

English

Grade 10

Sciences

Low-mid B2

Student's Book

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1 Scientific phenomena

Introduction

Vocabulary
Phenomena
Grammar:
Present perfect

LEAD-IN Match a scientific discovery with a person. Why are these discoveries considered groundbreaking?

Archimedes (287-212 BC)	Radioactivity
Marie Curie Sklodowska (1867-1934)	Antibiotics
Louis Pasteur (1822-1895)	Tool making by primates
Alexandr Fleming (1881-1955)	The center of gravity
Jane Goodall (born 1934)	The germ theory of disease

Vocabulary

1 You are going to read a text about scientific phenomena. Read the definitions. Complete the text with the correct word in bold.

Natural (adj) not made or caused by humankind

Psychological (adj) related to the mental and emotional state of a person

Sense (n) the faculty of sight, hearing, smell, taste and touch through which the external world is perceived

Social (adj) relating to society

Visual (adj) relating to seeing

2 Contrary to popular belief, scientific phenomena do not have to be particularly incredible, mysterious, or extraordinary. A scientific phenomenon is something that can be observed through the _____, including seeing, hearing, smelling, tasting, and touching. There are several types of phenomena. _____ phenomena such as gravity or biological processes occur without any human input. _____ phenomena exist through the actions of groups of humans, for instance, social networking. Phenomena that observed in human mental and emotional responses is called _____. One example of it is a *deja vu* — the feeling that one has lived through the present situation before. Finally, there are _____ phenomena that include optical illusions.

Reading

3 Scanning to find information

Scanning is reading a text quickly in order to find specific information, e.g. figures or names. To scan the text, move your eye quickly down the page looking for the key words related to the information you want. When you find the information, you can just read that part in detail.

4 Scan the information about major discoveries quickly and cross out the animals which are NOT mentioned in the text.

chimpanzee dolphin spider elephant crow macaque monkey

Use of tool by animals

Jane Goodall is an expert on wild chimpanzees. She is recognized for her pioneering study of chimpanzee social and family life. She has observed the Kasakela chimpanzee community in Gombe Stream National Park in Tanzania since 1960. It is the longest study of any animals in their natural habitat. Jane Goodall discovered that chimpanzees make tools, eat and hunt for meat, hug, kiss, pat on the back, and even tickle each other.



One day Goodall noticed that one chimpanzee used a piece of grass to pull termites out of a termite mound. Another day she saw the same chimp making a better stick out of tree twig. This was a groundbreaking moment because for the first time in history an animal other than a human had been recorded making and using a tool. Until this discovery, scientists had said that

humans were different from other animals because only humans were known to make and use tools.

Goodall's discovery made researchers to take a closer look at behavior of other animals. Since then many myths about animals and tools have been dispelled. One myth was that tool use is limited to monkeys and apes. Another common misconception was that tool use requires fingers, or at least hands. Now we know that the tool use by animals, a phenomenon in which an animal uses a objects in order to get food and water, for grooming, defense, or construction, is widespread. Elephants, for example, use sticks for swatting flies, scratching, and reaching food that is out of reach. Octopuses gather coconut shells and create a shelter. Some

birds, such as weaver birds build complex nests. Wild macaque monkeys use stones to crack nuts. Dolphins hold the sponge on their noses and use that as they disturb the sandy bottom to get fish that hide in the sand.

The most persistent myth is that using tools as symbols to represent something else is uniquely human. But lately there is more and more evidence that some animals use symbolic tools just like humans do. For example, a female ape who lost a baby would create something like a doll and carry it around as she had carried her infant that had recently died.

These new discoveries show how much our understating of using tools by animals have changed since the 1960s, when scientists first realized that humans weren't the only ones using tools.

5 Read the article again. Check if the statements below are true (T) or false (F). Correct the false statements.

- a Jane Goodall observed gorillas. _____
- b Jane Goodall's study is the longest study of animals in the wild.

- c Chimpanzee used twigs to catch ants. _____
- d Tool use requires fingers. _____
- e Octopuses use coconut shells to hide. _____
- f Only humans use tools symbolically. _____

Discussion

6 Discuss the following questions with a partner.

- 1 What scientific phenomenon did Jane Goodall observed?
- 2 What did she discover?
- 3 Do you know other examples of using tools by animals? Please describe them.
- 4 How have latest observations of using tools by animals changed our understanding of humans?

Watch and Listen

7 **Video 1.** Watch the video "The mental skills of chimpanzees". In pairs write three questions on the video. Ask and answer the questions in small groups.

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Grammar focus

- 8** Rewrite the sentences in perfect continuous tense using time adverbials given in parenthesis.

Example

I study behavior of wild elephants (lately).

Lately I have been studying behavior of wild elephants.

- 1 John creates amazing visual illusions (recently).

- 2 Jane Goodall studies chimpanzee (all her adult life).

- 3 Marie Curie discovered radioactivity and new diagnostic methods in medicine were developed (since).

- 4 Many myths about use of tool by animals were dispelled (recently).

- 5 The scientific phenomenon of a deja vu is not fully explained (yet).

- 6 Scientists are trying explain the phenomenon of sailing stones (for years).

Writing

- 9** In the last 100 years scientists have made many discoveries that have improved the quality of our life and helped us to understand the world around us. Describe one scientific discovery you find most important. Write one paragraph. Use the questions below to structure your paragraph.

- 1 What was the scientific phenomenon?
- 2 Who studied it?
- 3 What did he/she discover?
- 4 How has this discovery changed our lives or our understanding of the world around us?



Workbook

Facts about genetics

Vocabulary:

DNA

Writing:

Article

LEAD-IN Ask and answer in pairs. What is DNA? Why is DNA important? Compare your answers with other pairs

Vocabulary

I Match the words with their definitions.

- 1 molecule
- 2 mutation
- 3 genome
- 4 identical
- 5 double helix
- 6 genetics
- 7 invertebrate

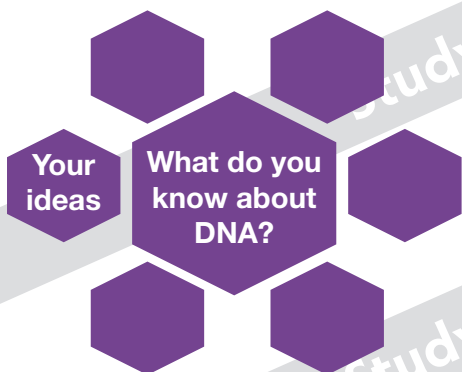
- 1 the complete set of genetic material of a human, animal, plant, or other living thing
- 2 the study of how, in all living things, the characteristics and qualities of parents are given to their children by their genes
- 3 the simplest unit of a chemical substance, usually a group of two or more atoms
- 4 an animal with no spine
- 5 the way in which genes change and produce permanent differences
- 6 the structure of a DNA molecule
- 7 exactly the same, or very similar

2 Now fill in the gaps with the words from Exercise 1 to complete the following sentences

- a** It is well known that radiation can cause _____.
- b** Environmental pressures encourage _____ with certain mutations to persist and others to die out.
- c** The interests of both parties may not be _____, but they do overlap considerably.
- d** _____, such as worms, are the main diet of these water birds.

Reading

3 Complete the cluster about DNA.



4 Read the article about DNA and temperament. Write one sentence-summary of the text. What is the main idea of the text?

Critical Thinking

Read the article again. In your groups think of “thin” and “thick” questions to the text. Tips below will help you.

Thin Questions - Facts.

Questions - Who? What? Where? When?

Answers - Yes/no or short answers, quick and easy to answer

Your questions

- 1 _____
- 2 _____
- 3 _____
- 4 _____

Thick Questions - Ideas: Facts + opinions

Questions - Why? How?

Answers - Long answers, a lot of research is needed to arrive at a conclusion your questions

- 1 _____
- 2 _____
- 3 _____
- 4 _____

5 Read the text. Did you have similar ideas?

DNA or What does our temperament depend on?

DNA are the three letters that influence our eyes, skin and hair colour, our looks, abilities and temperament. Deoxyribonucleic acid, or three letters, DNA, can also explain why twins do the same things with different pace or why they have different tastes. Humans are 99.9% genetically identical — only 1% of our genetic make-up differs. DNA is a molecule that contains the information to make proteins. Proteins, along with water, sugars, fats and DNA, constitute our cells and create the chemicals to make our body function. It contains the unique formula for us.

If you look at DNA through an electron microscope, you see a very beautiful structure made out of two long, twisted strands that contain complementary genetic information and called a double helix. Genes are organized in units called “chromosomes.” Humans have 23 pairs of chromosomes. One set of chromosomes comes from a person’s mother, and the other set of chromosomes comes from the father. There are three billion (3,000,000,000) base pairs in the DNA code within each cell. Sometimes, a fragile molecule, DNA, is damaged. Of course, there are many repair mechanisms, but some damage isn't repaired. Many things can cause mutations, including UV irradiation from the sun, chemicals like drugs, etc. If some of the mutations cause no harm, others can cause diseases, such as cancer. Heredity is the transmission of genetic characteristics from ancestor to descendant through the genes. An Austrian monk, Gregor Mendel, solved the mystery of why traits appear generation after generation. He experimented with garden peas to find out why two different plants in the same species produced certain characteristics time after time. He crossed plump round peas with wrinkly peas — and got all round peas. Then he crossed those roundseeded plants together and got some round peas and some wrinkled peas. This was how he discovered dominant and recessive genes. Here are some interesting facts about DNA.

- ✓ humans have DNA in common with the mud worm and that it is the closest invertebrate genetic relative to us
- ✓ about 90-95% of cases of cancers are due to environmental factors, the remaining 5-10% are due to inherited genetics
- ✓ if you unwrap all the DNA you have in all your cells, you could reach the moon 6000 times
- ✓ it would take a person typing 60 words per minute, eight hours a day, around 50 years to type the human genome
- ✓ if the human genome was a book, it would be equivalent to 80 dictionaries
- ✓ human DNA is 98 percent identical to chimpanzee DNA.

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Answer the questions

- Give the definition and examples of heredity.
- What can cause mutation?
- What is the importance of DNA for society?

Search the Internet to find answers to the questions above.

- 6** Separate the key words of the text in the word string and write them in the lines below.

genome cell gene recessive genetics dominant generation heredity molecule
human chromosome proteins

- 7** Read the text again and complete the sentences. Compare your ideas with the class using the phrases below

- ✓ I have already read/heard about it
- + It was new for me
- ? I want to get more information about it

Useful phrases

- I think that ...
- I didn't know that ...
- In my opinion ...
- It is new for me that ...
- I don't understand why ...

- 8** ★ In pairs choose a scientific event that shook the world (for example, the cloning of a sheep Dolly).

- 9** ★★ Search the Internet to find out more about the event you've chosen. Choose the most important and interesting details. Organise the information into paragraphs.



- 10** ★★★ Think about the language you'll need to describe the event.

Find examples in the article of:

- a sentence containing the past simple
- the present simple
- descriptive verbs

- 11** Write an article for a school magazine about a scientific event that shook the world (200 words)

 **Workbook**

Myth busters

Vocabulary:
Cloning
Reading:
Cloning species

LEAD-IN Work with a partner. Discuss the questions.

Can you think of any animals that have disappeared or are endangered?

What role do humans play in making an animal extinct or endangered?

What can people do to prevent more animals from becoming extinct?

Vocabulary

1 Read the definition of the word

to mythbust — to prove something that is largely believed to be true to be false. (Derived from the TV show Mythbusters)

e.g. "We thought that the show was on Tuesday, but Derek mythbusted and told us it was on Friday."

2 Read the text about the TV show Mythbusters and complete the sentence:

Myth Busters is... It is broadcast by... The show tests...

Myth Busters is an Australian-American science entertainment television program created by Peter Rees and produced by Australia's Beyond Television Productions. The series were first shown on the Discovery Channel on January 23, 2003. The series was transmitted by numerous international broadcasters, including SBS Australia, and other Discovery channels worldwide. The show's hosts, special effects experts Adam Savage and Jamie Hyneman, used elements of the scientific method to test the validity of rumors, myths, movie scenes, adages, Internet videos, and news stories. The show was one of the most popular on Discovery Channel, being preceded only by How It's Made and Daily Planet, both in Canada.

DID YOU KNOW?

An endangered species is a species which is in danger of disappearing, becoming extinct. Endangered (EN) is the second most severe conservation status for wild populations after Critically Endangered (CR).



Vocabulary

3 Read the words and definitions before you read the text.

clone (v) to produce a cell or organism that has the same chemical patterns in its cells as the original from which it was artificially produced
skin cell (n) the smallest unit of an animal that makes up skin
genetic (adj) relating to the biological process by which the characteristics of living things are passed from generation to generation
euthanize (v) to kill an animal because it is very old or sick
astounding (adj) very surprising
counterpart (n) a person or thing that has the same position or purpose as another person or thing

Reading

Cloning Endangered Species

Reporter: They are called bantengs, and although one of the week-old calves just died, the fact that they were born at all could put scientists one step closer to saving some endangered species. The animals were cloned from the frozen skin cells of a banteng which died 23 years ago.

Man: I'm rather still astounded by the fact that you can take the nucleus of a cell and produce a living animal.

Reporter: It's called nuclear cell transfer, injecting the banteng's genetic material into the egg of a living cow. It's been done before with an endangered animal called a gaur. It died in just two days. The banteng was euthanized after developing complications from the cloning. While the news of the birth is astounding, it also worries some conservationists.

Conservationist: If you don't deal with protecting habitat and dealing with all the root causes of endangerment, it doesn't matter how many animals you are able to produce in the lab and try to sort of fling back into the wild, they're going to face the same fate as their wild counterparts.

Reporter: The scientists at Advanced Cell Technology in Massachusetts, where both the banteng and gaur were cloned, agree to some extent.

Scientist: However, it doesn't make much sense to preserve the habitat if you don't have any animals to preserve.

Reporter: If you're wondering, "Can this technology be used to clone extinct animals like the mammoth," hold on. Since cloning needs preserved animal tissue, bringing back the dinosaurs remains the stuff of science fiction, for now.

Watch and Listen

4 Video 2. Watch the video "Cloning Endangered Species" Which sentence best summarizes the main idea?

- Bantengs, which are endangered, have been cloned by using the cells of an animal that died 23 years earlier.
- We now have the technology to clone endangered species, but this has many people concerned that we aren't dealing with the real problem.
- While certain animals cannot be cloned at this time, it is possible that we may be able to clone them in the future.

5 Watch again. Answer the questions.

- Why do scientists believe that they are closer to protecting endangered species?
- How were scientists able to clone the banteng?
- What worries some conservationists about cloning?

6 Work with a partner. Discuss the questions.

- Based on the information in the video, how successful is cloning? Explain your answer.
- Do you think cloned animals are able to thrive in the wild? Why or why not?
- What are the dangers of cloning?
- How might cloning affect the environment?

7 Work in a small group. Discuss the questions.

- Are there any endangered species in your country or region? Which ones?
- What are people currently doing to help save these animals?
- In your opinion, is cloning a good method to save endangered species? Why or why not?
- In addition to trying to protect endangered species, what other ways are people in your community helping the environment?

8 ★ Search the Internet to find out informaton about endangered animals is Kazakhstan. Make a list.

9 ★★ Make a presentation about local endangered animals and plants.

Workbook

14 Unit 1. Scientific phenomena

Writing an article

Writing:

An article

Grammar

Passive constructions

LEAD-IN Share opinions in pairs. What do you feel about writing in English? Tell your partner your ideas about writing an article. Ask follow - up questions if possible.

Vocabulary

1 Read the following definition

An article is a piece of writing for publication in a magazine, newspaper, brochure, leaflet, etc. It may be formal or informal in style.

2 Read the following basic advice to help you to write your own article.

How to write an article:

- The title should be interesting and catch the reader's attention.
- Do not just copy sentence from the task.
- Use informal language to involve the reader
- Don't forget to express your opinion

Structure

- 1 Heading : think of an interesting title.
- 2 Introductory paragraph linked to the title: to make the reader interested in the topic, try to use a question.
- 3 One or two more paragraphs: develop your main points.
- 4 A final paragraph: summarize the main points and give your concluding opinion or express your feelings.

Useful language: Involving the reader

- 1 Are you thinking of (... in the near future)?
- 2 I'm sure you'll agree (it was a great idea.)

Developing your points

- 1 Let's start with (why it is so important to find proof).
- 2 Another advantage (of knowing the truth is that..)
- 3 On top of that, ...

Giving your own opinion

1. I think that/In my opinion (legends and myths are very important).
2. It seems to me that (people are much more aware of the importance of traditions)

Grammar Focus

Impersonal passive constructions

Writers often choose the passive voice when the agent—the one performing the action—is “people.” As a subject, “people” may be too general or repetitive.

People say that cyber harassment is most common in online gaming world.

Good writers can solve this problem in two different ways:

- create a passive that has no apparent agent

Cyber harassment is said to be most common in online gaming world.

- move the real subject into the next clause by using the passive with *it*
It is said that cyber harassment is most common in online gaming world.

These passive constructions often appear with the verbs *agree, argue, believe, claim, consider, decide, expect, say, think, and understand*. Note, however, that not all of these verbs allow both constructions.

3 In your notebook, rewrite these sentences in the impersonal passive in two ways. For the last two items, only one of the constructions is possible.

- 1 People believe that these figures underestimate the size of the problem.
- 2 People claim that the trolls are responsible for the most abusive forms of cyber harassment.
- 3 People expect that victims of online harassment will speak out against their abusers.
- 4 People understand that self-regulation is the best way to control bad behavior.
- 5 People consider “Just ignore it” to be sensible advice to victims of online harassment.
- 6 People have argued that these problems will require a legal solution.

4 Now write three sentences of your own using an impersonal passive construction with *say, believe, or think*.

- 1 _____
- 2 _____
- 3 _____

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Passive for continuity

One reason a writer might choose to use the passive is to maintain continuity of subject within and across sentences. In other words, the passive allows writers to continue using the same noun phrase as the subject in some form.

Because the harassment takes place online, people do not always take it seriously.

subject of the clause

subject of
the sentence

object of
the sentence

Because the harassment takes place online, it is not always taken seriously.

subject of the clause

subject of the sentence

In the second sentence, *harassment* is the subject of the dependent and main clauses, providing greater continuity. Notice that the *by* phrase is omitted.

5 Read the sentences. Rewrite the second clause or sentence using the passive. Omit the *by* phrase if it is not necessary.

- 1 Although the stalker had been harassing students for weeks, the police did not catch him until yesterday.
- 2 A full year after the plane disappeared over the Indian Ocean, the crew of a fishing boat saw pieces of the plane floating 25 miles from shore.
- 3 Coffee is one of Brazil's most important crops. Farmers grow most of it in the area along the Atlantic coast.
- 4 One week after Congress passed a bill to make cyber harassment illegal, the president signed it into law.
- 5 Polar bears and some other Arctic animals are in danger of extinction. Climate change has drastically reduced their habitat.

6 Read the paragraph. Then rewrite the paragraph in your notebook using the passive where appropriate. Omit the *by* phrase if it is not necessary.

Identity theft is a growing problem. It occurs when someone uses your personal information to open bank accounts, borrow money, or make purchases. Almost 17 million people reported identity theft last year. The elderly are especially likely to become victims. Criminals targeted over 2.6 million older people in 2014. Stolen credit cards were the most common source of identity theft. Unfortunately, police usually do not recover the stolen cards.

7 Read the following features of a good article.

1 The reader

An article is like a direct conversation with the reader. For example, in your article you address the students at a school, or people who are interested in sports. You write to engage their interest right from the first sentence.

2 Get attention

All the article writera are trying to do is make you open the page to read their article. You need to think like a journalist when you're writing your article. Look at the heading and the first line of this article. How did I get your attention?

3 It has to be interesting

Try to make it easier for them to get a good impression about your writing by entertaining them. Add humour, real life or made up examples, or make up quotes.

4 The planning stage is vital for this.

Spend 5-10 minutes brainstorming ideas and choose the best three or four. Think what your subheadings might be and then write a short introduction that lets the reader know what to expect. Keep in mind that you want the reader to keep reading, so don't tell them exactly what they will read.

5 Write a good ending

In an article, it's better to give the reader something to think about, perhaps by asking them another question or giving them a call to action.

So, now you know how to write an article, why don't you write one giving advice on something you know about? The questions, called rhetorical questions because they don't require an answer, shouldn't be more than one per paragraph.

Good examples are:

Have you ever

What do you think about

Are you one of those people who thinks that

What would life be like if

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Writing

8 Read the article quickly. What happened in these years?

1 1939 2 1948 3 1987

Genetics in Kazakhstan has more than half a century of history. Development of modern medicine and agriculture are impossible without genetics. The Faculty of Biology was one of the first faculties in the Kazakh State University. They hoped that the selection of highly productive plant species and animal breeds could develop agriculture in Kazakhstan.

The Department of Genetics was founded at the Department of Plant Physiology and Microbiology in 1939 as a special Study for Genetics. On September 1, 1948 the study was reorganized into the Department of Darwin's Theory and Genetics. In 1987, related to the opening of the second specialty on molecular biology, the department was re-named into the Department of Genetics and Molecular Biology.

The department offers profound education in: General and Molecular Genetics, Plant Breeding and Genetics, Human Genetics, Molecular and Cellular Biology, Plant and Animal Biotechnology. Apart from teaching qualified geneticists and molecular biologists for the country, the Department is engaged in a research in the areas such as Plant Chromosome Engineering, Plant Genetics, Molecular Genetics, Animal and Human Genetics and Cytogenetics, Radiational and Ecological Genetics.

