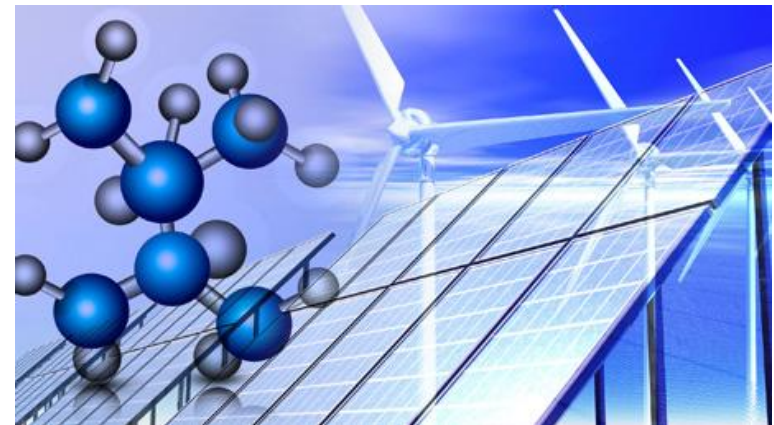


Е.В. ДВОРЕЦКАЯ
Т.В. МОРДОВИНА
О.Н. МОРОЗОВА

Учебное электронное мультимедийное издание
на компакт-диске

Engineering Solutions

*English language coursebook
for engineers*



Тамбов
Издательство ФГБОУ ВО «ТГТУ»
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Министерство образования и науки Российской Федерации

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высшего образования
«Тамбовский государственный технический университет»

**Е.В. ДВОРЕЦКАЯ, Т.В. МОРДОВИНА,
О.Н. МОРОЗОВА**

ИНЖЕНЕРНЫЕ РЕШЕНИЯ: ПОСОБИЕ ПО АНГЛИЙСКОМУ ЯЗЫКУ ДЛЯ ИНЖЕНЕРОВ

Утверждено **Ученым советом университета**
в качестве учебного пособия
для бакалавров, специалистов и магистрантов
всех направлений и специальностей

Учебное электронное мультимедийное издание
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Состоит из шести уроков, включающих лексический и грамматический разделы, снабженные как практическим материалом, так и справочным, а также задания на формирование и закрепление основных умений и навыков – чтения, письма, аудирования и говорения на английском языке. Каждый урок содержит несколько разделов, охватывающих различные аспекты английского языка. Подбор практических заданий позволяет развить умение вести беседы на различные темы на английском языке, а также закрепить грамматический и лексический материал.

Предназначено для бакалавров, специалистов и магистрантов всех направлений и специальностей.

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ВВЕДЕНИЕ

Данное учебное пособие предназначено для студентов, изучающих английский язык для практического использования в профессиональной деятельности.

Цель пособия: обучение иноязычному устному и письменному дискурсу и формирование навыков профессиональной коммуникации, включая стереотипы мышления и поведения в профессиональном сообществе.

Пособие направлено на решение следующих **задач**: расширить лексический запас обучающихся; обеспечить закрепление и активизацию грамматического материала; развить умения и навыки ознакомительного, просмотрового, поискового и аналитического чтения, умения и навыки говорения и понимания иноязычной речи на слух.

Пособие служит формированию следующих **компетенций**:

Общекультурные компетенции:

- способность совершенствовать и развивать свой интеллектуальный и общекультурный уровень, самостоятельно обучаться новым методам исследования;
- способность и готовность к творческой адаптации к конкретным условиям выполняемых задач и их инновационным решениям;
- способность свободно пользоваться иностранным языком как средством делового общения, базовой и специальной лексикой и основной терминологией по специальности, владеть навыками устной и письменной коммуникации, изложения проблем и решений, четких и ясных выводов;
- умение создавать и редактировать тексты профессионального назначения, анализировать логику рассуждений и высказываний;
- способность к профессиональному росту;
- способность самостоятельно получать знания, используя различные источники информации;
- способность к активной социальной мобильности;
- владение навыками перевода общего и профессионального текста, техниками общения с иностранным партнером;
- готовность к активному общению с коллегами в научной, производственной и социально-общественной сферах деятельности;
- способность адаптироваться к новым ситуациям, переоценке накопленного опыта, анализу своих возможностей;
- навыки публичных деловых и научных коммуникаций;
- способность воспринимать различия этнических особенностей, традиций и культур, самостоятельно работать в межкультурном пространстве;
- способность самостоятельно работать на международном уровне.

Профессиональные компетенции:

- способность понимать основные проблемы в своей предметной области, выбирать методы и средства их решения;
- способность самостоятельно приобретать и использовать в практической деятельности новые знания и умения, в том числе в новых областях знаний, непосредственно не связанных со сферой деятельности;
- способность осуществлять сбор, анализ информации отечественного и зарубежного опыта по тематике исследования;
- способность к работе в многонациональных коллективах, в том числе при работе над междисциплинарными и инновационными проектами, создавать в коллективах отношения делового сотрудничества;
- способность представить (опубликовать) результат научного исследования на конференции или в печатном издании, в том числе на иностранном языке;
- способность организовывать и проводить переговоры с представителями заказчика и профессиональные консультации на предприятиях и в организациях.

Данные цели, задачи и компетенции определяют структуру пособия, составленного из шести тематических юнитов и приложений. Каждый юнит включает в себя следующие секции: **Starting up, Vocabulary, Reading, Language Focus, Listening, Speaking and Writing.**

Раздел **Starting up** направлен на подготовку к первоначальному обсуждению представленной темы, уже обращая внимание на некоторые новые слова и фразы, и таким образом представляя новую тему.

В секции **Language Focus** предлагается краткий теоретический материал по грамматике, непосредственно связанной с изучаемой темой, и даются упражнения для его закрепления.

Раздел **Speaking** содержит задания для развития навыков подготовленной и неподготовленной монологической и диалогической речи на аудиторных занятиях.

Идея и разработка данного пособия принадлежит Е.В. Дворецкой (Unit 1, Unit 4), О.Н. Морозовой (Unit 2, Unit 3) и Т.В. Мордовиной (Unit 5, Unit 6).

UNIT 1 EDUCATION



Starting up

- 1 *Look at the types of schools and match them to the people on the right.*

1. secondary school	a. a 20-year-old student, a professor
2. primary school	b. a fifteen-year-old pupil, a maths teacher, a headmaster
3. nursery school	c. a five-year-old pupil, a teacher
4. university	d. a ten-year-old child
5. middle school	e. a three-year-old child
- 2 *Describe the school system in your country.*



Reading

- 1 *Read this text and do the tasks below.*

MIT AT A GLANCE



The Massachusetts Institute of Technology (MIT) is an independent, private research **university** located in the city of Cambridge, Massachusetts (USA).

Founded in 1861, MIT aims to ‘further knowledge and prepare students in science, technology and other fields of study that will best benefit the nation and the world today’. Its **motto** is *Mens et Manus*, which translates as “Mind and Hand”.

The very first architecture classes anywhere in the US were taught at MIT. The first female student, Ellen Swallow Richards, was **admitted** to the chemistry **department** in 1871. Just two years later, the first **international student** – from Canada – graduated from MIT.

Among the university's **graduates** there are 85 Nobel Laureates, 58 National Medal of Science winners, 29 National Medal of Technology and Innovation winners. One of the impressive **alumni** is Kofi Annan, former secretary-general of the United Nations.

Scientific discoveries and technological advances made at MIT include the first chemical synthesis of penicillin, the development of radar, the discovery of quarks, and the invention of magnetic core memory, which enabled the development of digital computers. It is **ranked** the 5th best university in the world and the 2nd in the US.

MIT is currently organised into five different **schools** (faculties): architecture and planning, engineering, humanities, arts and social sciences, management and science. It is home to around 1,000 university teachers and over 11,000 **undergraduate** and **graduate students**. MIT's current areas of research include digital learning, sustainable energy, Big Data, human health and much more.

MIT has a diverse and vibrant campus environment with many different student groups. The **campus** is arranged over 168 acres within Cambridge, and features 18 student residences, 26 acres of playing fields, 20 gardens and green-space areas, as well as over 100 public works of art.

Use information from the text to fill in the missing facts about MIT. Find out and fill in the information about your University. Compare the facts and figures.

	MIT	Your University
1. Year of foundation		
2. Location		
3. Motto		
4. Ranking		

5. Number of faculties		
6. Number of teachers		
7. Number of students		
8. Research areas		
9. Facilities		
10. Greatest achievements		

2 Using the facts from the table above, prepare a short report about the university where you study.



Vocabulary

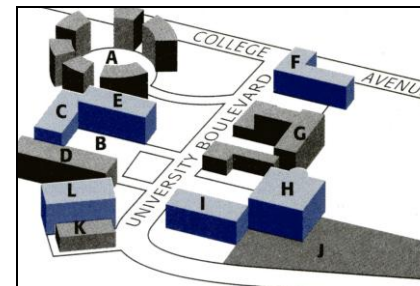
1 Places in university: label the pictures below.

a cafeteria an assembly hall a gym a hall of residence
 a lecture room a science lab a library a stadium





2 Look at the university map.



Key

- A Halls of residence
- B University Square
- C Administration Building
- D Faculty of Humanities Building
- E Assembly Hall
- F Health Centre
- G University Bookshop and cafeteria
- H University Library
- I Student Union
- J Stadium
- K School of Engineering
- L Science Lecture Hall

Which building must students go to if they want to:

- 1 speak to a professor in the history department?
- 2 find information about student clubs?
- 3 visit someone who is living in the student accommodation?
- 4 enquire about payment of fees?
- 5 attend a graduation ceremony?
- 6 listen to a talk about chemistry
- 7 see a doctor?
- 8 borrow a book?

3 Use the correct word or phrase to describe facilities.

spacious well-stocked break down standard
state-of-the-art outstanding well run

- 1 This college has outstanding teachers who all have degrees from famous universities.
- 2 It's a _____ library with all the books you need.
- 3 These classrooms are very _____ with plenty of room.
- 4 How often do the computers _____?
- 5 This is our _____ multimedia centre. It was installed just last month.
- 6 The teaching is good, but administratively the college isn't _____.
- 7 The _____ of lecturing doesn't seem as high as the brochure claims.

Describe the school you went to. Which places and facilities did you have? Try to use the words from Exercises 1, 2 and 3.

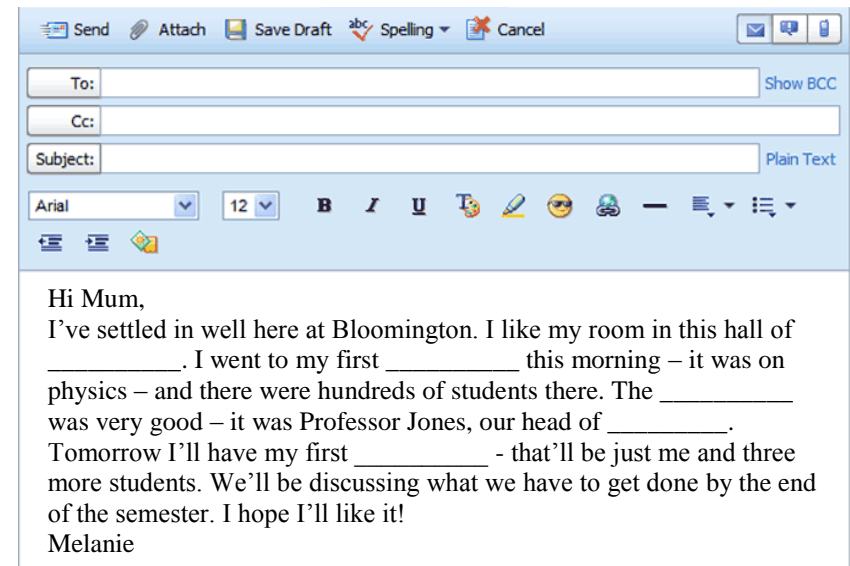
4 Do the following words relate mainly to school (S) or college/university (U)? Categorise them and use them in the sentences of your own.

headmaster	lecturer	seminar
professor	undergraduate	fresher
degree	research	doctorate
class	lesson	secondary
pupil	tutorial	teacher
uniform	homework	campus

5 *Match the two halves of each sentence.*

1. When you complete university education, you
 2. At the end of secondary school, you
 3. During university education, you
 4. If you want to do well in your exams, you must
 5. If you want to get a degree or diploma, you must
 6. If you want to get a degree or diploma, you mustn't
- a. attend lectures.
 - b. fail your exams.
 - c. get a degree.
 - d. pass your exams.
 - e. revise for your exams.
 - f. take school-leaving exams.

