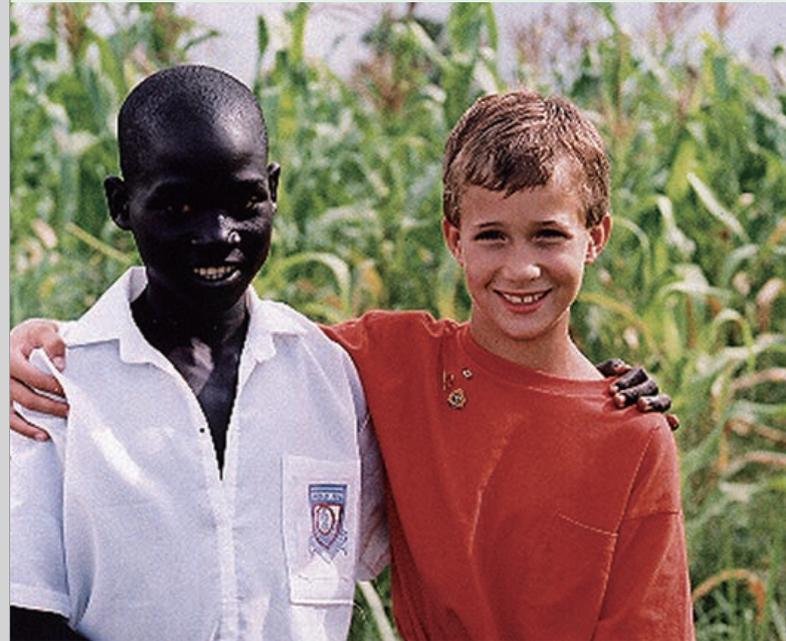
- 1 Look at the map and talk about water problems in Africa.



Now tick the solutions that you think are most effective to supply Africa with fresh water.

- collect and purify rainwater
- fund water projects
- build wells and pumps
- recycle waste water
- set up facilities to purify water
- develop new water conservation technologies

- 2 Read the passage and find out what Ryan did to help solve the problem of water shortage in Africa.



- 1 As a six-year-old Canadian schoolboy, Ryan had trouble believing the words spoken by his teacher that many people in developing African countries couldn't get enough clean water. He looked across the classroom at the drinking fountain. It was very close – only ten steps away. So, Ryan asked himself, "Why do some African children have to walk ten kilometres to get water every day? And why is the water so dirty that it makes them sick?" Young Ryan thought, "Life is easy for me, but hard for those people. Why don't I help?"
- 2 At first, his plan was to earn money to build a single well somewhere in Africa. He cleaned windows and did gardening for his family and neighbours. He soon reached his first target of \$70, but when he gave the money to a charity, he was told that it actually cost \$2,000 to build a well. Seventy dollars was only enough for a hand pump.

The Well That Changed the World



Ryan understood that a hand pump wouldn't help the children. What they needed was a well dug near their homes.

- 3 Two thousand dollars was a lot of money, but Ryan didn't give up. He was determined to help other children have clean water. He started to ask for help from his classmates and neighbours and persuaded them to donate money. At the same time, a friend of Ryan's mother helped make his story go public. After several months, Ryan had raised the \$2,000, with which a well was built near a primary school in Uganda. The children at the school no longer needed to walk for hours to get water. They were grateful to him and invited him to visit.
- 4 In Uganda, Ryan at last saw the finished well with his own eyes. But that was not all. He also saw hundreds of delighted students who had turned out to welcome him. They sang and danced happily. Some even offered him food and gifts. At first Ryan was nervous, but soon a great warmth filled him. He really had made a difference for these children. He broke into a joyful smile.
- 5 Later, Ryan's experience led him to set up a foundation to encourage more people to help. Many inspired people gave him their support. Ryan's foundation continues to attract support from more and more people, so the work of building more wells can go on. Today, over 800,000 people in 16 countries across Africa have benefited from the life-changing gift of clean, safe water.
- 6 Now, as an adult, Ryan says that the question to ask is not "Why don't I help?", but "How can I help today?". This insight grew from the determined attitude of a six-year-old boy who had the courage and perseverance to make his dream a reality.

3 Choose the best explanation of the title and give your reasons.

- 1 The well built by Ryan solved the problem of worldwide water shortage.
- 2 The more wells you dig, the better the world will be.
- 3 The well built by Ryan encouraged more people to help make the world a better place.

4 Complete Ryan's story with expressions from the passage.

Ryan's story



- 1 Ryan could get clean drinking water within ten steps, but some African children had to ¹ _____. So Ryan decided to help.
- 2 Ryan cleaned windows and did gardening, and reached ² _____. But when he ³ _____, he was told it cost \$2,000 to build a well.
- 3 Ryan persuaded his classmates and neighbours to ⁴ _____. His mother's friend also helped him. After several months, he raised enough money and a well was built in Uganda.
- 4 Ryan visited Uganda. He saw ⁵ _____. He also saw ⁶ _____ who had turned out to welcome him.
- 5 Later, Ryan's experience led him to ⁷ _____ to encourage more people to help.
- 6 Today, the life-changing gift of clean water ⁸ _____.

- 1 What kind of person do you think Ryan is? Which of his qualities do you admire most? Why?
- 2 As a senior high school student, what can you do to help people in need?

Think & Share

-ed as attributive

1 Look at the sentences from the reading passage and answer the questions.

- a ... Ryan had trouble believing the words **spoken** by his teacher...
- b In Uganda, Ryan at last saw the **finished** well with his own eyes.

- 1 What was spoken in sentence (a)? What was finished in sentence (b)?
- 2 Why does the author use *-ed* instead of *-ing*?

Compare them with the following sentences and answer the questions.

- c ... Ryan had trouble believing the words **which were spoken** by his teacher...
- d In Uganda, Ryan at last saw the well, **which was finished**, with his own eyes.

- 3 What is the difference between the two groups of sentences?
- 4 Why does the author choose to use *-ed* instead of an attributive clause in the reading passage?

Now look for more sentences with *-ed* as attributive in the reading passage.

2 Read the discussion between two students about Ryan's foundation. Rewrite the underlined sentences using the *-ed* form.



Ryan is a young man who is admired by a lot of people. The money which is raised by his foundation supports schools and communities in Africa. I think digging wells for drinking water is a good way to solve the problem of water shortage.



I absolutely agree with you. Digging wells is a good way, but not the only way, to solve the problem of water shortage in Africa. As in the words which were spoken by Ryan, we need to not only donate money but also get new ideas. I think the support which is needed includes new technology for recycling water and education on how to use and save water.

3 Read the passage and choose the correct form of the words.

The United Nations Children's Fund, also **knowing / known** as UNICEF, is a United Nations (UN) organisation **basing / based** in New York. It offers help **needing / needed** by children all over the world.

UNICEF was founded on 11 December 1946, to provide food and healthcare to children in countries **damaging / damaged** in World War II. Since 1953, UNICEF has taken up an extended mission to help children in the **developing / developed** world, including those **living / lived** with diseases or disabilities, and those **affecting / affected** by rapid modernisation and environmental problems. Now, UNICEF has been working to improve the lives of children and their families across 190 countries and territories.



Personal qualities

4 Read the descriptions and underline the words that describe personal qualities.



Liu Tao

He's sensitive and rather serious, which sometimes makes him appear to be a little bookish. But he's also an independent thinker. He always knows how to make wise decisions.



Li Mei

She's usually very shy, but she's generous and never hesitates to help. She's also the most honest person I know. I can always trust her with my secrets.



Tim

He's always confident about everything. He's a good public speaker and I have never seen him get nervous. And he's creative. He often comes up with good ideas.



Anna

She's easygoing with a sense of humour. She'll try to cheer you up if you have a problem, but she's somewhat lazy. Her desk is extremely messy!



5 Put the words you underlined in Activity 4 into the table. Add any more you can think of.

Positive	Neutral	Negative

6 Work in pairs. Talk about people's personal qualities using the words you have learnt.

A: I think my cousin is very brave.

B: Why do you think so?

...

To be a volunteer

Ryan's charity work is not unusual. Many people donate money and others volunteer to help run charities. On most UK high streets, for example, you will often come across people raising money and looking for volunteers for Cancer Research UK, the British Heart Foundation, the Royal National Lifeboat Institution and many more. In China, volunteers are also playing an increasingly important role in environmental protection, disability assistance and many other fields.



Did You Know ?

7 Listen to the phone enquiry and complete the sentences with the correct ending.

- 1 Sarah likes _____.
- 2 The man suggests _____.
- 3 Erica Marshall needs to know _____.

- a teaching children with disabilities
- b when Sarah can start work
- c if Sarah is suitable for the work
- d horses and being with children
- e helping out three times a week
- f taking care of old people

Learning to learn

Before making a phone enquiry, take a moment to prepare your questions. Take notes if necessary. Also, remember that it's okay to ask again when you think it's not clear enough!

8 Listen again and complete the form.

Winchester Volunteer Centre Registration Form

Personal information

Name: *Sarah White*

Telephone: *077 8665 3048*

Preferred field: ¹ _____

Voluntary work description

- Intended voluntary work: *teaching children with disabilities* ² _____ *at Peter's Stables*
- Aim: *for the children to* ³ _____ *and realise that they can* ⁴ _____ *in spite of their disabilities*
- Role: *working* ⁵ _____ *with the same children in order to* ⁶ _____

Additional information needed

- Your previous experience ⁷ _____
- A ⁸ _____ for confirmation
- Available working hours

Now talk about how Sarah makes a phone enquiry on becoming a volunteer. Listen again if necessary.

9 Work in pairs. Act out a telephone enquiry.

Student A: Turn to Page 81.

Student B: Turn to Page 84.

10 Work in pairs. Think about other voluntary work you would like to be involved in, and have a similar conversation.

Developing ideas ◀

- 1 Look at the word cloud and predict what the man in the pictures might have done.

frightened children
heartbroken parents saved
various honours
Nazis business Britain
public attention
during World War II
forgotten journal Jewish

- 2 Read the biography of Nicholas Winton and check your prediction in Activity 1.

Learning to learn

Most biographies are organised in the order in which events happened. Whilst reading a biography, it's a good idea to make a timeline to record and track important information, such as dates, places and key events. This can be a useful way of displaying the kind of life the person led and even, sometimes, what he / she was really like.



- 1 It is August 1939, and a group of frightened children are boarding a train at Prague's Wilson Station. Their heartbroken parents do not join them. Indeed, they fear they may never see their children again. But they know that their children will live. These are among the 669 children, most of them Jewish, that Nicholas Winton will go on to save from death at the hands of the Nazis.
- 2 Nicholas Winton was born on 19 May 1909 in London, to German-Jewish parents. The family later took British nationality. On leaving school, Winton worked in banks in Germany and France. He returned to Britain in 1931, where he worked in business.
- 3 In December 1938, a friend asked Winton to come to Prague to aid people who were escaping from the Nazis. In Prague, Winton saw people living in terrible conditions and whose lives were in danger. He decided to help transport children to safety in Britain. He established an office to keep records of the children, and then returned to Britain to find temporary homes for them. He used donated funds and his own money to pay the 50 pounds per child that the British government required. By August 1939, Winton had saved 669 children.
- 4 During World War II, Winton served as an officer in Britain's Royal Air Force. He left the military in 1954. He then worked for international charities and for various companies. For the most part, he did not

THE POWER *of* GOOD

“The British Schindler”: the life of Nicholas Winton

- mention the children he saved, and his actions soon disappeared from people’s memories.
- 5 That all changed in 1988 when his wife Grete found a forgotten journal at home. The journal contained photographs and names of the children and addresses of the families that took them in. She sent the journal to a newspaper, and that year Winton was seen on the British television programme *That’s Life*. At one point, the host asked people in the audience to stand up if Nicholas Winton had saved their lives. A shocked Winton watched as the majority of people rose to their feet. The programme brought his actions to public attention, and Winton became a respected figure around the world.
 - 6 Later, Winton received various honours for his achievement, including a knighthood in 2003, and the Czech government’s highest honour, the Order of the White Lion, in 2014.
 - 7 Nicholas Winton passed away on 1 July 2015, at the age of 106. As the Chinese saying goes, “A kind-hearted person lives a long life.”





3 Match the events to the years in which they happened.

- a Winton left the military.
- b He was awarded the Order of the White Lion.
- c He went to Prague to help refugees escape from the Nazis.
- d He was invited onto the British television programme *That's Life*.
- e He became a businessman.

Think & Share

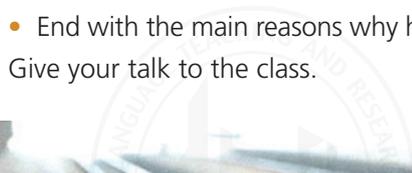
- 1 Why did the parents fear that they would never see their children again?
- 2 Why do you think it took such a long time for Winton's actions to become known?
- 3 Which three words would you use to describe Winton's personal qualities?
- 4 Do you know of any Chinese who have acted in a similar way to Winton? Share their stories with the class.

4 Work in groups. Give a talk in honour of Nicholas Winton.

- 1 Use the table to help plan your talk.

Key actions	Personal qualities

- 2 Organise your talk following the steps below.
 - Say who you are going to talk about.
 - Talk about his key actions.
 - Talk about his personal qualities.
 - End with the main reasons why he inspires you.
- 3 Give your talk to the class.



Writing a biography

5 Read Tu Youyou's CV and fill in the boxes with the corresponding information.



Tu Youyou

PERSONAL INFORMATION

Date of birth:
30 December 1930

Place of birth:
Ningbo, Zhejiang, China

Education

1951–1955: Beijing Medical College (now Peking University Health Science Centre)

Work Experience

1955–present: China Academy of Chinese Medical Sciences
Title: Tenured & Chief Researcher

Major Achievements and Awards

1969: Worked as the leader of a research team aiming to discover a treatment for malaria

1972: Managed to extract *qinghaosu* from a Chinese herb, which is very effective in fighting malaria

1986: Obtained a New Drug Certificate for *qinghaosu*, issued by the Ministry of Health of China

2015: Won the Nobel Prize in Physiology or Medicine for discovering a novel therapy against malaria

2019: Nominated for "The Greatest Person of the 20th Century"

Introduction

Name of the person: _____

Her biggest achievement: _____

Main body

Major events (in time order):

Conclusion

Your opinion on her contribution:

Now write a biography of Tu Youyou. Use the expressions in the box to help you. Do further research if necessary.

6 Share your biography with the class.

Useful expressions ▲

- In (year), ...
- On (day / date), ...
- Later, ...
- Finally, ...
- At the age of...
- At one point, ...
- By (year / day / date), ...

Presenting ideas

- 1 Think of someone you want to recommend as "Person of the Year". You can choose a well-known person or someone you know. Complete the form about the person.

PERSON OF THE YEAR 	Name	<input type="text"/>
	Achievements	<input type="text"/>
	Personal qualities	<input type="text"/>
	Reasons for recommendation	<input type="text"/>

- 2 Work in groups. Talk about your "Person of the Year" and choose the best one in your group. Use the information in Activity 1 and the expressions in the box to help you.

Useful expressions

- I recommend... because...
- I think... is the best choice, because...
- I agree with him / her.
- Really? I don't think so. I think...

- 3 Present your "Person of the Year" to the class.

Reflection

- 1 After completing this unit, I can rate my performance 1 (excellent), 2 (good) or 3 (in need of improvement).
 - describe personal qualities
 - make a phone enquiry
 - write a short biography
 - comment on people's moral values
 - develop a sense of social responsibility
- 2 I've learnt to make use of the following words and expressions:

- 3 I still need to improve:

3

The world of science

Starting out

1 Read about the inventions from famous novels and choose those that have become a reality.

2 Watch the video and answer the questions.

- 1 Which of the inventions in the video interests you most? Why?
- 2 Which of the inventions in the video do you think will become a reality?
- 3 Of all the inventions in the world, which do you think is the most useful? Why?



Harry threw the cloak around his shoulders... Harry looked down at his feet, but they were gone.

Harry Potter and the Philosopher's Stone



Presently I am going to press the lever, and off the machine will go. It will vanish, pass into future time, and disappear.

The Time Machine



A faint blue light shot across it, darkening to purple, and presently she could see the image of her son, who lived on the other side of the earth, and he could see her.

The Machine Stops

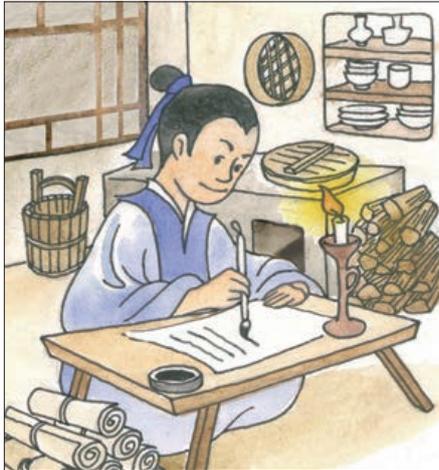


Instead of being printed, the *Earth Chronicle* is every morning spoken to subscribers, who, in interesting conversations with reporters, statesmen, and scientists, learn the news of the day.

In the Year 2889



- 1 Look at the pictures and talk about how the way we live has changed over time. Discuss the reasons behind these changes.



- 2 Read the interview and find out what inventions are mentioned.

The New Age of Invention

Interviewer: Good evening, and welcome to *Between the Pages*. This evening, I'll be talking to Dr Richard Fairhurst, whose new book *The New Age of Invention* has just been published. Welcome, Richard!

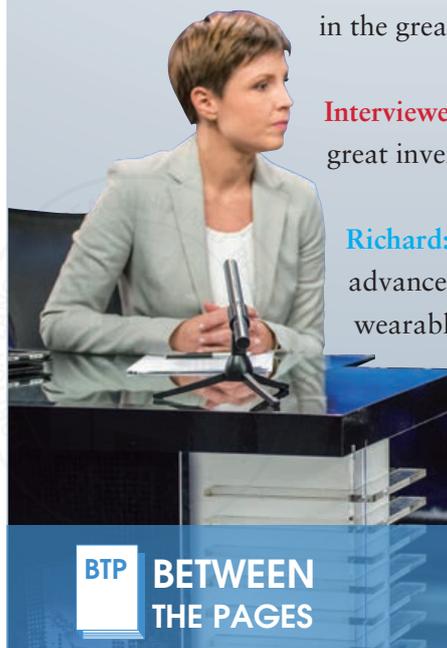
Richard: Thank you. It's a pleasure to be here.

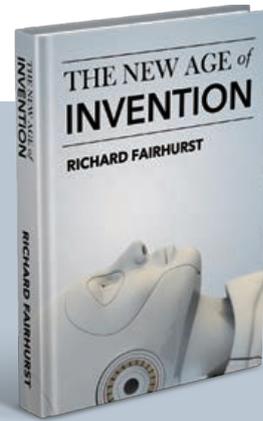
Interviewer: I guess you have been asked about the title of your book before. It suggests that the present day is a new age for inventions, but many people might think that the great age of invention is over.

Richard: Well, that's an interesting point. There have been golden ages of invention throughout history. Think of the four great inventions in Ancient China: gunpowder, papermaking, printing and the compass. These things changed the world forever. Then there were the great Western inventions: the steam engine, the telephone and the radio. And now, we find ourselves in the great new age of technology.

Interviewer: So are most of the new great inventions tech-based?

Richard: A lot, yes. For example, advances in virtual reality and wearable tech, as well as the





flexible battery, mean we should soon be seeing further developments. In addition, important advances have been made in medicine and environmental science thanks to increasing computer power.

Interviewer: Can you give us some examples?

Richard: Sure. New inventions like 3D printers have been used to make replacement hearts and bone parts. In terms of the environment, it is now possible to create an intelligent walking house. It is capable of using GPS technology to travel to different places, with computing technology controlling its “legs”. What’s more, huge advances in solar technology mean it can be eco-friendly, too.

Interviewer: Impressive stuff! I’ve also been told that you’re an inventor yourself. Is that correct?

Richard: Yes, I am, but I’m only one member of a big team – most inventors now work as part of big international teams.

Interviewer: I see. So what is it that inspires us to invent things?

Richard: Most inventions start with recognising

a problem that needs a solution. This was no doubt the reason behind the invention of the wheel in ancient times, which much later developed into the car. Now, reduced energy supplies and environmental pollution have led to more advances in the technology of new energy vehicles. But what remains important is that we have an incredible desire to think and create, and that’s the real spirit of invention.

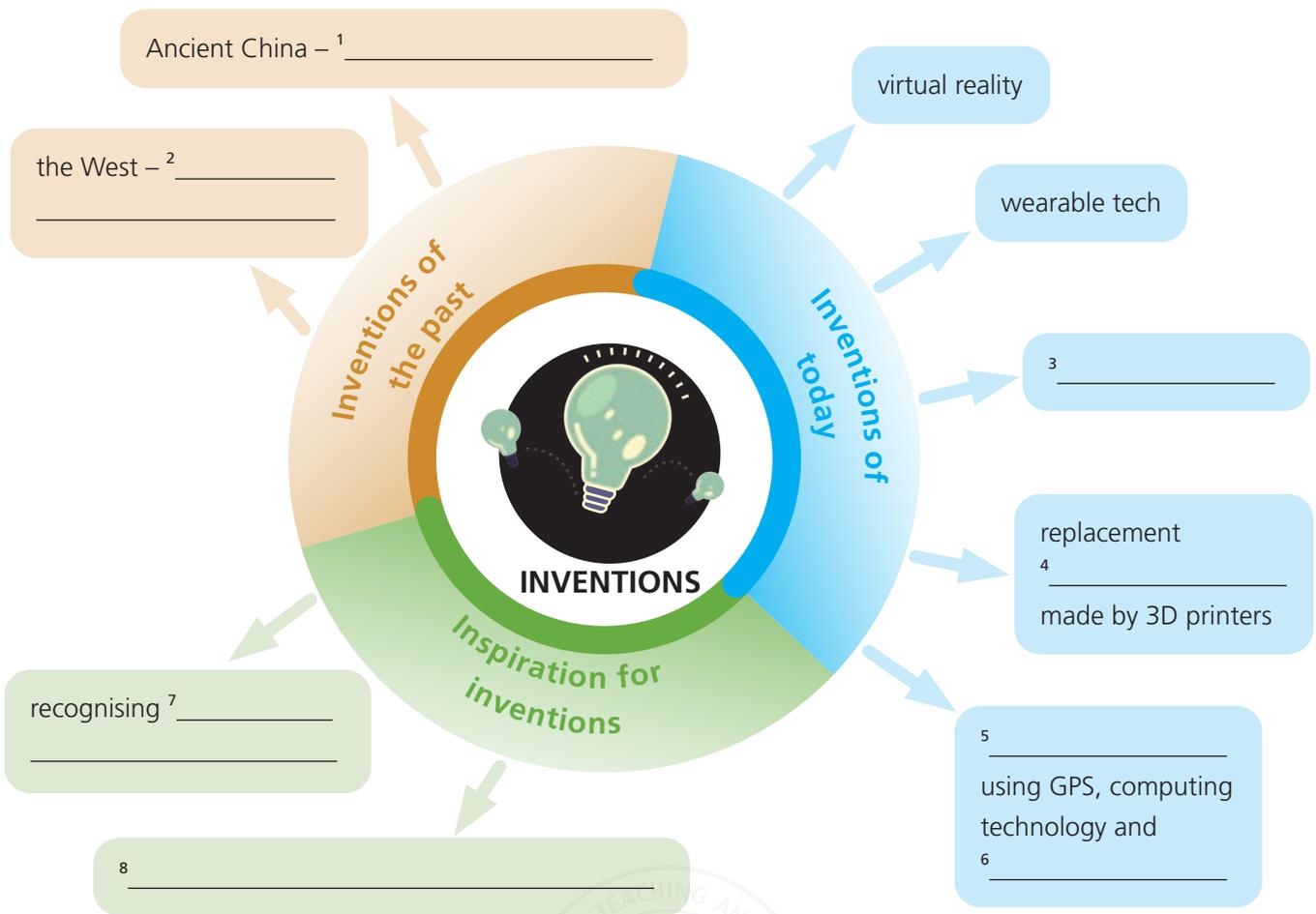
Interviewer: One last question. This is the one everyone really wants to know: will anybody ever invent a time machine?

Richard: I think you’ve been watching too many movies! Nothing like this has been invented yet and I’d say we’re a long way from an invention like that at the moment! But, as they say, “Never say never!”



- 3** Choose the sentences that describe Dr Fairhurst's opinions.
- 1 Inventions in Ancient China were better than those in the West.
 - 2 A lot of today's great inventions are tech-based.
 - 3 Today, most inventors prefer working by themselves.
 - 4 The desire to solve problems inspires invention.
 - 5 A time machine will definitely be invented in the future.

4 Complete the mind map with information from the passage.



- 1 If you were the interviewer, what other questions would you ask Dr Richard Fairhurst?
- 2 In your opinion, what else inspires people to invent things?

Think & Share

Present perfect passive

1 Look at the sentences from the reading passage and answer the questions.

- a I guess you **have been asked** about the title of your book before.
- b New inventions like 3D printers **have been used** to make replacement hearts and bone parts.