The article has three paragraphs.

Which of them:

- 1 describes the historical background?
- 2 describes main fields of work?
- 3 introduces the topic?

9 ★★★ Now read the task:

We are a popular tabloid newspaper and would like to receive articles from students to see how they have reacted to the new science fiction film. What do you think about science fiction movies in general? Would you recommend this genre to the teenagers? We want to hear from you. Write 100-120 words in an appropriate style.

Workbook

Natural disasters: Causes and consequences

Vocabulary:
Natural disasters
Grammar:
Practising conditionals

LEAD-IN Look at the pictures. Say what each one shows.



Vocabulary and Speaking

I Bad weather and natural disasters
Work in pairs. Which of these words do you know?

- | | |
|-------------|---------------|
| a storm | a blizzard |
| a tornado | an earthquake |
| a tsunami | a drought |
| thunder | a hurricane |
| lightning | a flood |
| a gale | a landslide |
| a heat wave | |

Make five sentences with the words above.

20 Unit 2. Natural disasters:

2 Work in groups. Discuss these questions.

- 1 Have there been any stories about bad weather or natural disasters in the news recently? If so, where? What happened?
- 2 Have you ever experienced very bad weather? If so, tell the group what happened.
- 3 Do you think the weather where you live has changed since you were a child? If so, how?

3 Look at the pictures. Say what each one shows.

Example: Picture 1 shows fire

Speaking Common natural disasters

4 Answer the questions in pairs

- 1 What natural disasters are common in Kazakhstan?
- 2 What can you do to stay safe during the natural disasters in the pictures above?
- 3 Which country has the most natural disasters?

In my country flood is the most common natural disaster

5 Would you ever volunteer to help after a natural disaster? Why? Why not?

Reading

6 Read the text and write out the names of the disasters.

7 Read the text again and fill in the table.

	Natural disaster	Causes
1	Tsunami	- earthquakes under the water - underwater volcanic eruptions
2		
3		
4		

Focus on Kazakhstan: causes and consequences

1 Natural Disasters are catastrophic events such as earthquakes, floods or hurricanes that cause damage and even loss of life. A natural disaster is a disorder in the balance of the environment. Sometimes human activities can influence the frequency and severity of disasters. Disasters can strike anywhere and at any time and they happen all over the world. Understanding the causes of natural disasters and principles of ecology can make it easier to prevent them and lessen their effects. But not all natural disasters can be prevented and sometimes we can't do anything to prevent them happening. Earthquakes are another common natural disaster that can cause many losses. The movements of the plates in the earth's crust cause them. An earthquake under the water can also cause a tsunami, as the quake causes great waves by pushing large volumes of water to the surface. Tsunamis can also be caused by underwater volcanic eruptions.

2 Almaty city in Kazakhstan has been destroyed or damaged by devastating earthquakes three times in the last 125 years. Catastrophic earthquakes in Almaty took place in 1770, 1807, 1865, 1887, 1889 and 1911. In each of these earthquakes the city was heavily destroyed but was rebuilt every time. The 1911 Kebin earthquake happened on 3 January in Kazakhstan. Registering at a 7.7 magnitude, it killed 452 people, nearly 1,100 houses and 4,545 yurts were destroyed by the earthquake and the resulting landslides. About 85% of the world's fatal earthquakes have occurred within Eurasia and the severity of this threat is increasing rapidly as millions of people every year migrate into megacities. A fundamental problem is that devastating earthquakes such as those in Bam, Iran in 2003 (30,000 deaths), Muzaffarabad, Pakistan in 2005 (75,000 deaths) and Wenchuan, China in 2008 (70,000 deaths), were either previously unknown, or their threat had not been recognized.

3 Fires take place in different countries all over the world, especially during the summer months. The sun's heat and lightning strikes are the natural causes of fires, but they can also be caused by human actions such as campfires, smoking, fireworks and many other things. Volcanic eruptions are another natural disaster, and they are caused by magma escaping from inside the earth.

8 The article has three paragraphs.

Which of them:

- 1 describes the historical background?
- 2 describes causes of natural disasters?
- 3 introduces the topic?

22 Unit 2. Natural disasters:



9 ★★ Have you or someone you know ever experienced natural disaster? Complete the sentences paying attention to the type of a conditional sentence

If scientists predict a volcanic eruption in my country _____

If our country was located on the ocean coast _____

If people had saved The Aral Sea _____

I would _____ if I heard about the flood on the weather forecast.

10 ★★★ Mini-research. Work in small groups. Make and present a small research

- Search the internet and find the information about ways of earthquake predicting in the world.
- Which ways of predicting earthquakes are used in Kazakhstan? Which should be used to your mind?



Prediction and prevention of natural disasters

Vocabulary:
noun collocations
Reading:
Seismic waves

LEAD-IN How can climate change affect natural disasters? Discuss as a class.

Vocabulary

1 Look at the adjective-noun collocations. Circle the collocation in each group that has a different meaning.

- 1 *natural / terrible / major* disaster
- 2 *severe / devastating / controlled* flood
- 3 *ambitious / large-scale / long-term* project
- 4 *prolonged / seasonal / extreme* drought

2 Complete the sentences with the correct form of the collocations from Exercise 1. In some cases, more than one answer may be possible.

- 1 Due to their complexity, desalination plants are _____ that may take many years to construct.
- 2 One of the worst _____ in human history was the 1556 earthquake in Shaanxi Province, China.
- 3 _____ are sometimes used to improve the quality of rivers.
- 4 _____ such as dams, lood defenses, and early warning systems require huge amounts of investment.
- 5 In 1931, there was a(n) _____ in China, where more than a million people lost their lives to the water.
- 6 Due to a very hot climate, sub-Saharan Africa suffers from more _____ than many other places in the world.
- 7 In an increasing number of places, the lack of winter rain makes the chances of _____ in the summer more likely.
- 8 Where proper planning has been in place, the chance of a flood or drought turning into a _____ are reduced.



24 Unit 2. Natural disasters:

Speaking Comparing Climates

3 Work in groups and share ideas about

the climate in Kazakhstan — Group 1

the climate in the UK — Group 2

the climate in Australia — Group 3

Write your main ideas in the diagram below. As a class find out if the climates of Kazakhstan, the UK and Australia have common features.

Speaking and Reading

4 Discuss the following questions

What kind of disaster films have you seen? Do you like them? Why? Why not?

Is there any connection between the risk of natural disasters and the climate of a country?

Is there any connection between the risk of natural disasters and the geographical position of a country?

5 Read the paragraph and search the Internet to find the answer to the question asked in the end.

Natural disaster

Tsunami

Causes

- earthquake under the water
- underwater volcanic eruptions

Critical Thinking Prediction and prevention of natural disasters

6 Work in groups. Choose the disaster type to work on the project.

Task 1 What factors affect the damage caused by the disaster? Make a list of factors. Comment your ideas.

Task 2 Which shape of building would be the safest for the disaster type you are working on? How tall should it be? What facilities should the buildings have? Find a picture or draw the building and explain your choice.

Task 3 What should people know and be able to do for preventing the disaster and reduce the damage from the disaster? Make a leaflet containing the basic rules

Task 4. Write a blog entry with the title “Save your lives!”

Seismic Waves

Earthquakes are scary, right? Well, they're scary because they create seismic waves, and those seismic waves carry energy. Technically all waves carry energy, but seismic waves carry a lot of it. And that is enough to send people diving for the nearest sturdy table or door-frame.

Seismic waves are low-frequency waves that travel through the Earth. They're generally caused by an earthquake, explosion or volcano. Seismic waves are studied by seismologists and detected using seismometers. These waves are described using a number on the Richter scale. The largest earthquake ever detected was in 1960, in Chile, and was given a rating of 9.5 on the Richter scale. Because of their high energy, earthquake waves are definitely the most damaging and dramatic. But why is it that they have so much energy?

- 7** Now discuss in pairs and add information about the consequences of natural disasters in the following table

Natural disaster	Consequences
Tsunami	- loss of livelihood
	- damages to flora and fauna
	- objects and buildings are destroyed
	- people are killed by tsunamis

- 8** Read an article about the Disaster Prevention Day. What country is the Disaster Prevention Day held in?

On Disaster Prevention Day emergency drills organized by local governments are held throughout the country. Some of these drills consist of ducking under desks to escape falling objects and evacuating from buildings. At many elementary and middle schools, September 1 is the first day of school after summer vacation. So a lot of schools carry out an evacuation drill as part of the back-to-school ceremony.

26 Unit 2. Natural disasters:

9 Match the sentence halves. In some cases, more than one answer may be possible.

- | | |
|------------------------------|--|
| 1 It is important | a preparing for droughts even during the rainy season. |
| 2 It is unlikely | b to protect homes and businesses from floods. |
| 3 It is difficult | c to guarantee flood protection in areas close to major rivers. |
| 4 It is worth | d that a tsunami can overcome large-scale flood defenses. |
| 5 It is not worth | e build homes in a flood zone. |
| 6 It is never a good idea to | f that short-term drought solutions will work over a long period. |
| 7 It is not surprising | g persuade people to move away from areas at risk of floods. |
| 8 It is not easy to | h investing in tsunami warnings if people don't pay attention to them. |

10 ★★ Write your ideas about prevention of natural disasters

- 1 It is important to prepare for a flood by _____.
- 2 It is a good idea to build houses _____.
- 3 In areas that suffer from drought, it's worth _____.
- 4 When working with many different organizations, it can be difficult _____.
- 5 Given how complex dam-construction projects are, it is not surprising _____.
- 6 If there is a severe weather warning, it is _____.

Listening

II CD 1 ★★ Listen to the text about habitat destruction and say if the sentences are True or False.

- 1 Planet Earth is dynamic and always changing.
- 2 Today about 20% of the planet is covered in ice.
- 3 Natural forces don't influence the environment.
- 4 We have fewer rain forests nowadays due to human action.

 **Workbook**

3 Virtual reality Mobile applications

Vocabulary:
Mobile applications
Reading:
Mobile applications

LEAD-IN Talk in pairs. What are the advantages of using mobile applications in education? Example: Students can call their friends for help. Students can have access to educational materials. Students can use social media.

Vocabulary

- 1** Read the definition of a mobile application. Fill in the gaps with words in the box.

A mobile ____, most commonly known as an ____, is a type of application software designed to run on a ____ device, such as a ____ or tablet computer. Mobile applications frequently serve to ____ users with similar services to those accessed on PCs. Apps are generally ____, individual software units with ____ function. This use of app software was originally popularized by Apple Inc., which offers thousands of applications for the iPhone, ____ and iPod Touch. A mobile application also may be ____ as an app, web app, online app, iPhone app or smartphone app.

Words to use: smartphone, application, iPad, provide, limited, app, mobile, small, known.

- 2** Read the list of mobile applications and find information about services they provide.

For each application in your city/town, make a list of services you have. Discuss your partner about the service they provide.

- 3** Here is the list of the most popular mobile applications:

- 1 HOLA.KZ
- 2 eMenu.kz
- 3 ToiDrive
- 4 ... OLX
- 5 ...
- 6 ...
- 7 ...
- 8 ...
- 9 ...
- 10 Chocollife




There are many well-known developed mobile applications such as "ZOOM", "WakeUp Technology", "WU", "Click" in Kazakhstan. They developed a great amount of mobile applications that became very popular and are being used by the Kazakhstani people. They make our lives more convenient and save our time. We pay for our purchases, call a taxi, buy tickets to the cinema or theatre.

- 4 Which of the functions mentioned in the paragraph are the most important for you?
- 5 Which of the boxes below provide information about advantages of mobile phone apps and which one about disadvantages of mobile phone apps?

Mobile phone apps: advantages and disadvantages

Mobile phones became very popular now. There are a lot of mobile applications. Mobile applications are used for entertainment, social interaction and supporting learning.



Mobile apps generally need very little instruction on how to use them


- ✓ They help to engage pupils in learning as well as providing them with access to educational materials
- ✓ They create innovative ways for us to communicate with family and friends across the world

They allow more opportunities for flexible working, such as working from home or outside normal office hours

Mobile apps may require access to personal information on your phone which could be a potential security risk

- ✓ Mobile websites may not contain all the information available on desktop computers

They may be more of a distraction than helping in educational settings.



- 6 ★★ Work in small groups and discuss at least two more advantages and disadvantages of mobile phone applications you use.
- 7 ★★★ Make a presentation about your favourite application

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2D games

Vocabulary:
Video games
Discussion:
Pros and cons

LEAD-IN Discuss the questions as class: When was the last time you played 2D games? Did you enjoy it? Why? Why not? Name some of the most popular 2D games.

Reading

1 Read the text about Pros and Cons of 2D games

a Today specialists practice different animation styles. However, the most popular are 2D and 3D animation. 2D animation is the most common animation style. It appeared in the late 1800's and is still remaining preferred by most animators. 3D animation became popular in the late 1990's. Attractive 3D animation is preferred by many users because of realistic experience it gives.

b In spite of its "age" 2D has many advantages. Cartoonish style of the oldest 2D form of animation is beloved by fans as it does not imitate real life. Producing 2D animation is cheaper than 3D animation and it is quicker to produce. As 2D involves less technology and software it is simple and less complex and can be used without any tutorials. Moreover, this design form allows players to break into an ideal, but non-realistic, world. Also, 2D game designers focus on the details of the games and you create an original look and feel to your game.

c However, 2D has some disadvantages such as unrealistic 2D design, less demand of 2D comparing with an eye-catching 3D which attracts more people, templates of 2D animation that can never be reused, limited details of the surrounding environment, some users think traditional animation of 2D is boring and the fact that there are few types of 2D games.

2 Match the ideas to the right paragraph:

- _____ What is good about 2D games
- _____ Some drawbacks
- _____ Variety of animation styles

Vocabulary Media collocations

- 3** Combine two media words to make a common collocation based on the following list. Make short dialogues using as many collocations as you can.

affairs	cassette	chat	colour	control	newspaper
current	dish	forecast	news		
opera	remote	report	satellite	show	
soap	supplement	tabloid	video	weather	

- 4** Put the correct word or phrase from the following list into the sentences below.

turn on look up plan record turn off switch

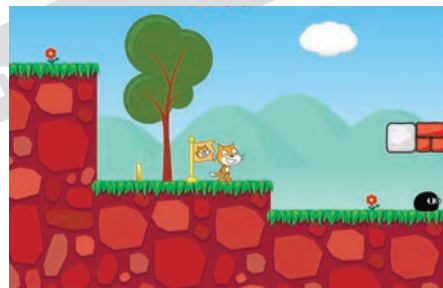
- a I _____ a program if I don't like it.
 b I _____ good programs on my video-recorder.
 c I _____ the television as soon as I get home.
 d I _____ to another channel if I'm bored.
 e I _____ my viewing very carefully.
 f I _____ the times of the programs in the newspaper.

What about you? Write true sentences like the ones above.

Critical thinking A survey

- 5** ★★ Answer the questions below, then walk around the class and compare your answers with other students. Remember to change the partners often. Report back the results of the survey.

Do you learn anything from playing video games?
 Do you think video games make people violent?
 Would you like to be a game designer?
 What kinds of games would you design?
 Does your personality change when you're gaming?
 Are video games good for relieving stress?



Expressing and Justifying Opinions

- 6 Expressing opinions or giving your thoughts is an important part of speaking. You also need to justify your opinions. Explain why you have that opinion. Study the table.

Expression	Meaning
Clearly, obviously	Easy to understand or see
Evidently	Showing that it is your opinion
Usually, or in general	Usually, or in general
Surprisingly	Unexpected in a way that is unusual
Inevitably	Something that cannot be avoided

After expressing your opinions, here are some ways to justify them.

<p>In 1 sentence: Generally, we decided not to move to the village ...</p>	...as he ... invest money
	...because he doesn't have...
	...since he has...
	...due to the fact that he ...
	...due to his refusal ...
<p>In 2 sentences: Generally, we decided not to move to the village ...</p>	...as a result of being late...
	...as a consequence of his visit...
	...the reason for this is that he ...
	This is because he has ...
	This is due to the fact that he has...
<p>In 2 sentences: Generally, we decided not to move to the village ...</p>	This is because of his illness ...
	This is as a result of his illness...
	This is as a consequence of his illness...

7 In sentences 1-5, choose which adverbial phrase should go in the gap. Look carefully at the rest of the sentence.

- 1 _____, adults don't like 2D games.
- 2 _____, we must try different things.
- 3 _____, I don't think new mobile applications is caused by great demand.
- 4 _____, the number of smartphones is increasing in my city because of unemployment.
- 5 _____, many young designers are unable to create something new.

Look at the justifying phrases and choose your opinion about 2D games.

- 1 Predictably, ...
- 2 Sadly, ...
- 3 Obviously, ...
- 4 Generally, ...
- 5 Personally, ...
- 6 I don't believe that ...

Class discussion answering the questions in the box.

- If you had your own TV show what would you show on it?
- If you had your own radio station what kind of music would you play?
- If you hosted your own talk show what would you talk about?
- If you had your own newspaper what would be on it?

Project Work

Make a class survey to find out what games are played by your classmates and order them in order of popularity. In the next class present your findings. Compare the results and make conclusions.

II ★★★ Write a way you use the Internet.

Book

3D printing

Vocabulary:
3D printing
Reading:
Industrial revolution

LEAD-IN What do you think about current and future uses for 3D printing. What kinds of objects can be created with a 3D printer today?

Vocabulary

I Read the definitions. Complete the sentences with the correct form of the words in bold.

assembly (n) the process of putting parts together to create one thing
customize (v) to make or change something to fit a user's needs
downside (n) disadvantage
drastically (adv) severely; with very noticeable effect
foundation (n) the thing on which other things are based
mass production (n) the process of producing large numbers of one thing in a factory
scenario (n) a description of possible events
shift (v) to change position or focus

- 1 You can _____ the software so that it only includes the functions that you need.
- 2 On my new phone plan, I get service everywhere. The _____, however, is that it is much more expensive than my old plan.
- 3 Furniture that you buy online often comes in several pieces and requires _____ at home.
- 4 The math skills that you acquire in high school provide a _____ for the more advanced work you'll do in college.
- 5 Public attention usually _____ to economic issues and away from international issues during an election year.
- 6 The consultant outlined three different _____ for the company's future depending on how well it does this year.
- 7 The state has _____ cut the education budget for the coming year, so schools will no longer be able to provide music or art classes.
- 8 Before the apparel industry adopted _____, each item of clothing people wore was made by hand just for them.

Reading and Listening

2 **CD 2.** Listen to the text and continue the sentence:

3D printing _____

3 Now read the text and do the exercises that follow.

The third industrial revolution?

No shoes for the wedding? No problem, just print a pair. A part inside your dishwasher has broken? No problem, just print a replacement. Kidney failure? No problem; we can print you a new organ – on demand.

The technology behind 3D printing, the process of creating a solid object from a digital model, has been around since the 1980s, but only recently have the costs fallen far enough and the computer software improved enough to make some of these **scenarios** more than a dream.

I think some of the most dramatic uses of 3D printing have been in biomedical research, where scientists have been working on 3D-printed organs. In these projects, the “ink” that the printers use is actually made of human cells. So in the case of 3D-printed skin, a printer builds up layers of skin cells. You can imagine how this could help a patient with a burn or a wound that hasn't been healing on its own. Other printers are creating bone, muscle, ears, and even brain tissue. Doctors and researchers have been working on recreating human organs for years, but 3D printing is really an advance. For one thing, the computer software that guides the printing process is extremely accurate, right down to the micron, an accomplishment that human hands cannot match. In addition, since the new organs come from human cells, often the patient's own cells, there is a lower risk of rejection. This biological 3D printing function is the one that I am the most excited about; but the research and testing still have a long way to go before we can automatically include this technology among a patient's options.

On a lighter note, 3D printing has also entered the world of high fashion, where designers are actively using it in their collections. What really attracts designers is the idea that they can **customize** their designs. And consumers? Well, they're dreaming of the day when they can download a design from the Internet and print it out at home. That day too, however, is some distance in the future, at least until we can come up with better “ink.” Today, the material fed into 3D printers is a type of plastic. It's stiffer than fabric and not very comfortable. The cost of printing is also too high to make this a practical form of production. So you're more likely to find 3D fashions on the runway than in a department store.

With all of its efficiencies, AM printing could **drastically** lower repair costs, so we would need to replace equipment, even cars, less frequently. All of this sounds like a dream come true. So, what's the **downside**, you may ask? There always is one, of course. Although I mentioned the positive impact AM could have on the environment, it could also have the opposite effect. First of all, the plastic that is used in most 3D printers has a long supply chain and most of it, though not all, is petroleum based. Also, printing that is this easy could encourage our already casual attitude toward disposing of possessions. Don't like your shoes? Throw

them out and print a new pair. But that old pair will have to end up somewhere. So I worry that along with all its advantages, 3D printing may bring an explosion of junk. There is also the potential for abuse. The technology might be so easy to use that you could just download instructions and print something dangerous – like a gun. Already, criminals have printed parts for bank machines in order to withdraw money illegally. So yes, there will be problems, but I want to end my talk by stressing that in spite of these concerns, I am optimistic and excited about the possibilities presented by this 3D printing technology. Some have predicted that it will bring the third industrial revolution. Is this an exaggeration? Perhaps, but then again, perhaps not.