6 *Fill in the missing words in this email with words and expressions from exercises above.*



The screenshot shows an email composition window with a toolbar at the top containing icons for Send, Attach, Save Draft, Spelling, and Cancel. Below the toolbar are fields for To:, Cc:, and Subject:, with a 'Show BCC' link next to the To: field and a 'Plain Text' link next to the Subject: field. A rich text toolbar is visible below the fields, showing font settings (Arial, size 12) and various text formatting options (bold, italic, underline, text color, background color, bulleted list, numbered list, link, unlink, indent, outdent). The main body of the email contains the following text:

Hi Mum,
I've settled in well here at Bloomington. I like my room in this hall of _____ . I went to my first _____ this morning – it was on physics – and there were hundreds of students there. The _____ was very good – it was Professor Jones, our head of _____ .
Tomorrow I'll have my first _____ - that'll be just me and three more students. We'll be discussing what we have to get done by the end of the semester. I hope I'll like it!
Melanie



Language focus

1 *Here are two rules for making questions. When do we use rule 1 and when do we use rule 2?*

Making Questions

1 Use auxiliary verbs.

You study here. – Do you work here?

He teaches Math. – Does he teach Math?

John revised for the test. – Did John revise for the test?

We passed our exams. – Did you pass your exams?

2 Change words around.

You are an engineering student. – Are you an engineering student?

He is my Physics professor. – Is he your Physics professor?

Our headmaster was very strict. – Was your headmaster very strict?

Choose a correct word to make these questions.

- 1 Are / Do you an undergraduate student?
- 2 Was / Did Amanda attend a lecture yesterday?
- 3 Are / Do there science labs at your department?
- 4 Are / Do students need to do a lot of homework?
- 5 Are / Do you need a student ID?
- 6 Was / Did uniform required at your school?
- 7 Is / Does your university have a gym?

2 *Put the words in the right order to make questions.*

- 1 friends did many at you have school?
- 2 favourite what your was subject?
- 3 study you do to why engineering want?
- 4 did the topic research you?
- 5 is the assembly hall where located?
- 6 you which have do semester exams this to take?
- 7 to become is a degree university an engineer required?

3 *Look at the questions you completed in exercises 1 and 2. Which tense is used in each question?*

4 *Are these statements about making questions true or false?*

1 In questions with the verb *to be* we put the verb before the subject.

2 In present simple questions (except with *to be*), we use the auxiliary verb *did*.

3 In past simple questions, we put *do/does* before the subject.



Listening

Great Teachers

1 *Study the words in the box. Is each one the quality of a good or a bad teacher?*

boring calm clear encouraging enthusiastic
frightening imaginative inspiring interesting
knowledgeable patient strict tolerant understanding

2 *Choose the correct words.*

1 Her classes were so *boring / inspiring* that everyone fell asleep.

2 My teacher is very *patient / knowledgeable*. He explains things many times.

3 When students have problems, our teacher helps them. He is very *understanding / calm*.

4 The students know everything about the topic. They are extremely *patient / knowledgeable*.

5 My teacher is rather *strict / interesting*. No one dares to break the rules.

6 Our teacher is very *encouraging / boring* when we find things difficult, so we don't give up.

3 *Listen to two people discussing their teachers. Write the subject the teachers taught.*

Mr Halsworth _____

Miss Matthews _____

Mrs Sharp _____

Mr Ford _____



Listen again. Make notes about each teacher's good / bad qualities.



Speaking

1 *Work in pairs to ask and answer questions about the following points.*

Student A

1. What / enjoy about schooldays?
2. Favourite subject(s)?
3. How much homework / each night?
4. Worst exam?

Student B

1. What subject / studying?
2. How long / course?
3. Why / choose that course?
4. What job?

Useful language

The (main) reason I enjoyed ... was that ...

The (main) thing I liked / enjoyed about ... was ... That's because ...

The best / worst thing about ... was ... because ...

One of the problems about / with ... was ...

2 *Work in pairs, each taking one of the topics below, and prepare to speak for about two minutes. When your partner has finished, ask one or two simple questions.*

Student A

Describe a teacher who has had an important influence on your education.

You should say:

- where they taught
- what subject they taught
- what you liked about their teaching

and explain in what way this teacher influenced you.

Student B

Describe a subject that you learnt successfully.

You should say:

- what subject you learnt
- when and where you learnt it
- how you learnt it

and explain what helped you to learn it successfully.



Writing

- 1 *Read the situation and an extract from the Lakeside College prospectus. Discuss the following questions with a partner.*

Lakeside College is located in Lausanne, Switzerland. It is a private university with a board of governors, led by the Principal, Marie Laforet. There are four student representatives on the board, and four staff representatives. During the last three years, serious problems have arisen. The number of students at Lakeside College has fallen from over 1,000 to 560 and complaints from students have greatly increased.

LAKESIDE COLLEGE

Our college has an informal, friendly atmosphere, and enjoys excellent facilities, including:

- a spacious campus
- well-equipped lecture rooms
- a hall of residence
- a well-stocked library
- state-of-the-art computer laboratories
- excellent sports facilities.

We have an outstanding teaching staff and tutorial system. Students meet lecturers each week and have lively discussions about the subject they are studying.

- 1 Which of Lakeside College's facilities would interest you most as a student?
2 What sort of things do students at university often complain about?

- 2 *Read the notes from the meeting of student representatives discussing the problems.*

1. library - not well stocked, few journals, materials not in the correct place
2. poor quality Internet access
3. computer labs - not modern, often break down
4. some tutorials - not motivating, no interesting discussions
5. some teachers - arrive late, do not give handouts

Which do you think is the most serious problem? Which is the easiest and which is the most difficult to solve? Try to think about some solutions.

3 *Use the notes above to write an email of complaint to the Principal as a representative of Lakeside College students.*

Don't forget to:

- state the subject of the complaint
- describe the details
- discuss how the problem has affected you
- suggest some solutions to the problem

You can use the following phrases and expressions:

I am writing to complain about ...

I am writing in connection with ...

To begin with, ... First of all, ...

Secondly, ... Furthermore, ... To make matters worse, ...

There are several ways of dealing with this.

The best way forward is to ...

The next thing to do is ...

I hope that step will be taken to resolve the matter.

I look forward to hearing from you in the near future.

UNIT 2 WORK & PROFESSIONS



Starting up

- 1 *Have you already decided what you want to be? What abilities and qualification do you need for this profession?*



Reading

- 1 *Read this text and answer the questions below.*

What Profession to Choose



Choosing a profession is very difficult. Your choice should depend on your character, intellect, abilities and talent. Do you think someone can be a good teacher if he/she doesn't love children? Do you think someone can be a good vet if he/ she doesn't like animals? Can a musician or singer make a success if they don't have a good ear for music? Can an actor or dancer become famous if they have no **special** talent? You can never be a **respectable** judge if you are not **just** and **honest**. Only those who are brave can become sailors. Only people who have **creative** minds can be **successful** businessmen. The profession of a doctor requires **special** education and long training. A doctor must be very **responsible** because they **deal with** the most **precious** thing that people have — their health.

There are many interesting and **noble** professions, and many roads are opened before you. But remember that most professions **are available** only to

educated people. So if you want to be a professional you have to **enter an institute** or university. It is difficult and you have to study hard. It is not easy, because only those who have a **strong will**, can study hard. Try to build your character, develop the **strength of will** and your dreams will **come true**.

- 1) What did you want to be in your childhood?
- 2) What is your father?
- 3) What is your mother?
- 4) Do you want to choose the profession of your parents?
- 5) Do you have the strength of will?

Remember these traits of character:

respectable
just
honest
creative
successful
responsible



Listening

Job, Work or Career?

A lot of English learners confuse the words job, work, and career. It is important to know how to use each one correctly – as well as various collocations (typical phrases) in which you can use these words. To learn practical English for your job and career, check out the Business English Course.

JOB

A job is a regular and official activity that you do, and receive money (a salary) for your activity. It is also called a profession or an occupation. You can have a full-time job (40 hours per week) or a part-time job (around 25 hours per week).



When someone is looking for a job, this is sometimes called the “job hunt” or “job search.” If you have a friend who’s looking for a job, you can ask them, “How’s the job hunt going?”

To find a job, you can check the job listings online or in the newspaper

– these are small advertisements about job openings (job opportunities). The process of trying to get a specific job – when you send your resume or CV to a company – is called applying for a job.

If the company offers you the job and you say “yes,” then you have gotten the job!

To describe a person’s job, you can say it is:

a demanding job (requires a lot of effort)

“Being an emergency surgeon is a demanding job – you have to be on call 24 hours a day.”

a fulfilling / rewarding job (it makes you feel good)

“Working with refugee children was one of the most rewarding jobs I’ve had.”

an entry-level job (a job that can be done by someone who is just beginning their career, which doesn’t require much experience or many skills)

“Daniel got an entry-level job as an administrative assistant.”

a dead-end job (a job that has no opportunities for advancement or promotions)

“Being a truck driver is a dead-end job.”

a high-powered job (a dynamic and important job)

“After she published her book, she got a high-powered job as director of a national newspaper.”

a lucrative job (a job where you earn a lot of money)

“My mother wants me to marry a guy with a lucrative job – like a doctor or lawyer.”

The word job is a countable noun:

Right after graduating from college, I worked two jobs so that I could pay off my student loans faster.

Terry has had seven jobs in the past five years.

WORK

The word work is more general than “job” – whereas “job” is a specific occupation/profession, “work” refers to general efforts and activities done to accomplish a goal. “Work” can be done both inside an official job and outside a job!



You can say you **work at / for (a company)**: “I work at General Motors.”

You can say you’re **working on (a project / task)**: “I’m working on a market analysis” or “I’m working on improving customer satisfaction.”

You can say you **work with (people / objects)**: “I work with special needs children” or “I work with hazardous chemicals.”

The word work also refers to the context of your place of employment – so we can say:

“I start work at 7 AM.” (not “I start my job at 7 AM”)

“I finish / leave work at 4:30.” (not “I finish my job at 4:30”)

– An informal way to say “leave work” is “get off work”

“We go to work by car.” (not “We go to our job by car”)

“I went to the bar with some friends from work.”

“I can’t access Facebook when I’m at work.” (not “at my job”)

“Work” is an uncountable noun, so it is not used in the plural:

Instead of “I have three works to do this week” you may say “I have three projects / things / tasks to do this week”.

*Exception: when talking about **works of art / literature.***

CAREER

Your career is the total progression of your professional life. It can include many different jobs over the years.

You can have a career in (a field) – for example, a career in politics / journalism / teaching / finance.



Here are a few more collocations with career:
embark on a career = begin a career
pursue a career = make an effort to have a career
a promising career = a career with good future potential
a varied career = a career with jobs in many different areas
career prospects = career opportunities
switch your career = change your career
career takes off = when someone's career starts to become very successful
at the height / peak of your career = at the most successful point in your career
ruin your career = when your career is destroyed



Vocabulary

1 Complete the sentences with the words **WORK, JOB or CAREER**

WORK – (noun/verb) – general efforts and activities done to accomplish a goal.

JOB - (noun/verb) – regular activity people do and receive money for. Profession/occupation.

CAREER – (noun) – total progression in a person's professional life.

1. The reporter has done some excellent freelance _____ for us. We should give him a permanent _____.
2. John is an emergency doctor. He has a very demanding _____.
3. She went to the shopping with some friends from _____.
4. Being a janitor is a dead-end _____.
5. He has been on the _____ hunt for several months, but he hasn't got any vacancy.
6. If I were you, I wouldn't access Facebook, when you are at _____.
7. His father retired last year after a brilliant _____.
8. Working with refugee children was one of the most rewarding _____ I've ever had.
9. They have been checking the _____ listings online and in the newspapers to find a _____.
10. My sister isn't at home yet. She is still at _____.