- 1 What has happened to "you" in sentence (a)?
- 2 Who has used new inventions to make replacement hearts and bone parts in sentence (b)?

Compare them with the following sentences and answer the questions.

- c I guess someone **has asked** you about the title of your book before.
- d People **have used** new inventions like 3D printers to make replacement hearts and bone parts.

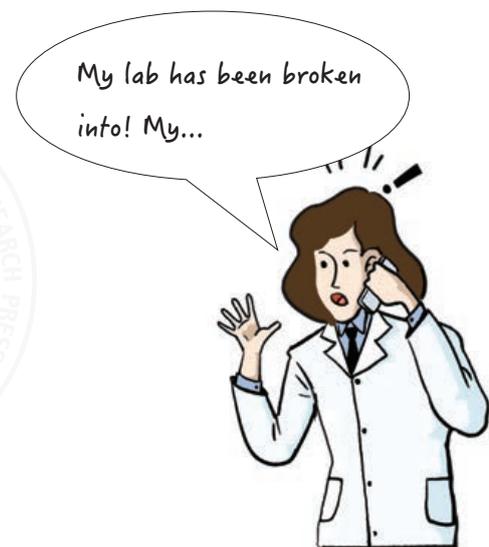
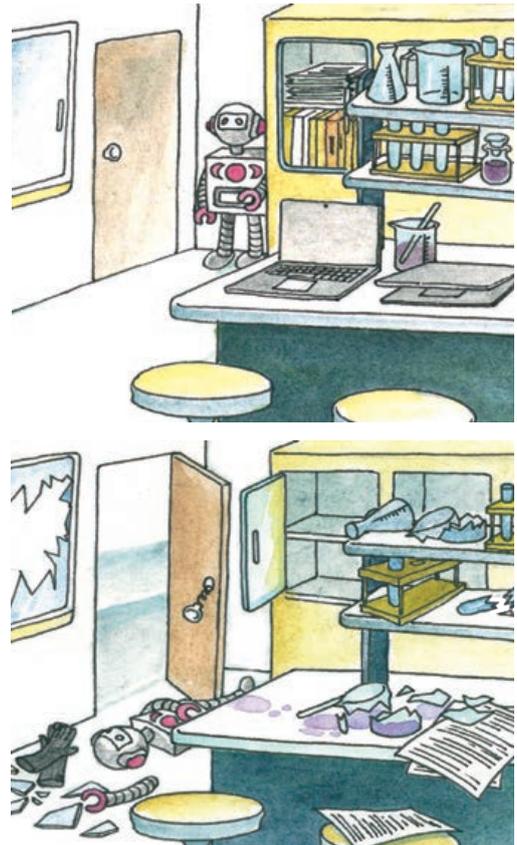
- 3 What is the difference between the two groups of sentences?
- 4 Why does the author choose to use the passive form instead of the active form in the reading passage?

Now look for more sentences with the present perfect passive in the reading passage.

2 Rewrite the underlined parts using the present perfect passive.

Within the next 80 years, our lives may be changed beyond recognition by 3D printing. It has already affected many things in our lives, right down to the food we eat. For instance, some restaurants in London have served 3D-printed hamburgers to customers. But perhaps the most significant success that people have achieved to date is in medicine. They have made human body parts, including a beating heart, with 3D printing technology. And it is not just humans who are benefiting – in Brazil, people have given a new 3D-printed shell to a turtle injured in a forest fire!

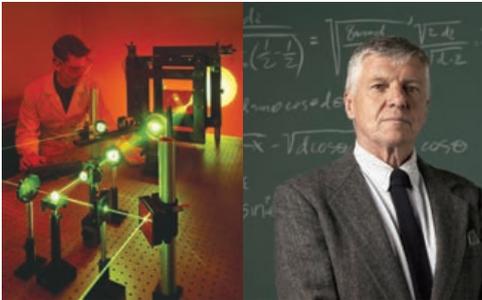
3 Imagine you are Dr Moore. Look at the pictures and tell the police about the damage and loss to your lab. Use the present perfect passive where appropriate.



Dr Moore

Careers in science

- 4 Look at the pictures and answer the questions.



physicist

mathematician



chemist

astronomer



geographer

biologist

- 1 What do you know about these careers?
- 2 What famous scientists can you name in these fields?

Learning to learn

Words about different careers in science can be formed by adding *-er*, *-ist* or *-ian* at the end of the words about subjects, eg *biology* – *biologist*.

- 5 Complete the introductions about different scientists with the words in Activity 4. Pay attention to the language that describes their careers.

Guo Shoujing (1231–1316) was a famous Chinese ¹ _____ of the Yuan Dynasty. He invented twelve new instruments to study stars and planets. He also developed a calendar which is as accurate as the Gregorian calendar. A mountain on the Moon and a minor planet are named after him.

British ² _____ **Charles Darwin** (1809–1882) is best known for his work *On the Origin of Species*, in which he explains changes in species due to natural selection. His ideas deeply influence our understanding of the relationship between humans and nature.

Li Daoyuan (ca 466–527) was a famous writer and ³ _____ of the Northern Wei Dynasty. He did field research across China and studied more than a thousand rivers and streams, along with the landscape, history and culture of the surrounding areas.

Marie Curie (1867–1934) was a world-famous ⁴ _____, and was first awarded the Nobel Prize in 1903 for her extraordinary work on radioactivity. She was also regarded as a brilliant ⁵ _____, and was again awarded the Nobel Prize in 1911 for the isolation of pure radium.

Chen Jingrun (1933–1996) was one of the world's leading ⁶ _____. His work on Chen's Theorem made an important advance towards proving Goldbach's Conjecture, the greatest unsolved problem in number theory.

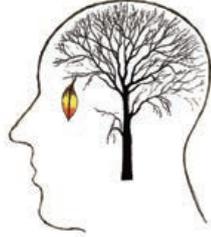
- 6 Work in pairs. Think about other careers in science and discuss what interests you most.

I'm interested in the work of a(n)... because...

Invention stories

Alzheimer's disease is a brain disorder that causes problems with memory, thinking and behaviour.

The majority of people with Alzheimer's are 65 and above. It is recognised as the most common mental disease among older people, and the number of sufferers is growing. Currently, there's no cure for Alzheimer's, but scientists are researching ways to improve the quality of life for people living with the disease.



Did You Know ?

8 Listen again and complete the notes.



What is it?

It's ¹ _____.

Who was it invented by?

It was invented by ² _____ called Kenneth.

Who inspired the invention?

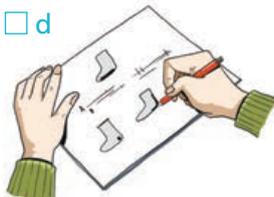
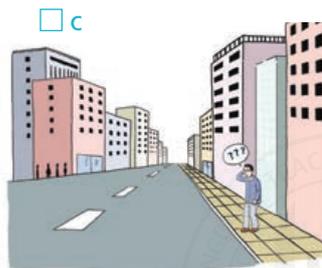
³ _____, who has Alzheimer's.

How does it work?

⁴ _____ is sent to a mobile phone like an alarm when the person with it ⁵ _____.

Now talk about how the speakers describe the story behind an invention. Listen again if necessary.

7 Listen to the conversation and number the pictures in the correct order.



9 Work in pairs. Act out the conversation about the invention of the telephone.

Student A: Turn to Page 82.

Student B: Turn to Page 85.

10 Work in pairs. Choose another story of an invention you know and have a similar conversation.

Learning to learn

Exclamatory sentences express strong emotions, such as surprise, shock, joy, emphasis and excitement. These are usually formed with *what* or *how*, and in written form usually end with an exclamation mark.

- 1 Read the short introduction to Benjamin Franklin and share any other information you know about him.



Benjamin Franklin (1706–1790) was one of the Founding Fathers of the United States and helped draft the Declaration of Independence and the US Constitution. Apart from being a successful statesman, he was also well known as a leading American author, printer and publisher, successful diplomat, creative scientist and inventor.

- 2 Read the passage and find out what Franklin's experiment aimed to prove.

Learning to learn

An essay title often contains an explicit or implicit question which your essay should focus on answering. For example, the title "Franklin's Experiment: How Much Is True?" makes it clear what question is being answered within the essay.

FRANKLIN'S EXPERIMENT: How Much Is True?

- 1 Benjamin Franklin's famous experiment with lightning has introduced generations of children to science. However, new research suggests that the story may be fiction instead of fact.
- 2 The well-known story is that the American Founding Father and scientist flew a kite during a storm in 1752. At that time, there was much interest in electricity. People wanted to know if lightning was really produced by electricity or something else. Franklin was one of them. He raised the kite with a piece of string tied to it. A metal key was attached to the string. A flash of lightning hit the kite, and electricity was conducted through the string to the key. Franklin then touched the key with his finger and got an electric shock. This, he said, proved that lightning was a form of electricity.
- 3 For many years, schools have taught the story of Franklin's lightning experiment. More than one generation of schoolchildren has been amazed by his bravery and his scientific approach to looking for the truth. Franklin, along with many other scientists, has inspired us and taught us that scientific experiments are important in order to establish the truth and to contribute towards later scientific discoveries and inventions.

4 However, neither the story nor the details of the experiment are entirely true. Although it has been proved that Franklin's experiment took place, more than one scientist has questioned what really happened. The detail about the string and the key is true. But scientists all agree that if Franklin had actually touched the key, he would certainly have died from the electric shock.

5 Scientists often question accepted ideas because they want to establish the facts. Some have even questioned the story about the apple that fell on Newton's head and led him to come up

with his theory of gravity. In fact, more than one account suggests that while Newton was certainly inspired by a falling apple, there is no proof that it hit him on the head.

6 Admittedly, fiction is often more interesting than the truth. People have been more inspired by Franklin's spirit of scientific exploration than by the facts themselves. But in science, facts should be proved by experiments and research, and we should not always believe everything we read or hear – even if it is a great story.



3 Number the statements to show how people's attitudes towards Franklin's experiment have changed.

- Franklin's spirit of scientific exploration is still considered an inspiration.
- People are amazed at and inspired by Franklin's experiment.
- Scientists question what really happened in Franklin's experiment.

Think & Share

- 1 Do you think it matters that Franklin's experiment might not be true? Why?
- 2 What is your opinion about the statement "... we should not always believe everything we read or hear – even if it is a great story"?
- 3 What qualities do you think a great scientist should have?
- 4 In what ways do scientists contribute to society?

4 Work in groups. Explain your understanding of the saying "Seeing is believing", and then give a talk about it. You may use information in the passage as examples.

1 Make notes about your understanding of the saying and list supporting details.

	<i>Your understanding</i>	<i>Supporting details</i>
●		
●		
●		
●		
●		
●		

- 2 Organise your talk following the steps below.
 - Start your talk by explaining how you understand this saying.
 - Explain why you think this way. Use the notes you have made to support your ideas.
 - End your talk by summarising your points.
- 3 Give your talk to the class.

Writing an experiment report

5 Read the instructions for the experiment and answer the questions.

6 Complete the boxes with the information in Activity 5. Do further research if necessary.

28 March

Magic bottle

Materials

- A boiled egg
- A glass bottle (bottleneck a bit smaller than the egg)
- Hot water

Procedure

1. Remove the shell of the egg.
2. Carefully pour some hot water into the bottle.
3. Shake the bottle gently.
4. Pour out the hot water.
5. Quickly put the egg on top of the bottle.

Results

...



Note:

Do the experiment under the instructions of a teacher.

Introduction Introduce the aim of the experiment.

This experiment is designed to _____

_____.

Main body Describe the materials used in the experiment and explain the procedure.

I prepared _____
_____ to do this experiment.

Procedure:

Conclusion Report the results and what you have learnt.

After the experiment, I can draw the conclusion that _____

_____.

Now write a report of the experiment.

7 Share your report with the class.

- 1 What do you think the results of this experiment will be?
- 2 What can you learn from this experiment?

Presenting ideas

- 1 Work in groups. Look at the pictures and discuss how these objects have changed over the years.



- 2 Choose one of the objects in Activity 1 or an object that you use every day. Predict how it will further change over the next 50 years. Make notes about your ideas.

My object:

How it will change:

Why it will change:

- 3 Present your ideas to the class. Use the notes in Activity 2 and the expressions in the box to help you.

Useful expressions

- It will become...
- People will use... instead of...
- It will be... for people to...
- There will be no... because...

Reflection

- 1 After completing this unit, I can rate my performance 1 (excellent), 2 (good) or 3 (in need of improvement).

- talk about careers in science
- tell the story behind an invention
- write an experiment report
- think critically about what I've read and heard
- cultivate a spirit of innovation

- 2 I've learnt to make use of the following words and expressions:

.....
.....

- 3 I still need to improve:

.....
.....

4

Amazing art

Starting out

- 1 Watch the video and answer the questions.
 - 1 What cities are introduced in the video?
 - 2 What is each city famous for in the world of art?

- 2 Look at the pictures and answer the questions.
 - 1 What forms of art are these works?
 - 2 How do you feel about these works?
 - 3 What is the most impressive artwork, building or performance you've ever seen? Why did it make such an impression on you? Share your answer with the class.



The Peacock by Yang Liping



The Persistence of Memory by Salvador Dalí



The Thinker by Auguste Rodin



Turandot by Giacomo Puccini



- 1 Work in pairs and complete the quiz. Try to guess if you are not sure of the answers.



LOUVRE FUN QUIZ

- 1 Where is the Louvre Museum?
 - a In London.
 - b In Paris.
 - c In Berlin.
- 2 When was the original castle of the Louvre built?
 - a The 12th century.
 - b The 15th century.
 - c The 18th century.
- 3 How many works of art are there in its collection?
 - a Around 180,000.
 - b Around 400,000.
 - c Around 480,000.
- 4 Which work of art is among the "Big Three" attractions of the Louvre?
 - a The Code of Hammurabi.
 - b *Liberty Leading the People*.
 - c *Venus de Milo*.

- 2 Read the passage and find out what Zack is doing in the Louvre.

- 1 Hi, it's Zack! Greetings from Paris, everyone! This broadcast is being brought to you from one of the largest museums on Earth – the Louvre! Today we're going to find out about some of the Louvre's most amazing treasures. Here we go!
- 2 Now, at the top of these stone stairs... get a load of that! That huge sculpture you can see is the *Winged Victory of Samothrace*, or *Nike of Samothrace*! I can't even begin to tell you how amazing this is! It looks like she has just flown down out of the sky and is standing on a ship. Her head and arms are missing, but you can imagine her holding her arms up high, celebrating the result of an ancient battle. And just look at how her dress is being folded by the wind! I really can't believe she's made of stone. The skill of the sculptor is just incredible.





Live from the Louvre

3 Okay, I'd better move on. You can see there are so many people here. I'm being pushed around quite a bit, in fact. And you're really going to love what's coming up next. It's the one and only *Mona Lisa*! The painting is a lot smaller than you would expect, and is protected by glass. But from here I can get a good view to show you. When I look into her eyes it seems she has a mind of her own! One moment she seems to be laughing at me, but then again I catch a sense of sadness in her smile. I guess that's why she attracts so many visitors every day.



4 And now, it's time to get up close and personal with one of history's greatest artists – Rembrandt! He painted this self-portrait about 400 years ago. Throughout his life, he made over 90 self-portraits! No one really knows why. Perhaps it was his way of taking a 17th-century selfie? Or was it simply cheaper to paint himself than to pay for a model?



5 About 35,000 works are currently being displayed in over 300 rooms in the Louvre, and it would take a lifetime to see everything! I'll say bye for now, and hope you can all visit this fantastic place one day to feel the power of these great works of art for yourselves. They really do reach out to us across the centuries as if time itself were nothing. By the way, if you have enjoyed this live broadcast, subscribe to find out where I'm visiting next!



3 Choose three tags that best describe the main idea of the passage and give reasons for your choices.

- Louvre art *Mona Lisa* exhibition museum
selfie fantastic tour guide history live broadcast

4 Complete the route with expressions from the passage.



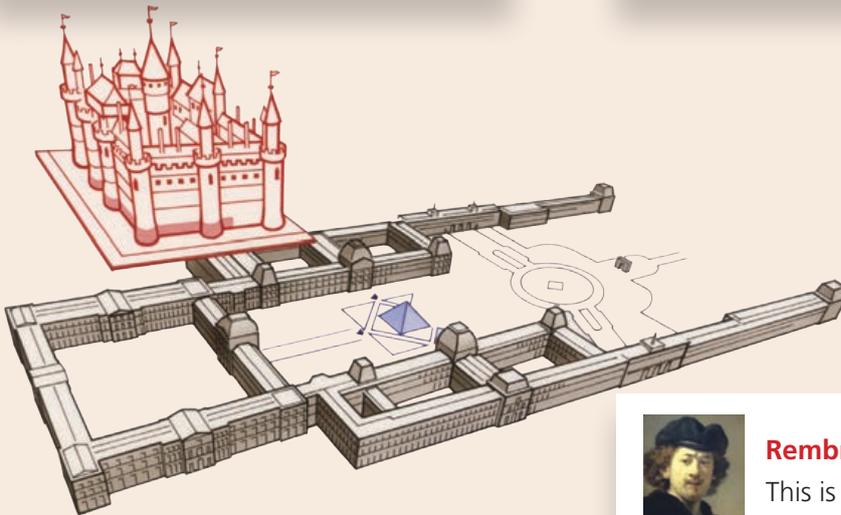
Winged Victory of Samothrace

Here at the top of the stairs is this ¹ _____. Although ² _____, you can still imagine her posture. The folded dress shows incredible ³ _____.



Mona Lisa

This is perhaps the most famous painting here, protected by glass. It's smaller than ⁴ _____. The lady in the painting seems to have ⁵ _____, which makes her so interesting!



Rembrandt's self-portrait

This is one of the 90 or more self-portraits Rembrandt made in his lifetime. We don't know why he made so many – perhaps it was his way of ⁶ _____! Or maybe it was just ⁷ _____?

- 1 Which of the three artworks makes the greatest impression on you? Why?
2 Which galleries and museums have you visited? Share your experience with the class.

Think & Share

Present continuous passive

1 Look at the sentences from the reading passage and answer the questions.

- a And just look at how her dress is being folded by the wind!
- b I'm being pushed around quite a bit, in fact.

- 1 What causes the action in sentence (a)? The dress or the wind?
- 2 What is happening to "me" in sentence (b)?

Compare them with the following sentences and answer the questions.

- c And just look at how the wind is folding her dress!
- d People are pushing me around quite a bit, in fact.

- 3 What is the difference between the two groups of sentences?
- 4 Why does the author choose to use the passive form instead of the active form in the reading passage?

Now look for more sentences with the present continuous passive in the reading passage.

2 Rewrite the underlined parts using the passive.

Do you think going to a museum is the only way to see art? Actually, art is everywhere around us! For example, on the walls of my local pub, young people are painting beautiful pictures. Some people find graffiti too random and don't like it, but I like its colours. Even trees can be art – some people are trimming trees into interesting shapes, like animals or clouds. And look up – construction workers are building impressive, original buildings in every neighbourhood. Anyhow, it's easy to see great art nowadays, because people are creating it everywhere you look.

3 Look at the picture. Describe what is happening using the passive form of the words and expressions in the box.

arrange carry hang paint put up sweep write



Chinese art forms

4 Look at the pictures and answer the questions.



paper cutting



embroidery



seal cutting



calligraphy



Chinese painting



porcelain

- 1 What do you know about these art forms?
- 2 Have you tried any of these art forms? Share your experience with the class.

5 Complete the passage with the words and expressions in Activity 4.

Yesterday, I went to an amazing Chinese art festival. There were different stands where artists could demonstrate their skills and teach the visitors! It was definitely an exciting experience for a foreign student like me.

What caught my attention first was a 15th-century *qinghua* bowl in a breathtaking exhibition of Chinese ¹ _____. It vividly illustrated a dragon playing with a ball.

Then I tried some ² _____, that is, making images out of paper. It was difficult, but a lot of fun! With help from the artist, I managed to make one in the shape of a fish. Meanwhile, a woman at the next stand was using a needle and some thread to do some ³ _____. It looked so pretty! Then I went into a section decorated like a traditional Chinese study, with two beautiful ⁴ _____ of a pine tree and some bamboo hung on the walls.

There was also an old man writing Chinese ⁵ _____: his writing was so free and elegant! Another man sitting next to him showed me how ⁶ _____ works. Chinese characters are carved into small squares of stone and stamped onto paper with ink. He made one for me with my name in Chinese – pretty awesome!

I also came away with a beautifully embroidered handkerchief made of soft cotton fabric, and a porcelain cup and saucer painted in wonderful shades of blue.

6 Work in pairs. Talk about a Chinese art form that your home town is famous for.

My home town is famous for the traditional art of... People use... to...

Contemporary art

Since it began in the late 20th century, the Contemporary Art Movement has raised questions and doubts, with people asking, "Is it really art?" This was the case in 1999 with British artist Tracey Emin's work, *My bed* – which was, quite literally, her unmade bed. Then, in 2015, cleaners in an Italian gallery threw away an art piece after mistaking the pile of empty bottles, cigarette ends and pieces of coloured paper for rubbish! While some say contemporary art lacks skill, meaning and artistic value, others argue that its worth lies in its ability to stimulate new discussions and understanding of everyday objects, such as water pipes and iron wires.



Did You Know ?

7 Listen to the conversation and choose the main idea.

- 1 Everyone can create art, whatever their background.
- 2 We can use art to learn about the world.
- 3 Art means different things to different people.
- 4 Everyone should try to include art in their lives.

8 Listen again and complete the table.

	Jill's opinions	Andrew's opinions
 <i>Empty</i>	It was boring and there was 1 _____. It had 2 _____ for me.	It was really clever and the viewer can 3 _____.
 <i>Living room</i>	It was rather lazy because the artist didn't 4 _____.	Everyday objects can also be art. I could 5 _____ when looking at the details.
 <i>Future</i>	It was just 6 _____ anyone can make, and my cat would love to play in them.	That was my favourite piece and it really 7 _____.

Now talk about how Jill and Andrew express their opinions towards contemporary artworks. Listen again if necessary.

9 Work in pairs. Act out the conversation to share your opinions about the artwork.

Student A: Turn to Page 82.

Student B: Turn to Page 85.

10 Work in pairs. Think of another artwork and have a similar conversation.

Learning to learn

Pauses give the listener extra time to understand what is being said. Pausing also allows the speaker to emphasise certain words within a sentence. Try to be aware of where and when to pause during a conversation.

1 Tick the words that you would use to describe horses. Add any more you can think of.

- | | |
|-------------------------------|---------------------------------|
| <input type="checkbox"/> calm | <input type="checkbox"/> brave |
| <input type="checkbox"/> cute | <input type="checkbox"/> clever |
| <input type="checkbox"/> fast | <input type="checkbox"/> loyal |
| <input type="checkbox"/> wild | <input type="checkbox"/> strong |

Now compare your choices with the rest of the class and share what you know about horses.

2 Read the passage and find out what it is about.

- An introduction to the Metropolitan Museum of Art.
- The story behind *Night-Shining White*.
- The famous artist Han Gan.

Learning to learn

Before reading a passage, think of what you already know about the topic. For example, you may already know some facts about the Chinese horse painter, Han Gan and his paintings. Make connections between your background knowledge about this Chinese historical figure and the new information you read in the passage. This will improve your understanding of new concepts and information.

Han Gan and His Horses

- What a magnificent horse! Even after more than a thousand years have passed, we can still feel the power within its burning eyes, bared teeth and kicking hooves. *Night-Shining White*, now kept in New York's Metropolitan Museum of Art, is regarded as one of the most significant horse paintings in the history of Chinese art. Its artist, Han Gan, is known for his skill in capturing not only the physical features of the animal, but also its inner spirit and strength.



韩
干



2 Born into a poor family in the early Tang Dynasty, the young Han Gan had to help support his family by working in a local wine shop. His artistic talent was discovered by accident when he was sent to the poet Wang Wei's house to collect payment for some wine. While waiting at the gate, Han Gan used a stick to draw pictures in the dirt and was seen by the poet himself. Wang Wei decided to sponsor the young man to study painting and recommended him to a master. Due to Han Gan's natural talent and years of hard work, he was eventually chosen to serve Emperor Xuanzong in the royal palace.

3 The Tang emperors were very fond of horses. This meant that the animal was a frequent subject for artists. At that time, the most common way to study horse painting was by copying the works of previous painters. Han Gan's method, however, was different – he observed the animal itself. He was a frequent visitor to the royal stables and even moved in

to live with the stable workers for quite some time. The horses, whether resting or on the move, offered him plenty of inspiration. The more time he spent observing these animals, the more his understanding of them grew. Day after day, Han Gan painted the horses, his brush presenting every detail that he saw with his own eyes.

4 It is said that when the Emperor asked Han Gan to take a master of horse painting as his teacher, the artist replied, "I have my own teachers, Your Majesty. All the horses in your stables are my very teachers."