Critical Thinking

4 Check (✓) the main ideas.

- 3D printing will allow us to create and replace objects on demand.
- 3D printing is no longer expensive.
- 3D printers can be used to create human organs.
- 3D printers can customize clothing.
- 3D printing does have some potential negative consequences.

5 Read again. Write T (true), F (false), or DNS (does not say).

- 3D printing is a very new technology.
- 3D printing is a more precise way of creating human organs.
- 3D printers use cotton and other fibers to print clothing.
- Most 3D fashions will probably be printed in developing countries.
- The cost of 3D printing goes down as the number of items produced goes up.
- 3D printing will reduce the need for companies to keep a large inventory on hand all the time.
- 3D printing may allow criminals to operate more freely.
- There has been a lot of opposition to 3D printing from manufacturers.

6 Discuss the questions in small groups

What do you know about 3D printing?

Have you ever seen a 3D printer or 3D printed object before?

What do you think is possible \impossible to 3D print?

How does 3D printing work?

How do you think 3D printing can impact people's lives?

Do you think that people will ever use 3D printers in their homes? Why / why not?

How would you use a 3D printer if you had one?

Why is the threat of 3D printing to intellectual property such a problem?

36 Unit 3. Virtual reality

Role Play

7 ★ Get into groups of four. Get your roles.

Role A – Flowers

You think flowers are the best things 3D printers can print. Tell the others three reasons why. Tell them what is wrong with their things. Also, tell the others which is the worst of these (and why): food, clothes or gadgets.

Role B – Food

You think food is the best thing 3D printers can print. Tell the others three reasons why. Tell them what is wrong with their things. Also, tell the others which is the worst of these (and why): flowers, clothes or gadgets.

Role C – Clothes

You think clothes are the best things 3D printers can print. Tell the others three reasons why. Tell them what is wrong with their things. Also, tell the others which is the worst of these (and why): food, flowers or gadgets.

Role D – Gadgets

You think gadgets are the best things 3D printers can print. Tell the others three reasons why. Tell them what is wrong with their things. Also, tell the others which is the worst of these (and why): food, clothes or flowers.

8 ★★ Make your own investigation

The proliferation of 3-D printers has had an unexpected benefit: the devices, are perfect for creating cheap prosthetics. Search for more information in the Internet. Present your findings to the class.

9 Read the news.

In 2013, Jon Schull created the online community e-NABLE, a group that aims to advance the development of these affordable devices and connect 3D-printing hobbyists and professionals with people in need of prostheses. Today, the popularity of e-NABLE has exploded with more than 2,000 volunteers helping at least 100 people around the world.

10 ★★★ Search the Internet for more information about the online community e-NABLE and examples of its projects



Workbook

Organic and non-organic worlds

Introduction

Vocabulary:
Organic food
Vocabulary:
Eating habits

LEAD-IN Many people think organic food is safer, healthier and tastier than regular food. Discuss the statement in pairs.

Watch and listen

1 **Video 3.** Watch the video "Chinese Flavors for American Snacks" and write True, False or DNS next to the statements. Correct the false statements.

- 1 American food companies are increasing their sales in China every year.
- 2 Chinese consumers only like salty products from US brands.
- 3 Many of these flavors are popular with US consumers.
- 4 The Chinese consumer market is expected to grow in the future.
- 5 American grocery stores are building branches in China.

2 Read the definition.

The term "organic" refers to the process of how certain foods are produced. Organic foods have been grown or farmed without the use of artificial chemicals, hormones, antibiotics or genetically modified organisms. In order to be labelled organic, a food product must be free of artificial food additives.

3 How good or bad are these? Work with your partner. Change partners and share what you wrote.

Organic food	Non-organic food
Fast food	Spicy food
Dairy food	Raw food

4 Look at the pictures and discuss the questions as a class.

What differences can you see between these two farms?
Which one has more varieties of plants?
Which one has bigger fields?
What are the advantages of organic farms?



5 Complete these two sentences using the information from the list below.

Junk food is food that is not healthful because _____;
 Healthy lifestyle and healthy eating are essential to help keep you fit and well because _____

- a it is a key to a more successful living;
- b it has an impact on the wellness-oriented quality of life;
- c it contains a lot of fat, salt or sugar;
- d you will put on a lot of weight;
- e it lacks healthy ingredients;
- f it promotes a better quality of life;
- g it contains artificial substances.

Jigsaw Reading

6 Get into groups A and B. Group A read Text One, Group B read Text Two.

Text One: We must be cautious when we shop for our groceries as these harmful pesticides can be hidden ingredients. As a consumer who is concerned with natural health and disease reversal, it is important to educate yourself on what you and your family are eating. Although organic foods are more expensive and can be more challenging to find at the grocery store, buying organic is definitely the easiest decision you can ever make for you and your family's health. Remember to grow your own food as much as possible and join a local, organic co-op if you can. If you absolutely must purchase non-organic produce, stay away from the Dirty Dozen Plus 2 and keep in mind that organic grains, dairy and most other products are certainly the healthiest way to go.

Text Two: Scientists have revealed that organic and non-organic food contain pretty much the same amounts and kinds of vitamins and other nutrients. This might be surprising news for those of us who choose to buy organic believing it to be healthier. Researchers from America's Stanford University concluded that there might not be any extra health benefits to buying organic. Lead researcher Dr Crystal Smith-Spangle said there was no difference in the vitamin content in fruit, vegetables, meat and dairy products in organically- and conventionally-produced food. She said the only difference was slightly more phosphorus in the organic products. Dr Smith Spangle said both organic and conventional foods rarely exceeded the allowable limits for pesticides in the USA. She concluded by saying that people should eat more fresh produce, whether it is organic or conventional.

From https://breakingnewsenglish.com/.../120904-organic_food.ht.

7 Discuss the questions in pairs.

- 1 What is essential to keep you fit and well?
- 2 What kind of food chains are popular today?
- 3 What is the difference between fast food and junk food?
- 4 Why have many people changed from a mainly meat-based diet to a vegetarian one in recent years?
- 5 What do you think is the main problem with eating habits?
- 6 Do you have any problems with eating habits?

Critical thinking

8 Now get into pairs A and B and discuss the following questions based on the information in your text.

What is the main idea of the text? What did you learn from reading the text? Do you have any questions after reading this text? Where could you find out more information about the topic? What would be a good title for your text? Do you agree or disagree with the information in the text? How is the information in your text different from that of another group?

9 ★ Make a poster comparing and contrasting non-organic and organic food. Present your work in the next lesson.

10 Work with a partner. Discuss the questions.

- 1 Should governments limit the growth of multinational restaurant chains to allow local, traditional restaurants to compete for customers?
- 2 Use ideas from Reading 1 and Reading 2 to answer the following question.
- 3 When you eat at a foreign food restaurant, which of these three qualities is most important to you:
 - that it is inexpensive?
 - that it is locally owned?
 - that it is authentic? Why?

Writing

11 ★★ Write a magazine article about healthy food. Include imaginary interviews with food experts\doctors\parents. Share what you wrote with your classmates in the next lesson. Write down main ideas and expressions you hear from your partner(s).

12 ★★★ Write a letter to an organic food expert. Ask three questions about organic food. Give three of your opinions on it. Exchange your letters and try to answer the questions.

Workbook

40 Unit 4. Organic and non-organic worlds

Changing Eating Habits in Italy Vocabulary

- 13** Read the definitions. Complete the sentences with the correct form of the words in bold.

consumption (n) the using of goods and services in an economy
convenience (n) something that is suitable to your purposes and causes no difficulty for your schedule or plans
ensure (v) to make certain that something is done or happens
experiment (v) to test or to try a new way of doing something
increase (v) to become larger or greater
influence (n) the power to have an effect on people or things, or someone or something that is able to do this
relatively (adv) quite good, bad, etc. in comparison with other similar things or with what you would expect
specialty (n) a product that is unusually good in a particular place

- Many shoppers have switched to ordering groceries online because of its _____. Now they don't leave their homes to buy food.
- Others, however, prefer to see the food before they buy it to _____ that the food is fresh.
- People sometimes reduce their _____ of certain foods when those foods become more expensive.
- If bad weather affects the supply of some fruits or vegetables, it can cause their prices to _____.
- People who live in big cities tend to be familiar with international food compared to people who live in rural areas.
- Larger cities often have more _____ food stores, which sell foreign and less-familiar items.
- Recently, the popularity of cooking programs on television has had a big _____ on the ingredients that people use. People want to cook with foods they see on TV.
- Some travelers like to eat familiar food, but others prefer to _____ with unfamiliar dishes.



Reading

14 You are going to read an essay about changing eating habits in Italy. What do you think the rest of each paragraph will be about?

- 1 In Italy, changing trends have affected the preparation of food.
- 2 Italians' food tastes have changed because of globalization.
- 3 A third major change in Italy's food culture has been the rise of large restaurant chains.

15 Skim the essay and check your predictions from Exercise 14

Changing Eating Habits in Italy

1 Globalization is causing a lot of change in international culture, from the TV shows we watch to the clothes we wear. One major area that has been affected by globalization is food culture. In a recent survey taken in Japan, Brazil, and Canada, 72% of people said that globalization had improved their eating habits. It seems clear that globalization has significantly affected food **consumption** in most parts of the world, but one country whose food has a long history of being "globalized" is Italy. If you walk down any main street in any major world city, you will find at least one Italian restaurant. Furthermore, Italy has seen changes in its own eating habits due to **influence** from other countries. This influence, which is a result of the broader trend of globalization, has had both advantages and disadvantages.

2 In Italy, changing trends have affected the preparation of food. Italian families have always taken a lot of pride in preparing food. Until recently, pasta — a basic Italian food — would have been made by people in their local area. Families would also have made the sauces to eat with the pasta at home. People no longer spend so much time preparing their meals. Indeed, frozen or take-out Italian meals have become very popular in Italy. Furthermore, dried pasta is now mass-produced and is sold **relatively** cheaply in supermarkets. Readymade pasta sauces are also increasingly popular — sales have doubled in the last few years, according to one manufacturer. This has added to the convenience of making meals, but has diminished a cultural tradition.

3 Italians' food tastes have changed because of globalization. People are traveling more, being exposed to other cultures more, and reading about and seeing foreign ingredients and recipes on the Internet and social media. Immigrants to Italy bring their food traditions with them. It used to be that people's opportunities to **experiment** with foreign food were very limited, since only pizza and pasta were available in the local town square. Now they can eat at restaurants with foreign cuisine and buy foreign food in shops. Indian, Chinese, and Japanese food have all

become especially popular. While this trend is more common in urban areas such as Rome, Milan, and Venice, many smaller towns are also experiencing similar changes. Many Italians would say that this has been a positive change, but others worry that they are losing their sense of nationality as foreign food becomes more common.

4 A third major change in Italy's food culture has been the rise of large restaurant chains. These chains are often foreign, and their numbers have **increased** enormously in recent years. Many people like the **convenience** of fast food. Some Italians, however, feel that this has resulted in the destruction of local and national **specialties**. In 1986, a famous fast-food chain opened a restaurant in a historic Rome neighborhood. Many unhappy people responded by joining the "Slow Food" movement. This movement encourages people to eat healthy, locally sourced food.

5 In summary, globalization has had a significant effect on the way that Italians eat. Its influence can be seen as both positive and negative. Convenience foods have replaced many of the traditional home-cooked meals, and the availability of foreign foods and international chains has greatly increased. Italians no longer have to rely on food that is produced locally. While some people welcome this extra choice, others fear the damage it may cause to Italian traditions, culture, and local businesses. On the other hand, the great popularity of Italian food worldwide will **ensure** this great cuisine never disappears.

Critical Thinking

16 ★★ Work with a partner. Discuss the questions and choose the best answer.

- 1 What types of readers do you think this essay is meant to appeal to?
 - a people who have a general interest in food
 - b people who are experts in Italian food
- 2 What do you think is the author's main intention in writing this essay?
 - a to say that globalization has had a largely positive impact on Italian food
 - b to say that globalization has fundamentally changed Italian food

 **Workbook**

Alternative energies

Vocabulary:
Renewable energy
Speaking:
Alternative energy

LEAD-IN Talk in pairs. Share information about alternative energies in the RK.



Vocabulary

- 1** You are going to read an article on renewable energy. Look at the photos. Match the types of renewable energy in the box to the correct photo.

geothermal energy hydropower solar power wind power

- 2** Read the sentences and write the words in bold next to the definitions.

- Aquatic** creatures include fish, dolphins, and whales.
 - Oil companies often drill **offshore** to get petroleum from the sea floor.
 - Energy from the sun is considered an **inexhaustible** resource; as long as the sun is there, it can give us energy.
 - The **initial** response to the recycling program has been good. Now let's see what happens next.
 - Waterfalls **generate** energy that we can use as power.
 - All countries around the world need energy sources for their cars, machines, and appliances. This need is **universal**.
 - Many people think that we need to **utilize** existing renewable energy sources such as solar and wind power.
- a _____ (adj) at the beginning; first
b _____ (v) to cause to exist; produce
c _____ (adj) living in, happening in, or connected with water
d _____ (adv) away from or at a distance from the land
e _____ (adj) existing everywhere or involving everyone
f _____ (v) to make use of something
g _____ (adj) in such large amounts that it cannot be used up

44 Unit 4. Organic and non-organic worlds

Watch and Listen

3 **Video 4.** Watch the video "Wind Turbines". Write True or False. Correct the false statements.

- 1 Jerry Tuttle is responsible for keeping the turbines operating.
- 2 The wind turbines in Sweetwater are responsible for producing 13% of the electricity for Texas.
- 3 Samuel Barr's windmill only generates enough electricity to run his coffee machine.
- 4 One criticism of wind turbines is that they are in locations where the most power is needed.
- 5 The greatest demand for electricity is in the summer and winds are usually weaker during that time of the year.

Reading

HYDROPOWER

1 Hydropower is created when moving water turns turbines to create electricity. The source of the moving water can be rivers, waterfalls, or the sea. Because flowing water continues to move, this creates an **inexhaustible** amount of energy that can be stored and used when the demand is highest. There are a few drawbacks, however. Water-powered turbines can have a negative environmental impact on **aquatic** wildlife and can endanger boats. Also, creating hydropower dams causes land behind the dams to permanently flood. Finally, it is expensive to set up hydropower systems — the average cost is between \$1 million and \$4 million.

WIND POWER

2 To create wind power, large turbines are placed on top of hills or **offshore**. The wind turns the blades, which **generate** energy. Wind turbines can be **utilized** on a large scale or on a small scale. Unlike hydropower, this process is relatively cheap and is considered one of the most affordable forms of electricity today. Also, it does not harm the air or land it uses. However, many people consider wind turbines ugly and noisy. Also, they rely on the wind, so if it is not windy, no energy is produced. Finally, like hydropower, wind turbines can be a threat to wildlife such as local birds.

SOLAR ENERGY

- 3 To use solar energy, solar panels absorb sunlight and, using devices called *photovoltaic cells*, turn it into electricity. The sun produces energy constantly, which makes solar energy an inexhaustible resource. Another benefit is that it generates no pollution. Solar energy can be adapted to work on a variety of buildings and in a variety of environments. However, a large area of land is needed to produce a large amount of solar power. Scientists have determined that if we wanted to try to power the entire Earth with renewable solar power, we would need to cover a land area about the size of Spain with solar panels. In places with less sunlight, solar power generation has limitations. Also, photovoltaic cells are fragile and can be easily damaged.

BIOMASS ENERGY

- 4 Biomass is a biologically produced fuel made from plant and animal material, which is mostly composed of carbon, hydrogen, and oxygen. It is the oldest source of renewable energy, used since humans first started burning wood for fire. Today, steam from burning biomass — made up of trash and other organic waste, rather than wood — turns turbines, generating electricity. Biomass can re-grow over a relatively short period of time compared to the hundreds of millions of years that it takes for fossil fuels to form. It is also an efficient way to generate power, and it is **universal**. Another benefit is that it reduces the need to bury garbage under the ground in a landfill. However, some people are concerned that burning biomass contributes to global warming because it produces greenhouse gases. Also, using biomass to generate energy on a large scale can be expensive.

GEOTHERMAL ENERGY

- 5 With geothermal energy, heat that is trapped in the ground can be converted into steam to turn turbines. The power it generates can then be used to produce electricity and heat buildings. Geothermal energy uses relatively simple technology. Like several of the other energy sources already mentioned, this process causes no pollution and is inexhaustible. The most active geothermal resources are usually found in areas near volcanoes or where geothermal activity naturally occurs. The largest area of this kind is known as the “Ring of Fire.” It rims the Pacific Ocean and is bounded by eastern Asia and the western edge of the Americas. Outside of regions like these, geothermal energy is usually unavailable. The **initial** costs of installing a geothermal energy system are very high, but once it is built, the running costs are low.

4 Read the article again. Which types of renewable energy do the sentences describe? Write the correct type next to each sentence.

- 1 This source of energy can be used for many purposes and will last forever, but it cannot work 24 hours a day.
- 2 This type of energy produces greenhouse gases, but disposes of waste.
- 3 This type of energy which is based on steam-powered turbines is expensive to set up but cheap to operate.
- 4 This type of energy may require some people to relocate.
- 5 This type of energy may be more common or relevant in countries that have deserts or are near the equator.
- 6 This type of energy is expensive to begin with, although the technology is relatively basic.

5 Match each newspaper headline to a renewable energy source. Write the correct type of energy next to each headline.

- 1 “Wave-power Machines Struggle in Marine Environment”
- 2 “Rare Eagle Struck by Newly Constructed Turbine”
- 3 “Report Shows 11 Tons (10,000 kg) of Waste Used Last Year to Fuel Energy Plant”
- 4 “Amazing Summer Weather Creates a Huge Supply of Energy”
- 5 “Government Pledges Millions for New Plant Near Volcano”
- 6 “Low Rainfall Suggests High Electricity Prices”
- 7 “Environmentalists Question the Ability of this Bio-energy Source to Renew Itself”

Critical Thinking

6 ★★★ Perform a SWOT analysis of using alternative energies in Kazakhstan

SWOT is an abbreviation that identifies the four critical elements of the analysis. The letters SWOT stand for Strengths, Weaknesses, Opportunities and Threats. Strengths provide an analysis of the advantages of a subject of analysis over its competitors. Weaknesses consider areas in which the subject is at a competitive disadvantage, areas to be improved. Opportunities are a list of things in the environment that have the potential to lead to subject's advantages, factors that can build up the subject's strengths. Threats explore the external factors that could have the potential to harm the subject, potential problems, risks.



Workbook

Biofuels

Vocabulary:
Biofuels
Critical Thinking:
SWOT analyses

LEAD-IN Talk in pairs. What kind of fuel do people use? Have you heard about the biofuel? What do you know about it?

1 Look at the pictures and try to explain the idea of the photo.



2 Read through the text below

Everyone knows that burning fossil fuels is bad for the environment. They emit gases that lead to pollution and global climate change. Moreover, our supply of them is running out.

Scientists are developing renewable biofuels that are healthier for the environment. Biofuels are fuels made from recently grown plant or animal matter. The idea is that organic materials like plants, algae, vegetable oils, and animal fat and waste grease can be transformed into biofuel. Biofuels such as ethanol and biodiesel would someday allow people to become energy-independent.

Production of corn, palm oil and soya beans has increased in the last years as an eco-friendly alternative to fossil fuels. However, environmental and human rights campaigners are worried that this will lead to destruction of rain forests. Many people are driven from their homes to create palm oil plantations. Food prices could also go up as there is increased competition for crops as both foodstuffs and sources of fuel.

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Speaking: Pros and Cons of Biofuels

3 What are the advantages and disadvantages of biofuels? Make pro and con lists.

4 What are the key ideas of the paragraphs? Write them in the lines below.

- 1 Biofuels are fuels made from recently grown plant material.
- 2 _____
- 3 _____
- 4 _____
- 5 _____

5 Choose the correct answer.

- 1 Environmentalists believe that increased production of corn and soya:
 - a has destroyed rain forests.
 - b may lead to the destruction of rain forests.
 - c will lead to the destruction of rain forests.
- 2 Biofuels might
 - a drive food prices up.
 - b drive food prices down.
 - c have little or no impact on food prices.
- 3 The increased production of palm oil:
 - a just affects the environment.
 - b just affects people.
 - c affects both people and the environment.

6 ★ Separate the key words of the text in the word string and write them in the lines below.

fuelgasespollutionrenewableorganicbiofuelethanolbiodieseldestructionaltern
ativealgae

- | | | | |
|---|--------------------|----|-------|
| 1 | _____ fossil _____ | 7 | _____ |
| 2 | _____ | 8 | _____ |
| 3 | _____ | 9 | _____ |
| 4 | _____ | 10 | _____ |
| 5 | _____ | 11 | _____ |
| 6 | _____ | 12 | _____ |

7 Find the information about the use of biofuels in Kazakhstan. Make a brochure and present it in the next class

UNIT
5

Reading for pleasure

Introduction

Vocabulary:
Books and reading
Grammar:
Relative clauses

LEAD-IN How often do you read? What do you like to read and why? Discuss these questions in small groups.

Vocabulary

1 Sort the types of reading in two columns: Fiction and non-fiction.

Reference books, novels, newsletters, letters, short stories, jokes, emails, poetry, biographies, memoirs, comics, lyrics, newspapers, magazines, websites, plays and scripts.