11. My Maths teacher always gives me too much _____ to do and expects me to do it all well.
12. Michael is very disappointed with new _____ because he discovered he has no _____ prospects.
13. You will ruin your _____ if you keep behaving that way.
14. She was fired because her _____ was often full of errors.
15. My supervisor is always very busy. He has got two _____.
16. Susan is busy at the moment. She has a lot of _____ to do before 5 pm.
17. Where is your brother? – He went to a _____ interview.
18. My sister has a promising _____ as a CEO in this company.
19. When he was at the peak of his _____, they discovered he had manipulated the company figures.
20. My mom is out of _____ at the moment, that's why she is so busy applying for _____.
21. Jennifer is a lucky girl. She has just got a plum _____. I'm happy for her.
22. He is out of _____ but he doesn't worry about that as his mother is very rich.
23. _____ sharing has helped working mothers to have more time to spend with their kids.
24. They have to do some field _____ to finish the projects.
25. She decided to have a _____ break for two years to travel around the world.
26. He has been on a _____ rotations for several weeks.
27. What he is doing is donkey _____. I wouldn't like to do it.
28. This is a fantastic _____ of art! I like it!

2 Match two lists to make sentences describing certain jobs

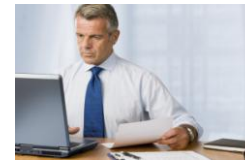
- | | |
|----------------|--------------------------------|
| | a) teaches small children |
| 1. hairdresser | b) flies airplanes. |
| 2. vet | c) looks after air passengers. |
| 3. carpenter | d) serves people food. |
| 4. cook | e) makes things of wood. |
| 5. pilot | f) cuts people's hair. |
| 6. stewardess | g) drives fast cars. |
| 7. militiaman | h) looks after sick people. |

- | | |
|----------------------------|------------------------|
| 8. racing driver | i) regulates traffic. |
| 9. nurse | j) works on a farm. |
| 10. nursery school teacher | k) cures sick animals. |
| 11. waiter | l) makes people laugh. |
| 12. clown | m) makes food. |
| 13. farmer | n) builds houses. |
| 14. postman | o) counts money |
| 15. banker | p) brings letters. |
| 16. builder | |

3 Choose an appropriate profession



1 _____



2 _____



3 _____



4 _____



5 _____



6 _____

Choose from: doctor, driver, artist, stewardess, director, singer

1. She speaks foreign languages. She works very long hours, but she doesn't work every day. She likes people and travel, and she travels a lot in her work. She is a ...
2. She doesn't work in an office. She is not a teacher. She works very long hours, and she often works at night – it's a hard job. She likes people and she helps them. She loves her job. She is a ...
3. He gets up at half past seven every day, has breakfast at eight o'clock, and starts work at half past nine. He works in an office. He has two

secretaries and two telephones. He does not work on Sundays. He likes people. He is a ...

4. He usually gets up at eleven o'clock, and has breakfast at 12. He works at home. Sometimes he may work outside. He works in the afternoons, but not every day. Sometimes he works long hours, sometimes he does not work at all. He loves his job. He is an ...
5. She lives in a big city. She gets up late and has a late breakfast. She works late in the evening. She goes to and from work by taxi. People like to listen to her and sometimes they send her flowers. She is a ...
6. He gets up at five o'clock in the morning. He has breakfast and lunch in motorway restaurants. He works sitting down and travels a lot in his work. He likes his job. He is a ...

4 *You will have 10 sentences to complete them with the following words:*

successful, occupation, career, creative, architect, vet, responsible, prestigious, noble, librarian, firefighter

1. The profession of a photographer is very ...
2. My sister says that teaching is a ... profession.
3. We have always thought that any job in the hospital is ...
4. Careers of computer programmers are very ... nowadays.
5. My cousin wants to be an ...
6. Will you write your ... on this form?
7. A ... is a person who works in the library and helps people to choose books and magazines to read.
8. I am sure that the profession of a ... is rather dangerous.
9. His ... as a driver came to an end after a bad road accident.
10. I am going to be a ... because I like animals and birds.



Language focus

1 *What's your job? Who do you work for?*

Jobs and Companies



I'm **a** technician and he is **an** engineer.
(**a** or **an** + job)



We work **for** BMW.
(**for** + company)

Write **a**, **an** or **for** in the spaces.

- 1 She is ___ software engineer.
- 2 Are you ___ electrician?
- 3 She works ___ IBM.
- 4 He is ___ quality technician.
- 5 They work ___ Exxon Mobil Corporation.
- 6 I'm ___ architect.

2 Job description. We use Present Simple to describe a job.

The **Present Simple** is used to talk about:

1) regular or routine events:

Tore goes home to Norway every four weeks.

They work on an oil platform.

2) job description:

He studies at Oxford University.

The chief electrician supervises a team of four electricians.

3) processes:

The water flows from the tank into the solar water panel.

The electrons flow along the wire.

Review "Present Simple Tense"

I, We
You
They

+ V

He, She, It + V_s

usually
every...
on...

3 Complete this job description with the words in the box.

Check, have, inspect, make, maintain, order, repair, report, supervise, work

JOB DESCRIPTION: THE CHIEF MECHANIC ON THE NORD OIL PLATFORM

The Chief Mechanic is responsible for maintaining all the mechanical equipment on the oil rig. He or she (1) repairs the diesel generators and (2) _____ every machine on the rig. He/she (3) _____ all the equipment daily, and (4) _____ sure that all machines are in good working order. He/she (5) _____ broken equipment and (6) _____ replacement parts and new tools. Most of the time he/she (7) _____ outside or on the desk. The Chief Mechanic (8) _____ to the rig Maintenance Manager and (9) _____ a small crew of two assistant mechanics and two motormen. He/she normally (10) _____ a two weeks on / two weeks off schedule.



Speaking

1 *Read the texts given below and say how people react when they find out about these people's jobs?*

Man's world Woman's world

In many ways, David Cunningham is a stereotypical Scottish man. In his free time, he plays golf, goes to football matches, and meets his friends in the local pub, all the things you'd expect a young, active man to do. And like many men, he isn't very good at housework. He's untidy, hardly ever hoovers and he's never cooked a meal in his life. However, one thing about him does not fit this stereotype: his job. David Cunningham is a midwife.

Although some women are surprised when they find out that their midwife is a man, David has a good reputation in the part of Scotland where he works. In his opinion, it is because of the way he carries out his duties. 'I really care about the women that I look after' he says. He gets on well with the husbands too. 'Having another man there calms them,' he explains. And many of them feel more comfortable asking a man questions.'

'I've been qualified for fourteen years and I've delivered hundreds of babies,' says David, who used to be a coal miner. 'There are only five or six male midwives in Scotland. When I started, I expected more men to join the

profession, but the number has not really changed. People still see it as a job which only women do.'

Amman's work?

Base 34 is a new garage in Montpellier, in the south of France. Customers who take their cars there for repairs may be surprised to find that all the employees are women.

When Herve Malige advertised for women who wanted to become mechanics, he received 120 applications. After tests and interviews, he chose fifteen. They included a nurse, a secretary, a beauty therapist and two flight attendants. They all wanted a chance to work in this traditionally male environment.

I think a lot of people instinctively trust women more. And female customers might feel more comfortable with somebody who doesn't treat them as if they don't understand anything!"

Although most car mechanics are still men, the situation is gradually changing. Men are starting to leave the profession, and women are joining it. Why? In a word, technology. In the past, being a mechanic was a physically tough and dirty job. Now, cars are much more complicated than they used to be. You need patience and intelligence to work out the problem is, not strength. Many people believe that this makes the job more suitable for women than for men.

2 *Are the sentences true or false? Correct the false sentences.*

1. David Cunningham does not have the same hobbies as most other men in Scotland.
2. Most women that David has worked with think that he is good at his job.
3. David gets on well with the women but not with their husbands.
4. David is not very experienced in his work.
5. There are not many male midwives in Scotland, but the number is increasing.
6. What is surprising about Base 34 is that no men work there.
7. Fifteen women applied to work at the garage.
8. The women had different jobs before working at the garage, but wanted a change.
9. The job of mechanic is changing because cars are getting simpler.
10. Many people think that there will be more female car mechanics in the future.

3 *Discuss the questions*

1 Do you think men and women are better at different jobs or equally good at all jobs? Give reasons.

2 Would you mind doing a job that is traditionally carried out by people of the opposite sex? Why? / Why not?

4 *Work in pairs. Tell your partner about your dream job. Where would or wouldn't you like to work? What would or wouldn't you like to do at work? Give reasons.*



Writing

1 *What factors are important while choosing a career? Write an essay. You may use following sentences.*

I think the most important...

First of all I think about...

...is (are) also very important.

Choosing a career I shouldn't forget about...

Most of the teenagers think about...

It's important for us to remember about...

Words and phrases you may use:

my skills and experience, my interests, my personal qualities, my further education, my parents' opinion, money, the things I am good at



UNIT 3 FINDING A NEW JOB




Starting up

1 *Have you ever written a CV? What information goes into it?*



Reading

1 *Read this section of a CV and answer the questions below.*

CURRICULUM VITAE		
PERSONAL INFORMATION		
Surname(s) / First name(s)	PETERSONS Anna	
DESIRED EMPLOYMENT	Senior Audio Maintenance Technician	1
WORK EXPERIENCE		
Dates	September 2006 – present day	2
Occupation or position held	Audio maintenance technician	3
Main activities and responsibilities	Maintain digital audio equipment, make recordings, do troubleshooting and repairs, buy new equipment	4
Name and address of employer	Omega Studios, Riga, Latvia	5
Type of business or sector	Electronics, entertainment, media	6
WORK EXPERIENCE		
Dates	2003 - 2005	7
Occupation or position held	Technician	8
Main activities and responsibilities	Repair video and DVD equipment	9
Name and address of employer	Comet Electronic, Riga, Latvia	10
Type of business or sector	Electronics	11
EDUCATION AND TRAINING		
Dates	2005-2006	12
Title of qualification awarded	Diploma in Audio Technology	13
Principal subjects/occupational skills covered	Audio electronics, studio equipment, digital audio technology, editing, acoustics	14
Name and type of organization providing education and training	Thames Valley University, London, UK	15

- 1 What is Anna's surname?
- 2 What job does she want to have?
- 3 Where does Anna work now?
- 4 What is her job description?
- 5 Where did she work in 2004?
- 6 What were her responsibilities then?
- 7 What qualification does Anna have?
- 8 Where did she study?

2 *Practice your speech reading. Find and advert for a job relevant to Anna's career plans, qualifications and work experience.*

1.

WANTED
<p>Experienced ELECTRONICS ENGINEER at Summit Elektronika Main Duty: Responsible for a digital audio upgrading project. You will supervise a team of senior and junior technicians and maintenance staff. Qualifications Required: a degree in electronics or audio technology Experience Required: At least five years' experience of audio project management Send your CV to: Summit Elektronika, PO Box 22, Berlin 10117</p>

2.

WANTED
<p>Experienced AUDIO TECHNICIAN at Tower Recording Studios Main Duty: Maintain and repair digital audio equipment, calculate cost of purchasing new equipment, when required, install new equipment. Qualifications Required: a diploma in audio technology or electronics Experience Required: At least two years' experience of audio project repair or maintenance Send your CV to: Tower Music Ltd., PO Box 302, London WC1 2AA</p>

3.