5 Those who saw Han Gan's horse paintings all sang high praises for his unique skill, saying that his horses "could gallop off the paper". Even Su Shi, the famous poet of the Song Dynasty, expressed his admiration for Han Gan as a master of horse painting with the words, "The horses painted by Han Gan are *real* horses."

3 Complete the diagram with information from the passage.

The artist and his masterpiece	The life of the artist	Comments on his work
Name of the artist	Personal information	Su Shi
	(birth, dynasty, etc)	
Name of the painting		
	How he became a painter	Other viewers
Description of the painting		
	What he did as a court painter	

- Think & Share**
- 1 What made Han Gan a successful painter?
 - 2 What does Su Shi's comment mean to you?
 - 3 What can you learn from Han Gan's way of painting?
 - 4 Do you know of any other artists famous for painting animals? Introduce one to the class.

4 Work in groups. Imagine you are a tour guide in the Metropolitan Museum of Art. Use the information in Activity 3 to talk about the life and work of Han Gan.

- 1 Think about what information to include.
- 2 Decide in what order you will introduce.
- 3 Introduce Han Gan and his painting to your group members.



Writing about an artwork

- 5 Read the museum introduction to the painting and answer the questions.



Sunflowers

Arles, January 1889, Vincent van Gogh (1853–1890)
oil on canvas, 95 cm x 73 cm

Van Gogh's sunflower paintings are among his most famous, and this one was completed in Arles in 1889. It shows sunflowers in a vase, mostly in three shades of yellow. The colours of the flowers range from bright yellows to brownish yellows, showing that the flowers are at different stages of life.

The sunflower paintings held special meaning for Van Gogh. When his friend Paul Gauguin, who was also a famous painter, came to live with him for a while, he hung the first two in his guest's room to welcome him.

- 1 What else do you know about Van Gogh's sunflower paintings?
- 2 What do you think of this one?

- 6 Complete the boxes with the information in Activity 5. Do further research if necessary.

Introduction give basic information about the artist and the artwork

- This sunflower painting was an ¹ _____ by ² _____.
- It is among his ³ _____.
- It was completed ⁴ _____.

Main body describe the artwork

- It shows ⁵ _____.
- It is painted mostly in ⁶ _____.
- The colours range from ⁷ _____.
- ⁸ _____.

Conclusion give your own comments

Now write an article about the painting *Sunflowers*.

- 7 Share your article with the class.

Presenting ideas



- 1** Recommend a local artist and complete the form with information about him / her.

Name	
Speciality	
Representative works	
Key features	
Reasons for recommendation	

- 2** Work in groups. Talk about your recommended artist and vote for the most interesting. Use the information in Activity 1 and the expressions in the box to help you.

Useful expressions

- I recommend... because...
- I think... is the best choice, because...
- He / She specialises in...
- His / Her work shows...
- I agree with him / her.
- I'm afraid that I have to disagree. I think...

- 3** Present your chosen artist to the class. Vote for the best "Neighbourhood Artist".

Reflection

- 1** After completing this unit, I can rate my performance 1 (excellent), 2 (good) or 3 (in need of improvement).

- introduce Chinese art forms
- express opinions about artworks
- write about an artwork
- compare and contrast different forms of art
- develop an ability to appreciate art

- 2** I've learnt to make use of the following words and expressions:

.....

.....

.....

- 3** I still need to improve:

.....

.....

5

What an adventure!

Starting out

1 Look at the map, and read the information about the three explorers. Match the routes to the explorers.

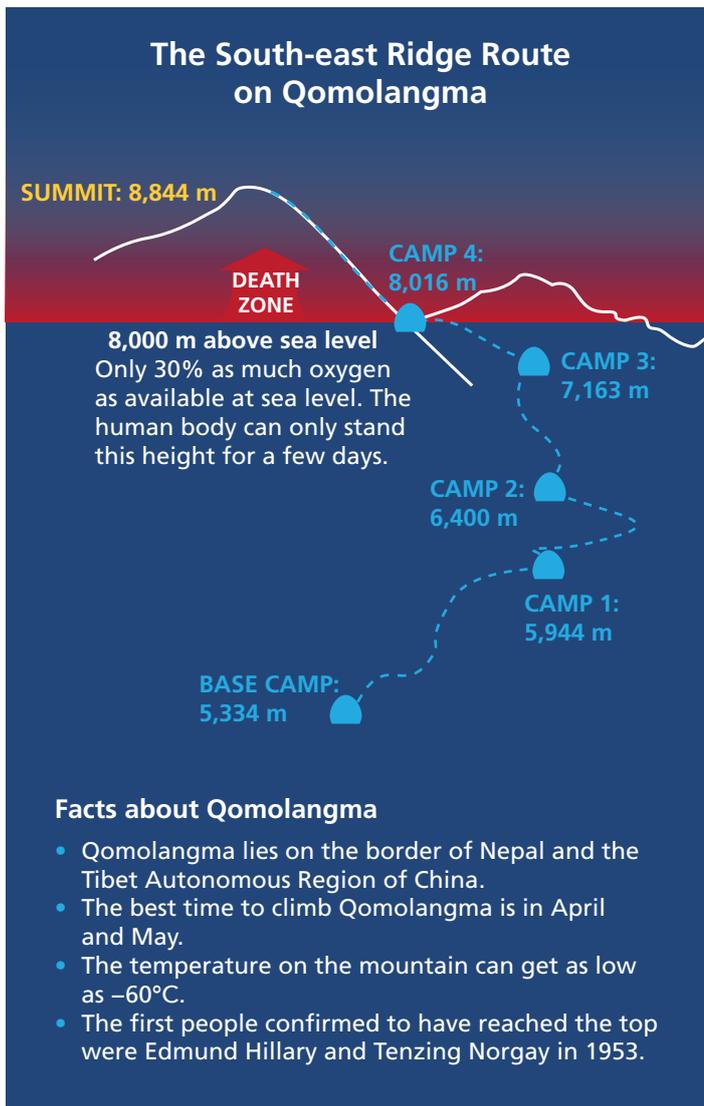
- 1** Ferdinand Magellan (1480–1521) was a Portuguese explorer who sailed west from Spain across the Atlantic and Pacific oceans in search of a westward route to the Spice Islands (now part of Indonesia).
- 2** Vasco da Gama (1460–1524) was a Portuguese explorer and the first European to reach India by sea. His initial journey to India opened up the sea route from Western Europe to the east by way of the Cape of Good Hope.
- 3** Christopher Columbus (1451–1506) was an Italian explorer who completed journeys between Spain and the Americas, thus marking the beginning of European exploration of the Americas. He brought native plants such as tomatoes and tobacco back to Spain.

 **2** Watch the video and answer the questions.

- 1** What kind of difficulties did Xu Xiake meet?
- 2** Do you know any other great explorers? Share their stories with the class.



1 Look at the map and answer the questions.



- 1 Who were the first people confirmed to have reached the top of the mountain? When did this happen?
- 2 Why do you think the climbers need so many camps along the route?
- 3 What else do you know about Qomolangma? Share the information with the class.

2 Read the passage and find out what "Type T" personalities are.

CLIMBING QOMOLANGMA: WORTH THE RISKS?

- 1 Last year, hundreds of people spent good money on an experience that they knew would include crowds, discomfort and danger. Many would become sick, due to the extreme cold and low air pressure, and a few would even lose their lives. Yet, despite all this, by the end of the trip many were already planning to return. For these people, climbing Qomolangma is an experience like no other, making some feel weak and others, powerful.
- 2 British mountain climber George Mallory wrote of climbing Qomolangma, "What we get from this adventure is just sheer joy... We do not live to eat and make money. We eat

and make money to be able to enjoy life. That is what life means and what life is for.” Sadly, Mallory would die on the mountain in 1924, although his body would not be found until many years later. It is still not known if he succeeded in reaching the top of Qomolangma before it took his life.

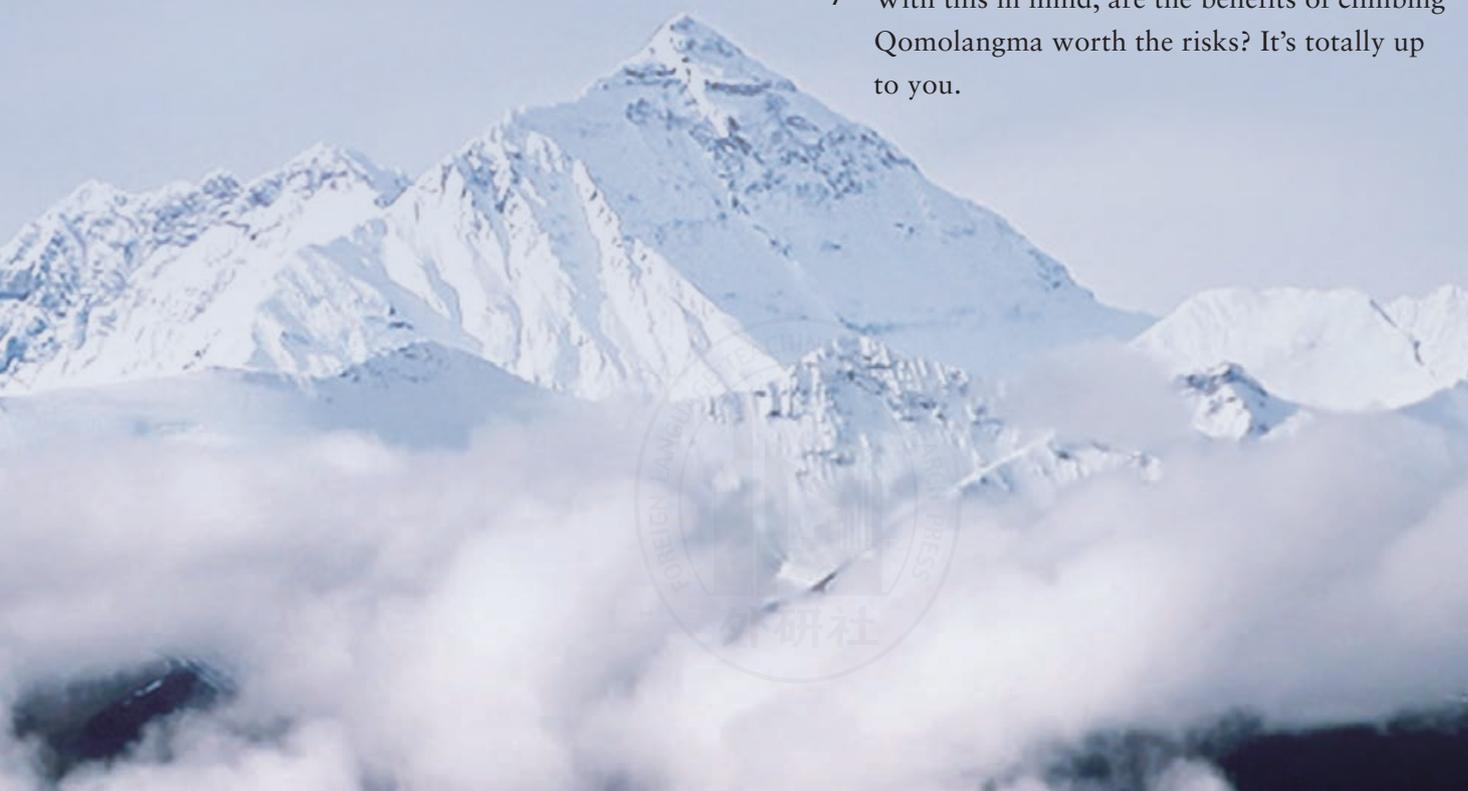
- 3 In 2011, words similar to those of Mallory were spoken by American mountain climber Alan Arnette, who climbed Qomolangma in that year and was going to climb other high mountains around the world. “It brings into focus what’s important to you.” He added, “There are a thousand reasons to turn around and only one to keep going. You really have to focus on the one reason that’s most important and unique to you. It forces you to look deep inside yourself and figure out if you really have the physical, as well as mental, toughness to push when you want to stop.”

- 4 With the majority of attempts to climb Qomolangma resulting either in total success or failure, is there also a scientific reason behind this risk-taking? Recent studies indicate that risk-taking may be part of human nature, with some of us more likely to take risks than others. Psychologist Frank Farley has spent years studying people who jump out of planes and drive fast cars, as well as those who climb Qomolangma. He refers to the personalities of these people as “Type T”, with the “T” standing for “thrill”.

- 5 Speaking to the *LA Times* about the “Type T” personalities, Farley said, “They’ll say, ‘I’m not taking risks, I’m an expert...’ They don’t want to die and they don’t expect to die.”

- 6 Research also suggests that our desire to seek risks can be connected to how much we expect to benefit from the result.

- 7 With this in mind, are the benefits of climbing Qomolangma worth the risks? It’s totally up to you.



3 Choose the author's purpose in writing the passage.

- 1 To encourage people to climb Qomolangma if fully prepared, as risks bring many benefits.
- 2 To remind people to balance the benefits and risks before deciding to climb Qomolangma.
- 3 To suggest that people stop taking risks and climbing Qomolangma, as the risks outweigh the benefits.

4 Complete the paragraphs with expressions from the passage.

Why Do People Climb Qomolangma?



George Mallory

What people get from this adventure is just
1 _____. People eat and make money to be
able to 2 _____, not the other way round.



Alan Arnette

Each person has a(n) 3 _____ reason for
climbing a mountain. It forces people to
4 _____ themselves. To succeed, people
must have the physical as well as 5 _____.

Scientific reasons

Risk-taking may be part of
6 _____. People
who are more likely to
7 _____ have "Type T"
personalities. Research also suggests
that our desire to seek risks can be
connected to how much we expect
to 8 _____.

1 Do you agree with Mallory's and Arnette's opinions? Why?

2 If you were given the chance, would you like to climb Qomolangma? Why or why not?

Think & Share

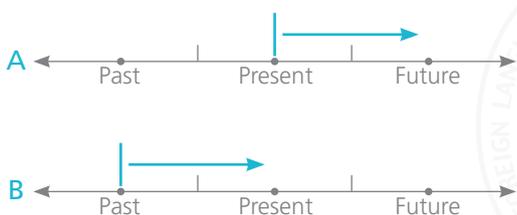
Past future

1 Compare the two groups of sentences and answer the questions. Sentences (a) and (b) are from the reading passage.

- a Last year, hundreds of people spent good money on an experience that they knew **would include** crowds, discomfort and danger.
- b ... Alan Arnette, who climbed Qomolangma in that year and **was going to** climb other high mountains around the world.

- c This year, hundreds of people will spend good money on an experience that they know **will include** crowds, discomfort and danger.
- d ... Alan Arnette, who has climbed Qomolangma and **is going to** climb other high mountains around the world.

- 1 What is the difference between the two groups of sentences?
- 2 What clues in the sentences help you decide which tense to use?
- 3 Match each group of sentences to the correct timeline.

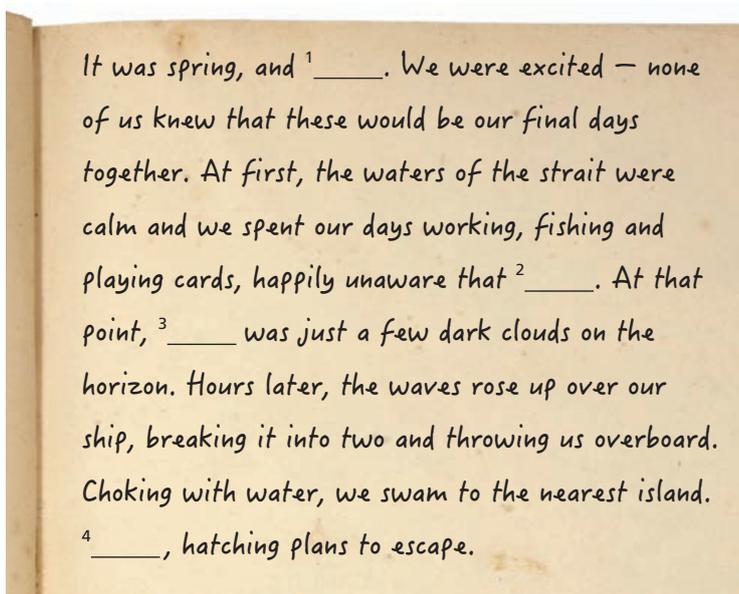


Now look for more sentences with the past future tense in the reading passage.

2 Write the clauses in the correct order.

- a which / for three full days / the storm / would last
- b remain / there / we would / for many months to come
- c wouldn't / for a very long time / be back / we
- d from port / we / sailing / were

Now complete the captain's memoir with the clauses.



3 Imagine you were one of the sailors in Activity 2. Answer the captain's questions using *I was going to...*, *but...*

- Did you hunt for food?
- Did you collect any water?
- Did you put up the tent?
- Did you find logs to build a fire?



First aid

- 4 Look at the items in the first aid kit and talk about what they are used for. Add anything else that you think would be useful.

Learning first aid is helpful before you go on an adventure!



- 5 Complete the first aid guidelines with the words and expressions in Activity 4.

FIRST AID GUIDELINES

Broken arm

To reduce the pain, place a(n) ¹ _____ on the arm. If it is too cold, cover it with cloth beforehand. It is important to keep the arm still and rigid, so make a sling out of a(n) ² _____.



Heatstroke

Take the person to a cool place and give him / her lots of water to drink. Take the person's temperature by putting a(n) ⁴ _____ under his / her tongue. If it is 40°C or higher, take the person to hospital as soon as possible.



Cut

Put pressure on the cut with a clean cloth. Once the bleeding has stopped, clean the area out with fresh water or ³ _____. Once the wound is cleaned and dry, cover it with a bandage.



Insect bite

Wash the area with liquid medicine. If the bite becomes hot, red and itchy, try to cool it down. If the bite is painful, give the person one or two ⁵ _____. Go to hospital if necessary.



- 6 Work in pairs. Offer first aid advice for injuries or illness in Activity 5. Add any more you can think of.

A: Are you OK? What's the matter?

B: I think I've broken my arm / wrist / finger. What should I do?

...

Amazing road trips

China's National Highway 318, stretching over 5,000 kilometres, runs from Shanghai to Zhangmu, Tibet. It is the longest highway in China. Although regarded as the most dangerous road in the country, it is also known as the "heavenly road" for its amazing views and the raw beauty of the landscape.



Did You Know ?

7 Listen to the interview and choose the words that best describe the speakers' experiences.

- 1 Expensive but fun.
- 2 Difficult and unpleasant.
- 3 Challenging but rewarding.

Learning to learn

While listening and taking notes, you don't need to write down every word in full. Using symbols and abbreviations can allow you to take notes more quickly. Next time you need to take notes, try using some of these: ∴ / because, ∴ / therefore, 5 / five, ↑ / up, C20 / 20th century, 20 K / twenty thousand, diff. / difference.

8 Listen again and complete the blog.

When we came back, we were asked a lot of questions about our adventure. Here we'll try to answer the most frequently asked questions.

Why did you do it?

We did it to ¹ _____.

How did you prepare?

We really practised a lot! If we weren't studying, we were ² _____.

What difficulties did you encounter?

We had to ³ _____ day after day. We also had to face ⁴ _____ and dangerous falling rocks. ⁵ _____ started from Chengdu, but three friends got injured.

What did you see?

The views were fantastic! The most impressive ones were those of ⁶ _____.

How did you feel after the trip?

It was the best feeling in the world! We had an adventure, raised some money and ⁷ _____ to some children's lives.

**A TRIP
ALONG
HIGHWAY
318**

Now talk about how the speakers describe their experiences. Listen again if necessary.

9 Work in pairs. Act out the conversation to talk about the road trips across China.

Student A: Turn to Page 83.

Student B: Turn to Page 86.

10 Work in pairs. Think about a trip you have taken and have a similar conversation.

- 1 Read the short introduction to Jules Verne and answer the questions.



Jules Verne (1828–1905) was a French writer best known for his adventure stories. Often called the “Father of Science Fiction”, Verne described in his stories technology and inventions years before they became realities. Verne’s most famous books are *Journey to the Centre of the Earth* (1864), *Twenty Thousand Leagues Under the Sea* (1870) and *Around the World in Eighty Days* (1873).

- 1 Have you read any stories written by Jules Verne? What are they about?
 - 2 What amazing things do you think you might find in *Twenty Thousand Leagues Under the Sea*?
- 2 Read the passage and underline the key sentences of each paragraph. Find out what the author intends to tell us.

TWENTY THOUSAND LEAGUES UNDER THE SEA



In 1866, a terrible sea creature is seen by several ships. Biologist Professor Pierre Aronnax and his servant, Conseil, join a ship to find and kill the creature. After a long journey into the Pacific Ocean, the creature is finally seen. While attacking from the ship, Aronnax and Conseil, along with the whale hunter Ned Land, fall into the sea, and discover that the “creature” is actually a submarine. They are captured and taken inside the submarine, where they meet the man in charge, Captain Nemo. Ahead of its time, the submarine is also a secret from the rest of the world. In order to keep this secret, Captain Nemo tells his three newest passengers that they are not permitted to leave the submarine. While Ned Land can think only of escaping, Aronnax and Conseil are fascinated by their adventures in the new underwater world. In this part adapted from a chapter of the book, Aronnax describes the experience of walking on the sea bed...

- 1 And now, how can I look back upon the impression left upon me by that walk under the waters? Words are not enough to relate such wonders! Captain Nemo walked in front, one of his men following some steps behind. Conseil and I remained near each other, as if an exchange of words had been possible through our metal cases. I no longer felt the weight of my clothes, or of my shoes, of my air supply, or my thick helmet, inside which my head shook like a nut in its shell.
- 2 The light, which lit the soil thirty feet below the surface of the ocean, astonished me by its power. The solar rays shone through the watery mass easily, and consumed all colour, and I clearly distinguished objects at a distance of a hundred and fifty yards. Beyond that the colours darkened into fine shades of deep blue, and gradually disappeared. Truly this water which surrounded me was but another air heavier than the Earth’s atmosphere, but almost as clear. Above me was the calm surface of the sea. We were walking on fine, even sand, not wrinkled, as on a flat shore, which keeps the impression of the waves. This dazzling carpet, really a reflector, drove away the rays of the sun with wonderful intensity, which accounted for the vibration which passed through every atom of liquid. Shall I be believed when I say that, at the depth of thirty feet, I could see as if I was in broad daylight?

(Adaptation from Twenty Thousand Leagues Under the Sea by Jules Verne)

3 Complete the table with expressions from the passage.

Adventures under the sea		
Actions	Feelings	Views
walked under the waters	no longer felt the weight	solar rays shone through the watery mass easily
_____	_____	_____
_____	_____	_____
_____	_____	_____

Think & Share

- 1 What does the author mean by “Words are not enough to relate such wonders”?
- 2 What do you think will happen next in the story? Share your ideas with the class.
- 3 What do you know about the world beneath the surface of the oceans?
- 4 Why do you think people want to explore this underwater world?

Learning to learn

When reading an unfamiliar word, first try to use the context of the sentence or passage to infer its meaning. Then think about what other words would make sense in the sentence. Parts of the word, such as prefixes, word roots and suffixes, can also be used to try and work out its meaning.

4 Work in pairs. Imagine you are the marine biologist from the story walking on the sea bed. Talk about your experiences.

- 1 Plan your conversation by answering the questions.
 - What did you wear and how did you breathe?
 - Who did you go with?
 - What did you see?
 - How did you feel?
- 2 Have the conversation with your partner. Take turns asking each other questions and respond to your partner’s comments.
- 3 Give your talk to the class.



Writing about a diving experience

5 Read the poster and answer the questions.

**One-day
tour to the
Farne Islands**

**Available
every day
from 1 June to
31 July**



UNDERSEA ADVENTURE

DISCOVER A HIDDEN ENGLAND

Come and explore the magical waters around the Farne Islands, one of England's premier dive sites. With both shallow and deep-water diving, there's something for divers of all skill levels, from shipwrecks waiting for you to discover their secrets to the islands' lovely baby seals!

**Two
dives and
buffet lunch
included**

**12 divers
and 6 dive
instructors per
tour**

WRECK DIVING:

Let our instructors take you on a circuit through the 6,810-ton steamer *Somali*, which sank in 1941 during the Second World War. The ship rests upright on the sea bed, about 30 metres below the waves. She almost looks as though she is about to set sail once again!



SCENIC DIVING:

Swim with Farne's most lovely residents: the thousands of grey seals that live on the island all year. Although the 300 kg adult males can look a bit scary – don't worry, they're harmless! – the young seals will delight you with their curiosity, as they follow you among the seaweed forests and schools of unusual fish.



- 1 Where are the divers going on this adventure?
- 2 What are they going to do and see during the trip?
- 3 Which of the experiences appeals to you most and why?

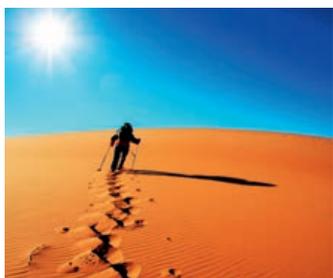
6 Imagine you have been on this adventure. Make notes about your experience.

What did you do?	What did you see?	How did you feel?

Now write a diary entry about your adventure.