Fiction — literature that describes imaginary events and people

Non-fiction — prose writing that is informative or factual rather than fictional

Grammar: Formulating questions

2 In the survey below place the questions in their right places.

How often do you read the following?
Do you think you read enough?
Why do you read?
How much do you enjoy reading?

Survey: Reading for pleasure

1	_____
	Very much
	Quite a lot
	A bit
	Not at all
2	_____

	Often	Sometimes	Never
Textbooks			
Magazines			
Fiction books			
Information books			
Poems			
Newspapers			
Comics/Graphic novels			
Websites/blogs/emails			

3 _____
 Yes
 No, but I would like to read more
 No, and I don't want to read more

4 _____
 (Tick as many boxes as you like)
 It gives me a break
 It is fun
 I have to for school
 It helps me understand things
 It will help me get a job
 It helps me find out about things
 It is a skill for life

3 Working with a partner add 3 questions to this questionnaire.

Critical thinking

4 Interview several classmates using your updated questionnaire.

5 Work with a partner. Answer the questions to summarize the interview results.

- 1 How often do your classmates read?
- 2 Do they read enough?
- 3 How much do they enjoy reading?
- 4 Why do your classmates read?

Reading

- 6** Before reading the text, please, list what you know (K) about reading for pleasure and what you want (W) to learn from the text. Compare answers with your partner.

Reading for pleasure has real benefits

What is reading for pleasure and why is it important? Often reading for pleasure is mistakenly associated with good readers, who love reading fat novels. Actually, reading for pleasure means any voluntary reading for enjoyment and choosing what to read from a wide range of genres and publications, fiction and non-fiction (e.g., cook books or autobiographies). Also reading for pleasure is not restricted to the printed word but includes online reading, for example, online magazines or blogs.

Reading pleasure has many forms. Some readers find pleasure when they are lost in a book, when they relate to characters, and can't wait to learn how the story ends. Some readers find intellectual pleasure in figuring out meaning and developing understanding of how things work. When the readers learn new skills or learn to do something from books, they experience work pleasure.

But experiencing joy while reading is not the only benefit of reading for pleasure. Reading for pleasure has real and long-lasting emotional, social, and psychological benefits for adults and children. Numerous studies reveal that regular reading boosts confidence and helps to make big decisions. The survey of the British adult readers shows that many people have been motivated to look for a new job, end a bad relationship, travel or take a better care of their health after reading about inspiring changes in life of real people or fictional characters. The survey results also show that people who read are more likely to be satisfied with their lives. For many people reading is an ultimate stress remedy. A good book can have bring a feeling of comfort, happiness and satisfaction.

Reading for pleasure outside school has a significant impact on children's educational achievement. Reading for joy improves learning. This cognitive gain happens because through reading children are exposed to new vocabulary, new ideas, new ways of thinking. That is why reading for pleasure helps learning other academic disciplines, including mathematics.

- 7** Read the text again and list things you learned after reading the text. Summarize your answers using the table below.

What I knew (K)	What I wanted to know (W)	What I learned (L)

- 8 Can you think of other benefits of reading for pleasure? Discuss in small groups.

Listen

- 9 **CD 3** Listen to a poem by Julia Donaldson.
Listen to the poem one more time and fill in the missing words.

I Opened a Book
By Julia Donaldson

I opened a book and
in I strode.

Now _____ can find me.
I've left my chair,
my house, my road,
My town and my world _____ me.

I'm wearing the cloak,
I've slipped on the _____,
I've swallowed the
magic potion.
I've fought with a _____,
dined with a king
And dived in a _____ ocean.

I opened a book and
made some friends.
I _____ their tears
and laughter
And _____ their road
with its bumps and bends
To the _____ ever after.

I finished my book
and out I came.
The _____ can no
longer hide me.
My chair and my house
are just the same,
But I have a book _____ me.

Writing

- 10** Julia Donaldson's poem is about the magic of reading. Stephen King expresses very similar idea when he writes that "Books are a uniquely portable magic." To what extent do you agree or disagree with these authors? Write a 150 word paragraph.

Vocabulary and Speaking

- 11** Work in pairs. Which words/phrases in blue do you know? Ask and answer the questions.

- 1 Who's your favourite **fantasy author or novelist**?
- 2 What's your favourite literary genre: **fantasy, chick lit, horror, crime** etc.?
- 3 What was the last book you read and what was **the plot**?
- 4 When you buy a book, are you influenced by **the blurb on the back**?
- 5 Which books are **best-sellers** in your country at the moment?
- 6 Do you enjoy **browsing in bookshops** or do you prefer **surfing online** book stores?
- 7 Do you usually buy **paperbacks, hardbacks** or **e-books**?
- 8 Do you always **click through magazines** and read the **contents page** before you buy them?

Talk to other pairs and swap information; try to use the new vocabulary. Did anyone in the group read the same book as you? Did anyone in the group mention your favourite author?

Grammar Focus Defining, non-defining and reduced relative clauses

- 12** Join these sentences using defining, non-defining or reduced relative clauses. Use commas where necessary. Sometimes there is more than one possible answer.

- 1 Yesterday I met a man. The man owned a bookshop.
Yesterday I met a man who owned a bookshop.
- 2 This is the room. I wrote my first novel in this room.
- 3 Clive McCarthy was my English teacher. He writes biographies now.
- 4 That's the woman. Her first novel became a best-seller.
- 5 I threw out some books. I hadn't looked at them in years.
- 6 I lost my copy of Carrie. It had been signed by the author.
- 7 I saw an old lady. She was sitting outside the library.
- 8 I found some old books. They were in a box.

13 a Choose the correct words in these rules.

- **Defining/Non-defining** relative clauses give you essential information so that you know which person, thing, etc. the writer or speaker is talking about.
- **Defining/Non-defining** relative clauses add extra non-essential information.

b Look again at the defining relative clauses. Answer these questions.

- 1 Which words (*who, which*, etc.) can we use for: people, things, possession, places, times?
- 2 Do we use commas(,) with these relative clauses?

c Look at the underlined defining relative clauses in these sentences. Why can you leave out that in sentence 2?

- 1 Carrie was the book that made King famous.
- 2 This is a wedding scenario (that) Cecelia might have written for one of her own novels!

d Answer these questions.

- 1 Do we use *that* in the relative clauses?
- 2 Can we leave out *who, which*, etc.?
- 3 Do we use commas with these relative clauses?

e Look at these underlined reduced relative clauses. What are the verb forms in bold? Which types of word can we leave out?

- 1 The second novel (that **was written** by Ahern) is called *Where Rainbows End*.
- 2 In the end the students (who are **bullying** Carrie) get what they deserve.

 **Workbook**



Non-fiction texts

Vocabulary:
Books
Reading:
Bookstores

LEAD-IN Talk in pairs. What kind of books are popular with young people nowadays? Would you rather watch a film or read a book?

Vocabulary

no-brainer (n) something that is very simple to do or to understand, or a decision that is very easy to make

page-turner (n) a book that is so exciting that you want to read it quickly

algorithm (n) a list of instructions for solving a problem in mathematics

done deal (n phr) a final decision or agreement (colloquial)

advent (n) the beginning of an event or an invention, or the arrival of a person

Speaking

1 Work with a partner. Discuss the questions.

- 1 Do you usually buy books at a bookstore or online? Do you prefer small, independent bookstores or large chain stores? What are the advantages and disadvantages of each?
- 2 Do you prefer a physical book or a digital book? Why?
- 3 How has the development of e-books changed book purchasing?
- 4 Do you think physical books will exist in 10 or 20 years? Why or why not?

2 Discuss the questions with a partner.

- 1 Why do you think people like to shop at a bookstore?
- 2 What might the challenges be of owning a bookstore today?
- 3 Only one in five Americans read an e-book in the previous year. Does that statistic surprise you? Why or why not?

Watch and Listen

3 **Video 5** Watch the video "A new chapter for independent book stores". Write three reasons Ann believes a physical bookstore is important.

- 1 _____
- 2 _____
- 3 _____

Reading

4 Read the text.

A New Chapter for Independent Bookstores

Ann Patchett: Two huge profitable bookstores have closed, this is a no-brainer, somebody can open a small bookstore. At the time I just thought, it's fun, it's my gift to the city, I don't care if we don't sell books, you know. I just have to live in a city that has a bookstore, but we're doing really well. People in communities woke up and said, hey, I really miss having a little bookstore that I can take my kids to, and I can see things, I can shop, I can browse.

Customer 1: Even if I'm not going to buy anything I like to browse. And I just, I like to be able to, I'm like, I like to get my hands on things and look at stuff.

Employee: He writes about the year 1968 and, believe it or not, it's a page-turner.

Ann Patchett: We have a brilliant staff of people who read. So you can come into this store, tell me the last book you read, and I can tell you three more books that you're going to love. Now Amazon has an algorithm that says, you bought this book, other people bought this book, and that is not the same thing as dealing with a human being.

Customer 2: Our youngest son, we could take him to a bookstore, and when he found one and said, "Mom, I like this one," it was a done deal.

Ann Patchett: With the advent of ebooks and sort of just the book not as an object but as a collection of information, I think that what we're attracted to more and more are beautiful books.

Customer 3: I really value the physical product too. So I mean, I have a Kindle and I enjoy it, but it's also really nice to have an actual physical book.

Author giving talk: For a French person, it's a kind of ghost, but it's a ghost that comes back for a certain purpose.

Ann Patchett: I can't imagine starting out now as an author because the landscape is so different than it was when I was coming along. All my adult life I have been going to independent bookstores. And these are the people that sell my books. These are the people who took a chance on me when I had a first novel, a second novel, no one knew who I was.

Myra McEntire: Those are the places where authors get to go and sit down and build relationships with readers. We can know them online, Twitter, Facebook, whatever, but these are the places where we get to talk to them.

Ann Patchett: What I care about is that people read. Just because ebooks are becoming popular doesn't mean that we should scoop all the other books into a pile and burn them. And there is a sort of attitude of like, well, books are dead, it's over, forget it. And it's not over.

Note Taking

5 Read again. Complete the notes below with the missing words.

Ann Patchett = author/owner Parnassus Books

- Two huge (1) _____ bookstores closed; so thought small bookstore could work
- at first, didn't care about selling books — called it her (2) _____.

Staff

- people who (3) _____
- staff good at (4) _____ based on other books you like — not like (5) _____.

Physical book vs ebook

- ebooks make us (6) _____ to phys bks

Independent bkstr

- landscape very different for auths now
- independent bkstr
- (7) _____ new auths
- give auths a place to (8) _____ with readers; talk to them
- ebooks are popular but phys bks are not (9) _____

6 Work with a partner. Discuss the questions.

- 1 How do you think the people in Ann's community feel about her bookstore? How do you know?
- 2 Do you think Ann's bookstore appeals to people of all ages? Why or why not?
- 3 What might online stores not consider when making recommendations to their consumers?

Discussion

7 Work in small groups. Discuss the questions.

- 1 Would you visit a bookstore like Ann's? Why or why not?
- 2 Do you think it is important for authors to have an online presence through social media? Why or why not?
- 3 What benefits do small independent businesses bring to a community?
- 4 How has the increase in online shopping affected the stores in your town or city?
- 5 The text suggests that customers sometimes resist new technology for various reasons. Can you think of any other examples of this?

Think-Pair-Share

- 8** ★ Think about your reading habits. In pairs express your agreement\disagreement on the following passage.

In this electronic world of smart-phones and Internet, many people are drawn away from the books. Some people feel they will get rid of the books after coming out of school. For other people, books are part of their life. Books feed experiences and knowledge into humans. Books are an easy way to learn life from a successful author.

- 9** ★★ Now share your opinions with other pairs. Compare your opinions with other pairs. Did you have similar opinions?

DID YOU KNOW?

Non-Fiction is strictly a piece of writing about informative things. It mainly deals with the following:

- Biographies & Auto Biographies
- Philosophy & Theory
- Research & History
- Suggestions
- Analysis & Opinion

- 10** ★★ Read the passage and think of more benefits of reading non-fiction. Make a list.

Non-fiction improves your general knowledge and Skills.

Non-fiction can be a truth or a mere opinion. Professors from many universities now are writing books based on their research. A great example is TED talks where people discuss many interesting things. Those videos are writing books which help you understand the problems and solutions from various topics. There are endless benefits of reading Non-Fiction. By reading the Non-Fiction, you will be able to improve intellectually, logically & analytically. Reading books on the multiple subjects out of your domain makes you a wise man.

There are two kinds of readers who argue about the greatness of subject. Non-fiction readers say it is superior to fiction. They strike off the importance of the fiction by calling them mere time-wasting stories. But the reality is different.

Workbook

Concentrating on studies

Reading:
Education

LEAD-IN Talk in pairs. What kind of books are popular with young people nowadays? Would you rather watch a film or read a book?

Reading

- 1 Are there things about your study habits you would like to change? What are they?
- 2 Read some advice from four students about how to study effectively.

Miguel

Find the right place to study. Studying requires concentration. I live in a big, noisy house, so I decided to study at a coffee shop, but I always saw people I knew and we'd always talk. Finally, I found a quiet corner of the library, and I can focus on my work there.

Kristjana

Include breaks. It's good for your body to move around. It gets oxygen into the brain, so it really helps me concentrate. For creative projects, I often get ideas when I walk. Also, breaks are a good time to reward yourself. I take a 15-minute break every hour. I usually eat something or check my phone for messages. Those are my rewards.

Dwi

Get rid of distractions. My phone is my biggest problem. I tried turning off the sound but I could still see when a text came in and I couldn't concentrate. Finally, I decided to turn the phone off completely when I study. I'm also distracted by people talking, music, and TV. That's why I study in the quiet rooms at the library.

Daisuke

Make healthy food choices. Food is important for concentration, so don't skip meals. Also, avoid junk food, like chips or candy. Research shows that protein is better for concentration, so I try to eat snacks like yogurt, nuts, cheese, or protein bars.

- 3 Answer the questions. Underline where you found the answer.
 - 1 What kinds of snacks are good for concentration?
 - 2 Why is studying in a coffee shop a bad idea for Miguel?
 - 3 What are two ways that study breaks are good for you?

Practice

4 Check the boxes that describe your study habits.

When I study ... always\usually\sometimes\rarely\never

a I ... take regular study breaks.

b I ... avoid junk food when I study.

c I ... turn my cell phone off or put it away.

d I find ... a quiet place.

e I ... turn off music and the TV.

5 What do you think you need to change about your study habits?

food habits

place you study

distractions

exercise

rewards

study breaks

6 Discuss your answers with a partner.

7 ★★ Work with a partner to survey three students. Ask them these questions:

1 What is the best place for you to study? Why?

2 Do you take study breaks? If so, what do you do during breaks?

3 What advice would you give a student about how to concentrate well when they study?

8 ★★ Use the advice from the survey and your own ideas to make a poster about good ways to maximize energy and concentration levels.

9 ★★★ Share your poster with your class.



Workbook

First books

Vocabulary:

Books

Reading:

Non-fiction

LEAD-IN What was the last book you read? What is your favorite story? Who is your favorite author? Who is your favorite character?

1 Work in groups. Discuss these questions.

What is your favorite genre?

- Action
- Mystery
- Detective
- Travel books
- History
- What is the longest book you have ever read?
- How long did it take you to read it?
- What is the funniest book you have ever read?
- the saddest?
- the strangest?

2 Making and responding to suggestions. Write these headings in the correct places a-d.

MAKING A SUGGESTION

SAYING YOU HAVE NO PREFERENCE

ASKING IF THE PERSON IS FREE POLITELY

REFUSING A SUGGESTION

- a** Are you doing anything (this evening)?
Have you got anything on (this Saturday)?
What are you up to (on Sunday)?
- b** I thought we could give (that new club) a try.
I wouldn't mind (going to that). How about you?
Do you feel like (going for an Indian meal)?
Do you fancy (going to hear them play)?
- c** I'm sorry, but I don't feel up to (going to a club).
Some other time, perhaps.
I'd rather give (that) a miss, if you don't mind.
- d** I'm easy. Whatever you like.
I really don't mind. It's up to you.
I'm not bothered either way.
It's all the same to me.



Which of these words/phrases can't be followed by verb+ing:
wouldn't mind, feel like, fancy, feel up to, I'd rather?

3 ★★ Work in pairs and read the following tasks. Choose one task for writing based on the story or the book you have read. Discuss the question in pairs and make an outline.

- 1 “A book must always have a happy ending” With reference to the book you have read, write a composition, saying whether you agree or disagree with this statement and why.
- 2 Write a letter to an English friend telling them about the character you like least in the book you have read and why.
- 3 Write a composition, comparing two characters from the story you have read and saying which of the two you prefer and why.
- 4 “I would have preferred to see this story on film and not to have read it” With reference to the book you have read, write a composition, saying whether you agree or disagree with this statement and why.
- 5 “This book is not really suitable for young people” Write a composition saying whether you agree or disagree with this statement and why.

4 ★★★ Choose a piece of non-fiction text and answer the following questions about it. Discuss the reading as class.

What fact(s) did you enjoy learning about the most?

Of the information you learned, which would you like to share with someone else?

Would you like to read more books about this topic?

Why?

What else would you like to learn about this topic?

Is this book like any other book that you have read?

If so, how are they alike? How are they different?

What kind of research do you think the author had to do to write this book?

What questions would you ask the author if you ever had the opportunity to meet him/her?

How can you learn more about this topic?

Did you discover anything that may help you outside of school?

 **Workbook**

Study Inn

Capabilities of human brain

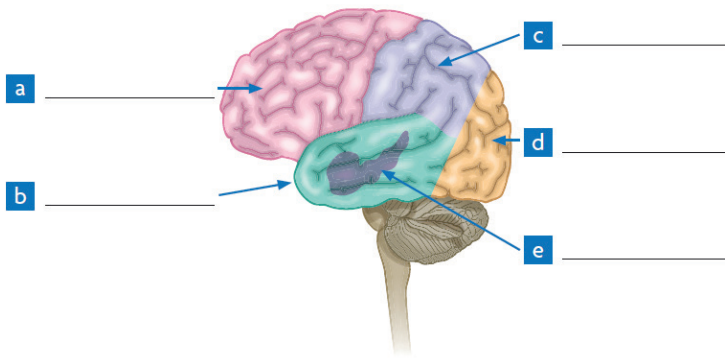
Functions of the brain

Vocabulary:
Human brain
Reading:
Lecture

LEAD-IN Discuss the question in pairs. Is human intelligence related to the brain size? Compare your answers as a class.

Listening

I You are going to listen to a lecture on how the brain makes and uses mental maps. Before you listen, work with a partner. Study the diagram of the brain. Read the description of the parts and then label the diagram.



- frontal lobe
- located at the front of the skull
 - associated with reasoning, planning, decision making, and problem solving
- parietal lobe**
- located at the top/back of the skull
 - associated with spatial orientation, perception
- occipital lobe**
- located at the back of the skull
 - associated with vision
- temporal lobe**
- located at the bottom of the brain
 - associated with perception, memory, and speech
- hippocampus**
- located deep in the temporal lobe
 - associated with memory and navigation

2 Work with a partner. Only one of these statements about the brain is true. Which one do you think it is?

- a Human intelligence is related to brain size.
- b Many people use only about 10% of their brains.
- c Some people are “right-brained” and some are “left-brained.”
- d Some people have memory cameras.
- e If you get hit on the head, you could lose your whole memory. Another blow to the head may bring it back.
- f One part of the brain specializes in understanding stories. Another part of women’s brains are fundamentally different from men’s.

vocabulary

3 Read the sentences and choose the best definition for the words in bold.

- 1 After **interviewing** dozens of witnesses, the police began to **investigate** the crime.
a create
b investigate
c understand the reasons for something
- 2 The **differentiated** functions of the different parts of the brain allow it to perform complex tasks.
a advanced
b different
c separated
- 3 **Landmarks**, such as parks and buildings, help you to figure out where I am.
a geographical features such as mountains and rock formations
b places or structures that are easy to recognize
c places in the city where people gather
- 4 Both alcohol and lack of sleep can **impair** your ability to drive.
a improve
b damage
c reduce
- 5 Ancient sailors used to depend on the stars to **navigate** themselves on voyages.
a establish one’s location
b describe one’s route
c create a sense of direction

4 Work with a partner. Answer the questions.

- 1 How do you navigate when you are in an unfamiliar area?
- 2 Is this different from how your parents navigated when you were a child?
- 3 What do you do when you get lost? How do you find your way?
- 4 Do you know anyone who has had dementia, that is, a loss of cognitive function as a result of age? Describe what happened.

Reading Comprehension How do we navigate?

5 Read the text. Some sentences have been removed from the text. Choose from the sentences A–G which fits each gap.

Perhaps you have had the experience of following step-by-step directions from someone or using your smartphone to find a place, and later, when trying to find your way a second time, you realize that you have no memory of the route you took.

In the 1970s, scientists discovered that the brain's map-making system is the hippocampus, an area deep inside the temporal lobe. Within the hippocampus, differentiated cells help us orient ourselves in relation to landmarks. The hippocampus is also involved in navigation. Spatial memory is involved in more than just remembering where things are. It plays a crucial role in memory overall because it helps us to reconstruct experiences and events.

The first is the spatial or landmark strategy. This strategy is based on the hippocampus and involves building a mental map of landmarks, such as buildings, parks, trees, etc. The second method is the route strategy, which is more or less memorization. Using this strategy, knowledge emerges as the result of repeated trips along the route. The route strategy does not require the construction of a mental map. Research has shown that these two strategies use different parts of the brain.