WANTED
<p>Experienced AUDIO-VISUAL TECHNICIAN at Bond Film Studios Main Duty: Maintain and repair digital film cameras and audio-visual equipment, purchase and install new equipment. Qualifications Required: a technician's diploma in film technology Experience Required: At least two years' experience of working in a film studio Send your CV to: Bond Studios, PO Box 811, Glasgow G2 5NP</p>

A guide to job interviews Part 1

Before the interview, DO
<ul style="list-style-type: none"> ➤ Find out the company and the job ➤ Read the job advert carefully and think how your CV matches what they want ➤ Prepare a list of questions you think the interviewer will ask you <p>Prepare a list of questions you would like to ask the interviewer</p>

A guide to job interviews Part 2

At the interview, DO	At the interview, DON'T
<ul style="list-style-type: none"> ➤ Answer every question fully ➤ Be positive and honest about yourself ➤ Ask questions about a job ➤ Show your knowledge about the company ➤ Show you are interested in the job ➤ Talk about your ambitions 	<ul style="list-style-type: none"> ➤ Dress untidily ➤ Be late for the interview ➤ Be rude or impolite ➤ Talk negatively about your previous employer ➤ Answer only YES or NO



Listening

1 Anna is talking about her CV. Fill in the gaps.

From 2003 until 2005, I (1) _____ at Comet Electronics as a technician. I (2) _____ Comet in 2005 and (3) _____ a full time student at Thames Valley University in September 2005. From 2005 to 2006, I (4) _____ audio electronics at Thames Valley. In 2006, I (5) _____ my Diploma in Audio Technology. Then in September 2006, I (6) _____ work as an audio maintenance technician at Omega Studios.



Vocabulary

1 *Put these headings in the colored boxes.*

adjective, college subjects, equipment, person, scientific concept

	noun				
1	engineer	engine	engineering		
2	electrician			electricity	electrical
3			electronics	electron	electronic
4	mechanic	mechanism	mechanics		mechanical
5	technician				
6	technologist		technology		

2 *Fill in the gaps*

1 The _____ is responsible for every _____ in the factory.

(engineering / engineer / engine)

2 I'm a _____, but I want to become a _____ engineer.

(mechanical / mechanic / mechanics)

3 The lab _____ maintains all the _____ equipment.

(technician / technical / technology)

4 The _____ repairs all the _____ equipment on the rig.

(electrical / electrician / electricity)

3 *Write the numbers from the CV next to the questions to Anna*

a) What type of business do you work in? ____

b) Where are you working in the moment? ____

c) What's your job title? ____

d) When did you join Omega Studios? ____

e) What qualifications do you have in audio technology? ____

f) Where did you study for your diploma? ____

g) Where did you work before Omega Studios? ____



Language focus

-ing form and to infinitive

Study these examples:

*She started **working** and **earning** money.*

*He's interested in **doing** research.*

*Research Engineers find new and better ways of **doing** things.*

*She wanted **to leave** school*

*She wanted **to get** a qualification.*

*He decided **to study**.*

We use the -ing form after prepositions and after certain verbs, for example:		
avoid	keep (on)	suggest
enjoy	practice	
finish	stop	

We use the to infinitive after prepositions and after certain verbs, for example:		
afford	decide	mean
aim	hope	promise
choose	learn	want

With some verbs, we can use both the -ing form and the to infinitive with little change of meaning, for example:		
begin	intend	prefer
continue	like	start
hate	love	

1 *Fill the gaps from an interview with an apprentice. Use the correct form of the verbs in brackets.*

- I didn't enjoy _____ (study) very much.
- But I was always good at _____ (work) with my hands. I enjoyed working on motorbike engines.
- I learned _____ (repair) electrical equipment with my father's help.
- He suggested _____ (take) a course at college.
- But I wanted _____ (start) work as soon as possible after school.
- I decided _____ (apply) for an apprenticeship with a local company.

2 Use the correct form of the verbs to complete the gaps in these sentences about jobs in technologies.

become	do	measure
connect	maintain	repair
cut	make	transfer
design	manufacture	turn

1. Maintenance Technicians are responsible for _____ and _____ equipment in a factory.
2. Estimators calculate the costs of _____ and _____ a product.
3. Research Engineers find new and better ways of _____ things.
4. Fitters are responsible for _____ new equipment to the network.
5. Design Engineers aim _____ ideas into plans.
6. Control Engineers attempt _____ and regulate all the variables in a system.
7. Production engineers plan _____ things in the most efficient way.
8. They look ways of _____ production costs.
9. Some Engineers decide _____ to marketing.
10. Other choose _____ managers.



Speaking

1 Look through the CV on the next page and make a monologue about Jane Smith

2 Work in pairs, A and B. Take turns to interview each other.

Student A. You are Anna. Answer questions about your CV.

Student B. You are the interviewer. Ask Anna questions about her CV.

3 Work in small groups. Roleplay a job interview. Take turns to be interviewed by the rest of the group.



JANE SMITH

PROFILE

Experienced English teacher with passion for both written words and teaching, uses this passion to connect students to the material. Possesses good presentation and communication skills that ensure students learn the material presented as well as they can.

OBJECTIVE STATEMENT

To obtain a position as an English school teacher in which strong dedication to the total development of children and a high degree of enthusiasm can be fully utilized.

EXPERIENCE

November 2014 - present
St. Louis High School, Bellview, NM
English Teacher

- Assessing students' abilities and planning instruction in English
- Providing lessons in English to students in creative manner
- Making students clear of grammar concepts
- Maintaining constant watch on students' progress

February 2013 - June 2014
St. Patrick's High School, Bellview, NM
English Teacher

- Taught literature, reading comprehension, grammar, and essay writing to students
- Provided practical activities to students and enabled them learn English language fast

St. Louis High School, Bellview, NM
English Teacher

EDUCATION

2009 - 2014
University of Cambridge, Cambridge, England
Mater's degree in Philology

CERTIFICATION

Cambridge English Advanced (CAE), 2017
Business English Certificate (BEC), 2015

HOBBIES



Reading



Tennis



Travelling

PERSONAL INFORMATION

Address
199 Walnut St., Suite 6
Lockport, NY 14094

Contact
888000111
jaane.smith1993@gmail.com

Date of Birth
23.03.1993

SKILLS

- ✓ Outstanding English speaking and writing abilities
- ✓ Superior instruction and creative skills
- ✓ Ability to assess strength and weakness in students and plan lessons accordingly
- ✓ Excellent time-management and interpersonal skills

LANGUAGES

English
● ● ● ● ● ● ● ●

Spanish
● ● ● ● ● ● ● ●

PERSONALITY

- ✓ Communicative
- ✓ Punctuality
- ✓ Creativity
- ✓ Organized



Writing

- 1 *Write a short version of your CV.*
- 2 *Prepare for a job interview. Write notes in answer to these questions about a job you would like to apply for.*
 - Why do you want this job?
 - What skills will you bring to this job?
 - Why do you want to leave your present job?
 - What questions would you like to ask the interviews?



UNIT 4 SCIENCE



Starting up

1 Complete the definitions of these subjects with words from the box.

business chemicals combine illnesses injuries
in the past living things money movement
numbers planets stars

- 1 Astronomy the study of stars and planets
- 2 Biology the study of _____
- 3 Chemistry the study of _____ and what happens to them when they change or _____ with each other
- 4 Economics the study of _____ and _____
- 5 History the study of things _____
- 6 Mathematics the study of _____
- 7 Medicine the study of _____ and _____
- 8 Physics the study of heat, light, sound and _____

2 Which of these subjects do you consider to be the most scientific? Put them in order (1 – the most scientific; 8 – the least scientific).

3 Discuss the following:

- 1 Is science the most important subject in school?
- 2 Did you enjoy studying it?
- 3 Can you name at least one famous scientist in each of the fields above?





Reading

1 Look at this webpage about Stephen Hawking. Why was he famous?

Stephen William Hawking
Born 8 January 1942, in Oxford

Education
St Albans School (20 miles north of London)
University College, Oxford (1959–62), studied Physics
PhD, University of Cambridge (1966)

Career
Institute of Astronomy, Cambridge (1968–73)
Professor of Mathematics, Cambridge (1979–)

Family
Married to Jane Wilde (1965–1995, three children)
and Elaine Mason (1995–)

Hawking as a student in Oxford

Work

Stephen Hawking is one of the world's most famous scientists. He was well-known for his work on black holes – places in space where gravity is very strong, and developed a number of new ideas about them. Hawking believed that the birth of the universe (the Big bang) created many small black holes. Hawking also thought there was a sort of hole in the centre of a black hole. This hole leads to another universe, completely separate from our own.

Hawking's 1988 book, *A Brief History of Time From the Big Bang to Black Holes*, sold one copy for every 750 people on Earth. However, many people could not finish the book (they found it too difficult) so Hawking decided to write an easier version, *A Briefer History of Time* (2005).

Health

Hawking discovered that he had the disease ALS (a disease that affects muscle control) at the age of 21, in his first year in Cambridge. He only expected to live a few years. However, he married Jane Wilde and found a job in Cambridge. In the early stages of his career, his illness got worse but he was fortunate that he did not have to teach. He only had to do research and this was easier for him.

Until 1985 he could talk, but that year doctors had to operate on him and he lost his speech. Soon, however, people developed equipment that allowed him to speak. In spite of his disease, Hawking did not consider himself an unlucky man. He said it did not prevent him from having a very attractive family, and being successful in his work. He said it was thanks to the help he received from his family and a large number of other people and organizations.

Stephen Hawking died 14 March 2018 in Cambridge, England aged 76.

2 Complete this summary of Hawking's life. Write one word in each gap. Use the text to help you.

Stephen Hawking was 1) _____ in Oxford, in 1942. He studied at the Universities of Oxford and Cambridge. He was still a young man when he 2) _____ that he had a serious disease. However, he married Jane Wilde, finished his PhD and got a 3) _____ at Cambridge University. In 1979, he became Professor of 4) _____. In 1985, after an operation, he started to use special equipment to help him 5) _____. Three years later, his book A 6) _____ History of Time appeared and sold millions of copies. Hawking rewrote the book in 2005. Surprisingly, Hawking believed that he was not an 7) _____ person. He was proud of his family and his work, and grateful for the 8) _____ that many different people had given him.

What did you find most interesting about the text?



Vocabulary

1 Complete these sentences with a preposition (to, of, etc.). Then check your answers in the text by looking for the underlined word.

- 1 The lab is separate ___ the main building.
- 2 He's writing a history ___ crime in the US.
- 3 She became very successful ___ business.
- 4 Communicating is much easier now, thanks ___ the Internet.
- 5 They have received the report ___ the police officers.

2 Can you complete these questions with a preposition?

- 1 What are you interested ___?
- 2 Do you have a good relationship ___ everyone in your family?
- 3 What are you afraid ___?
- 4 What are you proud ___?
- 5 What's the best thing that ever happened ___ you?
- 6 What do you spend your money ___?
- 7 Do you belong ___ any clubs or organizations?

With a partner take turns to ask and answer these questions.

3 Complete the sentences with the words in the box.

electricity genetics infinity levers and pulleys
printing press psychoanalysis refrigerators molecules
theory of relativity vaccination

- 1 Einstein published his _____ in 1905.
- 2 In 460BC, the Greek philosopher Leucippus proposed the existence of atoms and _____.
- 3 In 400BC Indian mathematicians wrote about the concept of _____.
- 4 The discovery of the structure of DNA in 1953 led to great advances in _____.
- 5 Edward Jenner and Louis Pasteur were pioneers of _____ techniques.
- 6 Guttenberg, of Germany, invented the _____ in 1445.
- 7 Sigmund Freud was the founder of _____.
- 8 The Greek philosopher Archimedes (287 – 212BC) is famous for his engineering inventions that used _____.
- 9 In 1750, the American scientist Benjamin Franklin showed that lightning is _____.
- 10 People first used _____ in their kitchens at home in the 1920s.

4 Read the text and fill in the gaps.

test correct discover evolution experiments
incorrect laboratory journal repeat works
telescope theory undermine support

The aim of science is to _____ new facts about the world. Scientists find out new facts by making observations, or by doing _____. Astronomers, for example, discover new facts by making observations through a _____, and chemists discover new facts by doing experiments in a _____. An idea that explains why something is true, or how something happens, is called a scientific _____. For example Charles Darwin created the theory of _____ to explain how all the different species in nature developed over time. Scientist then designed experiments, and made observations, in order to _____ his theory.

The results of an experiment might sustain a theory, or they might _____ it. If scientists keep getting results that weaken a theory they should accept that a theory is _____.

Scientists who find new evidence that supports or undermines a theory will publish their results in a scientific _____. The results will only be accepted as valid if others can _____ the observation or experiment and get the same results. This is how science _____.