7 Share your diary entry with the class.

Presenting ideas



- 1** Think of an adventure story you have read or heard and make notes. Look at the pictures for ideas.

Main character(s)	
Time	
Place	
What happened?	
What do you think about the story?	

- 2** Work in groups. Tell your story to other group members. Use the notes in Activity 1 and the expressions in the box to help you.

Useful expressions

- The hero / heroine of my story is...
- This is how it all began...
- He / She was to... when suddenly...
- To make a long story short, ...
- It was a(n) exciting / scary / memorable / impressive experience!
- It made me feel...

- 3** Choose one story as your group story and present it to the class.

Reflection

- 1** After completing this unit, I can rate my performance 1 (excellent), 2 (good) or 3 (in need of improvement).

- describe items in first aid kit and their uses
- talk about adventure experiences
- write about a diving experience
- evaluate the benefits and risks of adventurous activities
- cultivate a spirit of exploration

- 2** I've learnt to make use of the following words and expressions:

.....

.....

- 3** I still need to improve:

.....

.....



Disaster and hope

Starting out

- 1 Watch the video and answer the questions.
 - 1 Where is the city? What happened there?
 - 2 How did people there react to the disaster? What was the result?
- 2 Look at the film posters and answer the questions.
 - 1 Have you seen the films? What are they about?
 - 2 What do you think the main characters do in the face of these disasters?
 - 3 What other stories do you know about natural disasters? Share an example with the class.



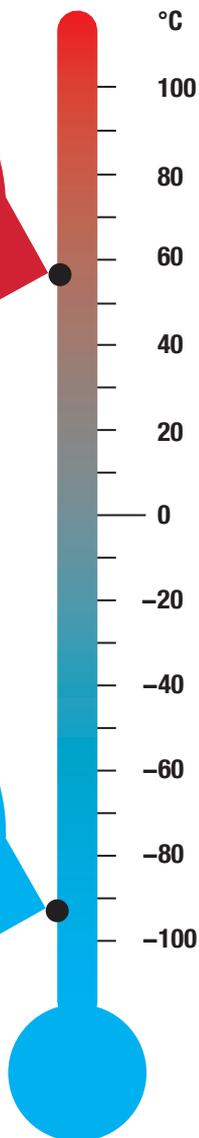
- 1 Look at the thermometer and answer the questions.



The highest temperature recorded on Earth
(California, 1913)



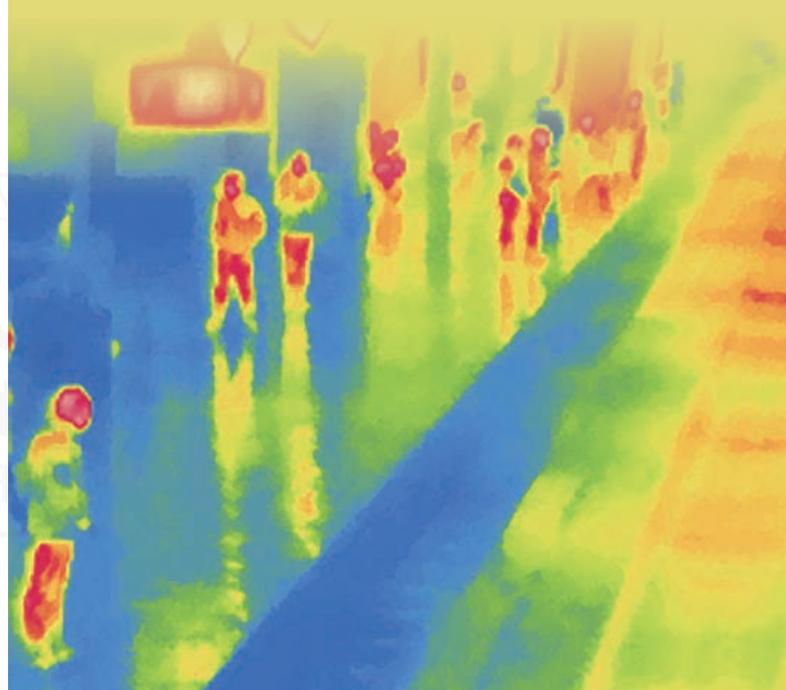
The lowest temperature recorded on Earth
(Antarctica, 2010)



- 1 What happens when the temperature goes very high or very low? How do people deal with extreme temperatures?
- 2 What were the highest and lowest temperatures recorded where you live? How do you feel in extreme temperatures?

- 2 Look at the picture and predict what the passage is about. Then read the passage and check your prediction.

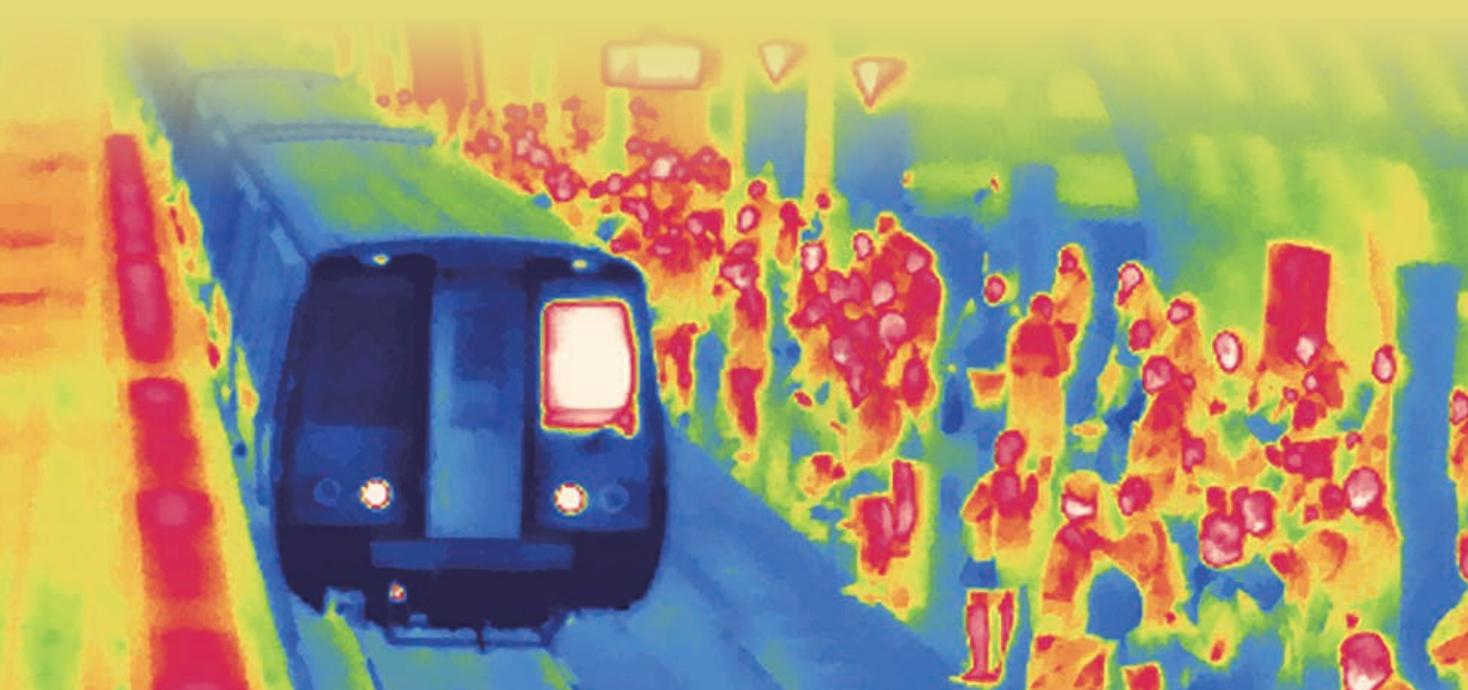
- 1 Picking up a free newspaper at the Tube station, I see the title “Hot! Hot! Hot!”. Today, the temperature in London is expected to reach 30 plus degrees! The average high temperature in July is only 22 degrees, so over 30 is not usual for London. It’s going to be awful on the Central Line, with no air conditioning. Why did they have to invent the Tube before air conditioning? It’s just typical that my journey is on one of the oldest lines, as well as one of the deepest. It’s the hottest on the whole Tube system.
- 2 Sure enough, going down the stairs and onto the platform is like jumping into a volcano that’s erupting. This, however, is nothing compared to the train. Because there’s no air conditioning, the temperature inside the train can reach 35 degrees! It’s lovely at the beach, but not so when you’re wearing a suit and in a crowd of passengers! I’m sure the passenger next to me and I are melting and becoming one! I had bacon and eggs for breakfast, and now I’m feeling a bit sick – I hope I can make it to Bank station... I’ll avoid the feeling by



thinking about work. I work in a tall, glass building. One very hot summer, the sun reflected off it and melted cars parked below! Will this happen again today?

- 3 Yes, each summer in London definitely seems hotter than the last. I suddenly feel a bit scared. Perhaps now is the time to start planning for the future? I should probably put my flat on the market and buy a boat. That way, when the Thames rises and there is a flood in London, I'll still be able to get to work. But wait! Would I still have a workplace to go to? My office is only on the third floor of the building, so quite low. I'll speak with my manager about moving to the top floor. Most importantly, I will need to learn to swim! I'll join a beginner's swimming class immediately. Then I'll be able to survive even when the tall buildings are flooded.
- 4 Looking through my newspaper, I'm shocked by photos showing that a hurricane in Asia has destroyed a town. What's more, heavy rain in Eastern Europe has caused landslides, and the heat across Southern Europe has caused forest fires. Experts say this bad weather has occurred due to climate change. News like this makes me feel nervous. Now that it's hard to avoid a disaster on Earth, perhaps I should start thinking about moving to space...
- 5 "The next station is Bank!" comes the announcement. That's my destination. Stepping out of the station with a heavy heart, I suddenly feel a fresh wind on my face. Well, maybe I have been worrying too much. After all, it's only 30 degrees outside!

Hot,
Hot,
Hot!



3 Choose the author's purpose in writing the passage.

- 1 To explain why summers in London are getting hotter and hotter.
- 2 To complain about the London Tube.
- 3 To warn people about the danger of London being flooded.
- 4 To express his worries about the dangers of extreme weather conditions.

4 Complete the flow chart with words and expressions from the passage.

The author is travelling on the London Tube. It is very hot and the temperature outside will be ¹ _____. He feels awful.

It is even hotter inside the train than outside, and the author thinks he is ² _____ with the passenger next to him.

Thinking that London will probably get hotter, the author feels ³ _____. To prepare for the future, he thinks he should:

- 4 _____
- 5 _____
- 6 _____

In the newspaper, there are reports of natural disasters around the world caused by ⁷ _____, which makes the author feel ⁸ _____.

Going outside, the author feels refreshed and realises he has been ⁹ _____.

- 1 Do you share the author's concerns about extreme weather conditions? Why?
- 2 Do you think climate change will affect your life in the future? How would you adapt?

Think & Share

Ellipsis

1 Look at the sentences from the reading passage.

- a It's just typical that my journey is on one of the oldest lines, as well as one of **the deepest**.
- b My office is only on the third floor of the building, so **quite low**.

Compare them with the following sentences and answer the questions.

- c It's just typical that my journey is on one of the oldest lines, as well as one of **the deepest lines**.
- d My office is only on the third floor of the building, so **it is quite low**.

- 1 What has been left out in sentences (a) and (b)?
- 2 Why does the author leave them out?

Now look for more sentences with ellipsis in the reading passage.

2 Read the paragraph and find out what words have been removed before or after the underlined words.

Technology isn't the only way to forecast the weather. Nature has its ways, too. Unusual animal behaviour, for example, can indicate whether it's cold, wet weather that's on the way or a hot, dry period. If fish are jumping higher than usual or frogs are croaking more loudly, it may rain. And next time you look up at the sky, don't just look for rain clouds, but also for birds. If they are flying low, grab your umbrella. It is also said that mice and snakes head for safer ground several days before an earthquake, while dogs avoiding the beach may be a sign that a tsunami is approaching. Of course, although these things may suggest something bad is going to happen, they won't tell us when and where. So, for accurate and reliable predictions, it's best to check an official, scientific report.

3 Remove words from the news report to make it more concise.



CHINA'S RESCUE EFFORTS IN NEPAL

The 8.1-magnitude earthquake that hit Nepal on 25 April 2015, was one of the worst earthquakes in history. On hearing the news, China was quick to start organising emergency aid.

International rescue teams soon began to arrive in the country. Amongst all the international heavy rescue teams, the China International Search and Rescue Team (CISAR) was the first international heavy rescue team to arrive. Consisting of 62 people, it not only included rescuers and medical staff, but also included earthquake experts. By early May, emergency aid worth 9.7 million US dollars had been donated by China, with a further round of emergency aid to follow.

Types of natural disasters

4 Look at the pictures and answer the questions.



drought



typhoon



blizzard



tsunami



wildfire



avalanche



earthquake

- 1 Which one do you think is the most dangerous?
- 2 Can you name some big natural disasters in history?

5 Complete the reports with the words in Activity 4. Pay attention to the words describing natural disasters.

In 1881, a(n) ¹ _____ struck the small Vietnamese city of Haiphong, bringing terrible strong winds. When it hit the coast, huge tidal waves caused severe flood, costing the lives of up to 300,000 citizens.

In August 1949, the Landes region of South-west France faced a major ² _____ that lasted almost a week. Some 500 km² of forested land was burnt and 82 people killed. Even today, it is considered one of Europe's most deadly forest fires.

The winter of 1950 to 1951 came to be known as the Winter of Terror when over 600 ³ _____ struck towns and villages in the mountains of the Swiss-Austrian Alps. Caused by exceptionally heavy snowfall within a short period of time, they destroyed buildings and forests, and claimed over 256 lives.

In 1960, Chile suffered the strongest ⁴ _____ to be recorded in the 20th century. The shock is generally agreed to have had a magnitude of 9.5. It caused a(n) ⁵ _____ with waves of up to 25 metres affecting places as far away as Hawaii and Japan.

A(n) ⁶ _____ hit Iran in February 1972, causing a week of extremely low temperatures. Winter storms brought as much as 7.9 metres of snow in the south of the country, resulting in the deaths of about 4,000 people.

In July 2011, a(n) ⁷ _____ struck East Africa. It was said to be the worst in 60 years, and not a single drop of rain fell for almost a whole year. It led to a severe food crisis and threatened the livelihoods of more than 9.5 million people.

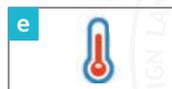
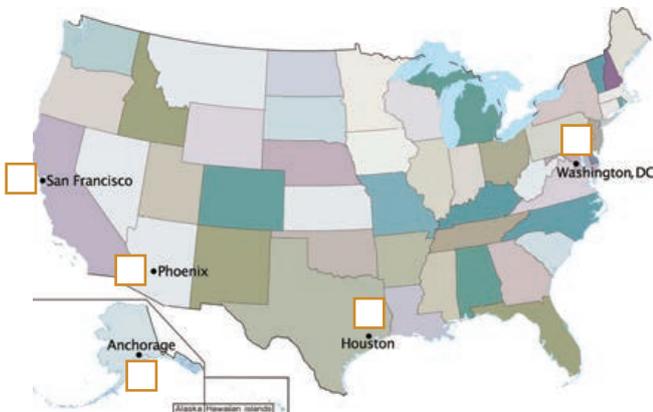
6 Work in pairs. Talk about a recent natural disaster you have heard about or seen on the news.

Extreme weather conditions

For thousands of years, people have been trying to predict the weather. In China during the Shang Dynasty, people recorded weather forecasts on animal bones and tortoise shells. Centuries later, in Greece, the philosopher, Aristotle wrote his theories about how weather conditions formed. Weather forecasting advanced over time, with more and more instruments to measure temperature, humidity and air pressure. Today, satellite data and computer technology help scientists predict the weather more precisely and comprehensively.

Did You Know ?

7 Listen to the weather forecast and match the weather symbols to the locations on the map.



Learning to learn

When listening to a weather forecast, pay attention to the following information:

- temperature levels
- descriptions of forthcoming weather conditions
- weather warnings

8 Listen again and complete the form.

Anchorage
<ul style="list-style-type: none"> • You will need ¹ _____. • Temperatures will stay around ² _____ °C.
Phoenix
<ul style="list-style-type: none"> • Temperatures are really high and it's probably hot enough to ³ _____. • Be sure to ⁴ _____ if you or others have symptoms of heatstroke.
Houston
<ul style="list-style-type: none"> • It's ⁵ _____ season and there will be a big one across the Atlantic. • Stay ⁶ _____ and listen out for the latest forecasts.
Washington, DC
<ul style="list-style-type: none"> • Temperatures are going to stay around ⁷ _____ °C. • Don't drive ⁸ _____!
San Francisco
<ul style="list-style-type: none"> • Temperatures are going to be around ⁹ _____ °C. • People are suffering from ¹⁰ _____, which are causing damage and loss.

Now talk about how the speaker describes the weather. Listen again if necessary.

9 Work in pairs. Act out the conversation to talk about an extreme weather condition.

Student A: Turn to Page 83.

Student B: Turn to Page 86.

10 Choose another extreme weather condition and have a similar conversation.

1 Look at the map and answer the questions.



- 1 Where did Hurricane Katrina form?
- 2 Where did it hit?
- 3 How long did it last?
- 4 How many people lost their lives in the hurricane?
- 5 What was the cost of the damage Hurricane Katrina caused?

2 Read the passage and talk about your understanding of the title.

Learning to learn

People often use emotional words and imagery to describe an important event or memorable experience. These words and phrases help us identify and interpret the thoughts and feelings of the author of the passage.

- 1 It's strange, but I don't really remember much about the hurricane itself. It all happened so quickly. I was sitting in my room with my cat, Smartie, on my lap, when the roof just flew off. All of a sudden, there was sky where the roof had been. I was so frightened that I just froze.
- 2 Mom cried to get out quickly, but it was already too late by then. The rain was coming down so hard and so fast. Our street turned into a river in seconds. We were going nowhere.
- 3 At first, I was pleased we could stay at home, but soon it got really tough. Without a roof, staying inside was too dangerous. There was water everywhere, but we couldn't drink any of it otherwise we'd get really sick. We just had drinking water that was sent to us by helicopter, but it was never enough. It was August, so it was really, really hot and it smelled so bad everywhere! I just spent the days watching the boats going up and down

Stars after the storm

the street and looking out for Smartie. He had disappeared the moment the storm hit.

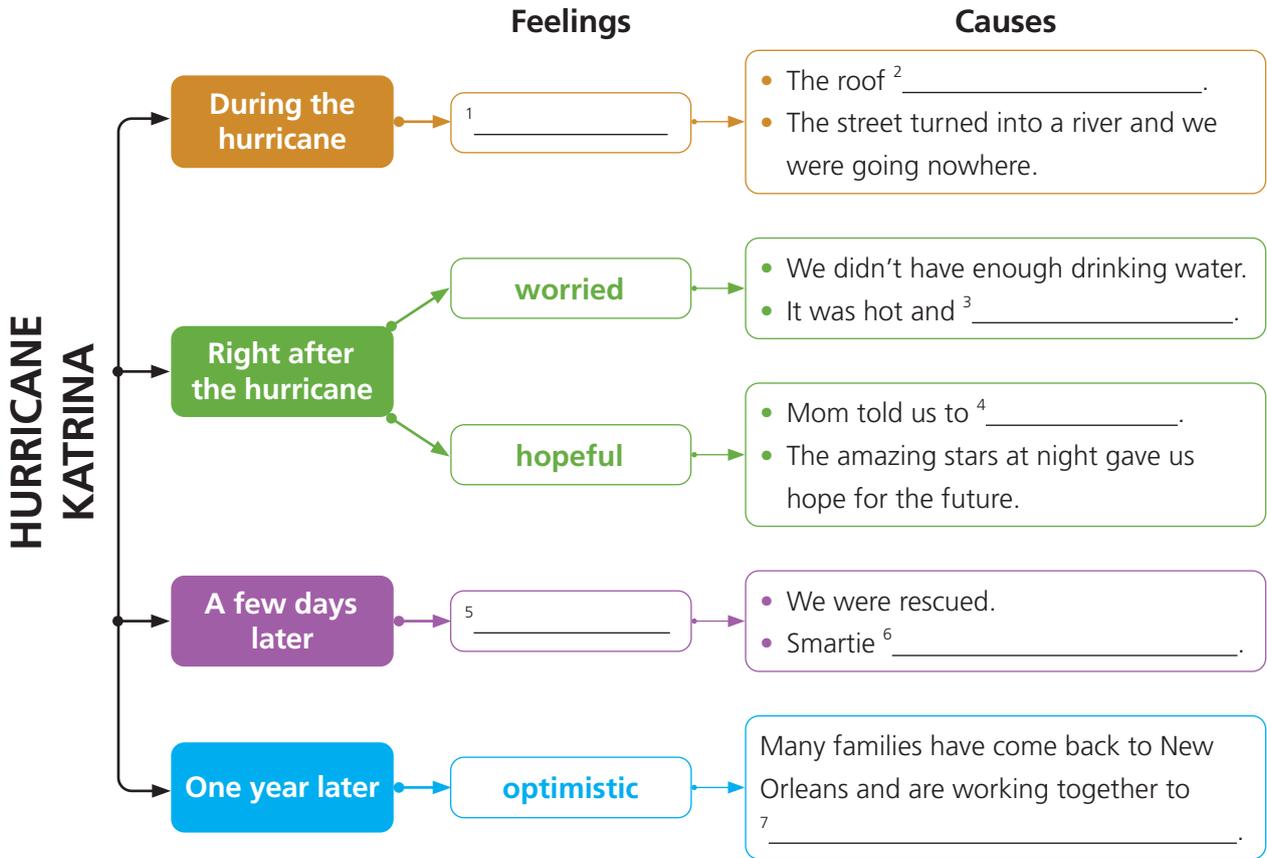
4 Living in the open air, we became breakfast, lunch and dinner for the mosquitos. But Mom said that whatever happens, we should always try to see the good side of things. It was difficult to stay positive, though. We had lost our home and everything in it, including Smartie. All we had left were the clothes on our backs. But as Mom kept on reminding us, we were all together and safe. Mom's words made us feel better. I remember us all lying under the midnight sky and looking up at the stars. Because there were no lights, we could see the Big Dipper, the Little Dipper and the Milky Way. It was amazing! Even though we had lost a lot, moments like those gave us hope for the future.

5 Although it was only a few days before we were rescued, it felt like months. We were taken to another town in a faraway county. Thankfully, Smartie came home just in time. We were so happy to take him with us, although then, none of us knew that we wouldn't be back for quite a while.

6 Now, one year has passed and I'm back home in New Orleans. Some families have yet to return, but many others have come back. Although we are surrounded by reminders of the disaster, we are working together to rebuild our homes and our lives. Now we have another chance to look up at the stars of New Orleans, their beauty inspiring us and giving us confidence to move on.



3 Complete the diagram with words and expressions from the passage.



Think & Share

- 1 Why does the author say "Although it was only a few days before we were rescued, it felt like months"?
- 2 What sort of attitude to life is reflected in the author's experience of looking at the night sky?
- 3 If you were in the same situation as the author, what would you think and do?
- 4 What do you think could be done to help the local people rebuild their homes?

4 Work in pairs. Act out an interview with the author about their experience of Hurricane Katrina.

- 1 Read the passage again and underline the important information.
- 2 Prepare questions for the interview using the information you underlined.

- *How did you feel when you realised that Smartie had disappeared?*
- _____
- _____
- _____

3 Decide the roles of interviewer and interviewee. Act out the interview.

Writing safety guidelines

- 5 Read the hurricane safety guidelines and answer the questions.

Hurricane Safety Guidelines

Many people have no idea what to do when a disaster strikes. Being prepared is the best way to increase your chances of survival. Read these tips on hurricane safety so that you and your family can survive this common threat to coastal cities.

Things to do before a hurricane

- Protect your property: close windows and tape them up, and bring indoors anything that could blow away.
- Make sure you have sufficient food, water, medicine and batteries for electrical appliances.
- If you cannot get home in time, find other shelter as soon as you can.

Things to do during a hurricane

- Stay in the shelter.
- Stay away from windows.
- Listen to weather warnings.

Things not to do during a hurricane

- Do not go outside.
- Do not go near any glass structures.
- Do not assume the storm has passed even if the wind stops. Dangerous winds may return.

- 1 What is the purpose of safety guidelines?
- 2 What type of language is used in safety guidelines?

- 6 Make notes for flood safety guidelines based on the hurricane safety guidelines in Activity 5. Do further research if necessary.

Flood Safety Guidelines

Things to do before a flood:

Things to do during a flood:

Things not to do during a flood:

Now write flood safety guidelines. Use the expressions in the box to help you.

Useful expressions

- The first thing to do is...
- Do not...
- Never...
- Remember (not) to...
- Try to...
- It's important (not) to...

- 7 Share your guidelines with the class.

Presenting ideas

- 1** Do some research online and find a story about hope in the face of disaster. Complete the notes with information about your story.

Date: _____

Place: _____

Main character(s): _____

What happened?

Do you think it's a touching story? Why?

What did you learn from the story?