In a study by Eleanor Maguire, a participant, she chose a very specific profession: London taxi drivers. London taxi drivers are known for their ability to remember the city's 250,000 streets incredibly well. They have to pass a test for the license after two or four years of experience.

Maguire found that the hippocampus of taxi drivers' brains was unusually large and, furthermore, that the longer a driver had, the larger the hippocampus.

Maguire's study was conducted when digital devices with GPS were just emerging. As GPS became more popular, some researchers began to wonder whether the widespread use of these devices might impair our ability to create

- 1 Psychologists have known for some time that we create mental maps to make sense of our world.
- 2 Humans navigate in one of two ways.
- 3 Eleanor Maguire, a psychologist at University College, London, became interested in the brains of people who use this strategy intensively.
- 4 As she suspected, researches showed a high level of activity in the hippocampus.

6 Read the presentation. Check (✓) the questions that you understand from this presentation.

- a How do humans navigate?
- b How do humans lose memory?
- c How does memory loss affect the hippocampus?
- d How does navigation affect the human brain?
- e How do memory and navigation affect human cognition?

7 Choose the correct statements about the main idea of the presentation. Discuss your work with a partner.

- 1 Scientists have established that there are two forms of navigation: _____ and _____.
- 2 Humans use two forms of navigation: _____ and _____.
- 3 Research results suggest that _____ navigation strategy leads to the creation of mental maps.
- 4 Recent research has shown that the constant creation of mental maps _____.

Work in groups of four. Each group will give an oral summary of one of the studies presented in the presentation. Other members of the group will ask questions.

9 ★★★ Work in groups of four. Discuss the questions.

- 1 How do you think you arrived somewhere “automatically”? Describe the experience. Which form of navigation do you use? What is your response? Do you think there could be an evolutionary advantage to navigating one way or another? How might this change over time?



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Multiple intelligences

LEAD-IN Talk to different students in class about the ways and methods they use to learn a foreign language. Are they good in reading, writing, listening or writing?

Vocabulary

- In pairs write the words describing people. The words should start with the letters of the word intelligence. Compare your list with other pairs' lists.
- Can you name students from your class who have the above mentioned characteristics?

I	intellectual
N	naughty
T	
E	
L	
L	
I	
G	
E	
N	
C	curious
E	



Reading

3 Read the text about the theory of multiple intelligences.

The theory of intelligences was introduced by Howard Gardner, professor of at Harvard University in 1983. According to his theory the traditional notion of intelligence is too limited. Instead of this, Dr. Gardner proposes eight different intelligences. This approach may be especially interesting for you if you are a teacher, because it may seem impossible to teach to all the students in the same way. It is very important to know what type of intelligence your students have. Different students have different pace in learning, different interests and different ways of remembering information. The theory of multiple intelligences was introduced by Howard Gardner, professor of at Harvard University in 1983. According to his theory the traditional notion of intelligence is too limited. Instead of this, Dr. Gardner proposes eight different intelligences. This approach may be especially interesting for you if you are a teacher, because it may seem impossible to teach to all the students in the same way. It is very important to know what type of intelligence your students have. Different students have different pace in learning, different interests and different ways of remembering information. People have different types of intelligence, but strength in one area does not mean weakness in another. There are a lot of different tests for identifying the person's type of intelligence. Testing which traditionally is accomplished through print, may be handled by electronic media. Media are better able to assess learners' visual skills than are print media and can be used to assess learner performance in realistic situations. Here are types of intelligence G.Hardner suggested:

Linguistic intelligence - "word smart"

Logical-mathematical intelligence - "number/reasoning smart"

Spatial intelligence - "picture smart"

Bodily-Kinesthetic intelligence - "body smart"

Musical intelligence - "music smart"

Interpersonal - "people smart"

Intrapersonal intelligence - "self smart"

Naturalist intelligence - "nature smart"

Visual-Spatial — think in terms of physical space, as do architects and sailors. They like to draw, do jigsaw puzzles, read maps, daydream.

Bodily-kinesthetic — use the body effectively, like a dancer or a surgeon. They like movement, making things, touching.

Musical — sensitive to rhythm and sound. They love music, but they are also sensitive to sounds in their environments. They like doing things better with music in the background.

Interpersonal — understanding, interacting with others. These people like interaction. They have many friends and empathy for others.

Intrapersonal — understanding his own interests, goals. These people are usually shy away from others. They have wisdom, intuition and motivation, as well as a strong will, confidence and opinions.

Linguistic — using words effectively. These people have highly developed auditory skills and often think in words. They like reading, playing word games, making up poetry or stories.

Logical-Mathematical — reasoning, calculating. Think conceptually, abstractly and are able to see and explore patterns and relationships. They like to experiment, solve puzzles, ask cosmic questions.

4 Complete the table with information from the text about what people with different types of intelligence like going

Types of intelligence

Favourite activities

5 Do you agree that different people have different ways of thinking? What type of intelligence people you know have?

Now search the Internet to find the test for identifying the type of intelligence. Do it and check if you were right.

Grammar Focus

6 Match the two parts of the unreal conditional sentences in groups

- 1 If I had known you were in Almaty,
- 2 If I had had a GPS in my mobile phone,
- 3 If you had attended every English lesson,
- a you'd have passed that exam easily.
- b I would have visited you.
- c We wouldn't have got lost.

70 Unit 6. Capabilities of human brain

7 Rewrite the sentences beginning with the words given in small groups

- 1 We didn't buy the printer because it was very expensive.
If ...
- 2 She had to take an exam, that's why she left.
If ...
- 3 They lost your phone number; that's why they didn't call you.
If ...
- 4 Peter didn't revise his lessons, so he didn't pass his exam.
If ...

★ Now write sentences about things you have regretted and the way you could have avoided them.

Example: If only I had studied well at school, I would have entered the university of my dream.

If Jane had listened to her sister' advice, she wouldn't have lost her luggage.

8 ★★ In pairs act out a dialogue. Take turns rubbing the imaginary magic lamp and making wishes. Use the following prompts or come up with your own:

What would you wish for if you had a magic lamp?

If you could have anything, what would you wish for?

If I had superpowers, I would wish to _____.

If I had a magic lamp, I would wish for/that _____.

I wish _____.

Talk about

- your school life
- travelling
- friendship

9 ★★★ In pairs prepare a list of fairy tales that all students know. Think about the characters, and write sentences using conditionals.

Suggested Fairy Tales:

Little Red Riding Hood
Beauty and the Beast
Jack and the Beanstalk
Snow White

The Frog Prince
Hansel and Gretel
Cinderella, Rapunzel
Sleeping Beauty etc

Workbook

The symptoms of stress

Vocabulary:
Stress
Grammar:
Noun Phrases

LEAD-IN Discuss the questions. How do you recognize stress in your life? Have you been under stress recently?

Vocabulary

- 1** Read the words. Use a dictionary if necessary. Divide the responses to stress into physical and emotional responses to stress.

loneliness, headache, poor concentration, sadness, irritability, stomach ache, loss of appetite, poor sleep, tiredness, anger, anxiety

Emotional responses to stress:

Physical responses to stress:

- 2** Answer the questions.

1. How does stress affect you? Do you have warning signs that indicates too much stress?
2. When you are stressful, how do you feel physically?
3. How do you feel emotionally?
4. How does stress affect academic performance, relationships, and other parts of your life?

Grammar Focus Complex Noun Phrases

English, especially academic English, often uses nouns to modify other nouns.

These noun + noun phrases can take many forms:

Compound nouns: *healthcare, lifestyle*

Separate words: *skills gap, stress level*

Gerund + noun: *leading indicator, operating costs*

There are also noun + noun + noun phrases, but these are less common:

student identification number

application cover letter

3 Choose one noun from each box to complete the sentences.

first noun

earning
placement
entry
training
job
work-life
labor

second noun

balance
market
force
power
level
program
rate

- 1 The city community college offers a _____ _____ for people who hope to become airplane mechanics.
- 2 Statistics clearly demonstrate that a college degree increases lifetime _____ _____.
- 3 Our program has an excellent _____ _____. More than 90% of our graduates find a job within a month.
- 4 The _____ _____ has been very weak this year, as can be seen from the steady increase in unemployment.
- 5 The _____ _____ is defined as all the people in the population who are able to work.
- 6 Recent college graduates usually join a business at the _____ _____, but some graduates with a STEM background are able to find more senior positions.
- 7 Salary is an important consideration in choosing a career, but a career that offers a good _____ _____ is just as important.



Reading Strategies for test preparation

4 You are going to read about Chiyu, Javier, and Sarah describing their strategies for test preparation. Before you read discuss the questions in pairs.

1. Do you feel stressed before an exam or a test? Do you have any strategies for test preparation?
2. What is the most important test that you have taken?
3. Are you usually well prepared for tests? Why or why not?
4. What advice would you give a student to help him or her prepare for tests?

5 Now read the text and match the speakers with their main ideas.

1. Chiyu
 2. Javier
 3. Sarah
- a Studying for the test
 - b Taking the test
 - c Predicting the content of the test

Chiyu: The best way for me to remember stuff is to organize it and put it in my own words. So I usually go through all of my notes and try to summarize the main points. I also reread the chapters in the textbook and add to my notes. I use idea maps sometimes, so that I can have everything all on one page. Sometimes I make flashcards so I can study on the bus.

Javier: I'm a junior in college now, so I'm used to taking tests and quizzes. I've learned to listen carefully to what the teachers say in the weeks before the final exam. Different instructors have different approaches, but one thing is, if a teacher says something like, "... and this is really important" or "You need to remember this," that means, write it down, it's going to be on the test! If you just listen carefully, they kind of tell you what to expect.

Sarah: I had a tutor once who gave me some really good advice. He said, when you're looking at multiple choice answers, if there are words like "always," "never," or "all" in the sentence, it's usually false, because it's too strong. Anything that sounds really extreme like that is likely to be false. I've used that advice lots of times and it always helps. Even if I don't know the answer, I can at least eliminate one or two choices that way.

6 Read again and complete the summaries. Use your own words.

- 1 Chiyu uses summarizing, idea maps, and flashcards as a way to _____
- 2 Javier always pays attention to _____
- 3 Sarah has learned that _____

7 Work with a partner and compare your answers. Have you ever used any of these strategies? Describe your experiences.

8 ★ Read the test preparation strategies. What is the purpose of each one? Write A, B, or C.

- A knowing about the test
B reviewing material for the test
C maximizing performance during the test
- 1 If possible, look at previous tests. _____
 - 2 Get a good night's sleep before the test. _____
 - 3 Make a study plan a few weeks in advance. _____
 - 4 Study with other students. _____
 - 5 Find out what materials are allowed during the test. _____
 - 6 Review your notes regularly throughout the semester. _____
 - 7 Read and listen carefully to the directions before you start. _____
 - 8 Check your answers before you hand in the paper. _____
 - 9 Teach the material to someone else. _____

Critical Thinking

9 ★★ Work in small groups of four or six. Divide the strategies among the group members (three each for a group of four, two each for a group of six). For each of your strategies, make notes to answer the questions.

- 1 Why is this a good strategy? How does it help?
- 2 Have you ever used this strategy? What was the result?
- 3 If you haven't used the strategy, when could you use it?
- 4 What can happen if you do not use the strategy?

10 ★★★ Present your strategies to your group. Then decide as a group which three strategies are the most useful. Present your ideas to the class. If there is disagreement, make a case for each of your choices.



Workbook

7 Breakthrough technologies

Nanotechnology

Vocabulary:
Nanotechnology
Reading:
Nanotechnology

LEAD-IN Nanotechnology involves the study of very, very small things. In pairs name things that are so small you cannot see them (atoms, molecules).

DID YOU KNOW?

It's hard to imagine just how small nanotechnology is. One nanometer is a billionth of a meter. For example:

- A sheet of newspaper is about 100,000 nanometers thick
- If a marble were a nanometer, then one meter would be the size of the Earth

Vocabulary: Nano-Words

- Find some pictures of nano-sized things on the Internet and spend one minute writing down all of the different words you associate with the word 'nano-'. Share your words with your partner and talk about them. Together, put the words into different categories.

Reading

- Read the sentences and guess which ones in lines a-h are true (T) and which ones are false (F). Give reasons for your choice.
 - The term nanotechnology was created by physicist Richard Feynman on December 29, 1959.
 - Professor Norio Taniguchi coined the term nanotechnology in 1974.
 - Nanotechnology is a process of manipulating and controlling individual atoms and molecules.
 - Anyone can "see" individual atoms.
 - Nanotechnology can help clean the environment, and solve major health problems.
 - Nanotechnologies can be extremely powerful and extremely dangerous technologies.
 - In 2002, Japan was dedicating US \$750 million a year to the field of nanotechnology.

Right now, scientists are using nanotechnology to find solutions for the world's energy and water problems. Make a list of possible benefits of nanotechnology.

3 Read the paragraphs and check your guesses.

NANOTECHNOLOGY

A. The ideas and concepts behind nanoscience and nanotechnology started with a talk entitled "There's Plenty of Room at the Bottom" by physicist Richard Feynman at an American Physical Society meeting at the California Institute of Technology on December 29, 1959, long before the term nanotechnology was used. In his talk, Feynman described a process in which scientists would be able to manipulate and control individual atoms and molecules. It wasn't until 1981, with the development of the scanning tunneling microscope that could "see" individual atoms that modern nanotechnology began.

B. Nanoscience and nanotechnology are the study and application of extremely small things and can be used across all the other science fields, such as chemistry, biology, physics, materials science, and engineering. Nanotechnology is a field of research and innovation concerned with building 'things' - generally, materials and devices - on the scale of atoms and molecules. A nanometre is one-billionth of a metre: ten times the diameter of a hydrogen atom. The diameter of a human hair is, on average, 80,000 nanometres.

C. Many governments believe nanotechnology will bring about a new era of productivity and wealth, and this is reflected by the way public investment in nanotechnology research and development has risen during the past decade. In 2002, Japan was dedicating US\$750 million a year to the field, a six-fold increase on the 1997 figure.

D. Nanotechnology has the potential to increase the efficiency of energy consumption, help clean the environment, and solve major health problems. It will be able to increase manufacturing production at significantly reduced costs. Products of nanotechnology will be smaller, cheaper, lighter yet more functional and require less energy and fewer raw materials to manufacture, claim nanotech advocates.

E. In June 1999, Richard Smalley, Nobel laureate in chemistry, addressed the US House Committee on Science on the benefits of nanotechnology. "The impact of nanotechnology on the health, wealth, and lives of people," he said, "will be at least the equivalent of the combined influences of microelectronics, medical imaging, computer-aided engineering and manmade polymers developed in this century."

F. Eric Drexler, the scientist who coined the term nanotechnology, has warned of developing "extremely powerful, extremely dangerous technologies". In his book *Engines of Creation*, Drexler said that self-replicating molecules created by humans might escape our control. Although this theory has been widely discredited by researchers in the field, many concerns remain regarding the effects of nanotechnology on human and environmental health.

4 Read the article again and match the headings with the right paragraph.

- What Can Nanotechnology Do?
- Concerns About Possible Effects on Human and Environmental Health
- The Global Market for Nano
- Definition
- How it started
- Nobel prize winner's opinion

5 ★ Look back at the article and write down some questions you would like to ask the class about the text.

- Share your questions with your classmates.
- Ask your class your questions.

6 You are going to read an article about possible solutions to cyber harassment. Discuss these questions with your partner.

- 1 The title of the essay is “Combatting Cyber Harassment”. What is the main idea of the article? What advice do you think it gives to victims of cyber harassment? What kind of advice do you think the essay gives to people who engage in cyber harassment?
- 2 Who do you think is responsible for stopping offensive behavior on the Internet?

Discussion

7 In pairs discuss the questions.

- 1 What advice would you give to a victim of cyber harassment?
- 2 Do you think technology will find the solution to the problem? How?
- 3 What kind of penalty do you think people who engage in cyber harassment should receive?

8 Read the text and complete the table with the actions that groups can take to combat cyber harassment.

group	
online gaming communities	
Twitter	
Google	

78 Unit 7. Breakthrough technologies

Combatting Cyber Harassment

Taking responsibility for cyber harassment has become an economic issue. The effort to combat cyber harassment has taken a two-pronged approach: prevention and penalties; however, the focus has been on the first. Online gaming communities try to provide maximum freedom to their participants, but these communities are where a great deal of harassment occurs, especially of female players. To address this problem, one hugely popular gaming site, *World of Warcraft*, assembled a team of behavior analysts to study 67,000 users. What they discovered surprised them. They expected a small group of badly behaved players — “bad apples” — to be responsible for most of the abuse and hostile behavior. They did not expect to suspend these players in hopes of eliminating, or at least reducing, the harassment. They did find a few “bad apples,” but they discovered that most of the offensive behavior came from players who were using the site for the first time. The *World of Warcraft* Combatting Cyber Harassment citizen science project was the first of its kind. The research team had greater success when they removed the chat function from the game. This resulted in about a 50 percent decrease in harassment. This study suggests that creating even a small barrier can often stop abuse before it starts.

Other online communities and sites have taken similar steps in this direction. Twitter has had a “report abuse” button for years. Some gaming sites have systems that allow players to report bad behavior. Online marketplaces, like eBay, must do. They rate one another as “good players” or “bad players.” In other words, the communities are beginning to regulate themselves. They are also using the latest technology to identify and warn users. Google has sponsored a research study that found that trolls in Internet forums are more frequent than you think. Their posts are more frequent, contain negative words, poor grammar, and misspelled words. This helps moderators to identify and ban users who exhibit troll behavior.

As we spend more and more time on the Internet, addressing offensive and threatening behavior online is becoming increasingly important. As Laura Hudson wrote in *Wired Magazine*, “... the Internet is now where we socialize, where we work, where we meet our spouses, where we build our reputations. It is not just a convenient, nor is it something we can ignore. It is a place with a different behavior that has real social, professional, and economic costs.”

★ When did you first hear about cyber-bullying? What examples of cyber-bullying can you think of? How do you think we can educate children about the harm cyber-bullying does?

10 ★★★ How can we protect ourselves from cyber-bullying? Should someone who is being cyber-bullied report it to the police?

What's new in technology?

Vocabulary:
Technological advances
Grammar:
Future tenses

LEAD-IN Talk about how technology has changed in your lifetime. What do you think will be the most important new invention in the future? Are there any new gadgets that you really want to get? What do you think will be the next biggest technological advance?

Vocabulary

1 Use the words to complete the sentences in the text.

fabrics	climates
cool	building
Fahrenheit	textile
conditioning	money
researchers	perspiration
nanotechnology	cotton
chemistry	

2 Read quickly the brief news about an example of how nanotechnology can be used in everyday life and write one-sentence central idea for the text. Read again and fill in the gaps.

Stanford University engineers have developed a low-cost, plastic-based _____ that, if woven into clothing, could _____ your body far more efficiently than is possible with the natural or synthetic _____ in clothes we wear today. The _____ suggest that this new family of fabrics could become the basis for garments that keep people cool in hot _____ without air _____. "If you can cool the person rather than the _____, where they work or live, that will save _____," said Yi Cui, an associate professor of materials science and engineering at Stanford. This new material works by allowing the body to discharge heat in two ways that would make the wearer feel nearly 4 degrees _____ cooler than if they wore _____ clothing. The material cools by letting _____ evaporate through the material, something ordinary fabrics already do. To develop their cooling textile, the Stanford researchers blended _____, photonics and _____. to give polyethylene a number of characteristics desirable in clothing material: It allows thermal radiation, air and water vapor to pass right through.

- 3 Talk in pairs and suggest more ways we could use nanotechnologies in everyday life.

Grammar Focus The future

The Future Simple

The Future Continuous

The Future Perfect

The Future Perfect Continuous

Rule:

Use The Future Simple for:

- Promises – “I won’t tell anyone your secret.”
- Offers – “I’ll give you a ride home after work.”
- Predictions – “Our economy will continue to grow over the next 10 years.”

Use the future continuous when you will be in the middle of doing something at a point in the future.

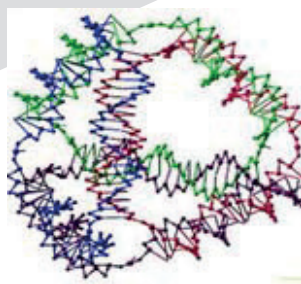
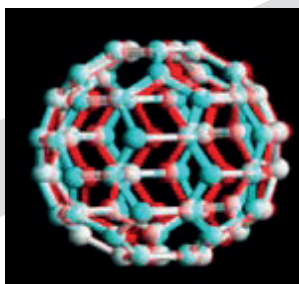
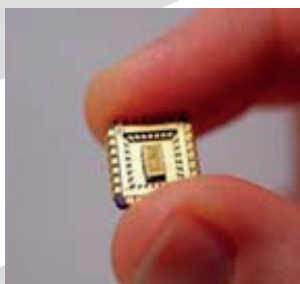
- Don’t call me at 6, because I’ll be driving home from work.
- At 10:30 tomorrow morning, we’ll be giving a presentation in English class.

Use the future perfect when an action will happen between now and a future point.

- I will have written a book before I’m 40.
- By the time we get to the cinema house, the movie will have started already.

Use the future perfect continuous with actions that will continue up to a future point.

- By the time she graduates, she will have been studying for 7 years.
- By 7 PM, I will have been working on this project for eight hours straight.