5 Match the verbs on the left with their definitions on the right.

- | | |
|--------------------|--|
| 1 do experiments | a) test something under controlled conditions |
| 2 study | b) make an educated guess |
| 3 discover | c) make a guess about the future |
| 4 make theories | d) gather facts |
| 5 hypothesize | e) find something for the first time |
| 6 invent | f) make an explanation for something |
| 7 collect data | g) make something for the first time |
| 8 make predictions | h) look at something very carefully for a period of time |
| 9 do research | i) show that something is correct or true |
| 10 observe | j) find solutions |
| 11 prove | k) learn about something (often through a book) |
| 12 solve problems | l) investigate something and do experiments |

Make your own sentences about science with the words above.





Language focus

had to and could

Look at these sentences about the text:

Until 1985 he **could** talk.

Doctors **had to** operate on him.

Many people **could not** finish the book.

He **did not have** to teach. He only **had to** do research.

Now match 1-4 with a-d.

- | | |
|-------------------|----------------------------------|
| 1 had to | a) was/were not able to do it |
| 2 did not have to | b) it was necessary to do it |
| 3 could | c) it was not necessary to do it |
| 4 could not | d) was/were able to do it |

Don't forget

There is no past form of *must*.

Use **had to** to talk about something that was necessary in the past.

You **must work** hard. → You **had to work** hard.

In negative sentences, to say that something was not necessary,
use *didn't have to*.

We **didn't have to pay** for the tickets – they were free.

Use *did ... have to ...?* to ask if something was necessary.

Did you have to wear a uniform to school?

Use the modal verb *could* to talk about ability in the past.

I **could run** fast when I was younger.

We use *couldn't* to say that we were not able to do something
or it was not possible.

I **couldn't finish** the book – it was really difficult.

We **couldn't study** astronomy at our university.

Use *could ...?* to ask about ability in the past.

Could you understand that lecture on physics yesterday?


1 Complete the text with the words from the box.

had to did not have to could could not

Stephen William Hawking

After the operation

By 1985, Stephen's speech was getting worse, and only a few people who knew him well ¹ _____ understand him. But at least he ² _____ communicate. In 1985, he ³ _____ have an operation on his throat. After that, he ⁴ _____ have 24-hour care by nurses. For a time after the operation he ⁵ _____ speak at all. The only way he ⁶ _____ communicate was by spelling words. He ⁷ _____ raise his eyebrows when someone pointed to the right letter on a spelling card. However, a computer expert in California (Walt Wotosz) heard of Hawking's problem and sent him a computer program. With this program, Hawking ⁸ _____ choose words from a menu on a screen. All he ⁹ _____ do was press a switch in his hand. But he ¹⁰ _____ also control the program by making a head or eye movement. In that case, he ¹¹ _____ press the switch. At first he ¹² _____ run the program on a desktop computer, but then a man called David Mason fitted a small portable computer to his wheelchair.



His second marriage to Elaine Mason

2 Rewrite these sentences without changing the meaning. Use **had to** or **could**.

1 Was it necessary to tell the police everything?

Did you have to tell the police everything?

2 He wasn't able to walk after the accident.

3 Were you able to understand that lecture?

4 They weren't able to collect all the evidence at the scene.

5 It wasn't necessary to study Economics at school.

6 I was able to speak German when I was a child.

7 It was necessary to study Latin at our school.

8 Was it necessary to spend all that money yesterday?

Modals of obligation

We use a modal verb *must* to talk about obligation.

Must always comes before an infinitive without *to*.

I **must phone** my mother this evening.

The form *must* does not change after *he/she/it*.

James **must visit** his family this weekend.

Form questions with modal verbs by putting the verb before the subject of the question.

What time **must we get** the bus?

Must and mustn't

Use *must* to say that it is necessary to do something.

You **must switch** your phone **off** during the lesson.

The negative *mustn't* means that it is necessary NOT to do something.

We **mustn't bring** food or drink into the classroom.

You **mustn't take** any chemicals from the laboratory.

(Don't) have to

We can also use *have to/has to* to say that it is necessary to do something.
Scientists **have to be** very careful in their work.

The negative *don't have to/doesn't have to* means
it is NOT necessary to do something.
We **don't have to study** law to be a scientist.

It is possible to use *must* to ask a question,
but we often prefer *do/does ... have to ...?*
Must I sign here?
Do you have to leave now?

3 Complete the sentences about what police officers have to do / don't have to do / mustn't do.

- 1 They have to arrive on time to work every day.
- 2 They _____ be rude to the public.
- 3 They _____ wear a uniform.
- 4 They _____ be very careful when they are at the crime scene.
- 5 They _____ damage the evidence.
- 6 They _____ study science.

4 Choose the correct verbs.

- 1 You *mustn't / don't have to* study law to be a forensic scientist.
- 2 I *must / mustn't* spend some time with my parents, I haven't seen them for ages.
- 3 We *mustn't / have to* commit crimes, it's against the law.
- 4 You *must / don't have to* turn off your mobile phone in class so that it doesn't interrupt the lesson.
- 5 We *mustn't / have to* have our passport to travel outside Russia.
- 6 I *must / don't have to* join the gym again – my membership has run out.
- 7 You *have to / don't have to* check your essays carefully when you've written them.
- 8 We *mustn't / don't have to* get up early today as it's a public holiday.



Speaking

1 *Discuss these statements about attitudes to science in small groups.*

- 1 I'm interested in the latest scientific developments.
- 2 Science has made modern life healthier and more comfortable.
- 3 My government should spend more money on scientific research and less on other things.
- 4 Science and technology can solve any problem.
- 5 More women should work in the field of science.

2 *Discuss with a partner.*

- 1 Which are the most important scientific discoveries in human history?
- 2 What do you think will happen in the world of science in the next ten years?

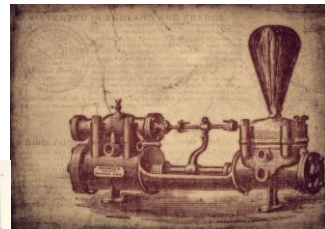
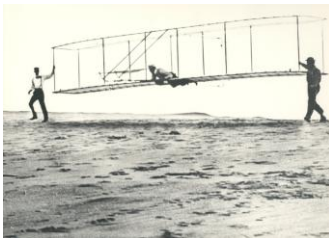


Listening

1 *Match these inventions, theories and discoveries with the science subjects 1-4.*

the theory of relativity molecules infinity the printing press
vaccinations genetics levers and pulleys psychoanalysis

- 1 Biology and Chemistry
- 2 Engineering and Mechanics
- 3 Physics and Mathematics
- 4 Medicine and Psychology

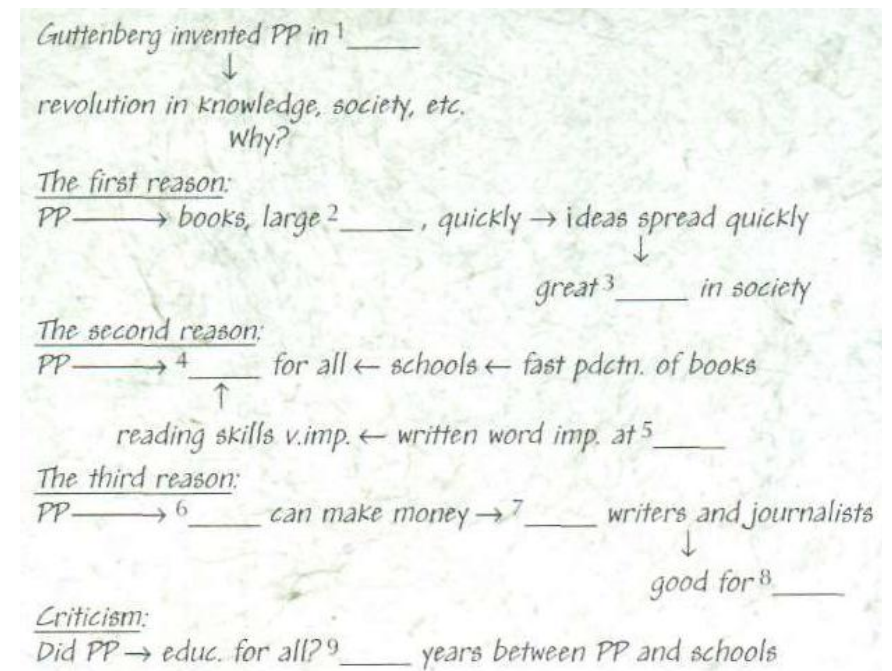


2 Ideas and Innovations is an intellectual discussion programme on radio. For a special programme they are choosing the most important inventions and scientific discoveries of the last thousand years.

Listen to part of the discussion. Julian Blake thinks the printing press is one of the most important inventions. Which of the following reasons does he mention?

- 1 People could make books and communicate ideas quickly.
- 2 Education became possible for everyone.
- 3 Libraries and universities increased in number.
- 4 Writing became a way to earn money.

3 Listen again and complete the notes below. Write one word or number in each gap.





Writing

1 Choose the best phrases to complete the text.

The most important invention of the 20th century

The invention that I think is the most important is the Internet. It 1) *has led to / means* great changes in our lives, particularly in the areas of communication, information, creativity and business.

First of all, email 2) *caused / means* that we can communicate very quickly, efficiently and cheaply. This 3) *is connected to / so* the globalization of business because doing business is now much easier and quicker. It has also 4) *led to / caused* people having personal relationships across the world. We can see this in the multinational chat rooms.

Secondly, the Internet is a great library of information. This 5) *means / is connected to* that people do not depend on the few hundred books in their local library, instead they can read billions of documents and files. People can find out about history, entertainment and their holiday destinations at the click of a button.

Thirdly, the Internet 6) *has led to / so* the development of a new type of business: e-business. Nowadays, a business does not need to have a building and 7) *so / means* it is easier and cheaper to start a business. Also, on an individual level, it is very convenient for the customers who can now shop from their home.

Finally, the Internet 8) *has caused / meant that* a great increase in creativity. For example, people put videos online, they write blogs or start their own websites. This shows that the Internet 9) *means that / has led to* positive or active changes in people's lives, whereas inventions like the television are less positive and more passive.

2 *The words in the box show connection between two ideas. Use them to complete the sentences below. In some sentences more than one answer is possible.*

caused is connected to led to means that meant that so

- 1 I think this _____ a revolution in knowledge.
- 2 This _____ ideas could spread much more quickly than before.
- 3 It _____ education for everyone.
- 4 This _____ the fast production of books.
- 5 The written word became important at work, and _____ people had to read.
- 6 The printing press _____ writers can make money.

3 *Look at the list of top inventions and discoveries.*

- | | |
|----------------------|------------------------|
| 1 nuclear energy | 7 the telephone |
| 2 aeroplanes | 8 the computer |
| 3 the car | 9 television and radio |
| 4 DNA | 10 electricity |
| 5 the clock | 11 the refrigerator |
| 6 the printing press | 12 the Internet |

With a partner choose the four you think are the most important and make notes about them. Think about these questions:

- What are your reasons for choosing the inventions or discoveries?
- What do the invention or discoveries mean we can / could do?
- What did they lead to? What is connected to them?

4 *Write a short essay about one of the inventions using the text in Exercise 1 as a model.*

Useful language

The car means that ...
The discovery of DNA led to ...
Rapid global warming is connected to ...
Television means people stay at home more, and so ...
The discovery of nuclear energy caused ...
The invention of the refrigerator meant that ...

UNIT 5 TECHNOLOGIES & INVENTIONS



Starting up

1 *What technologies do you use every day?*



Reading



1 *Read the opinion of an English student Peter Smatter about modern technology. Do you agree with him? Explain why.*



We live in the era of high technologies, and we use modern inventions in our everyday life because they have brought us much comfort. New technologies have spread on every field over the past 15 years. Moreover, they are rapidly changing. For example, video-recorders, DVD-players or compact disks have already become obsolete and have been replaced by more up-to-date devices. Today we can hardly imagine our life without such modern mobile devices as cell phones or laptops. Our offices are fully equipped with computers, printers, scanners, air-conditioners, interactive whiteboards and wi-fi modems. Household appliances (vacuum-cleaners, coffee-machines, dish-washers, food processors and others) help us to save our time and energy.

However, we should realize that digital and electronic inventions have both negative and positive impact on our daily life.