- 2** Work in groups. Tell your story to other group members. Use the notes in Activity 1 and the expressions in the box to help you.

Useful expressions

- This story took place in... on...
- We follow our main character(s)..., as he / she / they...
- Unwilling to abandon his / her / their..., he / she / they...
- He / She / They finally made it to safety by...
- I think this story is touching because...
- From the story, I realise that...

- 3** Choose one story as your group story and present it to the class.

Reflection

- 1** After completing this unit, I can rate my performance 1 (excellent), 2 (good) or 3 (in need of improvement).
- describe natural disasters
 - talk about the weather
 - write safety guidelines
 - find out more about weather and climate
 - develop environmental awareness and make efforts to protect Earth
- 2** I've learnt to make use of the following words and expressions:
- _____
- _____
- _____
- 3** I still need to improve:
- _____
- _____

UNIT 1 Project

Setting up a problem-solving workshop

It is both common and normal for teenagers to come across personal problems that are difficult to solve. Besides getting advice from parents and teachers, it can also be helpful to ask friends and classmates to suggest ways to solve these problems. Set up a problem-solving workshop in class and become an Agony Aunt or Uncle yourself!

Investigate

- 1 Work in groups. Research advice columns for teenagers in newspapers, magazines or online and find out:
 - what problems teenagers commonly face
 - what sort of advice is given to them
- 2 Organise these problems into the following categories. Add more if necessary.
 - issues with friends
 - conflicts with parents
 - problems with studies



Plan

Choose one category for your group and set up a problem-solving workshop.

You need to:

- think of a name for your workshop
- set up a mailbox either in the classroom or online to collect letters asking for help
- decide how and when you will reply to the letters

Create

- 1 Run your problem-solving workshop. Let your class know how to use your workshop and encourage them to take part.
- 2 As a group, review the letters you have received. Discuss the problems and work out possible solutions. Write your replies.

Present

Tell the rest of the class about your problem-solving workshop. You may include the following information:

- how many letters you received
- what difficulties you encountered when working out possible solutions
- how you overcame these difficulties

UNIT 2 Project

Setting up a volunteer group

Volunteering is a great way to help others. From picking up litter, to organising a charity concert, planting flowers or helping out at your local hospital, there are many things you can do to help make where you live a better place.

Investigate



- 1 Work in groups. Research volunteer groups that already exist in your neighbourhood and find out:
 - what they focus on (eg environmental protection, animal welfare)
 - what sort of work they do
 - how much time they devote to this work
- 2 Think about other people and places in your neighbourhood that would benefit from the support of a volunteer group. Make a list of ideas. You may:
 - search online
 - consult existing volunteer groups and organisations

Plan

- 1 Decide which of the people or places on your list you would most like to help.
- 2 Discuss possible ways to help.
- 3 Organise your ideas and make a detailed plan. Make sure you include all the information in the table.

Time	
Location	
Team members	
Aim(s)	
Action(s)	

Create

- 1 Set up your group and think of a name for it.
- 2 Start volunteering! Remember to:
 - get permission
 - respect others and their privacy
 - ask for help if you need it

Present

Tell the rest of the class about your volunteering experience. Explain how you overcame the challenges and how helping others made you feel.

UNIT 3 Project

Designing a new invention

Invention is a creative process, and it often begins with an everyday problem that needs to be solved. Inspiration is all around you, so keep an open and curious mind, identify a problem and solve it!

Investigate

- 1 Work in groups. Think of some practical problems that you face in daily life and make a list.
- 2 Choose the problem you would most like to solve and discuss:
 - What has caused the problem?
 - How could you solve the problem?



Plan

- 1 Decide what invention you will design to solve the problem and discuss its working principles.
- 2 Make notes about the key features of your invention.
- 3 Decide what skills and materials you will need to create it.

Create

- 1 Draw a picture of your invention.
- 2 Label the key features and list the materials needed to make it.
- 3 Write a general introduction explaining the working principles of the invention.

Present

- 1 Show your picture and present your invention to the rest of the class.
Remember:
 - state the problem you want to solve
 - explain how the invention works in solving the problem
 - describe how you would create the invention
- 2 Share what you have learnt through the process of designing the invention and ask the class for advice about how to further improve it.
- 3 If possible, try making the invention after class.

UNIT 4 Project

Making an “in-class” art gallery

Art is a powerful way to represent life and express feelings. Understanding and appreciating art not only brings us joy, but also opens doors to better expressing ourselves and understanding the world. Visiting an art gallery is a way to see and experience the power of art. Bring that power to your classmates by creating your own gallery in class.

Investigate



Gallopig Horse
Xu Beihong



Campbell's Soup Cans
Andy Warhol



Water Lilies and Japanese Bridge
Claude Monet

- 1 Find out where these works of art are on display.

- 2 Visit the websites of these museums or galleries and find information about these works of art. Make sure to make notes of the following:
 - the size and positioning of the work
 - the content and layout of related text
- 3 Visit the websites of other major art galleries and museums to find out what famous works of art they have on display. You could visit the websites of:
 - the Palace Museum, Beijing
 - the National Portrait Gallery, London
 - the Uffizi Gallery, Florence

Plan

- 1 Work in groups. Discuss and decide on a theme for an exhibition in your gallery. You could consider:
 - a famous artist (eg Picasso, Wu Guanzhong)
 - a particular genre (eg landscape painting, pop art)
- 2 Decide which works of art you would like to include in the exhibition.
- 3 Design the layout of the exhibition.

Create

- 1 Print out pictures of your selected works of art.
- 2 Write a brief introduction to each work.
- 3 Display the pictures according to the design and layout of the exhibition.

Present

- 1 Welcome the class to your gallery. Find out what they think of it and of the artworks you have included in the exhibition.
- 2 If possible, make a web page for your gallery after class.

UNIT 5 Project

Making a poster about a modern-day adventurer

From the first explorers to today's travellers, humans have always had a desire to discover new places and experiences. This adventurous spirit is part of what drives understanding, learning and progress. Even today, there are still many adventurers constantly pushing human limits. Make a poster about a modern-day adventurer and find out more about this big, exciting world.

Investigate

- 1 Find out the most famous modern-day adventurers. Make notes about:
 - their names, ages and nationalities
 - where they went and what they did there



- 2 Work in groups. Choose one of the adventurers and research him / her in more detail. You may want to find out about:
 - his / her experiences
 - his / her motivation
 - the risks and dangers he / she faced
 - what skills and knowledge he / she had beforehand

Plan

- 1 Decide what information you will include in your poster.
- 2 Draft the layout of your poster. Include photos and maps to bring the adventurer's story to life.

Create

- 1 Make your poster according to your draft layout.
- 2 Prepare a short commentary explaining why you chose this adventurer and what you think we can learn from him / her.

Present

- 1 Present your poster to the class. Find out what they think of your modern-day adventurer.
- 2 Vote as a class for the adventurer who most inspires you.

UNIT 6 Project

Making a poster about a major natural disaster

Every year, tens of millions of people around the world are affected by natural disasters. A disaster can destroy a community and the after-effects can lead to drought, disease and even death. Quick and appropriate action in the face of a disaster can limit its effects on you as well as others.

Investigate

- 1 Work in groups. Discuss some natural disasters and choose the one that most interests you.
- 2 Go online or search the library to find out:
 - what caused the natural disaster and how or why it occurred
 - the worst-hit country or region
 - its impact on the surrounding environment and the people living there
 - what happened to the people caught up in it
 - what actions these people took or could have taken to protect themselves and others



Plan

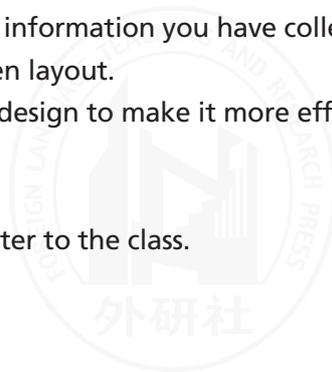
- 1 Decide what information to include in your poster.
- 2 Collect pictures, diagrams and maps.
- 3 On a large piece of paper, sketch the layout of your poster, deciding how best to position the text and pictures.

Create

- 1 Organise the information you have collected and make your poster according to your chosen layout.
- 2 Review your design to make it more effective.

Present

Present your poster to the class.





Appendices

- **Communication bank**
- **Learning aid**
- **Words and expressions**
- **Vocabulary**
- **Names and places**
- **Review of everyday communication**
(Book 1–Book 3)
- **Irregular verbs**



UNIT 1

Saying no politely

9 Work in pairs. Act out the conversation about asking for a favour and refusing politely.

 Student A

You will go on a trip with your family for two weeks and you would like to ask Student B to take care of your pet cat. Explain to him / her:

- You'd like to send your pet cat to his / her flat to stay for two weeks.
- Your cat is well-behaved and won't make any trouble.
- You will treat him / her to dinner when you come back.

Useful expressions

- Have you got a minute?
- Hello...! Just the person I wanted to see.
- Well, the thing is...
- I was just wondering if you could...
- I promise...
- Oh, come on, please...

UNIT 2

To be a volunteer

9 Work in pairs. Act out a telephone enquiry.

 Student A

You're interested in taking up voluntary work about environmental protection, and you're going to make a telephone enquiry about it. Information you'd like to know:

- what kind of work is available
- the responsibilities of the work
- the requirements on you
- the person to contact

Useful expressions

- I'm interested in...
- Could you tell me how to become a volunteer?
- I enjoy...
- Can you tell me a bit more?
- What should I do to get the work?
- Is there anything else I need to know?



UNIT 3

Invention stories

9 Work in pairs. Act out the conversation about the invention of the telephone.

Student A

You are going to give a presentation about the invention of the telephone. As part of your research, you speak to Student B who has just read a book about it. Ask him / her questions to find out more information. Information you'd like to know:

- the inventor
- year of invention
- the inventing process
- the first phone call
- other interesting things about the invention

Useful expressions

- Who invented...?
- When was... invented?
- How was... invented?
- What was the first phone call about?
- What other interesting things...?

UNIT 4

Contemporary art

9 Work in pairs. Act out the conversation to share your opinions about the artwork.

Student A

You like this painting very much. Share what you think of it, based on the following opinions:

- It has a wonderful sense of movement and energy.
- It is vivid and original.
- It expresses the artist's emotions and imagination.
- Some art critics have described the painting as a form of dance or music.

Useful expressions

- What do you think of...?
- I think it is...
- I especially like...
- I have to disagree because...
- There's a great deal of meaning in the work. For example, ...
- I think the artist is saying...



Jackson Pollock
Summertime: Number 9A 1948

UNIT 5

Amazing road trips

9 Work in pairs. Act out the conversation to talk about the road trips across China.

Student A

You and Student B have just come back from two different trips north-to-south across China. You took the following route, visited some scenic spots and tasted some local food:

- Qingdao / Zhanqiao Pier / seafood
- Hangzhou / West Lake and gardens / Dongpo Pork
- Xiamen / Gulangyu Island / fish ball soup

Ask Student B about his / her trip and complete the table. Then answer his / her questions about your trip.

Cities he / she went to	Places of interest he / she visited	Food he / she tasted

Useful expressions

- Which city did you...?
- Did you go to...?
- Which places of interest did you...?
- Did you enjoy any...?
- What about...?
- The first city I...
- Then...
- In..., I visited...
- The most delicious...

UNIT 6

Extreme weather conditions

9 Work in pairs. Act out the conversation to talk about an extreme weather condition.

Student A

You learn from a TV report that Student B's city has been suffering from rainstorms and floods. Call Student B to check if he / she is safe and ask about the weather. Information you'd like to know:

- how long the rainstorms have lasted
- the effect of the rainstorms on his / her city
- how to cope during rainstorms and floods
- what you can do to help
- how the weather has changed over recent years

Useful expressions

- I'm calling to check that...
- How long have... lasted?
- What's the effect of...?
- How do you cope with...?
- Is there anything I can do to...?
- How has the weather changed...?

UNIT 1

Saying no politely

9 Work in pairs. Act out the conversation about asking for a favour and refusing politely.

Student B

Student A would like you to do him / her a favour. You have to refuse politely. Explain to him / her:

- You don't want your room to be messy.
- Your parents won't allow it.
- You know another classmate who likes cats and maybe he / she would like to help.

Useful expressions

- What's up?
- Oh, you mean...?
- I'm afraid...
- I'm sorry, but...
- I think it would be better to...
- But maybe...

UNIT 2

To be a volunteer

9 Work in pairs. Act out a telephone enquiry.

Student B

You work at a volunteer centre. Your job is to answer enquiries about voluntary work and give practical step-by-step advice on how to get started. The voluntary work you recommend is coastal clean-up at North Beach.

Responsibilities:

- collect waste from the beach
- stop people from littering the beach and the ocean
- record the waste and write reports

Requirements:

- fill in the registration form
- provide a letter of recommendation
- think about the time you want to help out

Contact:

- Mr Brown, Tel. 012 3481 2177

Useful expressions

- First of all, you need to...
- Well, they do...
- The most important thing is...
- You can contact...
- Well, once you've contacted...
- And then, you should think about...



UNIT 3

Invention stories

9 Work in pairs. Act out the conversation about the invention of the telephone.

Student B

You've just read a book about the invention of the telephone. Student A, who is going to give a presentation on the same topic, asks you for information.

- Inventor: Alexander Graham Bell
- Invention created in: 1876
- Background: Bell was a teacher at a school for the deaf. He tried to invent a machine to send messages over an electronic wire. This eventually led to the idea of a telephone. Later, with his assistant, he created a device to produce and receive sound waves using electrical signals.

Useful expressions

- The telephone was invented by... in...
 - When..., he...
 - He later..., and finally...
 - The first phone call was about...
 - It is interesting that...
- First phone call: On 10 March 1876, Bell made the first clear and complete phone call to his assistant, saying, "Mr Watson – come here – I want to see you."
 - Other information: Bell never had a telephone in his study, where he wanted to be alone with his thoughts and work.

UNIT 4

Contemporary art

9 Work in pairs. Act out the conversation to share your opinions about the artwork.

Student B

You think this painting is boring and meaningless. Share what you think of it, based on the following opinions:

- It's just paint poured in random lines and shapes.
- There is no recognisable form within the painting, so it is difficult to understand.
- It didn't require much artistic skill to create.
- It doesn't hold as much meaning as more traditional paintings of recognisable subjects.

Useful expressions

- What do you think of...?
- I think it is...
- I have to disagree because...
- There's no meaning in the work. For example, ...
- I can't see... in the work, but I can see...
- To be honest, I prefer...



Jackson Pollock
Summertime: Number 9A 1948

UNIT 5

Amazing road trips

9 Work in pairs. Act out the conversation to talk about the road trips across China.

Student B

You and Student A have just come back from two different trips north-to-south across China. You took the following route, visited some scenic spots and tasted some local food:

- Jiaozuo / Yuntaishan Geopark / *youcha*
- Changsha / Yuelu Mountain / preserved meat
- Guilin / Lijiang River / rice noodles

Answer Student A's questions about your trip. Then ask Student A about his / her trip and complete the table.

Cities he / she went to	Places of interest he / she visited	Food he / she tasted

Useful expressions

- The first city I...
- Then...
- In..., I visited...
- The most delicious...
- Which city did you...?
- Did you go to...?
- Which places of interest did you...?
- Did you enjoy any...?
- What about...?

UNIT 6

Extreme weather conditions

9 Work in pairs. Act out the conversation to talk about an extreme weather condition.

Student B

Your city has been suffering from rainstorms and floods. Student A calls you to check you are safe and ask about the weather. Give him / her the information.

- Duration: about five days
- Effect: no electricity; shortage of food and drinking water; damage to property

Useful expressions

- Thank you for...
- The... have lasted...
- The most serious effect is...
- Be sure to...
- I'd really appreciate it if you would...
- There have been more...

- Points for attention: stay away from fallen power lines, particularly in or near water; move to higher ground, away from the flow of water
- Things to help: make a donation; volunteer to help people in need; share knowledge on how to prevent disease
- Changes to the weather: more frequent extreme weather conditions; more severe rainstorms and floods



1

Key expressions

in a mess
 let... down
 point guard
 let off steam
 be angry with
 be sure to do
 apologise to
 communicate with
 move on
 pull one's weight
 white lies
 tell a lie
 protect... from
 tell the truth
 to what extent
 even if
 hide... from

1 We played well, but I felt the team were let down by one member, our point guard.

We could also say

Although we played well, I personally thought the team didn't get the best result because our point guard didn't do a great job.

let... down: to not do something that someone trusts or expects you to do

eg *She's a great player and never lets her fans down.*

point guard: the guard who leads the offense by directing or setting up the plays

eg *He kept his eyes fixed on the television as the point guard hit a three-point shot from the corner.*

2 Disappointed by his behaviour, I said all this to my best friend. I was just letting off steam really, because I was so angry, but then my friend went and told everyone else what I'd said.

disappointed by his behaviour → because I was disappointed by his behaviour

disappointed by his behaviour 是一个过去分词短语，在句中作状语，表示原因。

Q: 过去分词的作用是什么？

A: 过去分词表达被动语义或动作的完成，可在句中构成谓语，以及用作表语、定语、状语和复合宾语。其引导的短语作状语修饰谓语动词或整个句子时，可表示原因、伴随、时间等意义，说明谓语动作发生的背景或情况。

Q: 使用过去分词时应注意哪些问题？

A: 过去分词在句中作状语时一般情况下其逻辑主语与主句的主语一致。比如，本句中 disappointed 的逻辑主语为主句主语 I，即“我对他的行为感到失望”。

■ **let off steam:** to get rid of your anger, excitement, or energy in a way that does not harm anyone by doing something active

eg *When Jackie was frustrated, she let off steam by going for a run.*

3 Embarrassed and ashamed, I can't concentrate on anything.

■ **We could also say**

I can't focus on anything because I feel embarrassed and ashamed.

■ Q: 本句中过去分词的用法和第2条注释里的用法有什么不同?

A: 此处的过去分词是单独的过去分词在句中作状语, 不表示动作, 而是表示状态。

Q: 这种情况下过去分词只能放在句首吗?

A: 不是的, 也可放在句中或句后。例如: 1) He turned away disappointed.

2) Shelley, astonished, urged her to explain.

4 Loose lips sink ships.

■ **We could also say**

Don't speak carelessly because you never know who is listening and how they will react to what they hear.

■ **Background information**

This phrase was coined as a slogan during World War II when the US Office of War Information attempted to limit the possibility of people unintentionally giving useful information to the enemy. It was one of several similar slogans which all came under the campaign's basic message – “Careless talk costs lives”.

5 Treated this way, you're sure to feel hurt – we should always be able to trust those closest to us, and it hurts even more when we find we can't.

■ **be sure to do:** to be certain to happen, succeed, or have a particular result
eg *If you practise a lot, you're sure to pass the exam.*

6 If you feel one of your teammates isn't pulling their weight, then raise your concerns in a professional way with your team coach.

■ **We could also say**

If you feel one of your teammates isn't playing well as they should, you should talk to your team coach about your concerns in a professional way.

■ **pull one's weight:** to do one's full share of work
eg *Everyone has to pull their weight during a match.*

7 Written more than two hundred years ago, these lines by Walter Scott remain one of the most well-known excerpts of Scottish poetry...

■ **We could also say**

Although Walter Scott wrote these lines more than two hundred years ago, they are still known by a lot of people as famous excerpts of Scottish poetry...

■ **Background information**

Sir Walter Scott (1771–1832) was a Scottish novelist, poet, historian, and biographer who is often considered both the inventor and the greatest practitioner of the historical novel. The lines quoted in the passage are from his long epic poem *Marmion: A Tale of Flodden Field*, which is a historical romance in verse of 16th-century Britain, ending with the Battle of Flodden Field (1513). What we can learn from the lines “Oh, what a tangled web we weave, / When first we practise to deceive!” is that lying often snowballs into a bigger problem. If a person starts out by telling one lie, then they have to follow it up with another and another.

8 But to what extent can we justify telling white lies like these?

■ **to what extent:** to the degree or limit of something

eg *To what extent does concern for others influence the choices you make?*



2

Key expressions

look across
 drinking fountain
 earn money
 turn out
 make a difference
 set up
 benefit from
 make one's dream a reality
 transport... to safety
 keep records of
 temporary home
 at one point
 rise to one's feet
 bring... to public attention
 pass away

1 As a six-year-old Canadian schoolboy, Ryan had trouble believing the words spoken by his teacher that many people in developing African countries couldn't get enough clean water. He looked across the classroom at the drinking fountain.

the words spoken by his teacher → the words which were spoken by his teacher
 spoken by his teacher 是一个过去分词短语，修饰 the words，补充更多信息，表示 words 是老师说出的。

Q: 本句中过去分词结构的用法与上一单元所学的用法有什么不同？

A: 此处的过去分词结构作定语，放在所修饰名词的后面，相当于一个定语从句，使语言更加简洁。

look across: to look from one side to the other
 eg *After helping clean the window, he looked across the room to see if there was anything else he could do.*

Q: look across 与 look over, look through 有什么区别？

A: look across 强调从一边看到另一边。look over 强调迅速地检查。例如：look over the proposal before the meeting 意为“会前迅速检查提案”。look through 可以表示翻查、翻找，也可以表示（假装）没有注意到。例如：She looked through me. 意为“她假装没看到我”。

drinking fountain: a piece of equipment in a public place that produces a stream of water for you to drink from



2 In Uganda, Ryan at last saw the finished well with his own eyes. But that was not all. He also saw hundreds of delighted students who had turned out to welcome him.

the finished well → the well which was finished

finished 也是 -ed 结构，修饰 well，表示井已经建好了。

Q: 本句中过去分词结构有什么特别之处？

A: 此处的过去分词是单个词作定语，一般放在所修饰名词或代词的前面。

Q: 在词典上可以查到 finished 词条，释义为“完成的，结束的”，也就是说 -ed 结构可以充当形容词？

A: 是的，这种单个词的 -ed 结构常常也可以看作是形容词。这段话中的 delighted 也是这种用法。

turn out: to go somewhere in order to be present at an event or take part in an activity

eg *Crowds of people turned out to watch the charity performance.*

Background information

Uganda is a landlocked country in East Africa. Its official languages are English and Swahili. Poverty is widespread and many local people have limited access to clean water. However, the water situation is improving, partly due to international aid.

3 Ryan's foundation continues to attract support from more and more people, so the work of building more wells can go on. Today, over 800,000 people in 16 countries across Africa have benefited from the life-changing gift of clean, safe water.

We could also say

Ryan's foundation is still running and more and more people are offering their support. Because of this, more wells are being built and clean, safe water is now available to more than 800,000 people in 16 countries across Africa. The water is a gift that has changed these people's lives.

the life-changing gift → the gift that has changed people's lives

Q: life-changing 是什么用法，该如何理解？

A: life-changing 为合成形容词，由名词 life 和动词 change 的现在分词构成，意为“能改变人的一生的”。这种类型的合成形容词比较常见。例如：English-speaking 意为“说英语的”；life-threatening 意为“危及生命的”；troublemaking 意为“捣乱的”；heartbreaking 意为“令人心碎的”。两个词之间有时加“-”，有时不加“-”，平时要多注意积累。

Q: heartbreaking 和 heartbroken 这两个词的用法有什么不同？

A: 在 heartbreaking 和 heartbroken 中，heart 都是 break 的施动对象，但 heartbreaking 意为“使人心碎的”，主语可以是人也可以是物、事，而 heartbroken 意为“心碎的”，主语一般是人。

4 Now, as an adult, Ryan says that the question to ask is not “Why don't I help?”, but “How can I help today?”. This insight grew from the determined attitude of a six-year-old boy who had the courage and perseverance to make his dream a reality.

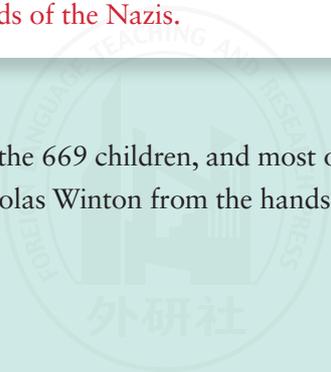
We could also say

Now, Ryan has grown up. He no longer asks the question “Why don't I help?”, but “How can I help today?”. This understanding began when he was six years old. Even as a little boy, he was determined to help and kept working to make his dream come true.

5 These are among the 669 children, most of them Jewish, that Nicholas Winton will go on to save from death at the hands of the Nazis.

We could also say

These children are among the 669 children, and most of them are Jewish. Their lives will be saved by Nicholas Winton from the hands of the Nazis.



6 He established an office to keep records of the children, and then returned to Britain to find temporary homes for them. He used donated funds and his own money to pay the 50 pounds per child that the British government required.

■ **We could also say**

He set up an office to record information about the children, and then he returned to Britain to find homes for them to live in temporarily. The British government demanded 50 pounds for each child, and he used the money that was collected and his own money to pay it.

■ **keep records of:** to keep information about something that has happened
eg *They kept records of every book they had sold.*

■ **temporary home:** a home that you intend to live in for a limited time
eg *During World War II, many children were sent out of the city to live in temporary homes in the countryside, where it was safer.*

7 At one point, the host asked people in the audience to stand up if Nicholas Winton had saved their lives. A shocked Winton watched as the majority of people rose to their feet.