4 Now complete the following with the correct form:

- 1 Don't worry. By the time you arrive I _____ up the whole house.
a will have tidied b. will tidy
- 2 By this time next year I hope that I _____ a good job.
a will find b. will have found
- 3 Did you know that Dana _____ on holiday for three weeks next month?
a will go b. will have gone
- 4 The atmosphere in the city is amazing. I think I _____ for Mother's Day.
a will stay b. will have stayed
- 5 You want to spend ten years in Asia. By that time you _____ every major city there.
a will have visited b. will visit
- 6 I think that before I graduate I _____ quite a few exams.
a will have done b. will do

5 Now write sentences on each type of Future tenses above about the future of technologies and nanotechnologies.

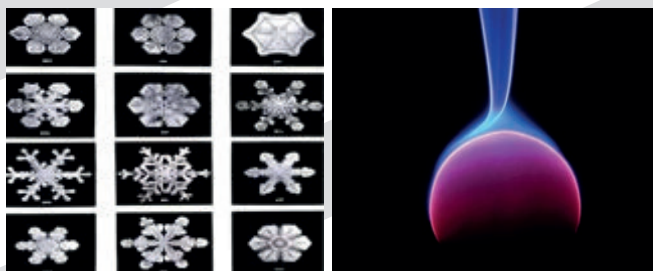
6 Using the Future tenses answer the following questions.

Do you think that computers will create a global culture?
Where do you think computers will have the greatest impact on our lifestyles?

Writing Nano-Sized Things

7 What could we do with these nano-sized things? Brainstorm ideas using this table.

Camera _____
Money _____
Television _____
Medicine _____



82 Unit 7. Breakthrough technologies

Speaking

- 8** Have a class discussion on the following quotation. Do you agree or disagree?

"... nanotechnology is likely to be particularly important in the developing world, because it involves little labour, land or maintenance; it is highly productive and inexpensive; and it requires only modest amounts of materials and energy".

Study the following language of discussions. Try to use the phrases during the discussion.

What you think about somebody\ something

As far as I'm concerned ...

I think ...

In my opinion ...

As far as I know ...

In my view ...

I don't think ...

I don't believe that ...

Well, if you ask me ...

If you want my honest opinion ...

I've never come across the idea that ...

How to agree \ disagree

I must admit that ...

I totally/fully/partly agree.

I agree/don't agree with you. I believe/don't believe ...

I'm convinced that ...

I wouldn't say that ...

You're right up to a point.

Watching and Listening

- 9** **Video 6.** Watch the video "CD-a collector item". Which sentence best expresses the main idea of the video?

- 1 The Library of Congress is testing the longevity of CDs every three to five years.
- 2 CDs are being aged to help learn which type of manufacturing is best for CD development.
- 3 How a CD is manufactured, how it has been handled and how it has been stored all affect its longevity.



Workbook

Robotics

Vocabulary:
Robotics
Grammar:
If only

LEAD-IN Look at the pictures and in pairs speak about different functions of robots used in life. Which function do you consider to be the most useful? Why?

1 What do you think about the following functions of a robot? Give your opinion (pro and con) about each function. Add smarter functions of a robot helping people.

- The robot can talk.
- It can recognize your face and say “good morning”.
- It can tell you when you have e-mail and read it to you.
- It makes toast and coffee in the morning.
- It gives you advice on what to wear to school / a party.
- It will answer and open the front door.

Grammar Focus

2 Work with your partner and answer the questions below.

If you had a home robot, what would you want it to do? If you had a school robot, what would you want it to do?

Model: If I had a robot with multiple arms, it would do the work of five robots.

Read the rules that follow to discuss the questions connected with the future of Robotics.



If only

We use if only to express a strong wish that things could be different. It means the same as I wish but is stronger. We use it to talk about past, present and future unreal conditions. We use if only + past verb forms to talk about a wish for the present: **If only** I had a school robot. (You don't have a robot, but you wish you did) We sometimes use were instead of was in more formal situations:

If only I were a robot. (If only I was a robot.)

To talk about a wish for the future or to show a contrast between how things are and how we would like them to be, we use if only + would + infinitive without to:

If only my dad bought me a home robot.

If only they would talk to each other.

3 Answer the questions.

- What films have you seen with robots in?
- Do you like films with robots? Why/ why not?
- What could the robots do in those films?
- Do you think that robots with these abilities will ever exist?
- Do you think that in the future robots will become a normal part of our lives?



Reading

4 Read the text and give it a title.

In only three years time there will be more than four million robots in domestic service in homes throughout the world! That's according to the latest United Nations report.

A Research Group at Hertfordshire University's School of Computer Science is trying to answer the question "How can you teach a robot social skills?" Advances in technologies are making the dream of autonomous household robots into a reality.

In the very near future, robots could be as common as vacuum cleaners and blenders, so their 'personalities' are going to be important. That is why the Hertfordshire University group has hired behavioural psychologists to work alongside programmers and electronics engineers.

The team is conducting experiments in which robots interact with people, assist them with various tasks, and even play with children. Observations and post-experimental surveys are revealing. The person's own personality-type, age and gender influences perceptions of the robot. Service robots should really be able to assess different types of people and react accordingly – much as we do ourselves. It is hoped the guidelines for robot etiquette will be established for when technology makes robots ready to share a house with people. And for when people are ready to share a house with robots. How long will that be?

From <https://www.teachingenglish.org.uk/sites/teacheng/files/Robots>

5 Answer the questions.

- Do you believe that in three years time more than four million homes will have domestic robots?
- Do you think that robots can be given personalities?
- Do you think it's possible to create polite robots?
- What jobs do you think may be replaced by robots in the future?
- Do you think a robot could be used to teach languages?

Critical Thinking

6 ★★ Imagine you work for a robot design company. You and your team are responsible for designing the next generation of robots for the home. Talk to your team and decide on these points:

- What will your robot be able to do?
- What will your robot look like?
- How much will your robot cost to buy?
- What type of people will want to buy your robot?
- What brand name will you give your robot?



7 Write a short paragraph describing the robot of your dream.

 **Workbook**

Study Inn

LEAD-IN Living in space. Work in pairs. Write some phrases for describing life in space (gravity, float, space food) Then name with your partner the problems of living in space.



I Read the text quickly and give it your title.

A. What's it like to live and work in space? To answer such questions, Expedition 18 flight engineer Sandra Magnus, wrote a series of journal entries about her stay aboard the ISS. She notes one important thing: An astronaut's day is planned well in advance (years actually) by many people on the ground. "Well we have a scheduling program on board that has in it all of the details that we need to know in order to do the day's work. It tells us when we should go to sleep, when we should get up, when we should exercise, when to eat our meals, when and what information we need to do our tasks. Although this does sound extremely rigid, Magnus notes that there is some flexibility in that not every task has to be carried out at the exact time the schedule dictates.

2 Read the text. Which paragraph A-E contains the following information?

- 1 The reasons for body training
- 2 Confronting a floating environment
- 3 Dissimilar eating breaks
- 4 Detailed time table
- 5 End of the day meetings
- 6 Weekend activities

B. Microgravity presents a challenging environment. Whether you're sleeping, changing clothes or working, unless it's secured in place, everything in the ISS around you floats. Even something as seemingly simple as getting up in the morning and getting dressed isn't all that simple. Imagine opening up your closet only to have its contents come flying out at you. On getting ready in the morning, Magnus states, "When I take off my PJ's, they float around in the crew quarters until I gather them up and immediately fasten them down behind a band or something. Suffice it to say it is easy to lose things up here!"

C. After waking up, each astronaut has a post-sleep period to prepare for the day. During this time, the astronauts can shower, eat, exercise and get ready for work. Exercise is important; in microgravity, bones lose calcium and muscles lose mass. So, astronauts must exercise for set times. Magnus preferred to exercise first thing in the morning, alternating daily between the stationary bike and treadmill. Next, there's a morning conference, where they discuss with crew members and ground controllers everyone's duties for the day. After the conference, they set out to work.

D. Like most working people, they stop to eat lunch — but their lunch breaks are a little different. The food on the ISS is mainly frozen, dehydrated or heat-stabilized, and drinks are dehydrated. Astronauts collect food trays and utensils, locate their individually packaged meal from a storage compartment, prepare the items, heat the items, place them in the tray and eat. After the meal, they place the used items in a trash compactor, and clean and stow the utensils and trays.

E. After lunch, the scheduled activities continue. At the end of the work day, there's an evening conference followed by a 2-hour pre-sleep period. During this time, the astronauts eat dinner, complete any unfinished tasks and wind down. According to Magnus, there are plenty of options for filling this 2-hour period, "There is also email, phone calls, news, photos to review, and other activities which occupy this time. Friday is movie night and sometimes Saturday too".

From <https://science.howstuffworks.com/international-space-station4.htm>

3 Are the following things True, False or Not Given according to the information in the text?

- a Sandra Magnus wrote journal entries to find out what it is like to be a flight engineer.
- b The day of an astronaut is scheduled years ahead by people in space.
- c There are special doctors who help people to survive in space.
- d Post-sleep period is for getting things ready for the day.
- e As well as post-sleep period, there is also a presleep period to relax.

4 In pairs / groups, talk about these topics or words from the article. What did the article say about them? What can you say about these words and your life?

schedule/ eating/ pre- sleeping period/ challenge /exercise/ lunch break / packaged meal / dinner / Friday/ Saturday

Grammar Focus

5 Present Perfect Simple and Present Perfect Continuous

Read the rules

We often use the Present Perfect Simple (We have worked):

- a for states that started in the past and continue in the present
- b for experiences in our lives up to now
- c for completed actions that happened recently, but we don't say exactly when
- d with superlatives

We often use the Present Perfect Continuous (We have been working):

- a for longer actions that started in the past and continue in the present
- b for longer actions that have recently finished, but have a result in the present
- c for actions that happened repeatedly in the past and still happen in the present

6 Read these sentences and answer questions a-c.

- 1 Since the 1950's Baikonur has launched more than 1500 space ships and over 100 ballistic rockets.
- 2 All those years Baikonur has been working on the development of innovative machines.

- a Which sentence talks about how long something has been happening?
 b Which talks about things that have been completed?
 c How do we make a question with How long for sentence 2 and How many for sentence 1?

7 Put the verbs in brackets in the Present Perfect Simple or Present Perfect Continuous.

- 1 a I ____ Duman and told him where to meet. (call)
 b I ____ Duman all day, but he never answers his phone. (call)
 2 a Dana ____ her novel all evening. (write) now.
 b Dana ____ three novels in the last two years. (write)
 3 a I ____ my room, so we can have a pajama party there now. (clear out)
 b I ____ my room. It's a mess in there! (clear out)

Watch and listen

8 **Video 7. Pre-watching.** You are going to watch a video about airplanes. Before you watch, work with a partner and discuss the questions.

- 1 What is the biggest airplane you have ever been on?
 2 What is the longest flight you have ever taken?
 3 How many hours do you think an airplane can fly without stopping?

9 Watch the video "The Jumbo jet". Complete the summary with the words in the box.

changed flew had helped worked

In 1969, the 747 ⁽¹⁾ _____ across the Atlantic Ocean.
 Jimmy Barber ⁽²⁾ _____ build the first 747. He and his team ⁽³⁾ _____
 _____ for many hours a day to complete it. The first 747 ⁽⁴⁾ _____
 _____ two floors, with a lounge on the second floor. The
 747 ⁽⁵⁾ _____ air travel forever.

10 Watch the video again. Circle the correct answer.

- 1 The ability to carry enough _____ changed air travel.
a people **b** fuel **c** baggage
 2 Today, many airplanes can travel for _____ hours without stopping.
a 8 **b** 12 **c** 14
 3 The first 747s could carry about _____ people.
a 500 **b** 747 **c** 1,000
 4 In 1969, the 747 was the most _____ plane in the world.
a modern **b** expensive **c** famous
 5 The _____ of air travel today is much lower than it was 50 years ago.
a cost **b** speed **c** comfort

A sci-fi film review

Writing:
A film review
Grammar:
Reported statements

LEAD-IN Work in pairs. Think about science fiction film you have both seen. Take turns to ask about this film.

Vocabulary

I Read the questions. Discuss the meanings of underlined words. Work in pairs and think of a science fiction film you have both seen.

- 1 What is the title of the film?
- 2 Is it based on a book?
- 3 Where and when is the film set?
- 4 Who stars in the film?
- 5 Would you reccommend this film to your friend? Why? Why not?

Discuss the questions in pairs

Grammar Focus Reported statements

We use a 'reporting verb' like 'say' or 'tell'. If this verb is in the present tense, it's easy. We just put 'she says' and then the sentence:

- Direct speech: I like science fiction.
- Reported speech: She says (that) she likes scientific fiction .

We don't need to change the tense, though probably we do need to change the 'person' from 'I' to 'she', for example. We also may need to change words like 'my' and 'your'.

But, if the reporting verb is in the past tense, then usually we change the tenses in the reported speech:

- Direct speech: I like science fiction.
- Reported speech: She said (that) she liked science fiction.

2 Prepare your activity on Reported Speech:

- Choose an attractive movie segment with several characters
- Select an episode from the film with the speeches of heroes
- Write out lines in direct speech then retell the episodes in indirect speech
- Use famous quotes from movies e.g. "I'll be back!" "Bond. James Bond." and in pairs render them into indrect speech.

3 ★ Read the reviews and guess the names of the films. Underline the key words that helped you to identify the film.

a Peter is bitten by a spider which has been manipulated in scientific experiments conducted by Dr. Curt Connors (Rhys Ifans), and is transformed from wimpy high school kid to someone with great strength. Further, he's able to climb walls and swing from web strands that this film does a much better job of explaining.

b Burton succeeds in making a movie that's more of a story than just a series of weird events by making his new special effects blockbuster starring A-list stars such as Johnny Depp more of a sequel of sorts than a straightforward adaptation of the original Alice books, or remake of the 1951 Disney movie.

c This film deserves to be seen on a big screen, preferably in 3D. Like other films before it – The Life of Pi and Avatar – it uses new 3D technology to create a rare impression of wonder. It also creates a very effective sense of danger.

Writing a film review

4 ★★ Study the film review structure

Headline: Include the title of the movie

Paragraph #1: Introduce the movie giving an opinion about it. Add details about what type of movie you are talking about.

Paragraph #2: Summarize the plot (story). Remember, do NOT include spoilers and do not tell how the story ends!

Paragraph #3: Talk about the actors/actresses and discuss who did a good job and who didn't.

Paragraph #4: Talk about what you liked about the movie and what you didn't like. Be sure to include specific details and scenes.

Paragraph #5: What lessons did you learn from this story (theme/moral)? What do you think others will learn from it?

Paragraph #6: What group of people would like this movie? Who would you recommend it to? Who would you not recommend it to?

5 ★★★ You are going to live in space for a year. You can only take the following possessions with you. Say which ones you would take and why. Role play your talk

- a musical instrument
- a video film
- three photos
- two books
- two CDs/cassettes/records
- a game
- a picture or a poster
- one other thing



Workbook

9 Independent project

Guide

Vocabulary:
Independent project
Speaking:
Solving problems

LEAD-IN Discuss the questions. Do you like working in groups or individually? Which do you think is effective? What are the good and bad sides of each type of learning?

Vocabulary

I Match the project words with their definitions

- | | | | |
|---|----------------------|---|----------------|
| 1 | Initiating (Project) | 4 | Goal |
| 2 | Kick-Off Meeting | 5 | Implementation |
| 3 | Late Start | | |

- a** The latest time a task can start before it causes a delay in the project end date.
- b** May be a phase in the project life cycle in which a product is put into use. Also a term used as a synonym for development.
- c** A desired end result, often synonymous with objective. May be a high-level objective that has less-than complete definition.
- d** The process of describing and deciding to begin a project (or phase) and authorizing the Project Manager to expend resources, effort and money for those that are initiated.
- e** A meeting at the beginning of the project or at the beginning of a major phase of the project to align peoples' understanding of project objectives, procedures and plans, and to begin the team-building and bonding process.

Watching and listening

2 Check (✓) the statements that are true for you. Discuss your ideas with a partner.

- a I prefer to work alone.
- b I prefer to work with one other person and hear their ideas.
- c I prefer to work in a small group to hear many ideas.
- d I prefer to work alone for some tasks and in a small group for others. Not every task needs input from everyone.

3 Video 8. Watch the video "Community spaces". Write details for each main idea.

- 1 Communities are organized within the spaces.
- 2 Communal spaces serve several functions.

- 3 Healthy competition exists within the building.
- 4 The office design also provides places where people can be alone and work independently.

Discuss the questions.

- 1 Which work situation do you think is most valuable? Why?
- 2 What are the advantages and disadvantages of working alone? Of collaborating with others?
- 3 Have you attended a meeting recently for school or work? Was it productive? Why or why not?

Reading

- 4** Read the text quickly and check (V) the problems you faced while doing a project work

It's the beginning of the school year, you see the words "Group Project" in your calendar. In fact, the aim of these projects is to teach communication and collaboration, among other things. However, time and time again students feel frustration and disappointment while doing independent projects. Because they have to work in teams, group members can sometimes find that they are not working effectively, which negatively impacts on their ability to be successful. One big difficulty is that tasks are not completed by deadline; another hindrance may be that groups find it hard to get started. Groups often lose a great amount of time looking for ideas. Even when the ideas are found they are not well discussed as a team. In many cases students complain about people they are working with. Some major examples include not all members contributing and ineffective communication among group members. What is more, there might be conflicts between team members as there are always some students with domineering personalities. Due to these problems there comes the biggest problem of all - the inability to focus on task.

- 5** Write in the correct part of speech of the words

Noun	Verb	Adjective	Adverb
communication	_____	communicative	_____
_____	collaborate	_____	_____
_____	disappoint	_____	effectively
_____	complete	_____	_____
success	_____	successful	_____
contribution	_____	_____	_____

Grammar Focus Compound Adjectives

An adjective can be a single word or a phrase of two or more words acting as a single modifier. Depending on the type of phrase and its position in the sentence, the words may need to be hyphenated.

Before a noun, a compound adjective should be hyphenated.

*We need more **up-to-date** reference materials.*

*My company just installed **state-of-the-art** graphics programs on all our computers.*

When the same phrase appears in other contexts, no hyphenation is necessary.

*I try to keep my software **up to date**.*

*This program was **state of the art** about ten years ago!*

6 Circle the correct option to complete the sentences.

- 1 We need a more *long term* / *long-term* solution to this problem.
- 2 This city needs housing for *low income* / *low-income* families.
- 3 These homes were built at the *turn of the century* / *turn-of-the-century*, but they already need a lot of repair.
- 4 The neighborhood has implemented a system of *one way* / *one-way* streets to ease the increasing volume of traffic.
- 5 The artists in this area are quite *well known* / *well-known*.
- 6 Where there once were apartments, today most of the buildings are *single family* / *single-family* homes.
- 7 Appliances installed in newly constructed homes must meet strict government standards and also be *energy efficient* / *energy-efficient*.
- 8 As in any *fast growing* / *fast-growing* community, we face a number of challenges.

7 In your notebook, write five sentences using a compound adjective from the first column and an appropriate noun from the second column. Compare sentences with a partner. Did you choose the same word sets?

compound adjectives	compound adjectives
low-income	homes / windows / light bulb
well-known	neighborhood / housing / apartments
long-term	author / song / story
energy-efficient	industry / city / business
fast-growing	goal / plan / care

96 Unit 9. Independent project

Problems and Solutions

8 ★ Which of these issues do you consider the most problematic when doing independent projects? What are some possible solutions?

- 1 Tasks are not completed by deadline
- 2 It is difficult to get started
- 3 Ideas are not thoroughly discussed as a team
- 4 Members are not contributing
- 5 There is a conflict between team members
- 6 Some students dominate

9 ★★ Now match the problems above with appropriate solution.

Solutions:

- a Discuss and set up timelines that all members can agree on.
- b Offer to help one another to complete tasks if necessary.
- c Do more brainstorming, asking 'What if ...?' and 'What else ...?' type questions.
- d Find out why a member is quiet or not participating.
- e Appoint someone to act as the leader, for the project meetings.
- f Respect the ideas of other group members.
- g Show that you have heard other member's ideas and when disagreeing do so politely and respectfully.
- h Remind all members that it is important to hear all opinions in relation to the topic and respect those opinions.

Speaking Class debate

10 ★★★ Take part in a class debate. Discuss the questions in pairs, in groups of four and finally as a whole class. Compare answers. Has your opinion changed?

- 1 What can individuals do to make sure a group in which they are a member works well and that it accomplishes its tasks? In other words, what kind of behavior facilitates group work?
- 2 What can an individual do to disrupt the work of a group and prevent it from accomplishing its tasks? In other words, what kind of behavior impairs group work?
- 3 Have you ever had an experience in which one member of a group behaved inappropriately and prevented the group from working well together? Describe what happened.
- 4 If you have had or know about a negative experience like this, what did you or anyone else in the group try to do to respond to this individual?



Workbook

Grammar Reference

Concrete nouns: People, places, and things are all concrete nouns. They're things you can see or touch such as *kittens and puppies, trees and flowers, sticks and stones, and cities and countries.*

Abstract nouns: They're things such as concepts, feelings, ideas, states of mind, and attributes. For example, *honor, loyalty, courage, truth, and freedom* are all abstract nouns.

Collective nouns: They describe a group of things, usually people, such as *team, band, group, class, committee, etc.*

Compound nouns: Compound nouns are usually nouns that are made up of two other words, and they can be formed three different ways: 1) open compounds (two separate words, such as *coffee house*), 2) closed compounds (two words that are now written as one, such as *football*), 3) hyphenated compounds (two words that are joined by a hyphen, such as *collar-bone*).