I am absolutely positive that new technologies or gadgets are making things faster, easier, more comfortable and interesting. For instance, if you install a GPS (Global Positioning System) in your car you'll never get lost

again. And could we imagine just 15 years ago all the things we can do on the wireless Internet nowadays: connecting with friends from all over the world, online shopping and banking, distance online learning, finding virtual relationships and even working from home? Isn't that awesome?! Our parents used to go to post-offices to send letters or pay bills, they went to libraries to find a good book and they used telephone-booths for phone-calls.

On the other hand, I know some people who are strongly against some modern inventions because they really miss those days when they talked to each other face to face in reality, and not virtually. I partially agree with that as I really believe that people are becoming anti-social and too dependent on their gadgets. Some of my friends also spend half of the time occupying their shiny gadgets (smart-phones or i-pads) even when we go out together. Besides, people who use various social networks a lot (such as Facebook or Instagram) should worry more about their privacy.

Summing up, I could say that there are serious arguments both for and against the use of new technologies but anyway it's really difficult to imagine our life without them today.

2 *Put the following sentences into the right place according to your opinion*

Advantages	Disadvantages
------------	---------------

- Computers are essential tools in almost every field of work from constructing models of the universe to predicting tomorrow's weather reports.
 - Computers are valuable to any business (They make life easier and save time by being capable storing and retrieving (to get back information that has been stored in the memory of a computer) vast amounts of info at the touch of a button.).
- Many people do not like using computers, and prefer dealing with a person instead.
- Computers are used to solve different problems such as calculations, bank account transactions, airline reservations and scientific and engineering computations.
- Computers are important in the collection, organization, storage, retrieval and interpretation of info.
- You have to attend at least computer classes for beginners before dealing with the machine.
 - Personal gains can be seen as the use of computers increases powers of concentration.

- In the film industry, computers are used to create graphics for scenes, animated characters, beautiful backgrounds, and amazing special effects.
- Computer technology enables the pilots to train in flight simulators which create the illusion of the flight. (It is safer and cheaper than training stuff in airplanes.)
- Computers can get viruses and sometimes computers fail and people lose the work they had done.
- The computer has become a great source of entertainment with the introduction of interactive Virtual Reality programs which are available on CD-ROMs or through the Internet. (They enable people located in different places to come together and interact with one another in real time using speech, sound and 3-D animated graphics.)
- Computers quickly become obsolete, so they soon need to be replaced or updated.
 - It's possible to explore sites on anything you are interested in, or even chat with celebrities, experts and others who share your interest.
 - The Internet keeps you up-to-date with the latest news, fashions and reports.
 - You can work from home.
 - Programs for different purposes can be downloaded free from different sites.
 - If a computer is not working properly, most people do not know how to fix it, and this can be very annoying. You have to turn for help to the technical support/expert. It can be expensive.



Watch the video about the history of the telephone and answer the questions.
<https://www.youtube.com/watch?v=qWUP9EigdjY>

1. What device does the presenter use to demonstrate how the telephone works?
2. What are the examples of some new phrases that entered the English language?
3. Why didn't people want to have the first telephones on display?
4. Why operator girls weren't a perfect solution?
5. What are microwaves?
6. What happened in the 1980s?
7. Who were the owners of the first mobile phones?



Vocabulary

1. QUIZ

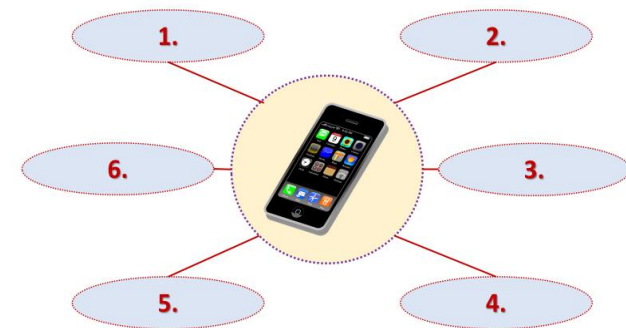
“HOW MUCH DO YOU KNOW ABOUT TELEPHONING”

Read the questions and choose the right answer.

1. Who invented the telephone?
2. Which language does the word ‘telephone’ come from?
3. Fill in the gap: “I’m afraid you’ve got the _____ number.”
4. Which phrasal verb means “wait”?
5. When you pick up the phone you need to _____ the number.
6. Do you make or do a phone call?
7. Fill in the gap: “One moment, I’ll put you _____ to him.”
8. SMS = _____.
9. What is the American English word for “mobile”?
10. How many phone numbers could the first mobile phones hold in their memory?
11. What were the first words spoken on a mobile?
12. What is the universal emergency number for all mobile phones in the EU?

(dial, Alexander Bell, hold on long distance (Greek), cell phone/cellular phone, wrong, make, Short Messaging System, through, 112, 30, “Guess where I’m calling from?”)

2 *Think about how you use your mobile phone. Try to name as many ways to use this gadget as possible.*



3 Add two more uses to the table. Then rank each use from 1 (the most frequent) to 7 (the least frequent). When you have completed your table, compare your answers with a partner. Ask for more information. Which is the most common use of mobile phones? Are you surprised by the result?

USE	Ranking 1 (most frequent) – 7 (least frequent)
1. Making calls to friends/family	
2. Looking up information on the Internet	
3. Using social media websites/apps	
4. Taking photos	
5. Checking e-mail	
6.	
7.	

4 Match the beginning of the phrase from column A to the end from column B. What are these phrases in Russian?

Pick up
Ring up
Make
Speak
Phone
Answer
Call
Dial
Put down

on the phone
someone
the phone
a phone call
a number

5 *Bring in a mobile if you have one or draw one on the board. To elicit the verbs use mime. Try to cover the following:*

- touch screen
- keys / buttons
- power button
- home button
- to switch on/off
- to dial
- to hang up
- to text
- ring tone
- charger
- apps / applications
- Bluetooth

6 *You are going to have some practice in writing text messages. But as text and instant messaging becomes more popular, language is changing. What do you think the following abbreviations mean in these text messages?*

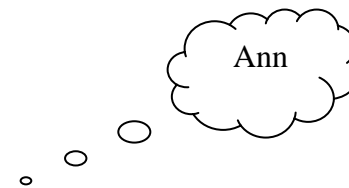
- 1) CU L8R
- 2) OMG UR so funny!
- 3) LOL
- 4) THX 4 that
- 5) CU 2nite

Do you know any other abbreviations in English?



Language focus

1 *Use the words given in brackets to form the words that fit the spaces.*



There are a lot of modern (invent) _____ people use in everyday life. A great deal of (science) _____, engineers, workers do their best to create new gadgets which make our life easier and (comfortable) _____.

As for me, my (favour) _____ bit of technology is a mobile. I can't do (with) _____ it. My Nokia is compact and (rely) _____. It offers a lot of (possible) _____ such as a camera, a calculator, a walkman. Besides the price is (reason) _____. That's why I think it is a (necessary) _____ rather than a luxury.

Present Simple Passive



We build a new house

- Active Voices

A new house is built by Us

- Passive Voices

TENSE	ACTIVE	PASSIVE
Present Simple	I make a cake	A cake is made
Present Contin.	I'm making a cake	A cake is being made.
Past Simple	I made a cake.	A cake was made.
Past Continuous	I was making a cake.	A cake was being made.
Present Perfect	I have made a cake	A cake has been made.
Past Perfect	I had made a cake.	A cake had been made.
Future Simple	I will make a cake.	A cake will be made.
Future be going to	I'm going to make a cake.	A cake is going to be made.
Modal	I must make a cake.	A cake must be made.
Modal Perfect	I should have made a cake.	A cake should have been made.

2 *What grammar voice is used in these sentences? Can you rewrite these sentences in Passive Voice?*

1. Henry Ford invented the assembly line in 1903
2. Alexander Bell invented the telephone in 1876
3. John Logie Baird invented colour television in 1928
4. Alexander Fleming invented penicillin in 1928
5. Igor Sikorsky invented a helicopter in 1909
6. Sergei Korolyov invented a satellite Sputnik 1 in 1957
7. John Walker invented matches in 1827

3 *Write true sentences in Passive Voice. Use the words in table.*

BMW cars		grown in India.
CDs	is	sent via satellite.
Tea	are	played in England.
Modems		sold in music shops.
Cricket		made in Germany.
TV pictures		used to access the Internet.

4 *Put the passive sentences in order.*

1. in a lot of schools / are / used / Computers
2. of plastic / made / are / CDs
3. seen / The information / on a screen/can be
4. are / very quickly / The answers / calculated
5. played / The game / is / on a computer
6. with a modem / are / sent / E-mails
7. is / on a disk / Information / stored
8. sent / Text messages / are / using mobile phones
9. to get information / used / is / The Internet



Speaking

1 *What technologies do you use every day? Why? And how do they make your life easier? Do they have a positive or a negative impact on you? Share your opinions in groups.*

DIALOGUE VOCABULARY

I find... very useful because...
I spend too much time...
I could be doing...
I spend most of my time...
It's good / bad for my health because...
If I didn't have... I would...



Writing

1 *Read the text about technologies of the future. Can you continue the list of future innovations? Write two paragraphs about them.*

TECHNOLOGIES OF THE FUTURE

When we think about 2050 it seems like it is ages from now and we imagine a completely different world, but in reality, it is just 30 years from now and we can already know what will be possible to have by that time. Let's see how technology may solve them by 2050.

Nanobots will plug our brains straight into the cloud

Tech of the future: nanobots. We believe, that by the 2050, nanobots will plug our brains straight into the cloud; it will give us full immersion virtual reality from within the nervous system. Just like we do know with our smartphones, we will be able to do it with our brains!

People reincarnation through AI

Sounds scary! And probably most of the religious people will be very against it, however, they say that we will be able to “bring back” our relatives through artificial intelligence.

Space tourism: a week in orbit

According to Business Insider, Space tourism could be feasible in 2050, but likely only for the very wealthy. Rocket companies will push the envelope with space travel enough that tourism will be feasible in the year 2050. For example, “someone who could afford to pay 100 million \$ could spend a week in orbit.

Self-driving cars will make driving safer

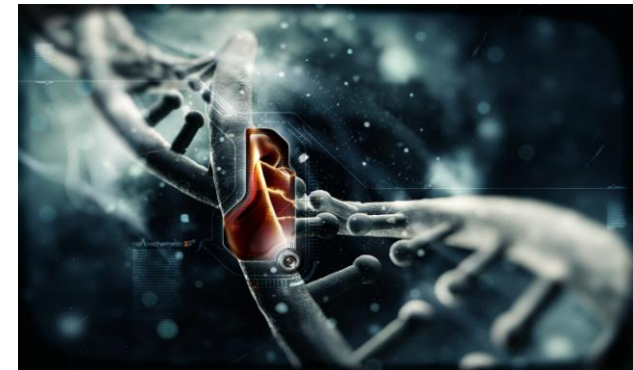
This area could dramatically reduce deaths and injuries on our roads. According to a report by Stanford University, not only will self-driving cars reduce traffic related deaths and injuries, but they could bring about changes in our lifestyles as well. We will have more time for ourselves.

Charge your iphone with the power of a plant

Did you know that you can charge your iphone with the power of a plant? Forests can become the energy stations of the future. Now it is becoming possible.

Drone solution for discovering untouched places

Deep in underground mines, some zones are inaccessible. But some companies started to work on builds drones that fly, drive and climb and use laser technology to scan zones, and create a 3D map of them. With this advancing robotics technology we will be able to push human reach to any space untouched by man-made infrastructure.



UNIT 6 SAFETY AT WORK



Starting up

1. *Have you ever worked? Was it in a dangerous environment? Did you have to follow any special regulations?*



Reading

- 1 *Read and translate the text*

Safety and health is an area concerned with protecting the safety, health and welfare of people engaged in work or employment. The goal of all occupational safety and health programs is to foster a safe work environment. As a secondary effect, it may also protect co-workers, family members, employers, customers, suppliers, nearby communities, and other members of the public who are impacted by the workplace environment. The average person finds it difficult to assess risks and that is why work practices need to be regulated.