■ **We could also say**

At one moment, the host asked people in the audience to stand up if Nicholas Winton had saved their lives. Winton was shocked as he saw most of the people standing up.

■ **at one point:** at one moment
eg *At one point, someone in the crowd started cheering and, after that, everyone joined in.*

■ **rise to one's feet:** to stand up
eg *When he had finished his meal, he rose to his feet and left the restaurant.*

8 Later, Winton received various honours for his achievement, including a knighthood in 2003, and the Czech government's highest honour, the Order of the White Lion, in 2014.

Background information

- A knighthood is a title in the British honours system, and is often granted to those who have made a significant contribution to the country.
- The Order of the White Lion was first created in 1922 by Czechoslovakia as an award for foreign citizens. After World War II, it became an award for those who had helped liberate the country from Nazi occupation. In the 1990s, it was re-established as the highest order of the Czech Republic. Unlike in the past, it is now awarded to Czech citizens and foreigners alike for outstanding services to the Czech Republic.



3

Key expressions

virtual reality
wearable tech
in addition
in terms of
fly a kite
tie... to
along with
establish the truth
take place
die from
come up with

1 I guess you have been asked about the title of your book before. It suggests that the present day is a new age for inventions, but many people might think that the great age of invention is over.

you have been asked about → someone has asked you about

you have been asked about 是现在完成时的被动语态，突出动作承受者 you，而非动作实施者 someone，侧重体现人们对事件本身的关注。

Q: 现在完成时的被动语态的基本结构是什么？

A: 现在完成时的被动语态的基本结构为“主语 + have / has been + 过去分词”。使用时需注意：主语是行为动作的承受者；动作或状态在说话之前已经结束或持续到现在并对现在产生影响或造成结果。

Q: 一般在什么情况下使用现在完成时的被动语态呢？

A: 可根据主语与谓语之间的关系以及动作或状态与现在有无联系进行判断。一般情况下，在学术语体和新闻报道中使用比较频繁，旨在体现论述的客观性和公正性。

2 So are most of the new great inventions tech-based?

tech-based: using or involving technology

eg *Investors were accused of not giving new tech-based companies enough support.*



3 For example, advances in virtual reality and wearable tech, as well as the flexible battery, mean we should soon be seeing further developments.

We could also say

For example, we can expect further developments very soon, as great progress has been made in virtual reality, wearable tech and the flexible battery.

wearable tech: wearable technology, consisting of things that can be worn (such as clothing or glasses) and contain computer technology
eg *Wearable tech such as “smart clothes” can be used to monitor heart rate.*

Background information

Virtual reality is the term used to describe a three-dimensional, computer-generated environment that a person can interact with and explore.

People are immersed in the environment of this virtual world and, while there, are able to manipulate objects and perform actions. Virtual reality is usually implemented using technology such as special headsets and gloves that stimulate the wearer's senses and create the illusion of reality.

4 New inventions like 3D printers have been used to make replacement hearts and bone parts.

Q: be used to do 与 be used to doing, used to do 有什么区别?

A: be used to do 表示被动，意为“被用来做某事”。be used to doing 意为“习惯于做某事”。例如：be used to sleeping early 意为“习惯早睡”。used to do 意为“过去常常做某事”，特别强调现在不那样了。例如：used to enjoy gardening 意为“过去喜爱园艺”。

Background information

A 3D printer can create a solid, three-dimensional object. It does this by printing multiple layers of material that build up to form the object.

5 It is capable of using GPS technology to travel to different places, with computing technology controlling its “legs”. What’s more, huge advances in solar technology mean it can be eco-friendly, too.

We could also say

The intelligent walking house can move around using GPS technology. Computing technology controls its “legs”. Moreover, the use of advanced solar technology ensures that it is harmless to the environment.

eco-friendly: not harmful to the environment

Q: eco-friendly 中 eco 是哪个单词的缩写?

A: eco 是 ecology 的缩写, ecology 意为“生态”。以 eco 为前缀的词大多与生态相关, 如 ecotourism 意为“生态旅游”, ecosystem 意为“生态系统”。

6 Most inventions start with recognising a problem that needs a solution. This was no doubt the reason behind the invention of the wheel in ancient times, which much later developed into the car.

We could also say

The ideas behind most inventions come from people trying to solve a problem. This is certainly why the wheel was invented long ago. Many years after the invention, the wheel developed into the car.

7 More than one generation of schoolchildren has been amazed by his bravery and his scientific approach to looking for the truth. Franklin, along with many other scientists, has inspired us and taught us that scientific experiments are important in order to establish the truth and to contribute towards later scientific discoveries and inventions.

We could also say

Many generations of children have been impressed by Franklin’s brave behaviour and his use of scientific methods to look for the truth. We can learn from Franklin and many other scientists that scientific experiments

are important for discovering and proving the truth. In addition, scientific experiments help with the success of later scientific discoveries and inventions.

along with: accompanying; together with

eg *Positive thinking, along with a little action, will help you turn your ideas into reality.*

establish the truth: to find out facts that will prove that something is true

eg *Efforts are being made to establish the truth behind the mysterious paintings.*

8 Some have even questioned the story about the apple that fell on Newton's head and led him to come up with his theory of gravity. In fact, more than one account suggests that while Newton was certainly inspired by a falling apple, there is no proof that it hit him on the head.

We could also say

Some scientists have doubts about the story of an apple falling on Newton's head, which inspired him to discover the law of gravity. However, many reports mention that although the falling apple certainly provided inspiration, there is nothing to prove that the apple actually hit him on the head.

come up with: to suggest or think of an idea or a plan

eg *He's come up with a new way to test his ideas.*

Background information

In 2010, to celebrate its 350th anniversary, Britain's Royal Society released a digital version of a manuscript containing an early account of the apple story. The manuscript would become a biography of Newton, entitled *Memoirs of Sir Isaac Newton's Life*, written by William Stukeley, one of Newton's contemporaries and first biographers. In his 1752 book on Newton, Stukeley writes: "After dinner, the weather being warm, we went into the garden and drank tea, under the shade of some apple trees, only he and myself. Amidst other discourse, he told me, he was just in the same situation, as when formerly, the notion of gravitation came into his mind. It was occasion'd by the fall of an apple, as he sat in a contemplative mood. Why should that apple always descend perpendicularly to the ground, thought he to himself. Why should it not go sideways or upwards, but constantly to the earth's centre? Assuredly the reason is, that the earth draws it."

9 Admittedly, fiction is often more interesting than the truth. People have been more inspired by Franklin's spirit of scientific exploration than by the facts themselves.

■ **We could also say**

We are agreeing unwillingly that fiction is often more interesting than the truth. People have been more encouraged by Franklin's spirit of scientific exploration than by the actual facts.



UNIT 4

Key expressions

get a load of
 have a mind of one's own
 but then again
 reach out to
 by the way
 by accident
 be fond of
 on the move
 day after day
 sing high praises for

1 This broadcast is being brought to you from one of the largest museums on Earth – the Louvre! Today we're going to find out about some of the Louvre's most amazing treasures.

This broadcast is being brought to you... → I'm bringing the broadcast to you...

be being done 是现在进行时被动语态的基本结构，表示说话时或现阶段正在进行或发生的被动动作，强调主语是动作的承受者。

Q: 现在进行时的主动语态变为被动语态需注意哪些问题?

A: 现在进行时的主动语态变为被动语态的关键是把 be doing 变为 be being done。此外，一般情况下可以省略原来充当主语的名词或代词，如果有必要强调时可以用“by + 施动者”表示，常放在句子后面。比如课文第二段中的 And just look at how her dress is being folded by the wind!。

Q: 现在进行时的主动语态有时可以表示将来意义，现在进行时的被动语态也可以吗?

A: 是的，现在进行时的被动语态也可以表示将来意义。例如：A party is being held tonight. 但是要注意，此种用法仅限于少数及物动词。

Background information

The Louvre Museum in Paris, France, is one of the oldest, largest and most famous art galleries and museums in the world. The Louvre was originally a royal palace, until Louis XIV moved his court to Versailles in 1682. It became a public museum in the late 18th century, and has since built one of the greatest collections of art in the world, including da Vinci's *Mona Lisa*, Delacroix's *Liberty Leading the People* and Alexandros's *Venus de Milo*.

2 Now, at the top of these stone stairs... get a load of that! That huge sculpture you can see is the *Winged Victory of Samothrace*, or *Nike of Samothrace*!

■ **We could also say**

Now, at the top of these stone stairs, take a look and you can see the huge sculpture of the *Winged Victory of Samothrace*, also known as *Nike of Samothrace*!

■ **get a load of:** used to tell someone to look at or listen to someone or something that you think is funny or interesting
eg *Get a load of that view!*

■ **Background information**

Winged Victory of Samothrace is a marble sculpture of Nike, the Greek goddess of victory. Created around the 2nd century BC, it shows the winged goddess standing on the prow of a ship. As one of the most celebrated sculptures in the world, it was most likely commissioned in commemoration of a naval victory. It was discovered in 1863 by a French diplomat, Charles Champoiseau, on Samothrace, Greece, and since 1884 has been prominently on display at the Louvre.

3 Her head and arms are missing, but you can imagine her holding her arms up high, celebrating the result of an ancient battle. And just look at how her dress is being folded by the wind! I really can't believe she's made of stone.

■ Q: 现在进行时被动语态中的被动动作一定是说话时正在发生的吗?

A: 不一定, 现在进行时的被动语态也可以用来表示现阶段正在进行的被动动作或经常性的一些行为。例如: A new station is being built. 和 He is always being praised by the teacher.

Q: 哪些动词一般不用于现在进行时的被动语态呢?

A: 一些表示状态、心理活动、拥有、存在等的动词, 一般不用现在进行时的被动语态, 而是常用一般现在时的被动语态来表示此时此刻或目前主语正承受的动作。例如: Mary, come here. You are wanted on the phone.

4 When I look into her eyes it seems she has a mind of her own! One moment she seems to be laughing at me, but then again I catch a sense of sadness in her smile. I guess that's why she attracts so many visitors every day.

■ **We could also say**

When I look into her eyes, it seems she has her own thoughts and opinions! At one point she seems to be laughing at me, yet I also get a feeling of sadness in her smile. I guess that's what makes her such an attraction to visitors every day.

■ **have a mind of one's own:** to have strong opinions and the ability to make one's own decisions

eg *Olivia certainly has a mind of her own!*

■ **but then again:** used for introducing a statement that makes what you have just said seem less true, or that is the opposite of what you have just said

eg *I suppose Elaine might help; but then again, she might not.*

5 I'll say bye for now, and hope you can all visit this fantastic place one day to feel the power of these great works of art for yourselves. They really do reach out to us across the centuries as if time itself were nothing.

■ **We could also say**

I'll say bye for the moment, and I hope all of you can visit this wonderful and impressive museum one day, and feel the power of these great works of art for yourselves. Although several centuries have passed since their creation, they really do interest us and touch us as if no time at all has gone by.

6 *Night-Shining White*, now kept in New York's Metropolitan Museum of Art, is regarded as one of the most significant horse paintings in the history of Chinese art.

■ **We could also say**

Night-Shining White is now housed in the Metropolitan Museum of Art in New York. It is considered one of the most important horse paintings in the history of Chinese art.

Background information

Night-Shining White is a portrait, and the name, of a favourite horse of Emperor Xuanzong (r. 712–756). The painting is 34 cm wide by 30.8 cm high. Delicate and precise, it is an example of “baihua” (or “white painting”), a term used in Tang texts to describe monochrome painting with ink shading, as opposed to full colour painting.

Over the years, many seals and inscriptions have been added to the painting and its borders by its owners. Being a distinctive mark of Chinese art collecting, these serve as a record of the work’s journey through history and the impression it has left upon each generation.

7 Those who saw Han Gan’s horse paintings all sang high praises for his unique skill, saying that his horses “could gallop off the paper”.

We could also say

People who saw Han Gan’s horse paintings praised highly for his skill, and said that his images were so lifelike that it seemed as if the horses were going to come out of the paper and run away.

sing high praises for: to speak very highly of something or someone
eg *People sing high praises for poetry of Li Bai and Du Fu.*



UNIT 5

Key expressions

good money
make money
succeed in
take one's life
bring... into focus
figure out
human nature
refer to
leave an impression upon somebody
account for

1 Last year, hundreds of people spent good money on an experience that they knew would include crowds, discomfort and danger.

an experience that they knew would include → (比较) an experience that they know will include

Q: 这句话中 knew 表示过去, would 表示将来, 应该如何理解?

A: 这里使用的是过去将来时态, 表示过去某个时间点对未来的看法。

good money: an amount of money that you think is large

eg *His father paid good money for the once-in-a-lifetime experience of walking the Inca Trail.*

2 For these people, climbing Qomolangma is an experience like no other, making some feel weak and others, powerful.

We could also say

Climbing Qomolangma is a unique experience for people seeking adventure. It is an adventure that can make some feel powerless and others feel powerful.

3 Sadly, Mallory would die on the mountain in 1924, although his body would not be found until many years later. It is still not known if he succeeded in reaching the top of Qomolangma before it took his life.

Q: 这句话中有两处用到了过去将来时，这两处应该如何理解？

A: 第一处 Mallory would die on... 是过去将来时最基本的用法，表示从过去看将要发生的情况或动作。第二处 although his body would not be found... 是过去将来时的否定用法，并且使用了被动语态。

Q: 过去将来时也分主动语态和被动语态吗？

A: 是的，过去将来时被动语态的基本形式为：would be done; was / were going to be done。如果掌握了一般将来时的被动语态，那么过去将来时的被动语态也可以轻松拿下。

take one's life: to kill someone

eg *The Himalayas have taken the lives of countless mountain climbers.*

Background information

George Mallory (1886–1924) was a British explorer and mountaineer who was a leading member of early expeditions to Mount Qomolangma. He disappeared in 1924 while attempting to reach the summit. In 1999, Mallory's body was found at 8,155 metres, and it was determined that he had died after a bad fall. It is hoped that his camera will one day be found and reveal whether he made it to the top. Nonetheless, he will always be remembered for his famous reply to a reporter's question about why he wanted to climb Mount Qomolangma: "Because it's there!"

4 It brings into focus what's important to you.

bring... into focus: if you bring something into focus, people start to talk about it and pay attention to it

eg *People have recently brought these issues into focus.*

5 There are a thousand reasons to turn around and only one to keep going. You really have to focus on the one reason that's most important and unique to you. It forces you to look deep inside yourself and figure out if you really have the physical, as well as mental, toughness to push when you want to stop.

■ We could also say

During the climb, you may find many excuses to stop and turn back. You must think about the most significant reason why you want to continue. It makes you look deep inside yourself and decide whether you're strong and determined enough in both body and mind to keep going.

■ **figure out:** to understand or to find the answer to something by thinking carefully about it

eg *We had to figure out the connection between the two events.*

6 With the majority of attempts to climb Qomolangma resulting either in total success or failure, is there also a scientific reason behind this risk-taking?

■ We could also say

Many people try to climb Qomolangma and they either make it or they don't. Why is it that they risk their lives in this way? Is there a scientific reason for doing so?

7 And now, how can I look back upon the impression left upon me by that walk under the waters? Words are not enough to relate such wonders!

■ We could also say

And now, what can I say about the way it felt to walk underwater? Words are not enough to describe the beauty and uniqueness of the experience!

8 We were walking on fine, even sand, not wrinkled, as on a flat shore, which keeps the impression of the waves. This dazzling carpet, really a reflector, drove away the rays of the sun with wonderful intensity, which accounted for the vibration which passed through every atom of liquid. Shall I be believed when I say that, at the depth of thirty feet, I could see as if I was in broad daylight?

■ **We could also say**

We were walking on flat and smooth sand. It was different to the sand on a beach, which still bears the marks of the tide. Like a bright carpet, the sand reflected the sunlight shining through the water, which shook with small, quick movements. Will anyone believe me when I say that, even thirty feet beneath the surface, I could see as clearly as in the light of day?

■ **account for:** to be the reason why something exists or happens

eg *Recent pressures at work may account for Steve's odd behavior.*



UNIT 6

Key expressions

air conditioning
 go down the stairs
 look through
 move to space
 fly off
 all of a sudden
 keep on
 have yet to do

1 It's just typical that my journey is on one of the oldest lines, as well as one of the deepest. It's the hottest on the whole Tube system.

Q: 本句中 as well as one of the deepest 后的 lines 为什么可以省略?

A: 此处 as well as 连接的是两个平行的名词短语, 因为这两个平行名词短语的中心词同为 lines, 所以可以省略。在省略名词中心词时, 我们既可以省略前一个名词短语的中心词, 也可以省略后一个名词短语的中心词, 因此我们也可以说: It's just typical that my journey is on one of the oldest as well as one of the deepest lines. 不过这种省略现象主要见于书面语体。

Q: 英语中的并列句也可以进行省略吗?

A: 是的, 并列句的省略是最常见的。一般说来, 在后句中与上文相同的成分通常会被省略。但需要注意, 省略并不是随意而为的, 只有当省略的词义已经出现在句中, 并且在不影响句意的情况下才可以省略。

2 Sure enough, going down the stairs and onto the platform is like jumping into a volcano that's erupting. This, however, is nothing compared to the train.

We could also say

As expected, when I go down the stairs and walk onto the platform, I feel very hot. It is just like jumping into an erupting volcano. However, it is much hotter inside the train.



3 My office is only on the third floor of the building, so quite low. I'll speak with my manager about moving to the top floor.

so quite low → so it is quite low

Q: 本句中的省略应该如何理解?

A: 第一句的后半部分省略了主语和谓语, 即: my office is, 因为它们与前半部分的主语和谓语相同, 如果不省略的话就会显得很啰唆。当然, 我们也可以说: On the third floor of the building, my office is quite low.

Q: 英语中省略句的作用是什么?

A: 英语中, 为了使语言简洁明了、重点突出或上下文紧密相连, 可以省去某些句子成分而保持句子原意不变。了解和掌握这一现象, 在阅读上有助于理解, 在写作上有助于用词简练、行文自然流畅。

4 Looking through my newspaper, I'm shocked by photos showing that a hurricane in Asia has destroyed a town.

We could also say

I read the newspaper and am shocked by the photos, which show that a hurricane in Asia has destroyed a town.

look through: to read quickly

eg *I looked through the database and found the information I needed.*

5 I was sitting in my room with my cat, Smartie, on my lap, when the roof just flew off. All of a sudden, there was sky where the roof had been. I was so frightened that I just froze.

We could also say

I was sitting in my room and my cat Smartie was on my lap. Just then, the roof of my room was blown away. Suddenly, there was no roof, but the sky. I was very scared and didn't know what to do.

Learning aid

■ **fly off:** to go away or separate quickly and suddenly
eg *The car crashed when the wheel flew off.*

■ **all of a sudden:** quickly and without warning
eg *All of a sudden we heard a loud noise.*

6 Our street turned into a river in seconds. We were going nowhere.

■ **We could also say**

Our street became a river very quickly. We couldn't go anywhere.

7 I remember us all lying under the midnight sky and looking up at the stars. Because there were no lights, we could see the Big Dipper, the Little Dipper and the Milky Way.

■ **Background information**

The Big Dipper is a pattern of stars that looks like the outline of a large ladle, or dipper. It consists of the seven brightest stars of the constellation Ursa Major, also known as the Great Bear.

The seven stars of the Little Dipper belong to the constellation Ursa Minor, or the Little Bear. Some of them are rather dim and can only be seen without the influence of light pollution.

The Milky Way is the galaxy that contains our solar system. "Milky" describes its appearance seen from Earth – a dim glowing band arching across the night sky, in which the naked eye cannot distinguish individual stars.

8 Some families have yet to return, but many others have come back. Although we are surrounded by reminders of the disaster, we are working together to rebuild our homes and our lives.

■ **We could also say**

Although some families have not returned yet, many others have. The surroundings remind us of the hurricane, but we are working together to build our homes and our lives again after the disaster.

■ **have yet to do:** if you have yet to do something, you have not done it
eg *The group has yet to find a replacement for the director who left in September.*

■ **reminder:** someone or something that makes you remember a particular person, event or situation
eg *The cold served as a reminder that winter wasn't quite over.*



Words and expressions

UNIT 1

* agony /'æɡəni/ <i>n.</i> 痛楚, 苦难	2	□ complexity /kəm'pleksiti/ <i>n.</i> 复杂性, 错综复杂	5
agony aunt 知心阿姨	2	□ forgive /fə'ɡɪv/ <i>v.</i> 原谅, 宽恕	6
help out 帮一把	2	□ criticise /'krɪtɪsaɪz/ <i>v.</i> 批评, 指责	6
let down 使失望, 辜负	2	□ embarrassment /ɪm'bærəsmənt/ <i>n.</i> 尴尬, 难为情	6
□ steam /sti:m/ <i>n.</i> 蒸汽, 水蒸气	2	boxing /'bɒksɪŋ/ <i>n.</i> 拳击 (运动)	6
let off steam 发泄怒火, 宣泄情绪	2	* tangled /'tæŋɡ(ə)ld/ <i>adj.</i> 纠结的; 复杂的	8
□ loose /lu:s/ <i>adj.</i> 控制不严的	3	* web /web/ <i>n.</i> 蜘蛛网; 错综复杂的事物	8
* lip /lɪp/ <i>n.</i> (嘴)唇	3	* weave /wi:v/ <i>v.</i> 编, 织	8
□ sink /sɪŋk/ <i>v.</i> 使(船)沉没	3	* deceive /di'si:v/ <i>v.</i> 欺骗	8
loose lips sink ships 祸从口出	3	□ justify /'dʒʌstɪfaɪ/ <i>v.</i> 证明(别人认为不合理的事)	9
□ fault /fɔ:lt/ <i>n.</i> 责任, 过错	3	有道理; 为……辩护	9
□ resolve /rɪ'zɒlv/ <i>v.</i> 解决(问题、困难)	3	frank /fræŋk/ <i>adj.</i> 坦率的, 坦诚的, 直言不讳的	9
strategy /'strætədʒi/ <i>n.</i> 计谋, 策略; 行动计划	3	tear /tɪə/ <i>n.</i> 眼泪, 泪水	9
signal /'sɪɡn(ə)l/ <i>n.</i> 信号; 暗号	3	* latter /'lætə/ <i>n.</i> 后者	9
□ breath /breθ/ <i>n.</i> 一口气	3	moreover /mɔ:r'əʊvə/ <i>adv.</i> 此外, 而且	9
take a breath 吸一口气	3	independent /,ɪndɪ'pendənt/ <i>adj.</i> 独立的	11
pull one's weight 做好分内事, 尽责	3	□ apart /ə'pɑ:t/ <i>adv.</i> 分离, 分开	11
concern /kən'sɜ:n/ <i>n.</i> 忧虑, 担心	3	□ fence /fens/ <i>n.</i> 栅栏, 围栏, 篱笆	12
□ annoyed /ə'nɔɪd/ <i>adj.</i> 恼怒的, 烦恼的	5		
□ adjust /ə'dʒʌst/ <i>v.</i> 适应, (使)习惯	5	UNIT 2	
duty /'dju:ti/ <i>n.</i> 职责, 义务; 责任	5	contribution /,kɒntrɪ'bju:ʃ(ə)n/ <i>n.</i> 贡献	13
accident /'æksɪd(ə)nt/ <i>n.</i> 意外事件, 偶然因素	5	relief /rɪ'li:f/ <i>n.</i> 减轻, 缓解	13
by accident 偶然, 意外地	5	□ shortage /'ʃɔ:tɪdʒ/ <i>n.</i> 短缺, 不足, 缺乏	14
□ core /kɔ:/ <i>adj.</i> 核心的(课程、团体等)	5	□ internal /ɪn'tɜ:nl/ <i>adj.</i> 内部的	14
ensure /ɪn'ʃʊə/ <i>v.</i> 确保, 保证	5	effective /ɪ'fektɪv/ <i>adj.</i> 有效的, 产生预期效果的	14
		fund /fʌnd/ <i>v.</i> 为……提供资金, 资助	14