QUANTIFIERS FOR COUNTABLE AND UNCOUNTABLE NOUNS

Not many, hardly any and not much have a negative meaning. **Several, a few, a bit of and a little** have a positive meaning. **Several** is usually more than a few.

SOME, ANY, MUCH, MANY

We usually use **some** in positive sentences: I've found **some** coffee.

We usually use **any** in negative sentences and questions: There isn't **any** sugar. Is there **any** milk?

We don't usually use *much or many* in positive sentences: There's a lot of stuff here. **not** There's **much** stuff here. I've got lots of old books.

TIPS: We use **some** and **any** with plural countable nouns (biscuits, beans, etc.) and uncountable nouns (pasta, milk, etc.).

We often use **some** in questions with **Would you like ...?:** **Would you like some** coffee?

Compound adjectives

A compound adjective is an adjective that contains two or more words.

- I live in an **English-speaking** country.

English-speaking is an adjective (used to describe the country). We use a hyphen to connect the word *English* with *speaking* to show that it is one adjective (or one idea).

This adjective with two words joined by the hyphen is called a compound adjective.

There are many types of Compound Adjectives.

Periods of Time

When he have compound adjectives using a number + a time period, that word referring to a time period is in singular form and is joined to the number with a hyphen.

I work eight hours every day --> I work an **eight-hour** day

Adverbs and Compound Adjectives

Adverbs modify a verb.

She walks **slowly**.

Adverbs can also be used to modify an adjective.

It is **very** hot today. (*Very* is an adverb)

Adverb + Past Participle

This is a **brightly-lit** room.

Noun + Past Participle

We should start using **wind-powered** generators to cut costs.

Noun + Present Participle

I bought some **mouth-watering** strawberries.

Noun + Adjective

She is a **world-famous** singer.

Adjective + Noun

It was a **last-minute** decision.

Adjective + Past Participle

That is an **old-fashioned** dress

Adjective + Present Participle

She is a **good-looking** girl.

PARTICIPLE ADJECTIVES

Some participles (like 'bored' or 'boring') can be used as adjectives.

These are used in a slightly different way from normal adjectives. We usually use the past participle (ending in -ed) to talk about how someone feels:

I was really **bored** during the flight

We usually use the present participle (ending in -ing) to talk about the person, thing, or situation which has caused the feeling:

It was such a long, **boring** flight (so I was bored)

DETERMINERS

Determiners are words placed in front of a noun to make it clear what the noun refers to. English determiners:

- Definite article : the
- Indefinite articles : a, an
- Demonstratives: this, that, these, those
- Pronouns and possessive determiners : my, your, his, her, its, our, their

- Quantifiers : a few, a little, much, many, a lot of, most, some, any, enough
- Numbers : one, ten, thirty
- Distributives : all, both, half, either, neither, each, every
- Difference words : other, another
- Pre-determiners : such, what, rather, quite

PRE-DETERMINERS

Pre-determiners are normally placed before an indefinite article + adjective + noun to express an opinion about the noun they modify. Such and what are used to express surprise or other emotions.

EXAMPLES

What a lovely day!

She's such a beautiful woman.

You can't imagine what an incredible meal I just ate.

I've had such a good time today!

Rather and quite are commenting words, referring to the degree of a particular quality as expressed by the adjective that modifies the noun. They can express disappointment, pleasure, or other emotions depending on the adjective in question

EXAMPLES

It was quite a nice day.

He's had quite a bad accident.

It's rather a small car.

I've just met rather a nice man.

There are several different **TYPES OF QUESTIONS** that you can ask.

- Yes-no questions
- Choice questions
- Wh-questions
- Question tags
- Indirect questions

A wh-question can expect any kind of information as a response. Wh-questions begin with WH-WORDS, which signify that the speaker is asking a question.

A type of question that builds off from the yes-no question structure is the **choice question**, which asks the other person to choose between two (or more) presented options. These options are connected using the conjunction OR.

*Do you like chocolate **or** vanilla better?*

A tag question is simply a sentence with a question tag at the end. It's used to check or confirm that you've understood something correctly. For example:
The train leaves at 9 a.m., doesn't it?

INDIRECT AND DIRECT QUESTIONS

In more formal situations we often use indirect questions because they sound more polite: *Could you tell me what time it starts?* sounds more polite than *What time does it start?*

We use **if** or **whether** in indirect questions when there isn't a question word. **If and whether** are the same: Have you any idea if/whether we asked him to come?

We don't use if or whether with Do you think...? Do you think we should email everyone again?

REFLEXIVE PRONOUNS

We use reflexive pronouns (myself, yourself, etc.) when the subject and object are the same people: It's important that they are allowed to enjoy themselves.

We use *by myself*, *by yourself*, etc. to mean alone: This means children spend most of their free time studying by themselves.

We also use reflexive pronouns to emphasize that we do something instead of someone else doing it for us: We should also encourage children to work things out themselves.

TIPS: Some verbs that are reflexive in other languages aren't reflexive in English, for example **meet**, **relax** and **feel**.

We can say **on my own**, **on your own**, etc. instead of **by myself**, **by yourself**, etc.:

I enjoy living by myself /on my own.

Notice the difference between themselves and each other:

THE PRESENT PERFECT CONTINUOUS is used to refer to an unspecified time between <before now> and <now>. The speaker is thinking about something that started but perhaps did not finish in that period of time. He/she is interested in the process as well as the result, and this process may still be going on, or may have just finished.

- 1 Actions that started in the past and continue in the present She **has been waiting** for you all day (= and she's still waiting now).
I've been working on this report since eight o'clock this morning (= and I still haven't finished it).

- They have been travelling** since last October (= and they're not home yet).
- 2 Actions that have just finished, but we are interested in the results **She has been cooking** since last night (= and the food on the table looks delicious).
- It's been raining** (= and the streets are still wet).
- Someone's been eating** my chips (= half of them have gone).

Forming the present perfect continuous

The present perfect continuous is made up of two elements: the present perfect of the verb 'to be' (have/has been), and the present participle of the main verb (base+ing)

Affirmative: She has been / She's been running.

Negative: She hasn't been running.

Interrogative: Has she been running?

Interrogative negative: Hasn't she been running?

THE FUTURE: WILL, BE GOING TO, PRESENT CONTINUOUS

We use **will** when we decide to do something at the time of speaking: OK, I'll throw those away.

We use **be going to** when we already have a plan or an intention to do something: I'm going to sort out the rest of them at the weekend.

We use the **Present Continuous** when we have an arrangement with another person: He's picking them up tomorrow evening after work.

We use **be going to** for a prediction that is based on present evidence (something we can see now): It's going to break the first time she uses it!

We use **will** for a prediction that is a personal opinion and is not based on present evidence: But you'll never listen to them again.

TIPS. When we use the **Present Continuous** for future arrangements, we usually know exactly when the arrangements are happening. They are the kind of arrangements we can write in a diary: I'm having dinner with Richard on Saturday.

We can also use **be going to** to talk about future arrangements:

What are you going to do tomorrow?

POSITIVE AND NEGATIVE

We make the positive and negative forms of **will** with subject + 'll, will or won't (= will not) + infinitive

I'll give you a ring next week.

He won't talk to anyone about it.

TIP: Will/won't is the same for all subjects:

I /you /he/she/it/we/they will/won't do it.

QUESTIONS

We make questions with will with:
(question word) + will + subject + infinitive
Will you use that old printer again?
What will he decide to throw away?

be going to

POSITIVE AND NEGATIVE

We make the positive and negative of be going to with: subject + am, are or is + (not) + going to + infinitive
I'm/m not going to keep this jumper.
You/We/They're/aren't going to use it again.
He/She/It's/isn't going to work anymore.

QUESTIONS

We make questions with be going to with:
(Question word) + am, are or is + subject + going to+ infinitive
When am I going to see you again?
Are you/we/they going to move house?
What's he/she/it going to do tomorrow?
TIP: With the verb go, we usually say I'm going to the cinema.
Not going to go to the cinema. But both are correct.

PAST PERFECT

When there is more than one action in the past, we often use the Past Perfect for the action that happened first.

Second action (Past Simple) First action (Past Perfect)

Cho joined the expedition after Luke had gone back to the UK.
He also read messages that people had sent him.
Ed calculated that he'd walked about 6,000 miles.

Compare these sentences:

1 When I turned on the TV, the programme started.

First I turned on the TV then the programme started almost immediately.

2 When I turned on the TV, the programme had started.

First the programme started, then I turned on the TV.

TIPS: If the order of past events is clear from the context, we don't usually use the Past Perfect: We had dinner, watched TV and then went to bed.

We don't always use the Past Perfect with before and after because the order of events is clear: We (had) finished eating before they arrived. I went home after the meeting (had) finished.

POSITIVE AND NEGATIVE

We make the Past Perfect negative with: subject + hadn't + past Participle

He hadn't been to the Amazon jungle before.

TIP: The Past Perfect is the same for all subjects:

I/You/He/She/It/We/They had already arrived when John got home.

QUESTIONS

We make Past Perfect questions with:

(question word) + had + subject + past participle

What had he done before he became an explorer?

TIPS: The short answers to Past Perfect yes/no questions are:

Yes, I had./No, I hadn't., etc.

We often use **by the time**, **when**, **as soon as**, **because** and **so** to make sentences with the Past Perfect and Past Simple:

The party had finished by the time he arrived.

PAST CONTINUOUS ACTIVE

was\were going to, was\were; supposed to

We use *was/were going to* to talk about plans we made in the past which didn't happen, or won't happen in the future. Look at these sentences.

We were going to visit the Bradleys later that year, but we didn't go for some reason.

(They planned to visit the Bradleys, but they didn't.)

We were going to spend our anniversary in the cottage in Wales where we had our honeymoon, but it was already booked.

(They planned to spend their anniversary in the cottage in Wales, but now they aren't going to go there.)

We use *was/were supposed to* to talk about things we agreed to do, or other people expected us to do, but we didn't do. Look at these sentences.

Tom was supposed to book the cottage months ago, but he forgot.

(Tom agreed to book the cottage, but he didn't book it.)

/ I was supposed to call you back, wasn't I? Sorry, Leo, I was out all day.

(Leo expected his mother to call him back, but she didn't.)

After *was/were going to* and *was/were supposed to* we use the infinitive *It was going to be a surprise party.*

/ I was supposed to call you back.

TIP . We often use **was/were going to** or **was/were supposed to** to apologise for not doing something. We usually give a reason:

Sorry, I was going to call you back last night, but I didn't get home until late.

REPORTED SPEECH focuses more on the content of what someone said rather than their exact words. In indirect speech, the structure of the reported clause depends on whether the speaker is reporting a statement, a question or a command.

A. Reporting Statements

When transforming statements, check whether you have to change:

- pronouns
- tense
- place and time expression

1-Pronouns

In reported speech, you often have to change the pronoun depending on who says what.

Example:

She says, "My dad likes roast chicken." – She says that her dad likes roast chicken.

2-Tenses

- If the sentence starts in the present, there is **no backshift** of tenses in reported speech.
- If the sentence starts in the past, there is often **backshift** of tenses in reported speech.

No backshift

Do not change the tense if the introductory clause is in a present tense (e. g. He says). Note, however, that you might have to change the form of the present tense verb (3rd person singular).

The modal verbs *could, should, would, might, needn't, ought to, used to* do not normally change.

Example: He said, "She might be right." – He said that she might be right.

Other modal verbs may change:

3-Place, demonstratives and time expressions

Place, demonstratives and time expressions change if the context of the reported statement (i.e. the location and/or the period of time) is different from that of the direct speech.

B. Reporting Questions

When transforming questions, check whether you have to change:

- pronouns
- place and time expressions
- tenses (backshift)

Also note that you have to:

- transform the question into an indirect question
- use the question word (*where, when, what, how*) or *if / whether*

C. Reporting requests / commands

When transforming requests and commands, check whether you have to change:

- pronouns
- place and time expressions

ADVERBS AND TIME PHRASES

We can use these words/phrases with the Present Perfect Simple: **never, ever, recently, lately, before, this week, just, yet, already**: I've never been to Russia, etc.

We must use the Past Simple with phrases that say a definite time (five years ago, in 1997, last week, at 10 o'clock, etc.) I went there two years ago.

We use **just** to say something happened a short time ago. We don't use just in negative sentences.

We use **yet** to say something hasn't happened, but we think it will happen in the future. We don't use **yet** in positive sentences: He hasn't finished it yet. Have you finished it yet?

We put **yet** at the end of the sentence or clause.

We use **already** to say something happened some time in the past, maybe sooner than we expected. We don't use **already** in negative sentences: We've already seen it. Have you already seen it?

We put **already** before the past participle.

Recently and **lately** mean 'not long ago': I haven't been to London recently/ lately.

REGULAR ADVERBS

Regular adverbs are formed by taking an adjective and adding some form of the suffix "-ly." Sometimes the spelling of the adjective changes to accommodate this suffix; sometimes the suffix itself must change.

Adjective + "-ly"

The most straightforward rule is to simply add "-ly" to the end of an adjective, without changing the spelling at all. This occurs when an adjective ends in a consonant (except for "-ic") or a consonant + "-e" (except for "-le"). For example:

"She is a *beautiful* singer."

"She sings **beautifully**."

Adjectives ending in “-ic”

Sometimes the spelling of a word will have to change slightly so as to better accommodate the extra “-ly.” If the adjective ends in “-ic,” for instance, it will become “-ically”:

“They are *enthusiastic* students.”

“They work **enthusiastically**.”

If the adjective ends in a “-y,” it is replaced with “-ily”:

“The children are *happy* when they are playing.”

“The children are playing **happily**.”

IRREGULAR ADVERBS

The majority of adverbs end in “-ly,” but as we will see, there are some irregular ones that need to be memorized.

Spelling doesn’t change

Fast is one of the irregular adverbs—the adjective and the adverb are the same. For example:

“A Ferrari is a *fast* car.”

“He drives **fast**.”

Hard is another irregular adverb. The correct use of *hard* as an adverb would simply be “I work *hard*.”

Adverbs of frequency

Adverbs of frequency that deal with specific measures of time and end in “-ly” can function both as adjectives and adverbs. Examples of these include *yearly*, *weekly*, *daily*, and *hourly*. For instance:

“It’s good to have a *daily* routine.” (adjective)

“I make sure to exercise **daily**.” (adverb)

MODAL VERBS can be used to talk about how sure or unsure we are about something in the past just as we use modals in the present with a slight change in the form.

He must be really happy about his promotion. (present deduction)

He must have been very happy when he was told about his promotion. (past deduction)

Must have + past participle

We use ‘must have + past participle’ when we are quite sure about something.

You must have been very pleased when you received the results of your exams.

He must have forgotten his phone at home again. He's not answering.
I must have left my keys in the car. I can't find them.

Might have/may have/could have + past participle

We use 'might have/may have/could have + past participle' when we are not sure about something but we think it was possible.

He *was supposed to be* here an hour ago but he could have been stuck in a traffic jam.

He *may have said* he was coming but I can't really remember. I wasn't listening.

I *might have been* here when I was a child but I can't really remember.

Can't have + past participle

We use 'can't have + past participle' for things that we are sure did not happen in the past.

I can't have left my phone at work. You phoned me when I was walking to my car. That's it. It must be in the car.

You can't have seen him this morning. He was with me all the time.

She can't have liked the show. She hates musicals.

A **prepositional phrase** is made up of a **preposition** and a **noun phrase**.

We use prepositional phrases for many purposes, for example:

— as **adverbials of time and place**:

We will be back **in a few days**.

They drove **to Glasgow**

— as a **post modifier** in a **noun phrase**:

Helen is the girl **in the red dress**

— to show **who** did something:

I saw a wonderful painting **by Van Gogh**

— with **double object verbs** like give and get:

We gave five pounds **to the woman on the corner**.

— after certain verbs, nouns and adjectives:

The book *belongs* **to me**.

I *had an argument* **with my brother**.

I feel *sorry* **for you**.

AN INFINITIVE can be a *to*-infinitive or a bare infinitive (without *to*).

There is no difference in meaning between them; some structures require a *to*-infinitive, while others call for a bare infinitive:

I *ought* **to call** them. (*to*-infinitive)

I *had better* **call** them. (bare infinitive)

In the negative, *not* usually comes before the infinitive:

*I ought **not** to call them.*

*I had better **not** call them.*

In some cases, the verb in the main clause is negative, not the infinitive:

***I want** to call them.*

***I don't want** to call them.*

As the infinitive has no tense, it does not in itself indicate the time of the action that it refers to. However, it can have aspect, which shows the temporal relationship between the action expressed by the infinitive and the time of the preceding verb.

CONJUNCTIONS are words that link other words, phrases, or clauses together.

I like cooking and eating, **but** I don't like washing dishes afterward. Sophie is clearly exhausted, yet she insists on dancing till dawn.

Coordinating conjunctions allow you to join words, phrases, and clauses of equal grammatical rank in a sentence. The most common coordinating conjunctions are **for, and, nor, but, or, yet, and so**; you can remember them by using the mnemonic device FANBOYS.

I'd like pizza **or** a salad for lunch. We needed a place to concentrate, **so** we packed up our things and went to the library. Jesse didn't have much money, **but** she got by.

Notice the use of the comma when a coordinating conjunction is joining two independent clauses.

Coordinating Conjunctions

for, and, nor, but, or, yet, so

Correlative Conjunctions

both/and, either/or, neither/nor, not only/but, whether/or

Some Subordinating Conjunctions

after, although, as, as if, as long as, as much as, as soon as, as though,

because, before, by the time, even if, even though, if, in order that, in

case, in the event that, lest, now that, once, only, only if, provided that,

since, so, supposing, that, than, though, till, unless, until, when, whenever,

er, where, whereas, wherever, whether or not, while

RELATIVE CLAUSES WITH WHO, THAT, WHICH, WHOSE, WHERE AND WHEN

We often use relative clauses to say which person, thing, place, etc. we are talking about. In relative clauses we use:

a. who or that for people: The woman who I was sharing a room with ...

I'm the type of person that eats three meals a day.

b. that or which for things: The food that we usually eat contains toxins

which stay in our bodies.

- c. where for places: I was taken to the guest house where everyone was staying.
- d. whose for possessives: The woman whose fasting programme we were following ...
- e. when for times: This was also when I started getting really hungry.

LEAVING OUT WHO, THAT, WHICH

We can leave out **who, that or which** when it isn't the subject of the relative clause.

Compare the relative clauses in these sentences:

I'm the type of person that eats three meals a day. In this sentence we must use **that** because it is the subject of the relative clause.

The food (that) we usually eat contains toxins. In this sentence we can leave out that because it is the object of the relative clause (we is the subject).

TIPS: We never leave out **whose** in relative clauses.

We can usually leave out where if we add a preposition at the end of the relative clause: That's the café where I met my wife. That's the café I met my wife in.

We can only leave out **when** if the time reference is clear:

Monday's the day (when) I play tennis.