Safety in the workplace is critical to the success of your business, no matter what size it is. As a business owner you have responsibilities regarding health and safety in your workplace. Even if you don't have any employees, you must ensure that your business doesn't create health and safety problems for your customers and the general public.

Knowing and understanding the Occupational Health and Safety laws can help you avoid the unnecessary costs and damage to your business caused by workplace injury and illness.

There are many examples of dangerous activities at your workplace, such as welding without goggles, working at a construction site without the protection of a hard hat, working in noisy environments without ear plugs or mufflers, working in production with different possibly hazardous materials without protective gloves and/or clothes, smoking near inflammable substances...

There are different risky or hazardous situations, such as: combustion, contamination, dust, the possibility of explosion, poisonous fumes, gas leakages, toxic vapors, the danger of electrical shock ... which can all have effects on us and can cause lethal or very serious damage to our body (for example: vomiting, dizziness, burns, birth defects, cancer, genetic damage).

All around risky environments or materials there are warning signs that people have to take seriously.

Below you can see three such examples:



2 *Try to find some warning signs and explain them.*



Listening

1 *Listen to the dialogue. Complete the details on the accident report form.*

About the accident	Type of accident (tick)	About the injured person
Date: _____ Time: _____ Location: _____	<input type="checkbox"/> injured self <input type="checkbox"/> injured somebody else <input type="checkbox"/> slipped, tripped or fell	Name: _____ Job title: _____ Injury: _____ At work: Yes / No (circle)

	[] lifted something	
	[] dropped something	

2 Listen to the questions from question 1. Complete the questions that you hear.

- 1 First, _____ did the accident _____?
- 2 Was _____ hurt?
- 3 When did it _____?
- 4 What's the name of the _____ person?
- 5 What _____ he _____?
- 6 What's his _____?
- 7 Did he injure _____?
- 8 What _____?



Vocabulary

1 The person in charge of health and safety is trying to explain the rules and regulations to the new employed workers. Complete what he says by filling the blanks with the missing expressions.

Choose from:

noise,	protection,	drowsiness,	dust,	accidents,	smoke,
poisonous,	fumes,	risks,	burns,	goggles,	safety,
	masks,	plugs			

New government regulations mean that we are all required to be more aware of risks in the workplace. As your superiors we will provide you with the necessary _____ equipment. You have to wear _____ to protect your eyes when working on the welding machines. You should also wear ear _____ because the _____ from the machines is so high that it could damage your hearing. There is also a lot of _____ in the air, so don't forget to wear _____ to stop you breathing it in. You are also personally responsible for your safety and for preventing _____ to happen. We also have a possibility of fire here. Remember that it is extremely dangerous to _____ near the chemical storage. That is why, we have a no-smoking policy not just inside the company but also in its proximity. I'm sure you are aware that chemicals are very

_____ so they must never enter your mouth. They could cause _____ if you get them on your skin. If you forget to put the lid on, _____ might escape and cause headaches, _____ or dizziness.

2 **Name the safety items below. Can you add more?**



3 **Read this report, complete the safety rules and then answer the questions below:**

ACCIDENT WITH A LADDER

Jason had an accident yesterday and he cut his head badly. He is in hospital now. This is what happened: he took a metal ladder from the storage and carried it into the machine shop. Then he put it onto some boxes next to the main door of the workshop (which was closed but not locked) and climbed the ladder. While he was repairing the electric cable, someone opened the door and walked into the workshop. The door hit the ladder and it fell over. Jason fell from the ladder onto the floor. He landed on his feet, but there was some oil on the floor and he slipped and cut his head on the drilling table.

SAFETY RULES

- a) Wet or oily floors must be cleaned before a ladder is put up.
- b) Metal ladders should never be used for _____ work.
- c) When you _____ a drilling machine, always have the work-piece in a vice.
- d) When the ladder is near the door, it must be _____.
- e) The ladder must never be _____ on boxes or drums.
- f) Never _____ a bare electric _____ when the electricity is on.

Which of the above rules did Jason break? Where is he now and why exactly?



Language focus

1 Use the words in the box to complete the instructions.

always do don't must mustn't never

- 1 Don't smoke in the workshop.
- 2 _____ use mobile phones in the workshop.
- 3 You _____ wear safety goggles when you use this machine.
- 4 You must _____ enter the cold store if you are alone in the factory.
- 5 _____ not lift heavy weights by hand.
- 6 You _____ use this machine without the guard.
- 7 _____ read the manual before you service the machine.
- 8 _____ touch packets in the cold store without gloves.

2 Complete each sentence with a pair of verbs.

drop / break lift / hurt pick / burn use / scratch
use / trap put / melt touch / get

- 1 Don't _____ that box. You might _____ the TV inside it.
- 2 Don't _____ the CD on that hot surface. It could _____.
- 3 Don't _____ that box without a forklift truck. You might _____ your back.
- 4 Don't _____ a hook when you lift the car. You might _____ it.
- 5 Don't _____ up that hot plate. You might _____ your hand.
- 6 Don't _____ that wire. You could _____ an electric shock.
- 7 Don't _____ that machine without a guard. You could _____ your hand in it.

3 *An inspector is inspecting a factory. Write sentences from his notes.*

1 liquid on floor 2 hole in the outside door 3 no fire exit 4 broken window 5 cables on a workbench 6 no fire extinguishers in factory 7 2 machine guards missing 8 some damaged warning cones	<i>There is some liquid on the floor</i>
---	--

4 *Complete the inspector's report about the hazards in a factory. Use each of the words or phrases once.*

there was there were was were two
no some the

- 1 There _____ no fire extinguishers anywhere in the factory.
- 2 There was _____ food and drink on the workbenches.
- 3 _____ some boxes of parts on the stairs.
- 4 _____ guard on one of the machines was broken.
- 5 _____ some oil on the floor.
- 6 _____ of the windows were broken.
- 7 The fire exit _____ locked with a padlock.
- 8 There was _____ key for the padlock.

5 *Read the newspaper story. Complete it with the prepositions from the box.*

away between in in into into of on on
on on out with

6 FISHERMEN RESCUED

(1) ___ June 17th, there was an accident (2) ___ the North Sea. A cargo ship crashed (3) ___ the fishing boat *Marianna*. The accident happened in the North Sea (4) ___ dense fog, 300 kilometers east (5) ___ Hull. The cargo ship was (6) ___ a journey from Sweden to Portugal (7) ___ a cargo of 2000 tons of wood. The *Marianna* was (8) ___ its way back to Hull, after a four-day fishing trip. There were six fishermen on it. The captain said later: "The anti-collision system on our boat switched (9) ___ automatically. Suddenly I saw the Swedish cargo ship. The distance (10) ___ us was only 30 meters. I tried to steer our ship (11) ___ from it. But it hit us and our boat sank. We launched our life raft, got (12) ___ it and sent (13) ___ a radio signal for help. We were in our life-raft for four hours."



Speaking

1 *Work in pairs. Student A has the report form of incident A. Student B - the report form of incident B. They have to ask 8 questions about their incidents and compare them.*

Student A:

About the accident:	
Date: 15th July Time: 14.46	Location: Level 1 scaffolding Height above ground: 10 m
Type of accident:	
<ul style="list-style-type: none"> • lifted something and injured self • received an electric shock + • slipped, tripped or fell on the same level • fell from a height • other 	
About the injured person:	
Name: Pedroz Comez	
Job title: Electrician	
Injury: Small 2 cm burn on right arm	
Description of accident: Touched a live wire with his right arm and received a small electric shock.	

Student B:

About the accident: Date: 23 rd November Time: 09.38	Location: 3 rd floor of the new building Height above ground: 20 m
Type of accident: <ul style="list-style-type: none">• lifted something and injured self• received an electric shock• slipped, tripped or fell on the same level• fell from a height +• other	
About the injured person: Name: Gino Petri Job title: Builder Injury: Cut his leg	
Description of accident: He tripped over a metal girder and fell from the 3 rd to 2 nd floor into a safety net.	



Writing

- 1 Work in small groups and write a list of safety rules for your classroom.*
- 2 Find a warning sign not shown in this unit and write a short text to go with it.*

ПРИЛОЖЕНИЕ 1. Irregular verbs

Infinitive	Past simple	Past participle	Перевод
abide	abode; abided	abode; abided	пребывать; держаться
arise	arose	arisen	подняться; возникнуть
awake	awoke	awaked; awoke	будить; проснуться
backbite	backbitten	backbitten	клеветать
backslide	backslid	backslid	отпадать
be	was; were	been	быть
bear	bore	born; borne	родить
beat	beat	beaten	бить
become	became	become	становиться
befall	befell	befallen	случиться
beget	begot; begat	begotten	порождать
begin	began	begun	начинать
begird	begirt	begirt	опоясывать
behold	beheld	beheld	зреть
bend	bent	bent; bended	наклоняться (в стороны)
bereave	bereft; bereaved	bereft; bereaved	лишать
beseech	besought; beseached	besought; beseached	умолять; упрашивать
beset	beset	beset	осаждать
bespeak	bespoke	bespoke; bespoken	заказывать
bespit	bespat	bespat	заплювывать
bestride	bestrode	bestridden	сидеться; сидеть верхом
bet	bet; betted	bet; betted	держаться пари
betake	betook	betaken	приниматься; отправляться
bid	bad; bade; bid	bid; bidden	велеть; просить
bind	bound	bound	связать
bite	bit	bit; bitten	кусать
bleed	bled	bled	кровоточить
bless	blessed	blessed; blest	благословлять
blow	blew	blown; blowed	дуть
break	broke	broken	(с)ломать
breed	bred	bred	выращивать
bring	brought	brought	приносить
broadcast	broadcast	broadcast	распространять; разбрасывать
browbeat	browbeat	browbeaten	запугивать
build	built	built	строить
burn	burnt; burned	burnt; burned	жечь; гореть
burst	burst	burst	разразиться; взорваться
bust	bust; busted	bust; busted	разжаловать
buy	bought	bought	покупать
can	could	could	мочь; уметь
cast	cast	cast	кинуть; лить металл

catch	caught	caught	ловить, хватать, успеть
chide	chid; chided	chid; chided; chidden	бранить
choose	chose	chosen	выбирать
cleave	clove; cleft; cleaved	cloven; cleft; cleaved	рассечь
cling	clung	clung	цепляться; лнуть
come	came	come	приходить
cost	cost	cost	стоить
countersink	countersank	countersunk	зенковать
creep	crept	crept	ползти
crow	crowed; crew	crowed	петь (о петухе)
cut	cut	cut	резать
dare	durst; dared	dared	сметь
deal	dealt	dealt	иметь дело
dig	dug	dug	копать
dive	dived; dove	dived	нырять; погружаться
do	did	done	делать
draw	drew	drawn	рисовать, тащить
dream	dreamt; dreamed	dreamt; dreamed	грезить; мечтать
drink	drank	drunk	пить
drive	drove	driven	водить (машину etc.)
dwell	dwelt	dwelt	обитать; задерживаться
eat	ate	eaten	кушать; есть
fall	fell	fallen	падать
feed	fed	fed	кормить
feel	felt	felt	чувствовать
fight	fought	fought	сражаться; бороться
find	found	found	находить
fit	fit	fit	подходить по размеру
flee	fled	fled	бежать; спасаться
fling	flung	flung	бросить
floodlight	floodlighted; floodlit	floodlighted; floodlit	освещать прожектором
fly	flew	flown	летать
forbear	forbore	forborne	воздерживаться
forbid	forbad; forbade	forbidden	запрещать
forecast	forecast; forecasted	forecast; forecasted	предсказывать
foresee	foresaw	foreseen	предвидеть
foretell	foretold	foretold	предсказывать
forget	forgot	forgotten	забывать
forgive	forgave	forgiven	прощать
forsake	forsook	forsaken	покидать