注: 词汇表中, 未加符号的单词为必修单词; 加□的为选择性必修单词; 加*的为未做要求的单词。

Words and expressions

* compute /kəm'pjut/ <i>v.</i> 计算	27	Goldbach's Conjecture 哥德巴赫猜想	30
capable /'keɪpəb(ə)/ <i>adj.</i> 有能力的	27	□ theory /'θiəri/ <i>n.</i> 学说, 理论	30
stuff /stʌf/ <i>n.</i> 东西, 物品	27	mental /'mentl/ <i>adj.</i> 精神的; 精神健康的	31
desire /dɪ'zaɪə/ <i>n.</i> 渴望, 欲望	27	cure /kjʊə/ <i>n.</i> 药剂; 疗法	31
never say never 别轻易说决不	27	□ draft /dra:ft/ <i>v.</i> 起草, 草拟	32
passive /'pæsɪv/ <i>adj.</i> 被动的	29	declaration /,deklə'reɪʃ(ə)n/ <i>n.</i> 声明, 宣告	32
beyond /bɪ'jɒnd/ <i>prep.</i> 无法……	29	experiment /ɪk'sperɪmənt/ <i>n.</i> (科学) 实验	32
□ instance /'ɪnstəns/ <i>n.</i> 例子, 实例	29	* lightning /'laɪtnɪŋ/ <i>n.</i> 闪电	32
significant /sɪɡ'nɪfɪkənt/ <i>adj.</i> 重要的, 影响深远的	29	□ fiction /'fɪkʃ(ə)n/ <i>n.</i> 虚构的事, 想象的事	32
□ injure /'ɪndʒə/ <i>v.</i> 使受伤, 弄伤	29	metal /'metl/ <i>n.</i> 金属	32
□ chemist /'kemɪst/ <i>n.</i> 化学家	30	attach /ə'tætʃ/ <i>v.</i> 系, 绑; 贴	32
□ astronomer /ə'strɒnəmə/ <i>n.</i> 天文学家	30	flash /flæʃ/ <i>n.</i> 闪光	32
□ biologist /baɪ'ɒlədʒɪst/ <i>n.</i> 生物学家	30	conduct /kən'dʌkt/ <i>v.</i> 传导(热、电)	32
□ accurate /'ækjʊrət/ <i>adj.</i> 精确的	30	□ scientific /,saɪən'tɪfɪk/ <i>adj.</i> 科学(上)的	32
Gregorian calendar 公历, 阳历(自1582年起在西方使用的历法)	30	entirely /ɪn'taɪəli/ <i>adv.</i> 完全地, 彻底地	33
□ minor /'maɪnə/ <i>adj.</i> 小的	30	□ gravity /'grævɪti/ <i>n.</i> 重力, 引力	33
□ origin /'ɒrɪdʒɪn/ <i>n.</i> 起源, 起因	30	account /ə'kaʊnt/ <i>n.</i> 记述, 描述	33
□ species /'spi:ʃi:z/ <i>n.</i> 物种	30	□ proof /pru:f/ <i>n.</i> 证明, 证据	33
natural selection 自然选择	30	procedure /prə'si:dʒə/ <i>n.</i> 程序, 步骤, 手续	35
field research 实地研究, 实地调研	30	UNIT 4	
□ stream /stri:m/ <i>n.</i> 小河, 小溪	30	□ greet /gri:t/ <i>v.</i> 问候, 迎接, 招呼	38
□ extraordinary /ɪk'strɔ:d(ə)n(ə)ri/ <i>adj.</i> 非凡的, 出色的	30	□ broadcast /'brɔ:dkɑ:st/ <i>n.</i> 广播节目, 电视节目	38
□ brilliant /'brɪljənt/ <i>adj.</i> 聪颖的, 才华横溢的	30	stair /steə/ <i>n.</i> 楼梯	38
□ radium /'reɪdiəm/ <i>n.</i> 镭(一种化学元素)	30	□ load /ləʊd/ <i>n.</i> 某物的量	38
		get a load of... 注意, 仔细看(常用于表示惊讶或羡慕)	38

battle /'bætl/ <i>n.</i> 战斗, 战役	38	* dirt /dɜ:t/ <i>n.</i> 灰尘, 尘土	45
□ fold /fəʊld/ <i>v.</i> 折起	38	□ sponsor /'spɒnsə/ <i>v.</i> 资助	45
□ sculptor /'skʌlptə/ <i>n.</i> 雕刻家, 雕塑家	38	□ emperor /'emp(ə)rə/ <i>n.</i> 皇帝	45
* portrait /'pɔ:trɪt/ <i>n.</i> 人物照片; 肖像	39	□ fond /fɒnd/ <i>adj.</i> 喜爱的	45
* selfie /'selfi/ <i>n.</i> 自拍照	39	be fond of... 喜欢……	45
□ exhibition /ˌeksɪ'bɪʃ(ə)n/ <i>n.</i> 展出, 展览	40	frequent /'fri:kwənt/ <i>adj.</i> 经常发生的, 频繁的	45
□ neighbourhood /'neɪbəhʊd/ <i>n.</i> 社区, 街坊	41	* majesty /'mædʒɪsti/ <i>n.</i> 陛下	45
* embroidery /ɪm'brɔɪd(ə)ri/ <i>n.</i> 刺绣图案, 刺绣品	42	* gallop /'gæləp/ <i>v.</i> (马) 飞奔, 疾驰	45
* seal /si:l/ <i>n.</i> 印章, 图章	42	□ vase /vɑ:z/ <i>n.</i> 花瓶	47
seal cutting 篆刻	42	□ mostly /'məʊstli/ <i>adv.</i> 大部分; 主要地	47
□ calligraphy /kə'lɪgrəfi/ <i>n.</i> 书法	42	□ shade /ʃeɪd/ <i>n.</i> (色彩的) 浓淡, 深浅, 色度	47
* porcelain /'pɔ:slɪn/ <i>n.</i> 瓷器	42	UNIT 5	
□ demonstrate /'demənstreɪt/ <i>v.</i> 示范, 演示	42	□ initial /ɪ'nɪʃ(ə)l/ <i>adj.</i> 开始的, 最初的	49
□ vividly /'vɪvɪdli/ <i>adv.</i> 生动地	42	thus /ðʌs/ <i>adv.</i> 因此, 从而	49
□ needle /'ni:dl/ <i>n.</i> 缝衣针	42	□ zone /zəʊn/ <i>n.</i> 地区, 地带	50
□ elegant /'elɪgənt/ <i>adj.</i> 高雅的, 优美的	42	oxygen /'ɒksɪdʒ(ə)n/ <i>n.</i> 氧气	50
□ carve /kɑ:v/ <i>v.</i> 刻 (图形或字母)	42	□ border /'bɔ:də/ <i>n.</i> 国界, 边界	50
□ contemporary /kən'temp(ə)rəri/ <i>adj.</i> 当代的	43	confirm /kən'fɜ:m/ <i>v.</i> 证实, 证明	50
□ cigarette /ˌsɪgə'ret/ <i>n.</i> 香烟	43	crowd /kraʊd/ <i>n.</i> 人群	50
□ lack /læk/ <i>v.</i> 没有, 缺乏	43	* sheer /ʃɪə/ <i>adj.</i> 纯粹的, 十足的	50
□ stimulate /'stɪmjuleɪt/ <i>v.</i> 刺激, 促使, 促进	43	bring... into focus 使……成为焦点	51
* magnificent /mæg'nɪfɪs(ə)nt/ <i>adj.</i> 宏伟的, 壮丽的	44	attempt /ə'tempt/ <i>n.</i> 努力, 尝试	51
* bare /beə/ <i>v.</i> 使暴露, 露出	44	failure /'feɪljə/ <i>n.</i> 失败	51
* hoof /hu:f/ <i>n.</i> 蹄	44	□ psychologist /saɪ'kɒlədʒɪst/ <i>n.</i> 心理学家	51
wine /waɪn/ <i>n.</i> 葡萄酒	45	* thrill /θrɪl/ <i>n.</i> 惊险, 刺激	51
		port /pɔ:t/ <i>n.</i> 港, 港口	53

Words and expressions

unaware /ˌʌnəˈweə/ <i>adj.</i> 未觉察到的, 未意识到的	53	□ relate /rɪˈleɪt/ <i>v.</i> 相联系, 有关联; 讲述	57
□ alcohol /ˈælkəhɒl/ <i>n.</i> 酒精	54	* helmet /ˈhelmt/ <i>n.</i> 头盔, 钢盔	57
* bandage /ˈbændɪdʒ/ <i>n.</i> 绷带	54	nut /nʌt/ <i>n.</i> 坚果 (仁)	57
* plaster /ˈplɑːstə/ <i>n.</i> 创可贴	54	□ astonish /əˈstɒnɪʃ/ <i>v.</i> 使吃惊, 使惊讶	57
* thermometer /θəˈmɒmɪtə/ <i>n.</i> 体温计	54	□ ray /reɪ/ <i>n.</i> 光线, 光束	57
□ rubber /ˈrʌbər/ <i>n.</i> 橡胶, 合成橡胶	54	□ consume /kənˈsju:m/ <i>v.</i> 消耗	57
□ cotton /ˈkɒtn/ <i>n.</i> 棉布, 棉纱	54	□ distinguish /dɪˈstɪŋɡwɪʃ/ <i>v.</i> 看清; 认出	57
□ wool /wʊl/ <i>n.</i> 羊毛, 毛织物	54	□ gradually /ˈɡrædʒuəli/ <i>adv.</i> 逐渐地, 逐步地	57
cotton wool 药棉, 脱脂棉	54	surround /səˈraʊnd/ <i>v.</i> 环绕, 围绕	57
guideline /ˈɡaɪdlaɪn/ <i>n.</i> 指导方针, 指导原则	54	□ wrinkled /ˈrɪŋk(ə)ld/ <i>adj.</i> 有皱褶的	57
□ cloth /klɒθ/ <i>n.</i> 布	54	□ shore /ʃɔː/ <i>n.</i> 岸, 滨	57
□ bleeding /ˈbliːdɪŋ/ <i>n.</i> 流血, 失血	54	□ carpet /ˈkɑːpɪt/ <i>n.</i> 地毯	57
□ liquid /ˈlɪkwɪd/ <i>n.</i> 液体, 液态物	54	□ intensity /ɪnˈtensɪti/ <i>n.</i> (光、声等的) 强度	57
□ injury /ˈɪndʒəri/ <i>n.</i> 伤, 损害	54	* vibration /vaɪˈbreɪʃ(ə)n/ <i>n.</i> 震颤, 震动	57
□ stretch /stretʃ/ <i>v.</i> 延伸, 绵延	55	* atom /ˈætəm/ <i>n.</i> 原子	57
□ league /liːŋ/ <i>n.</i> 里格 (旧时长度单位, 相当于 3 英里或 3 海里)	56	□ depth /depθ/ <i>n.</i> 深, 深度	57
□ servant /ˈsɜːv(ə)nt/ <i>n.</i> 仆人, 佣人	57	broad /brɔːd/ <i>adj.</i> 宽的, 阔的	57
* submarine /ˈsʌbməriːn/ <i>n.</i> 潜 (水) 艇	57	in broad daylight 在大白天	57
charge /tʃɑːdʒ/ <i>n.</i> 主管, 负责	57	beneath /bɪˈniːθ/ <i>prep.</i> 在……之下, 在……正下方	58
□ captain /ˈkæptɪn/ <i>n.</i> 船长	57	□ resident /ˈrezɪd(ə)nt/ <i>n.</i> 居民, 住户	59
ahead /əˈhed/ <i>adv.</i> 在前面	57	male /meɪl/ <i>n.</i> 雄性动物	59
permit /pəˈmɪt/ <i>v.</i> 允许, 准许, 许可	57	UNIT 6	
* fascinated /ˈfæsɪneɪtɪd/ <i>adj.</i> 被迷住的, 被吸引住的	57	disaster /dɪˈzɑːstə/ <i>n.</i> 灾难, 灾祸	61
chapter /ˈtʃæptə/ <i>n.</i> 章节	57	tube /tjuːb/ <i>n.</i> 管子	62
		the Tube (伦敦的) 地下铁道, 地铁	62

plus /plʌs/ <i>adj.</i> (用于数字后面表示) 多, 余	62	□ satellite /'sætɪlaɪt/ <i>n.</i> 人造卫星	67
erupt /ɪ'rʌpt/ <i>v.</i> (火山) 爆发, 喷发	62	□ precisely /prɪ'saɪsli/ <i>adv.</i> 精确地, 准确地	67
immediately /ɪ'mi:diətli/ <i>adv.</i> 即刻, 马上	63	□ billion /'bɪljən/ <i>num.</i> 十亿	68
hurricane /'hʌrɪkən/ <i>n.</i> 飓风	63	lap /læp/ <i>n.</i> (坐着时的) 大腿部	68
* landslide /'lændslaɪd/ <i>n.</i> 山崩, 滑坡	63	nowhere /'nəʊweə/ <i>adv.</i> 什么地方都不, 无处	68
occur /ə'kɜ:/ <i>v.</i> 发生	63	otherwise /'ʌðəwaɪz/ <i>adv.</i> 否则, 要不然	68
announcement /ə'naʊnsmənt/ <i>n.</i> 通告, 公告	63	* helicopter /'helɪkɒptə/ <i>n.</i> 直升机	68
□ forecast /'fɔ:kɑ:st/ <i>v.</i> 预测, 预报	65	□ mosquito /mə'ski:təʊ/ <i>n.</i> 蚊子	69
□ grab /græb/ <i>v.</i> 攫取, 抓住	65	midnight /'mɪdnɑɪt/ <i>n.</i> 子夜, 午夜	69
* tsunami /tsu'nɑ:mi/ <i>n.</i> 海啸	65	the Big Dipper 北斗七星	69
□ reliable /rɪ'laɪəb(ə)l/ <i>adj.</i> 可信赖的, 可靠的	65	the Little Dipper 小北斗七星	69
□ rescue /'reskjʊ/ <i>n.</i> 营救, 解救	65	the Milky Way 银河	69
□ emergency /ɪ'mɜ:dʒ(ə)nsi/ <i>n.</i> 紧急情况,		county /'kaʊnti/ <i>n.</i> (美国等国家的) 县;	
不测事件	65	(英国的) 郡	69
□ typhoon /'taɪ'fu:n/ <i>n.</i> 台风	66	have yet to 还没有	69
* blizzard /'blɪzəd/ <i>n.</i> 暴风雪	66	□ threat /θret/ <i>n.</i> 威胁, 可能会带来危险的	
* avalanche /'ævələ:ntʃ/ <i>n.</i> 雪崩	66	人(事)	71
□ exceptionally /ɪk'seɪʃ(ə)nəli/ <i>adv.</i> 极其, 非常	66	□ property /'prɒpəti/ <i>n.</i> 所有物, 资产, 财产	71
□ claim /kleɪm/ <i>v.</i> (战争、事故等) 夺去(生命)	66	sufficient /sə'fɪʃ(ə)nt/ <i>adj.</i> 足够的, 充足的	71
□ crisis /'kraɪsɪs/ <i>n.</i> 危机	66	□ shelter /'ʃeltə/ <i>n.</i> 庇护, 掩蔽	71
□ threaten /'θretn/ <i>v.</i> 威胁到, 危及	66		



Vocabulary

A

accident /'æksɪd(ə)nt/ <i>n.</i> 意外事件, 偶然因素	5
account /ə'kaʊnt/ <i>n.</i> 记述, 描述	33
□ accurate /'ækjʊrət/ <i>adj.</i> 精确的	30
achievement /ə'tʃi:vmənt/ <i>n.</i> 成绩, 成就	21
□ adjust /ə'dʒʌst/ <i>v.</i> 适应, (使) 习惯	5
* agony /'æɡəni/ <i>n.</i> 痛楚, 苦难	2
agony aunt 知心阿姨	2
ahead /ə'hed/ <i>adv.</i> 在前面	57
aid /eɪd/ <i>v.</i> 帮助, 援助	20
□ alcohol /'ælkəhɒl/ <i>n.</i> 酒精	54
announcement /ə'naʊnmənt/ <i>n.</i> 通告, 公告	63
□ annoyed /ə'nɔɪd/ <i>adj.</i> 恼怒的, 烦恼的	5
□ apart /ə'pɑ:t/ <i>adv.</i> 分离, 分开	11
□ assistance /ə'sɪst(ə)ns/ <i>n.</i> 帮助, 援助	19
□ astonish /ə'stɒnɪʃ/ <i>v.</i> 使吃惊, 使惊讶	57
□ astronomer /ə'strɒnəmə/ <i>n.</i> 天文学家	30
* atom /'ætəm/ <i>n.</i> 原子	57
attach /ə'tætʃ/ <i>v.</i> 系, 绑; 贴	32
attempt /ə'tempt/ <i>n.</i> 努力, 尝试	51
* avalanche /'ævələ:ntʃ/ <i>n.</i> 雪崩	66

B

* bandage /'bændɪdʒ/ <i>n.</i> 绷带	54
* bare /beə/ <i>v.</i> 使暴露, 露出	44
battery /'bæt(ə)ri/ <i>n.</i> 电池	27
battle /'bætl/ <i>n.</i> 战斗, 战役	38

be fond of... 喜欢……	45
beneath /bɪ'ni:θ/ <i>prep.</i> 在……之下, 在……正下方	58
beyond /bɪ'jɒnd/ <i>prep.</i> 无法……	29
□ billion /'bɪljən/ <i>num.</i> 十亿	68
□ biologist /baɪ'ɒlədʒɪst/ <i>n.</i> 生物学家	30
□ bleeding /'bli:dɪŋ/ <i>n.</i> 流血, 失血	54
* blizzard /'blɪzəd/ <i>n.</i> 暴风雪	66
□ border /'bɔ:də/ <i>n.</i> 国界, 边界	50
boxing /'bɒksɪŋ/ <i>n.</i> 拳击 (运动)	6
break into a smile 突然笑起来	15
□ breath /breθ/ <i>n.</i> 一口气	3
□ brilliant /'brɪljənt/ <i>adj.</i> 聪颖的, 才华横溢的	30
bring... into focus 使……成为焦点	51
broad /brɔ:d/ <i>adj.</i> 宽的, 阔的	57
□ broadcast /'brɔ:dkɑ:st/ <i>n.</i> 广播节目, 电视节目	38
by accident 偶然, 意外地	5

C

□ calligraphy /kə'lɪgrəfi/ <i>n.</i> 书法	42
□ cancer /'kænsə/ <i>n.</i> 癌症	19
capable /'keɪpəb(ə)l/ <i>adj.</i> 有能力的	27
□ captain /'kæptɪn/ <i>n.</i> 船长	57
□ carpet /'kɑ:pɪt/ <i>n.</i> 地毯	57
□ carve /kɑ:v/ <i>v.</i> 刻 (图形或字母)	42
□ certificate /sə'tɪfɪkət/ <i>n.</i> 证明书, 证书	23
chapter /'tʃæptə/ <i>n.</i> 章节	57

charge /tʃɑ:dʒ/ <i>n.</i> 主管, 负责	57	D	
□ chemist /'kɛmɪst/ <i>n.</i> 化学家	30	* deceive /drɪ'si:v/ <i>v.</i> 欺骗	8
chief /tʃi:f/ <i>adj.</i> 最高级别的, 首席的	23	declaration /,dekle'reɪʃ(ə)n/ <i>n.</i> 声明, 宣告	32
□ cigarette /,sɪgə'ret/ <i>n.</i> 香烟	43	□ demonstrate /'demənstreɪt/ <i>v.</i> 示范, 演示	42
□ claim /kleɪm/ <i>v.</i> (战争、事故等) 夺去 (生命)	66	□ depth /depθ/ <i>n.</i> 深, 深度	57
□ cloth /klɒθ/ <i>n.</i> 布	54	desire /drɪ'zaɪə/ <i>n.</i> 渴望, 欲望	27
* compass /'kʌmpəs/ <i>n.</i> 指南针, 罗盘	26	* dirt /dɜ:t/ <i>n.</i> 灰尘, 尘土	45
□ complexity /kəm'pleksɪti/ <i>n.</i> 复杂性, 错综复杂	5	□ disability /,dɪsə'bɪlɪti/ <i>n.</i> 残疾, 残障	17
* compute /kəm'pjʊt/ <i>v.</i> 计算	27	disaster /drɪ'zɑ:stə/ <i>n.</i> 灾难, 灾祸	61
concern /kən'sɜ:n/ <i>n.</i> 忧虑, 担心	3	disease /drɪ'zi:z/ <i>n.</i> 疾病, 病	17
conduct /kən'dʌkt/ <i>v.</i> 传导 (热、电)	32	□ distinguish /drɪ'stɪŋgwɪʃ/ <i>v.</i> 看清; 认出	57
confirm /kən'fɜ:m/ <i>v.</i> 证实, 证明	50	donate /dəʊ'neɪt/ <i>v.</i> 捐赠, 捐献	15
confirmation /,kɒnfə'meɪʃ(ə)n/ <i>n.</i> 证实, 证明	19	□ draft /dra:ft/ <i>v.</i> 起草, 草拟	32
□ consume /kən'sju:m/ <i>v.</i> 消耗	57	□ drug /drʌg/ <i>n.</i> 药物, 药材	23
□ contemporary /kən'temp(ə)rəri/ <i>adj.</i> 当代的	43	duty /'dju:ti/ <i>n.</i> 职责, 义务; 责任	5
contribution /,kɒntrɪ'bju:ʃ(ə)n/ <i>n.</i> 贡献	13	E	
□ core /kɔ:/ <i>adj.</i> 核心的 (课程、团体等)	5	earn /ɜ:n/ <i>v.</i> 挣 (钱)	14
□ cotton /'kɒtn/ <i>n.</i> 棉布, 棉纱	54	effective /ɪ'fektɪv/ <i>adj.</i> 有效的, 产生预期效果的	14
cotton wool 药棉, 脱脂棉	54	□ elegant /'elɪgənt/ <i>adj.</i> 高雅的, 优美的	42
county /'kaunti/ <i>n.</i> (美国等国家的) 县; (英国的) 郡	69	□ embarrassment /ɪm'bærəsmənt/ <i>n.</i> 尴尬, 难为情	6
□ crisis /'kraɪsɪs/ <i>n.</i> 危机	66	* embroidery /ɪm'brɔɪd(ə)ri/ <i>n.</i> 刺绣图案, 刺绣品	42
□ criticise /'krɪtɪsaɪz/ <i>v.</i> 批评, 指责	6	□ emergency /ɪ'mɜ:dʒ(ə)nsɪ/ <i>n.</i> 紧急情况, 不测事件	65
crowd /kraʊd/ <i>n.</i> 人群	50	□ emperor /'emp(ə)rə/ <i>n.</i> 皇帝	45
cure /kjʊə/ <i>n.</i> 药剂; 疗法	31	ensure /ɪn'sʊə/ <i>v.</i> 确保, 保证	5

Vocabulary

entirely /ɪn'taɪəli/ <i>adv.</i> 完全地, 彻底地	33	fund /fʌnd/ <i>v.</i> 为……提供资金, 资助	14
erupt /ɪ'rʌpt/ <i>v.</i> (火山) 爆发, 喷发	62	further /'fɜ:ðə/ <i>adj.</i> 更多的, 附加的	23
□ exceptionally /ɪk'sepʃ(ə)nəli/ <i>adv.</i> 极其, 非常	66	G	
□ exhibition /,eksɪ'bɪʃ(ə)n/ <i>n.</i> 展出, 展览	40	* gallop /'gæləp/ <i>v.</i> (马) 飞奔, 疾驰	45
experiment /ɪk'spɛrɪmənt/ <i>n.</i> (科学) 实验	32	generous /'dʒen(ə)rəs/ <i>adj.</i> 慷慨的, 大方的	18
□ extend /ɪk'stend/ <i>v.</i> 持续; 延伸	17	get a load of... 注意, 仔细看 (常用于表示惊讶或羡慕)	38
□ extraordinary /ɪk'strɔ:d(ə)n(ə)ri/ <i>adj.</i> 非凡的, 出色的	30	Goldbach's Conjecture 哥德巴赫猜想	30
F		□ grab /græb/ <i>v.</i> 攫取, 抓住	65
failure /'feɪljə/ <i>n.</i> 失败	51	□ gradually /'grædʒuəli/ <i>adv.</i> 逐渐地, 逐步地	57
* fascinated /'fæsɪneɪtɪd/ <i>adj.</i> 被迷住的, 被吸引住的	57	□ gravity /'grævɪti/ <i>n.</i> 重力, 引力	33
□ fault /fɔ:lt/ <i>n.</i> 责任, 过错	3	□ greet /gri:t/ <i>v.</i> 问候, 迎接, 招呼	38
□ fence /fens/ <i>n.</i> 栅栏, 围栏, 篱笆	12	Gregorian calendar 公历, 阳历 (自 1582 年起在西方使用的历法)	30
□ fiction /'fɪkʃ(ə)n/ <i>n.</i> 虚构的事, 想象的事	32	guideline /'gaɪdlɪn/ <i>n.</i> 指导方针, 指导原则	54
field research 实地研究, 实地调研	30	* gunpowder /'gʌnpaʊdə/ <i>n.</i> 火药	26
flash /flæʃ/ <i>n.</i> 闪光	32	H	
flexible /'fleksɪb(ə)l/ <i>adj.</i> 易弯曲的, 柔韧的	27	have yet to 还没有	69
□ fold /fəʊld/ <i>v.</i> 折起	38	* helicopter /'helɪkɒptə/ <i>n.</i> 直升机	68
□ fond /fɒnd/ <i>adj.</i> 喜爱的	45	* helmet /'helɪmt/ <i>n.</i> 头盔, 钢盔	57
□ forecast /'fɔ:kɑ:st/ <i>v.</i> 预测, 预报	65	help out 帮一把	2
□ forgive /fə'gɪv/ <i>v.</i> 原谅, 宽恕	6	hesitate /'hezɪteɪt/ <i>v.</i> 迟疑, 犹豫	18
□ foundation /'faʊn'deɪʃ(ə)n/ <i>n.</i> 基金会	15	* hoof /hu:f/ <i>n.</i> 蹄	44
□ fountain /'faʊntɪn/ <i>n.</i> 喷水池	14	hurricane /'hʌrɪkən/ <i>n.</i> 飓风	63
frank /fræŋk/ <i>adj.</i> 坦率的, 坦诚的, 直言不讳的	9		
frequent /'fri:kwənt/ <i>adj.</i> 经常发生的, 频繁的	45		