IRREGULAR VERBS

Infinitive	Past Simple (V2)	Participle II (V3)	Kazakh	Russian
be	was (were)	been	болу	быть
bear	bore	born	босану	рожать
beat	beat	beaten	ұру	бить
become	became	become	болу	становиться
begin	began	begun	бастау	начинать
bend	bent	bent	ию	наклонять
bet	bet	bet	бәстесу	заключать пари
bind	bound	bound	қосу, байлау	связывать
bite	bit	bitten	тістеу	кусать
bleed	bled	bled	қанау, қансырау	кровоточить
blow	blew	blown	үрлеу, соғу	дуть
break	broke	broken	сындыру	ломать
breed	bred	bred	бағу, өсіру	разводить животных
bring	brought	brought	алып келу	приносить
build	built	built	салу, құру	строить
buy	bought	bought	сатып алу	покупать
catch	caught	caught	ұстау, аулау	ловить
choose	chose	chosen	таңдау	выбирать
cling	clung	clung	жармасу, іліну	цепляться

IRREGULAR VERBS

come	came	come	келу	приходить
cost	cost	cost	тұру	стоить
cut	cut	cut	кесу	резать
deal	dealt	dealt	істі басқару, жүргізу	вести дела
dig	dug	dug	қазу	копать
do	did	done	жасау	делать
draw	drew	drawn	сурет салу; тарту	рисовать, тянуть
drink	drank	drunk	ішу	пить
drive	drove	driven	көлік жүргізу	водить автомобиль
eat	ate	eaten	тамақтану	кушать
fall	fell	fallen	құлау	падать
feed	fed	fed	тамақтандыру	кормить
feel	felt	felt	сезу	чувствовать
fight	fought	fought	күресу	бороться
find	found	found	табу	находить
flee	fled	fled	қашу	сбежать
fly	flew	flown	ұшу	летать
forbid	forbade	forbidden	тыйым салу	запрещать
forget	forgot	forgotten	ұмыту	забывать
forgive	forgave	forgiven	кешіру	прощать

IRREGULAR VERBS

freeze	froze	frozen	қатыру, мұздату	замораживать
get	got	got (gotten)	алу	получать
give	gave	given	беру	давать
go	went	gone	жүру	идти
grow	grew	grown	өсу	расти
hang	hung	hung	іліну	висеть
have	had	had	иемдену, бар болу	иметь
hear	heard	heard	есту	слышать
hide	hid	hidden	тығу	прятать
hit	hit	hit	ұру, соғу	ударять, попадать
hold	held	held	ұстау	держать
hurt	hurt	hurt	ауырту, жанына тию	причинять боль
keep	kept	kept	сақтау	сохранять, соблюдать
know	knew	known	білу	знать
lay	laid	laid	салу, төсеу	класть, стелить
lead	led	led	жетелеу, бастау	вести, лидировать
learn	learnt (learned)	learnt (learned)	үйрену	учиться, узнавать
leave	left	left	кету, қалдыру	покидать, оставлять
lend	lent	lent	қарызға беру	давать займы

IRREGULAR VERBS

let	let	let	рұқсат ету	позволять
lie	lay	lain	қою	класть
light	lit	lit	жағу, жарық түсіру	зажигать, освещать
lose	lost	lost	жоғалту	терять
make	made	made	жасау, шығару	делать, мастерить
mean	meant	meant	білдіру, мағына беру	значить
meet	met	met	кездесу, танысу	встречать, знакомиться
pay	paid	paid	төлеу	платить
put	put	put	қою	класть, ставить
read	read	read	оқу	читать
ride	rode	ridden	атқа салт мініп жүру	ездить верхом
ring	rang	rung	қоңырау шалу	звонить
rise	rose	risen	көтерілу, кебею	возрастать, подниматься
run	ran	run	жүгіру	бежать
say	said	said	айту	сказать
see	saw	seen	көру	видеть
seek	sought	sought	іздеу	искать
sell	sold	sold	сату	продавать
send	sent	sent	жіберу	посылать
set	set	set	қою, орнату	устанавливать

IRREGULAR VERBS

shake	shook	shaken	сілку, сілкілеу	трясти
shine	shone	shone	жарқырау	светить, сиять
shoot	shot	shot	ату	стрелять
show	showed	shown	көрсету	показывать
shut	shut	shut	жабу	закрывать, затворять
sing	sang	sung	ән айту	петь
sit	sat	sat	отыру	сидеть
sleep	slept	slept	ұйықтау	спать
slide	slid	slid	сырғанау	скользить
smell	smelt	smelt	аңқу, иіскеу	пахнуть, нюхать
speak	spoke	spoken	сөйлеу	говорить
spell	spelt (spelled)	spelt (spelled)	өріптеп айту немесе жазу	произносить или писать по буквам
spend	spent	spent	жұмсау, уақыт өткізу	тратить, проводить время
spill	spilt (spilled)	spilt (spilled)	төгіп алу	разлить
spin	spun	spun	айналдыру	крутить
split	split	split	бөлу, шағу	разделять, раскалывать
spoil	spoilt (spoiled)	spoilt (spoiled)	бұзу, бүлдіру	портить
spread	spread	spread	жаю, тарату	разворачивать, распространять

IRREGULAR VERBS

stand	stood	stood	тұру	стоять
steal	stole	stolen	ұрлау	воровать
sting	stung	stung	шағу	жалить
stink	stank	stunk	сасу	вонять
strike	struck	struck	ереуілдеу	бастовать, ударять
swear	swore	sworn	ант ету; ұрысу	клясться, ругаться
sweep	swept	swept	сыпыру	подметать
swell	swelled	swollen (swelled)	ісіну	опухать
swim	swam	swum	жүзу	плавать
take	took	taken	алу	брать
teach	taught	taught	оқыту, үйрету	обучать
tear	tore	torn	жырту	рвать
tell	told	told	айту	рассказывать
think	thought	thought	ойлау, ойлану	думать
throw	threw	thrown	лақтыру	бросать
understand	understood	understood	түсіну	понимать
wake	woke	woken	ояту	будить
wear	wore	worn	кию	носить (одежду)
win	won	won	жеңу	побеждать
write	wrote	written	жазу	писать

WORDLIST

Unit 1 Science and scientific phenomena

		Kazakh	Russian
adages (n.)	['ædɪdʒ]	мәтел	изречение, поговорка
ancestor (n.)	['ænstəstə]	баба, ата-ана	предок
coincidence (n.)	[kəʊ'ɪnsɪdəns]	түрлі жағдайлардың тоқайласуы	стечение обстоятельств
constitute (v.)	['kɒnstɪtju:t]	құрастыру, құру	составлять
counterpart (n.)	['kaʊntəpɑ:t]	егіз; ұқсас	двойник; копия
defence (n.)	[dɪ'fens]	қорғаныс	защита
descendant (n.)	[dɪ'sendənt]	ұрпақ	потомок
double helix (n.)	[,dʌl'əl 'hi:lɪks]	қос шиыршық	двойная спираль
evidence (n.)	['evɪdəns]	дәлел	доказательство
evolve (v.)	[ɪ'vɒlv]	эволюция жолымен бірте-бірте даму	эволюционировать
extinct (v.)	[ɪk'stɪŋkt]	қырылып қалу	вымереть
fragile (adj.)	['frædʒaɪl]	сынғыш	хрупкий
genome (n.)	['dʒi:nəʊm]	геном	комплект хромосом
habitat (n.)	['hæbɪtæt]	тіршілік ортасы	среда обитания
heredity (n.)	[hɪ'redɪti]	тұқым қуалаушылық	наследственность
invertebrate (n.)	[ɪn'vɜ:tɪbrət]	омыртқасыз жануар	беспозвоночное животное
itch (n.)	[ɪtʃ]	қышу	зуд
mound (n.)	[maʊnd]	төбе	холм
nucleus (n.)	['nju:klɪəs]	атом ядросы	ядро атома
overlap (v.)	[,əʊvə' læp]	жабу, басу	перекрывать
pace (n.)	[peɪs]	темп, шапшандық	темп, скорость
persist (v.)	[pə'sɪst]	қайтпау; тіресу	упорствовать

phenomena (n.)	[fɪ'nɑmənə]	құбылыс	явление
profound (adj.)	[prə'faʊnd]	терең	глубокий
rumors (n.)	['rumər]	өсек-аяң	кривотолки
scratch (v.)	[skrætʃ]	сыру, тырнау	царапать
substance (n.)	['sʌbs'təns]	негіз, субстанция	вещество, субстанция
twig (n.)	[twɪg]	бұтақ	веточка
cause (n.)	[kɔ:z]	себеп-салдар	причина
conscious (adj.)	['kɒnʃəs]	саналы, зерделі	сознательный
consequence (n.)	['kɒnsɪkwəns]	зардап, салдар	последствие
crust (n.)	[krʌst]	қабық	кора
persistent (adj.)	[pə'sɪstənt]	тұрақты, орнықты	стойкий; устойчивый

Unit 2 Natural disasters

damage (v.)	['dæmɪdʒ]	зарары тию; зиян келтіру	нанести ущерб
desalination (n.)	[.di:sæli'neiʃən]	тұзсыздану	деминерализация, обессоливание
destruction (n.)	[di'strʌkʃən]	қирау	разрушение
devastating (adj.)	['devəsteɪtɪŋ]	талқандаушы, қиратушы	разрушительный
drought (n.)	['draʊt]	қуаңшылық, құрғақшылық	засуха
estimate (v.)	['estɪmeɪt]	бағалау	оценить
evaporate (v.)	[ɪ'væpəreɪt]	булану	испаряться
facility (n.)	[fə'sɪləti]	құрылғы	устройство, оборудование
frequency (n.)	['fri:kwənsi]	жиілік	частота
landslide (n.)	['lændslaɪd]	көшкін	оползень
lessen (v.)	['lesn]	азайту, кеміту	уменьшать
low-frequency (adj.)	[ləʊ 'fri:kwənsi]	төменжиілікті	низкочастотный

measure (n.)	[ˈmeɪʒə]	өлшем, өлшеу	мера, измерять
predict (v.)	[prɪˈdɪkt]	болжау	прогнозировать
prevent (v.)	[prɪˈvent]	алдын алу	предотвращать
severity (n.)	[sɪˈverɪti]	қатаңдық, қаталдық	строгость, суровость
sturdy (adj.)	[ˈstɜːdi]	мықты	крепкий

Unit 3 Virtual reality

access (n.)	[ˈæksɛs]	кіру, рұқсат, қолжетімділік	доступ
affair (n.)	[əˈfeə]	іс	дело
application (n.)	[ˌæplɪˈkeɪʃən]	қосымша	приложение
beneficial	[ˌbenɪˈfɪʃl]	табысты, тиімді	выгодный
boost (n.)	[buːst]	көбейту, арттыру, өсіру, ұлғайту	увеличение
compulsive (adj.)	[kəmˈpʌlsɪv]	құмар, құмарпаз	заядлый
convince (v.)	[kənˈvɪns]	көндіру, сендіру	убеждать
customize (v.)	[ˈkʌstəmaɪz]	бейімдеу	приспосабливать к нуждам потребителей
device (n.)	[dɪˈvaɪs]	құрылғы	устройство
facilitate (v.)	[fəˈsɪlɪteɪt]	көмектесу	содействовать
influential (adj.)	[ˌɪnfluˈenʃl]	ықпалды	влиятельный
interaction (n.)	[ˌɪntəˈrækʃən]	әрекеттестік	взаимодействие
interactive (adj.)	[ˌɪntəˈræktɪv]	интерактивтік; интербелсенді	интерактивный, основанный на взаимодействии
invasive (adj.)	[ɪnˈveɪsɪv]	агрессивті, басқыншылық	агрессивный
purchase (n.)	[ˈpɜːtʃəs]	сатып алу	покупка
reliant (adj.)	[rɪˈlaɪənt]	сенімді	уверенный
require (v.)	[rɪˈkwaɪə]	талап ету	требовать

setting (n.)	['setɪŋ]	баптау	настройка
software (n.)	['sɒftweər]	бағдарламалық жасақтама	программное обеспечение
template (n.)	['templɪt]	үлгі	шаблон
value (n.)	['vælju:]	мән, мағына, маңыз	значение

Unit 4 Organic and non-organic worlds

additive (n.)	['ædətɪv]	қоспа, қосынды	присадка, примесь
algae (n.)	['ældʒi:]	балдыр	морские водоросли
artificial (adj.)	[,ɑ:tɪ'fɪʃl]	жасанды	искусственный
cautious (adj.)	['kɔ:ʃəs]	абай, сақ	осторожный
consumption (n.)	[kən'sʌmpʃən]	тұтыныс	потребление
convenience (n.)	[kən'vi:niəns]	керек-жарак; қолайлылық	удобства
conventionally	[kən'venʃənəli]	шартты түрде	условно
cuisine (n.)	[kwi'zi:n]	ұлттық тағамдар	<u>национальная кухня</u> , присущая определенной стране
emit (v.)	[ɪ'mɪt]	шығару	испускать
essential (adj.)	[ɪ'senʃl]	маңызды	существенный
exceed (v.)	[ɪk'si:d]	арттыру, асыру	превышать
fossil (n.)	['fɒsl]	қазба	ископаемое
fuel (n.)	['fju:əl]	отын	топливо
generate (v.)	['dʒenəreɪt]	шығару	вырабатывать
geothermal (adj.)	[,dʒi:əʊ'θɜ:məl]	геотермалық	геотермический
groceries (n.)	['grɒʊsrɪz]	бакалея	бакалея
hydropower (n.)	['haɪd.rəʊ.pəʊər]	су электр станциясы	гидроэлектро-энергия

inexhaustible (adj.)	[ˌɪnɪɡˈzɔːstəbəl]	сарқылмас	неисчерпаемый
initial (adj.)	[ɪˈnɪʃəl]	әуелгі, бастапқы	<u>начальный</u> ; <u>исходный</u>
junk food (n.)	[ˈdʒʌŋk ˌfuːd]	зиянды тағам	нездоровая пища
manufacturer (n.)	[ˌmænjəˈfæktʃərə]	өндіруші	производитель
nutrient (adj.)	[ˈnjuːtriənt]	нәрлі, құнарлы	питательный
offshore	[ˌɒfˈʃɔːr]	жағадан алыс	в открытом море
pesticides (n.)	[ˈpestɪsaɪd]	пестицид	пестицид
raw (adj.)	[rɔː]	шикі	необработанный, сырой
renewable (adj.)	[rɪˈnjuːəbəl]	жаңартылмалы	возобновляемый
reveal (v.)	[rɪˈviːl]	ашу, жаю	раскрыть
reversal (n.)	[rɪˈvɜːsl]	өзгерту	изменение, перестановка
stir fry (v.)	[stɜː fraɪ]	куыру	жарить в раскаленном масле
threat (n.)	[θret]	кәтер	угроза
utilize (v.)	[ˈjuːtəlaɪz]	іске асыру; пайдаға асыру	использовать

Unit 5 Reading for pleasure

abandon (v.)	[əˈbændən]	бас тарту	отказаться от
advent (n.)	[ˈædvent]	пайда болу	появление
aisle (n.)	[aɪl]	өткел	проход
anxiety (n.)	[æŋˈzaiəti]	беймазальк, қобалжушылық	тревожность
assassination (n.)	[əˌsæsɪˈneɪʃn]	өлтіру	убийство
bookstore (n.)	[ˈbʊkˌstɔː]	кітап дүкені	книжный магазин
conscience (n.)	[ˈkɒŋʃəns]	ар, ұят	совесть

content page (n.)	[kən'tent peɪdʒ]	мазмұны	содержание
far fetched (n.)	[ˈfaː'fetʃt]	әдеттену, дағдылану	привыкание
fiction (n.)	[ˈfɪkʃən]	көркем әдебиет	художественная литература
genre (n.)	[ˈʒɒnrə]	жанр	жанр, литературный стиль
grief (n.)	[ˈɡriːf]	күйзеліс, реніш	огорчение
gripping (adj.)	[ˈɡrɪpɪŋ]	әсерлі, тартымды	захватывающий
hardback (n.)	[ˈhɑːdbæk]	қатты мұқабалы кітап	книга в твёрдом переплете
income (n.)	[ˈɪŋkʌm]	табыс	доход
miserable (adj.)	[ˈmɪzrəbl̩]	аянышты, бейшара	жалкий
no-brainer (n.)	[ˌnəʊ'breɪnər]	өте оңай	элементарно
non-fiction (n.)	[ˌnɒn'fɪkʃən]	ғылыми-көпшілік әдебиет	научно-популярная литература
page-turner (n.)	[ˈpeɪdʒ,tʰɜːnər]	еліктіретін, тартымды кітап	увлекательная книга
paperback (n.)	[ˈpeɪpəbæk]	жұмсақ мұқабалы кітап	книга в мягкой обложке
postpone (v.)	[pə'spəʊn]	кейінге қалдыру, қоя тұру	откладывать
reference (n.)	[ˈrefrəns]	сілтеме	ссылка
revenge (n.)	[rɪ'vendʒ]	кек, өш	месть
vanish (v.)	[ˈvænɪʃ]	жоғалу	исчезать

Unit 6 Capability of human brain

differentiated (adj.)	[ˌdɪfə'renʃiətiətd]	ажырату	<u>отличать</u> ; <u>различать</u>
embarrassed (adj.)	[ɪm'bærəst]	қысылған, ұялған	смущенный
fed up (adj.)	[fed'ʌp]	әбден жалыққан, мезі болған	пресыщенный

frontal lobe (n.)	[ˈfrʌntəl ləʊb]	мандайлық үлес	лобная доля
guilty (adj.)	[ˈɡɪlti]	кінәлі	виновный
impair (v.)	[ɪmˈpeər]	төмендету, нашарлату	ухудшать
intelligence (n.)	[ɪnˈtelɪdʒəns]	зият	интеллект
landmark (n.)	[ˈlændmɑːk]	бағдар	ориентиры, основные этапы
memorization (n.)	[ˌmeməraɪˈzeɪʃən]	есте сақтау	запоминание
navigate (v.)	[ˈnævɪgeɪt]	жол табу	ориентироваться
notion (n.)	[ˈnəʊʃn]	ұғым	понятие
occipital lobe (n.)	[ɒkˈsɪpɪtəl ləʊb]	шүйделік үлес	затылочная
orient (v.)	[ˈɔːriənt]	орнын анықтау	определять местонахождение
parietal lobe (n.)	[pəˈraɪətəl ləʊb]	төбелік үлес	теменная доля
propose (n.)	[prəˈpəʊz]	ұсыну	предложить
reconstruct (v.)	[ˌriːkənˈstrʌkt/]	қалпына келтіру	восстанавливать
spatial (adj.)	[ˈspeɪʃl]	кеңістіктік	пространственный
temporal lobe (n.)	[ˈtempərəl ləʊb]	самайлық үлес	височная доля
tolerate (v.)	[ˈtɒləreɪt]	шыдау, төзу	терпеть

Unit 7 Breakthrough technologies

advocate (n.)	[ˈædvəkeɪt]	қорғаушы	защитник, сторонник
alongside	[əˌlɒŋˈsaɪd]	жанында, қасында	рядом
blend (n.)	[blend]	қоспа	смесь
coin (v.)	[kɔɪn]	ойлап табу	придумывать
commuter (n.)	[kəˈmjʊːtə]	қаланың сыртынан қалаға келіп жұмыс істейтін адам	человек, совершающий регулярные поездки на работу в город из пригорода

consumption (n.)	[kən'sʌmpʃn]	тұтыну	потребление
discredit (v.)	[di'skredit]	күмәндану	ставить под сомнение
employ (v.)	[im'plɔɪ]	жұмысқа алу	нанимать на работу
employee (n.)	[,emplɔɪ'i:]	жұмысшы, қызметкер	работник
employer (n.)	[im'plɔɪə]	жұмыс беруші	работодатель
evaporate (v.)	[ɪ'væpəreɪt]	булану, буға айналу	испаряться
fabrics (n.)	[ˈfæbrɪks]	мата	ткань
garments (n.)	[ˈgɑ:mənts]	киім-кешек	одежда
harassment (n.)	[ˈhærəsmənt]	қысымшылық	оскорбление; притеснение
household (adj.)	[ˈhaʊshəʊld]	тұрмыстық	бытовой
impact (n.)	[ɪm'pækt]	ықпал	влияние
involve (n.)	[ɪn'vɒlv]	тарту, қатыстыру	вовлекать
maintenance (n.)	[ˈmeɪntənəns]	техникалық қызмет көрсету	техническое обслуживание
penalty (n.)	[ˈpe'nəlti]	жаза	наказание
perception (n.)	[pə'sepʃn]	қабылдау	восприятие
perspiration (n.)	[ˌpɜːspə'reɪʃn]	тер	пот, испарина
physicist (n.)	[ˈfɪzɪsɪst]	физик	физик
six-fold	[sɪks'fɒld]	алты дүркін, алты есе	шестикратно

Unit 8 Out of this world

astronaut (n.)	[ˈæstrənɔ:t]	ғарышкер	космонавт
collaboration (n.)	[kə'læbə'reɪʃn]	ынтымақтастық	сотрудничество
compactor (n.)	[kəm'pæktər]	нығыздауыш	уплотнитель отходов
compartment (n.)	[kəm'pɑ:tmənt]	бөлім	отделение
dehydrated (adj.)	[ˌdi:haɪ'dreɪtɪd]	сусыздандырылған	обезвоженный

fasten (v.)	['fɑ:sn]	түймелеу	пристегнуть
gravity (n.)	['grævəti]	гравитация	гравитация
launch (v.)	[lɔ:ntʃ]	ұшыру	запускать
rigid (adj.)	['rɪdʒɪd]	қатты	жесткий
schedule (n.)	['ʃedʒu:l]	кесте	график
sequel (n.)	['si:kwəl]	жалғасы	продолжение
stow (v.)	[stəʊ]	жайғастыру	расставлять
suffice	[sə'faɪs]	жеткілікті	достаточно
tray (n.)	[treɪ]	науа, тартпа	лоток
treadmill (n.)	['tredmɪl]	жүгіру құрылғысы	бегущая дорожка
utensil (n.)	[ju:'tensɪl]	ыдыс-аяқ	посуда

Unit 9 Independent project

aspiration (n.)	[,æspə'reɪʃn]	ынта	стремление, желание
bustling (adj.)	['bʌslɪŋ]	күйгелек, әбігер	суетливый
creepy (adj.)	['kri:pi]	сұмдық	жуткий
deadline(n.)	['dedlaɪn]	ақырғы мерзім	крайний срок
disappointmen t(n.)	[,dɪsə'pɔɪntmənt]	көңілі қалу, түңілу	разочарование
edge (n.)	[edʒ]	қыр	край
extension (n.)	[ɪk'stenʃn]	кеңею	расширение
frustration (n.)	[frʌ'streɪʃn]	көңілі қалу, түңілу	разочарование
hardship (n.)	['hɑ:dʃɪp]	мұқтаждық, жоқшылық, тауқымет	лишения
hectic (adj.)	['hektɪk]	мазасыз	беспокойный
heritage (n.)	['herɪtɪdʒ]	мұра	наследие
hindrance(n.)	['hɪndrəns]	кедергі	помеха
input(n.)	['ɪnpʊt]	ауыз, кіру	вход

like-minded(n.)	[,laɪk 'maɪndɪd]	ниеттес, пікірлес	единомышленник
output(n.)	['aʊtpʊt]	шығу, өнім	выход
peer(n.)	[pɪə]	құрдас	ровесник
sewer (n.)	['sju:ə]	су ағатын құбыр	сточная труба
slum (n.)	[slʌm]	қаланың лас, қараңғы түпкірлері, ну орман	трущобы
sustainable (adj.)	[sə 'steɪnəbl]	тұрақты	устойчивый