forswear	forswore	forsworn	отрекаться
freeze	froze	frozen	замерзать
gainsay	gainsaid	gainsaid	отрицать; противоречить
get	got	got	получать
gild	gilt; gilded	gilt; gilded	позолотить
gird	girded; girt	girded; girt	опоясывать
give	gave	given	давать
go	went	gone	идти
grave	graved	graved; graven	гравировать
grind	ground	ground	точить; молоть
grow	grew	grown	расти
hamstring	hamstringed; hamstrung	hamstringed; hamstrung	подрезать поджилки
hang	hung; hanged	hung; hanged	вешать
have	had	had	иметь
hear	heard	heard	слушать
heave	heaved; hove	heaved; hove	подымать(ся)
hew	hewed	hewed; hewn	рубить; тесать
hide	hid	hidden	прятать(ся)
hit	hit	hit	ударять; попадать в цель
hold	held	held	держать
hurt	hurt	hurt	причинить боль
inlay	inlaid	inlaid	вкладывать; выстилать
input	input; inputted	input; inputted	входить
inset	inset	inset	вставлять; вкладывать
interweave	interwove	interwoven	воткать
keep	kept	kept	хранить; содержать
ken	kenned; kent	kenned	знать; узнавать по виду
kneel	knelt; kneeled	knelt; kneeled	стоять на коленях
knit	knit; knitted	knit; knitted	вязать
know	knew	known	знать
lade	laded	laded; laden	грузить
lay	laid	laid	класть; положить
lead	led	led	вести
lean	leant; leaned	leant; leaned	опираться; прислоняться
leap	leapt; leaped	leapt; leaped	прыгать
learn	learnt; learned	learnt; learned	учить
leave	left	left	оставить
lend	lent	lent	одалживать
let	let	let	позволять
lie	lay	lain	лежать
light	lit; lighted	lit; lighted	освещать
lose	lost	lost	терять
make	made	made	делать; производить

may	might	might	мочь; иметь возможность
mean	meant	meant	подразумевать
meet	met	met	встретить
miscast	miscast	miscast	неправильно распределять роли
misdeal	misdealt	misdealt	поступать неправильно
misgive	misgave	misgiven	внушать опасения
mishear	misheard	misheard	ослышаться
mishit	mishit	mishit	промахнуться
mislaid	mislaid	mislaid	класть не на место
mislead	misled	misled	вести в заблуждение
misread	misread	misread	неправильно истолковывать
misspell	misspelt; misspeled	misspelt; misspeled	писать с ошибками
misspend	misspent	misspent	экономить
mistake	mistook	mistaken	ошибаться
misunderstand	misunderstood	misunderstood	неправильно понимать
mow	mowed	mown; mowed	косить
outbid	outbid	outbid	перебивать цену
outdo	outdid	outdone	превосходить
outfight	outfought	outfought	победить (в бою)
outgrow	outgrew	outgrown	вырастать из
output	output; outputted	output; outputted	выходить
outrun	outran	outrun	перегонять; опережать
outsell	outsold	outsold	продавать лучше или дороже
outshine	outshone	outshone	затмевать
overbid	overbid	overbid	повелевать
overcome	overcame	overcome	компенсировать
overdo	overdid	overdone	пережари(ва)ть
overdraw	overdrew	overdrawn	превышать
overeat	overate	overeaten	объедаться
overfly	overflew	overflown	перелетать
overhang	overhung	overhung	нависать
overhear	overheard	overheard	подслуш(ив)ать
overlay	overlaid	overlaid	покры(ва)ть
overpay	overpaid	overpaid	переплачивать
override	overrode	overridden	отвергать; отклонять
overrun	overran	overrun	переливаться через край
oversee	oversaw	overseen	надзирать за
overshoot	overshot	overshot	расстрелять
oversleep	overslept	overslept	прос(ы)пать
overtake	overtook	overtaken	догонять
overthrow	overthrew	overthrown	свергать
partake	partook	partaken	принимать участие

pay	paid	paid	платить
plead	pleaded; pled	pleaded; pled	обращаться к суду
prepay	prepaid	prepaid	платить вперед
prove	proved	proved; proven	доказывать; оказаться
put	put	put	класть
quit	quit; quitted	quit; quitted	покидать; оставлять; выходить
read	read; red	read; red	читать
rebind	rebound	rebound	перевязывать
rebuild	rebuilt	rebuilt	перестроить
recast	recast	recast	видоизменять; преобразовывать
redo	redid	redone	повторять сделанное
rehear	reheard	reheard	слушать вторично
remake	remade	remade	перделывать
rend	rent	rent	раздирать
repay	repaid	repaid	отдавать долг
rerun	reran	rerun	выполнять повторно
resell	resold	resold	перепродавать
reset	reset	reset	возвращать
resit	resat	resat	пересиживать
retake	retook	retaken	забирать
retell	retold	retold	пересказывать
rewrite	rewrote	rewritten	пере(за)писать
rid	rid; rided	rid; rided	избавлять
ride	rode	ridden	ездить верхом
ring	rang	rung	звонить
rise	rose	risen	подняться
rive	rived	riven	расщеплять
run	ran	run	бежать; течь
saw	sawed	sawn; sawed	пилить
say	said	said	говорить; сказать
see	saw	seen	видеть
seek	sought	sought	искать
sell	sold	sold	продавать
send	sent	sent	посылать
set	set	set	ставить; устанавливать
sew	sewed	sewed; sewn	шить
shake	shook	shaken	трясти
shave	shaved	shaved; shaven	брить(ся)
shear	sheared	shorn; sheared	стричь
shed	shed	shed	проливать
shine	shone; shined	shone; shined	светить; сиять
shoe	shod	shod	обувать; подковывать
shoot	shot	shot	стрелять; давать победы
show	showed	shown; showed	показывать

shred	shred; shredded	shred; shredded	кромсать; расплзаться
shrink	shrank; shrunk	shrunk	сокращаться; сжиматься; отпрянуть
shrive	shrove; shrived	shriven; shrived	исповедовать
shut	shut	shut	закрывать
sing	sang	sung	петь
sink	sank	sunk	опускаться; погружаться; тонуть
sit	sat	sat	сидеть
slay	slew	slain	убивать
sleep	slept	slept	спать
slide	slid	slid	скользить
sling	slung	slung	швырять; подвешивать
slink	slunk	slunk	идти крадучись
slit	slit	slit	раздирать(ся); разрезать (вдоль)
smell	smelt; smelled	smelt; smelled	пахнуть; нюхать
smite	smote	smitten	ударять; разбивать
sow	sowed	sowed; sown	(по)сеять
speak	spoke	spoken	говорить
speed	sped; speeded	sped; speeded	ускорять; спешить
spell	spelt; spelled	spell; spelled	писать или читать по буквам
spend	spent	spent	тратить
spill	spilt; spilled	spilt; spilled	проливать
spin	spun; span	spun	прясть
spit	spat; spit	spat; spit	плевать
split	split	split	расщепить(ся)
spoil	spoil; spoiled	spoil; spoiled	портить
spotlight	spotlit; spotlighted	spotlit; spotlighted	осветить
spread	spread	spread	распространиться
spring	sprang	sprung	вскочить; возникнуть
stand	stood	stood	стоять
stave	staved; stove	staved; stove	проламывать; разби(ва)ть
steal	stole	stolen	красть
stick	stuck	stuck	уколоть; приклеить
sting	stung	stung	жалить
stink	stank; stunk	stunk	вонять
strew	strewed	strewn; strewed	усеять; устлать
stride	strode	stridden	шагать; наносить удар
strike	struck	struck	ударить; бить; бастовать
string	strung	strung	нанизать; натянуть
strive	strove	striven	стараться
sublet	sublet	sublet	передать в субаренду
swear	swore	sworn	(по)клясться; присягнуть
sweep	swept	swept	мести; промчаться



swell	swelled	swollen; swelled	разбухать
swim	swam	swum	плавать
swing	swung	swung	качаться
take	took	taken	взять; брать
teach	taught	taught	учить
tear	tore	torn	рвать
tell	told	told	рассказывать; сказать
think	thought	thought	думать
thrive	throve; thrived	thriven; thrived	процветать
throw	threw	thrown	бросить
thrust	thrust	thrust	толкнуть; сунуть
tread	trod	trod; trodden	ступать
unbend	unbent	unbent	разогнуть(ся)
underbid	underbid	underbid	снижать цену
undercut	undercut	undercut	сбивать цены
undergo	underwent	undergone	проходить; подвергаться
underlie	underlay	underlain	лежать в основе
underpay	underpaid	underpaid	оплачивать слишком низко
undersell	undersold	undersold	продавать дешевле
understand	understood	understood	понимать
undertake	undertook	undertaken	предпринять
underwrite	underwrote	underwritten	подписыва(ть)ся
undo	undid	undone	уничтожать сделанное
unfreeze	unfroze	unfrozen	размораживать
unsay	unsaid	unsaid	брать назад свои слова
unwind	unwound	unwound	развертывать
uphold	upheld	upheld	поддерживать
upset	upset	upset	опрокинуть(ся)
wake	woke; waked	woken; waked	просыпаться; будить
waylay	waylaid	waylaid	подстергать
wear	wore	worn	носить (одежду)
weave	wove; weaved	woven; weaved	ткать
wed	wed; wedded	wed; wedded	выдавать замуж
weep	wept	wept	плакать
wet	wet; wetted	wet; wetted	мочить; увлажнять
win	won	won	выигрывать
wind	wound	wound	заводить (механизм)
withdraw	withdrew	withdrawn	взять назад; отозвать
withhold	withheld	withheld	удерживать
withstand	withstood	withstood	противиться
work	worked; wrought	worked; wrought	работать
wring	wrung	wrung	скрутить; сжать
write	wrote	written	писать

2. Verbal tenses

		Simple	Continuous	Perfect	Perfect Continuous				
Meaning (значение)		a common aspect (общие аспекты)	a process (процесс)	priority (приоритет)	priority + process				
When?		usually, often, always, seldom, every day (week, month, year)	At the time?	By what time?	Since what time? How long?				
Period of time		usually, often, always, seldom, every day (week, month, year)	now, at the moment	ever, never, just, already, by 3 p.m.	since 3 p.m., for a long time, for a month...				
Present	+	I, You, We, They	V (work)	I am ('m) You, We, They are ('re)	V+ing (working)	I, You, We, They have ('ve) V+ed (worked) V3 (written)	I, You, We, They have ('ve) He, She, It has ('s)	been+V+ing (working)	
		He, She, It	V+s (works)	He, She, It is ('s)		He, She, It has ('s)			
	?	Do	I, You, We, They V (work)?	Am I Are You, We, They	V+ing (working)?	Have I, You, We, They V+ed (worked)? V3 (written)?	Have I, You, We, They	been+V+ing (working)?	
		Does	He, She, It	Is He, She, It		Has He, She, It	Has He, She, It		
	-	I, You, We, They	Do not (don't)	V (work)	I am ('m) You, We, They are ('re)	not + V+ing (working)	I, You, We, They have not (haven't) V+ed (worked) V3 (written)	I, You, We, They have not (haven't) He, She, It has not (hasn't)	been+V+ing (working)
		He, She, It	Does not (doesn't)		He, She, It is ('s)		He, She, It has not (hasn't)		

3. Passive voice

Passive: be + V ₃		
		example
Present simple	am / is / are + V ₃	is written
Present continuous	am / is / are being + V ₃	are being written
Past simple	was / were + V ₃	were written
Past continuous	was / were being + V ₃	was being written
Future simple	will be + V ₃	will be written
Present perfect	have / has been + V ₃	has been written
Past perfect	had been + V ₃	had been written
Future perfect	will have been + V ₃	will have been written
Modals + infinitive	should / can / ... + be + V ₃	can be written
Modals + perfect infinitive	should / can / ... + have been + V ₃	should have been written

Tenses in Indirect Speech

Direct Speech		Indirect Speech	
Present Simple	V (s)	Past Simple	V II (ed)
Present Progressive	am/is/are Ving	Past Progressive	was/were Ving
Present Perfect	have/has V III (ed)	Past Perfect	had V III (ed)
Present Perf. Progr.	have/has been Ving	Past Perfect Progr.	had been Ving
Past Simple	V II (ed)	Past Perfect	had V III (ed)
Past Progressive	was/were Ving	Past Progressive	was/were Ving
Past Perfect	had V III (ed)	Past Perfect	had V III (ed)
Past Perf. Progr.	had been Ving	Past Perfect Progr.	had been Ving
Future Simple	will/shall V	Fut. Sim. in the Past	would V

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