I					
	immediately /ɪ'mi:diətli/ <i>adv.</i>	即刻, 马上	63		
	in addition	除此之外, 另外	27		
	in broad daylight	在大白天	57		
	independent /ɪn'di:pəndənt/ <i>adj.</i>	独立的	11		
	□ initial /ɪ'nɪʃ(ə)l/ <i>adj.</i>	开始的, 最初的	49		
	□ injure /ɪn'dʒə/ <i>v.</i>	使受伤, 弄伤	29		
	□ injury /ɪn'dʒəri/ <i>n.</i>	伤, 损害	54		
	□ insight /ɪn'saɪt/ <i>n.</i>	顿悟, 猛醒	15		
	□ instance /ɪn'stəns/ <i>n.</i>	例子, 实例	29		
	□ institution /ɪn'stɪ'tju:ʃ(ə)n/ <i>n.</i>	机构, 团体	19		
	□ intensity /m'tensɪti/ <i>n.</i>	(光、声等的) 强度	57		
	□ internal /ɪn'tɜ:nl/ <i>adj.</i>	内部的	14		
J					
	* Jewish /'dʒu:ɪʃ/ <i>adj.</i>	犹太人的, 犹太教的	20		
	□ justify /'dʒʌstɪfaɪ/ <i>v.</i>	证明 (别人认为不合理的事) 有道理; 为……辩护	9		
K					
	* knighthood /'naɪthud/ <i>n.</i>	(英国的) 爵士封号或头衔	21		
L					
	□ lack /læk/ <i>v.</i>	没有, 缺乏	43		
	* landslide /'lændslaɪd/ <i>n.</i>	山崩, 滑坡	63		
	lap /læp/ <i>n.</i>	(坐着时的) 大腿部	68		
	* latter /'lætə/ <i>n.</i>	后者	9		
	□ league /li:g/ <i>n.</i>	里格 (旧时长度单位, 相当于 3 英里或 3 海里)	56		
	let down	使失望, 辜负	2		
	let off steam	发泄怒火, 宣泄情绪	2		
	* lightning /'laɪtnɪŋ/ <i>n.</i>	闪电	32		
	* lip /lɪp/ <i>n.</i>	(嘴) 唇	3		
	□ liquid /'lɪkwɪd/ <i>n.</i>	液体, 液态物	54		
	□ load /ləʊd/ <i>n.</i>	某物的量	38		
	□ loose /lu:s/ <i>adj.</i>	控制不严的	3		
	loose lips sink ships	祸从口出	3		
M					
	* magnificent /mæɡ'nɪfɪs(ə)nt/ <i>adj.</i>	宏伟的, 壮丽的	44		
	* majesty /'mædʒɪsti/ <i>n.</i>	陛下	45		
	major /'meɪdʒəl/ <i>adj.</i>	重要的, 主要的	23		
	male /meɪl/ <i>n.</i>	雄性动物	59		
	mental /'mentl/ <i>adj.</i>	精神的; 精神健康的	31		
	metal /'metl/ <i>n.</i>	金属	32		
	midnight /'mɪdnɑ:t/ <i>n.</i>	子夜, 午夜	69		
	military /'mɪlɪt(ə)ri/ <i>n.</i>	军队	20		
	□ ministry /'mɪnɪstri/ <i>n.</i>	(政府的) 部	23		
	□ minor /'maɪnə/ <i>adj.</i>	小的	30		
	□ mission /'mɪʃ(ə)n/ <i>n.</i>	职责; 使命	17		
	moreover /mɔ:r'əʊvə/ <i>adv.</i>	此外, 而且	9		

Vocabulary

- mosquito /mə'ski:təʊ/ *n.* 蚊子 69
- mostly /'məʊstli/ *adv.* 大部分; 主要地 47
- N**
- natural selection 自然选择 30
- * Nazi /'nɑ:tsi/ *n.* 纳粹党员, 纳粹分子 20
- needle /'ni:dl/ *n.* 缝衣针 42
- neighbourhood /'neɪbəhʊd/ *n.* 社区, 街坊 41
- never say never 别轻易说决不 27
- nowhere /'nəʊweə/ *adv.* 什么地方都不, 无处 68
- nut /nʌt/ *n.* 坚果 (仁) 57
- O**
- obtain /əb'teɪn/ *v.* 获得, 得到 23
- occur /ə'kɜ:/ *v.* 发生 63
- origin /'ɒrɪdʒɪn/ *n.* 起源, 起因 30
- otherwise /'ɒðəwaɪz/ *adv.* 否则, 要不然 68
- oxygen /'ɒksɪdʒ(ə)n/ *n.* 氧气 50
- P**
- passive /'pæsɪv/ *adj.* 被动的 29
- permit /pə'mɪt/ *v.* 允许, 准许, 许可 57
- * perseverance /,pɜ:sɪ'vɪərəns/ *n.* 不屈不挠, 坚持不懈 15
- * plaster /'plɑ:stə/ *n.* 创可贴 54
- plus /plʌs/ *adj.* (用于数字后面表示) 多, 余 62
- * porcelain /'pɔ:slɪn/ *n.* 瓷器 42
- port /pɔ:t/ *n.* 港, 港口 53
- * portrait /'pɔ:trɪt/ *n.* 人物照片; 肖像 39
- precisely /prɪ'saɪsli/ *adv.* 精确地, 准确地 67
- press /pres/ *v.* 按 25
- procedure /prə'si:dʒə/ *n.* 程序, 步骤, 手续 35
- proof /pru:f/ *n.* 证明, 证据 33
- property /'prɒpəti/ *n.* 所有物, 资产, 财产 71
- psychologist /saɪ'kɒlədʒɪst/ *n.* 心理学家 51
- pull one's weight 做好分内事, 尽责 3
- R**
- radium /'reɪdiəm/ *n.* 镭 (一种化学元素) 30
- ray /reɪ/ *n.* 光线, 光束 57
- reality /ri'ælɪti/ *n.* 真实, 现实 15
- recycle /,rɪ'saɪk(ə)/ *v.* 再利用, 回收利用 14
- registration /,redʒɪ'streɪʃ(ə)n/ *n.* 登记, 注册 19
- relate /rɪ'leɪt/ *v.* 相联系, 有关联; 讲述 57
- reliable /rɪ'laɪəb(ə)/ *adj.* 可信赖的, 可靠的 65
- relief /rɪ'li:f/ *n.* 减轻, 缓解 13
- rescue /'reskjʊ:/ *n.* 营救, 解救 65
- resident /'rezɪd(ə)nt/ *n.* 居民, 住户 59
- resolve /rɪ'zɒlv/ *v.* 解决 (问题、困难) 3
- rise to one's feet 站起身来 21
- royal /'rɔɪəl/ *adj.* 王室的, 皇家的 19
- rubber /'rʌbə/ *n.* 橡胶, 合成橡胶 54

S

□ satellite /'sætɪlaɪt/ <i>n.</i> 人造卫星	67
□ scientific /ˌsaɪəntɪ'fɪk/ <i>adj.</i> 科学(上)的	32
□ sculptor /'skʌlptə/ <i>n.</i> 雕刻家, 雕塑家	38
* seal /si:l/ <i>n.</i> 印章, 图章	42
seal cutting 篆刻	42
* selfie /'selfi/ <i>n.</i> 自拍照	39
□ sensitive /'sensɪtɪv/ <i>adj.</i> 敏感的, 容易生气的	18
□ servant /'sɜ:v(ə)nt/ <i>n.</i> 仆人, 佣人	57
□ shade /ʃeɪd/ <i>n.</i> (色彩的) 浓淡, 深浅, 色度	47
* sheer /ʃɪə/ <i>adj.</i> 纯粹的, 十足的	50
□ shelter /'ʃeltə/ <i>n.</i> 庇护, 掩蔽	71
shoot /ʃu:t/ <i>v.</i> 射出(光线等), 放射	25
□ shore /ʃɔ:/ <i>n.</i> 岸, 滨	57
□ shortage /'ʃɔ:tɪdʒ/ <i>n.</i> 短缺, 不足, 缺乏	14
signal /'sɪgn(ə)l/ <i>n.</i> 信号; 暗号	3
significant /sɪg'nɪfɪkənt/ <i>adj.</i> 重要的, 影响深远的	29
□ sink /sɪŋk/ <i>v.</i> 使(船)沉没	3
□ species /'spi:ʃi:z/ <i>n.</i> 物种	30
□ sponsor /'spɒnsə/ <i>v.</i> 资助	45
stair /steə/ <i>n.</i> 楼梯	38
□ steam /sti:m/ <i>n.</i> 蒸汽, 水蒸气	2
□ stimulate /'stɪmjuleɪt/ <i>v.</i> 刺激, 促使, 促进	43
strategy /'strætədʒi/ <i>n.</i> 计谋, 策略; 行动计划	3
□ stream /stri:m/ <i>n.</i> 小河, 小溪	30
□ stretch /stretʃ/ <i>v.</i> 延伸, 绵延	55

stuff /stʌf/ <i>n.</i> 东西, 物品	27
* submarine /'sʌbməri:n/ <i>n.</i> 潜(水)艇	57
sufficient /sə'fɪʃ(ə)nt/ <i>adj.</i> 足够的, 充足的	71
surround /sə'raʊnd/ <i>v.</i> 环绕, 围绕	57

T

take a breath 吸一口气	3
* tangled /'tæŋg(ə)ld/ <i>adj.</i> 纠结的; 复杂的	8
tear /tiə/ <i>n.</i> 眼泪, 泪水	9
□ temporary /'temp(ə)rəri/ <i>adj.</i> 短期的, 短暂的; 临时的	20
□ territory /'terɪ(ə)ri/ <i>n.</i> 地区, 地方	17
the Big Dipper 北斗七星	69
the Little Dipper 小北斗七星	69
the Milky Way 银河	69
the Tube (伦敦的) 地下铁道, 地铁	62
□ theory /'θɪəri/ <i>n.</i> 学说, 理论	30
* thermometer /θə'mɒmɪtə/ <i>n.</i> 体温计	54
□ threat /θret/ <i>n.</i> 威胁, 可能会带来危险的人(事)	71
□ threaten /'θretn/ <i>v.</i> 威胁到, 危及	66
* thrill /θrɪl/ <i>n.</i> 惊险, 刺激	51
thus /ðʌs/ <i>adv.</i> 因此, 从而	49
treatment /'tri:tmənt/ <i>n.</i> 治疗; 疗法	23
* tsunami /tsu'nɑ:mi/ <i>n.</i> 海啸	65
tube /tju:b/ <i>n.</i> 管子	62
□ typhoon /ˌtaɪ'fu:n/ <i>n.</i> 台风	66

Vocabulary

U

unaware /ˌʌnəˈweə/ *adj.* 未觉察到的,
未意识到的

53

V

□ vase /vɑːz/ *n.* 花瓶

47

* vibration /vaɪˈbreɪʃ(ə)n/ *n.* 震颤, 震动

57

□ virtual /ˈvɜːtʃuəl/ *adj.* 虚拟的, 模拟的

26

virtual reality 虚拟现实

26

□ vividly /ˈvɪvɪdli/ *adv.* 生动地

42

W

wearable tech 可穿戴技术

26

* weave /wiːv/ *v.* 编, 织

8

* web /web/ *n.* 蜘蛛网; 错综复杂的事物

8

wine /waɪn/ *n.* 葡萄酒

45

□ wool /wʊl/ *n.* 羊毛, 毛织物

54

□ wrinkled /ˈrɪŋk(ə)ld/ *adj.* 有皱褶的

57

Z

□ zone /zəʊn/ *n.* 地区, 地带

50



Names and places

NAMES

Ben /ben/ 本	2	Benjamin Franklin /'bendʒəmɪn 'fræŋklɪn/	32
Riley /'raɪli/ 莱莉	5	Newton /'nju:t(ə)n/ 牛顿	33
Tina /'ti:nə/ 蒂娜	7	Salvador Dalí /'sælvədə: 'dɑ:lɪ/ 萨尔瓦多·达利	37
Kerry /'keri/ 克丽	7	Giacomo Puccini /'dʒɑ:kəʊməʊ pu'tʃɪni/	
Ryan /'raɪən/ 瑞安	7	贾科莫·普契尼	37
Becky /'beki/ 贝姬	7	Auguste Rodin /v'gju:st 'rəʊdæn/ 奥古斯特·	
Walter Scott /'wɔ:lɪtə skɒt/ 沃尔特·司各特	8	罗丹	37
Schopenhauer /'ʃəʊpən,haʊə(r)/ 叔本华	11	Zack /zæk/ 扎克	38
Confucius /kən'fju:ʃəs/ 孔子	12	Rembrandt /'rembrænt/ 伦勃朗	39
Ralph G. Nichols /rælf dʒi: 'nikəlz/ 拉尔夫·		Tracey Emin /'treɪsi 'emɪn/ 特蕾西·艾敏	43
G. 尼科尔斯	12	Jill /dʒɪl/ 吉尔	43
Florence Nightingale /'flɒr(ə)ns 'naɪtɪŋeɪl/		Vincent van Gogh /'vɪnsənt væn'gɒf/ 文森特·	
弗洛伦丝·南丁格尔	13	梵高	47
Adair /ə'deə(r)/ 阿代尔	13	Paul Gauguin /pɔ:l 'gəʊgæn/ 保罗·高庚	47
Tim /tɪm/ 蒂姆	18	Ferdinand Magellan /'fɜ:dmənd mə'gælən/	
Erica Marshall /'erɪkə 'mɑ:ʃ(ə)l/ 埃丽卡·		费迪南德·麦哲伦	49
马歇尔	19	Christopher Columbus /'krɪstəfə kə'lʌmbəs/	
Schindler /'ʃɪndlə(r)/ 辛德勒	21	克里斯托弗·哥伦布	49
Nicholas Winton /'nikələs 'wɪntən/ 尼古拉斯·		Vasco da Gama /'væskəʊ də'gɑ:mə/ 瓦斯科·	
温顿	21	达·伽马	49
Richard Fairhurst /'rɪtʃəd 'feəhɜ:st/ 理查德·		Edmund Hillary /'edmənd 'hɪləri/ 埃德蒙·	
费尔赫斯特	26	希拉里	50
Moore /muə(r)/ 穆尔	29	Tenzing Norgay /'tenzɪŋ 'nɔ:geɪ/ 丹增·诺尔盖	50
Charles Darwin /tʃɑ:lz 'dɑ:wɪn/ 查尔斯·		George Mallory /dʒɔ:dʒ 'mæləri/ 乔治·马洛里	50
达尔文	30	Alan Arnette /'ælən ɑ:'net/ 艾伦·阿内特	51
Marie Curie /'mɑ:ri 'kjuəri/ 玛丽·居里	30	Frank Farley /fræŋk 'fɑ:li/ 弗兰克·法利	51

Names and places

Jules Verne /dʒju:lz vɜ:n/ 儒勒·凡尔纳	56	Pacific /pə'sɪfɪk/ Ocean 太平洋	49
Pierre Aronnax /pi'eə(r) 'ærənæks/ 皮埃尔·阿龙纳斯	57	Spice /spais/ Islands 香料群岛	49
Conseil /kɒn'sei/ 康塞尔	57	Indonesia /,ɪndəʊ'ni:ziə/ 印度尼西亚 (国家)	49
Ned Land /ned lænd/ 内德·兰德	57	Spain /speɪn/ 西班牙 (国家)	49
Nemo /'ni:məʊ/ 尼摩	57	Cape of Good Hope 好望角	49
Smartie /'smɑ:ti/ 斯玛蒂	68	Nepal /nɪ'pɔ:l/ 尼泊尔 (国家)	50
Andy Warhol /'wɔ:həʊl/ 安迪·沃霍尔	76	Mount Qomolangma /'tʃəʊməʊ,lɑ:ŋmə/ 珠穆朗玛峰	50
Claude Monet /klɔ:d mɒ'nei/ 克劳德·莫奈	76	Tibet /tɪ'bet/ Autonomous Region 西藏自治区 (中国自治区名)	50
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Book 1

Exchanging ideas

What do you think?
How about...?
What's your opinion?
It would be a good idea to...
I've got an idea.

Asking for and giving clarification

I beg your pardon?
What does... mean?
What's that for?
When you say... you mean..., right?

It means...
It's a shorter way of saying...
You use it to...

Making apologies and offering forgiveness

I'm so sorry!
I'm really sorry that...
Can you forgive me?
Please forgive me for...
Please don't be angry with me...
I didn't mean to...

It's OK.
It's all right.
I understand that...
Let's forget about it.
Don't worry about it.

Making suggestions

You should...
How about...?
Perhaps you could...
It might be a good / bad idea to...
Why don't you...?

Agreeing and disagreeing

Exactly!
I agree.
That is true.
I see your point.
No doubt about it.
I suppose so.

I don't agree.
That's just not true.
I'm afraid I totally disagree.
I'm not so sure about that.
I don't think so.
That's not always the same.

Talking about advantages and disadvantages

This can only be a good / bad thing.
The upside / downside to this is...
The advantage / disadvantage is...
There are pros and cons to this.
Another good / negative aspect is...
Best / Worst of all, ...

Book 2

Persuading others

Did you know that...?
It's made from...
It's rich in...
Absolutely. It's good for...
There's... off the total price.

Extending and accepting an invitation

Are you free...?
Would you like to...?
It's celebrated for... on...
You can wear...
You can... if you like.

Yes, I'd love to...
When does...?

What's the origin of...?
Do I need to...?
Should I bring... with me?

Giving explanations

The main reason was...
The best / worst thing is...
My biggest challenge was...
What keeps me going is...
I hope that...
It's been a pleasure.

Making arrangements

I've got tickets...
It's close to...
It starts at...
We can...
I think...
Let's meet at... at...
I suggest...

Did you manage to get tickets for...?
Where is...?
When does it start?
How can we get there?
How about...?
Where / When shall we meet?
Should I bring...?

Asking for and giving information

I was wondering where the... is.
Could you please tell me how I can get to...?
When does... open / close?
Could you recommend any...?
What else do you recommend?
Do you happen to know...?
I'd like to know...

It's on... Street / Road.
Take the first / second turning on your right / left.
Go straight on.
It opens / closes at...

There's a... called... It's...
I'd recommend...
You can...

Interrupting politely

Sorry to interrupt, but...
Excuse me, but can I just ask...?
Could I just stop you again to check...?
Do you mind if I ask another question?
Sorry, but I was wondering whether...
Is it OK if I jump in for a second?

Book 3

Making requests and refusals

Have you got a minute?
Hello...! Just the person I wanted to see.
Well, the thing is...
I was just wondering if you could...
I promise...
Oh, come on, please...

What's up?
Oh, you mean...?
I'm afraid...
I'm sorry, but...
I think it would be better to...
But maybe...

Making a phone enquiry

I'm interested in...
Could you tell me how to become a volunteer?
I enjoy...
Can you tell me a bit more?
What should I do to get the work?
Is there anything else I need to know?

Telling the story behind an invention

The telephone was invented by... in...
When..., he...
He later..., and finally...

Review of everyday communication (Book 1–Book 3)

The first phone call was about...
It is interesting that...

Expressing opinions

What do you think of...?
I think it is...
I especially like...
I have to disagree because...
There's a great deal of meaning in the work. For example, ...
I think the artist is saying...
There's no meaning in the work. For example, ...
I can't see... in the work, but I can see...
To be honest, I prefer...

Talking about experiences

Which city did you...?
Did you go to...?
Which places of interest did you...?
Did you enjoy any...?
What about...?

The first city I...
Then...
In..., I visited...
The most delicious...

Talking about weather

I'm calling to check that...
How long have... lasted?
What's the effect of...?
How do you cope with...?
Is there anything I can do to...?
How has the weather changed...?

Thank you for...
The... have lasted...
The most serious effect is...
Be sure to...
I'd really appreciate it if you would...
There have been more...



Irregular verbs

Infinitive	Past tense	Past participle
am / is	was	been
are	were	been
beat	beat	beaten
become	became	become
begin	began	begun
bet	bet	bet
break	broke	broken
bring	brought	brought
build	built	built
burn	burnt, burned	burnt, burned
buy	bought	bought
can	could	—
catch	caught	caught
choose	chose	chosen
come	came	come
cost	cost	cost
dig	dug	dug
do	did	done
draw	drew	drawn
dream	dreamt, dreamed	dreamt, dreamed
drink	drank	drunk
drive	drove	driven
eat	ate	eaten
fall	fell	fallen
feed	fed	fed
feel	felt	felt

Irregular verbs

Infinitive	Past tense	Past participle
fight	fought	fought
find	found	found
fly	flew	flown
forget	forgot	forgotten
forgive	forgave	forgiven
freeze	froze	frozen
get	got	got
give	gave	given
go	went	gone
grow	grew	grown
hang (悬挂)	hung	hung
have / has	had	had
hear	heard	heard
hide	hid	hidden
hit	hit	hit
hold	held	held
hurt	hurt	hurt
keep	kept	kept
know	knew	known
lay	laid	laid
lead	led	led
learn	learnt, learned	learnt, learned
leave	left	left
lend	lent	lent
let	let	let
lie (躺)	lay	lain

Infinitive	Past tense	Past participle
lose	lost	lost
make	made	made
may	might	—
mean	meant	meant
meet	met	met
pay	paid	paid
put	put	put
read	read	read
rebuild	rebuilt	rebuilt
ride	rode	ridden
ring	rang	rung
rise	rose	risen
run	ran	run
say	said	said
see	saw	seen
seek	sought	sought
sell	sold	sold
send	sent	sent
set	set	set
shake	shook	shaken
shall	should	—
shine	shone, shined	shone, shined
shoot	shot	shot
shut	shut	shut
sing	sang	sung
sink	sank	sunk

Irregular verbs

Infinitive	Past tense	Past participle
sit	sat	sat
smell	smelt, smelled	smelt, smelled
speak	spoke	spoken
spell	spelt, spelled	spelt, spelled
spend	spent	spent
spread	spread	spread
stand	stood	stood
stick	stuck	stuck
strike	struck	struck
sweep	swept	swept
swim	swam	swum
swing	swung	swung
take	took	taken
teach	taught	taught
tell	told	told
think	thought	thought
throw	threw	thrown
understand	understood	understood
wake	woke	woken
wear	wore	worn
weave	wove	woven
will	would	—
win	won	won
wind	wound	wound
write	wrote	written

后记

为了在高中英语学科教育中全面贯彻党的教育方针，落实立德树人根本任务，外语教学与研究出版社以党的十九大精神为指引，组织专业团队，在深入领会《普通高中英语课程标准（2017年版）》精神的基础上，对《英语》（新标准）高中教材进行了全面修订。

在主编陈琳教授的指导下，副主编张连仲教授带领作者团队、编辑团队和设计团队精心设计、反复打磨，确保全面落实党的教育方针，实现从学科角度培养学生的核心素养，提升高中学生的英语应用能力和学习能力。我们对整个团队的艰辛努力表示由衷的感谢。

此次修订得到了广大教研员和一线教师的无私帮助。他们丰富细致的意见和建议，确保修订后的教材具有更为合理的内容和结构设计，更加贴合一线教学需求。我们向各位可敬的教研员和老师致以诚挚的谢意。

此次修订也得到了英方编审专家和中外社会各界人士及组织的大力支持。本册的英方编审专家是：Simon Greenall, Ingrid Wisniewska, Carmel Reilly, Chris Rose, Robert Gott, Sharon Dalglish, Melanie Guile, Paul Mason, James Styring。本册第二单元“主题理解”部分的非洲淡水资源紧缺图片由 Philippe Rekacewicz, Delphine Digout, UNEP/GRID-Arendal 提供，Ryan 和非洲儿童的照片由 Ryan's Well 基金会授权使用。“思维拓展”部分的 Nicholas Winton 爵士的部分照片由他的女儿 Barbara Winton 女士授权使用。第四单元“背景激活”部分的《图兰朵》剧照由国家大剧院提供，“思维拓展”部分的韩干画像由画家苏文授权使用。他们的支持保证了教材的语言真实地道、内容鲜活多样。在此，我们一并向他们表示真诚的感谢。

教材是学生学习与教师教学的重要内容和手段，是落实学科课程标准的重要介质。时代在前进，教材的建设也将持续发展，教材编写工作是永无止境的。我们热切期待修订后的《英语》（新标准）高中教材得到业内专家持续指正，在未来的实践中亦将广泛征求使用者的意见，使之更加完善，适应我国高中英语教育的不断发展，为学生学习英语和终身发展打下良好基础，为培养具有中国情怀、国际视野和跨文化沟通能力的社会主义建设者和接班人做出应有的贡献。

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