Е. А. Алешугина, Д. А. Лошкарева, Е. В. Карцева

АНГЛИЙСКИЙ ЯЗЫК В ПРОФЕССИОНАЛЬНОЙ ДЕЯТЕЛЬНОСТИ (ДЛЯ МАГИСТРАНТОВ)

Учебное пособие

Нижний Новгород
2025

Министерство науки и высшего образования Российской Федерации
Федеральное государственное бюджетное образовательное учреждение высшего образования
«Нижегородский государственный архитектурно-строительный университет»

Е. А. Алешугина, Д. А. Лошкарева, Е. В. Карцева

АНГЛИЙСКИЙ ЯЗЫК В ПРОФЕССИОНАЛЬНОЙ ДЕЯТЕЛЬНОСТИ (ДЛЯ МАГИСТРАНТОВ)

Утверждено редакционно-издательским советом университета
в качестве учебного пособия

Нижний Новгород
ННГАСУ
2025

ББК 85.11
А 64
УДК 811.111 + 69

Печатается в авторской редакции

Рецензенты:

О. И. Ваганова – к.п.н., доцент, заведующий декоративно-прикладного искусства и дизайна ФГБОУ ВО «Нижегородский государственный педагогический университет имени Козьмы Минина»

А. А. Флаксман – к.ф.н., доцент кафедры иностранных языков ФГБОУ ВО «Приволжский исследовательский медицинский университет»

Алешугина, Е. А. Английский язык в профессиональной деятельности (для магистрантов) : учебное пособие / Е. А. Алешугина, Д. А. Лошкарева, Е. В. Карцева ; Министерство образования и науки Российской Федерации, Нижегородский государственный архитектурно-строительный университет. – Нижний Новгород : ННГАСУ, 2025. – 110 с. – ISBN 978-5-528-00627-7. – Текст : непосредственный.

В учебном пособии раскрываются концептуальные основы активного обучения, обобщен и изложен опыт преподавателей по использованию активных методов обучения при организации профессионально-ориетированного иноязычного общения студентов магистрантов различных направлений подготовки.

Учебное пособие состоит из разделов, освещающих различные аспекты общенаучной сферы деятельности. Пособие предназначено для магистрантов, аспирантов, а также преподавателей, интересующихся активными методами и формами обучения.

ББК 85.11

ISBN 978-5-528-00627-7

Содержание

ВВЕДЕНИЕ

Данное учебное пособие предназначено для обеспечения дисциплины «Деловой иностранный язык» для студентов магистрантов различных направлений подготовки.

В основе отбора содержания данного учебного пособия лежат научные разработки авторов – результаты двух диссертационных исследований.

Учебное пособие «Английский язык в профессиональной деятельности (для магистрантов)» состоит из разделов, освещающих различные аспекты общенаучной сферы деятельности, а также содержит ряд грамматических упражнений, направленных на разбор трудностей перевода научно-технического текста, кроме того в пособие включен ряд коммуникативных и творческих заданий. Все разделы были отобраны с помощью анализа практической значимости материала в профессиональной деятельности магистрантов.

В пособии представлены аутентичные тексты общепрофессиональной направленности, а также разнообразные по форме и содержанию упражнения, основанные на активных технологиях обучения и направленных на активизацию изученного материала. Упражнения творческого характера имеют цель сформировать положительную мотивацию к изучению данной темы и предмета в целом, а также обеспечить формирование навыков устной и письменной коммуникации на иностранном языке. В процессе их выполнения студенты вовлечены в квазипрофессиональную деятельность, которая несет в себе черты их будущей профессиональной деятельности с использованием иностранного языка, формируя целостный образ будущей профессиональной ситуации. Кроме того, разработанные творческие задания направлены на стимулирование совместной работы, где каждый студент приобретает навыки социального взаимодействия, коллективную направленность, ценностные ориентации и установки, присущие специалисту.

Пособие рекомендуется к использованию как для аудиторной, так и для самостоятельной работы студентов-магистрантов всех форм обучения.

UNIT 1 MY EDUCATION

1.1 Higher education in the world

1. Group work (home group):

- Are systems of higher education different from country to country?
- What are their special features?

Complete the table with specific features of different systems of higher education. Match the specific feature to the country it belongs to.

France **Germany** **UK** **USA**	a) This country consisted of strong principalities in the past and even now, the regional universities have autonomy in determining their curriculum under the direction of rectors. b) Through colonial influence and through the work of missionaries, this country introduced many aspects of their system in North and West Africa and the Caribbean. c) The doctoral degree, or Ph.D., invented in this country, has got popularity all around the world. d) Its universities has almost complete autonomy from national or local government in their administration and the determination of their curricula, but the schools receive their funding from the state. e) In this country there is a national idea that students who have completed secondary school should have at least two years of university education. f) For most undergraduates of this country it is possible to complete a degree course in three years rather than the standard four years. g) This model of higher education has been copied to varying degrees in Canada, Australia, India, South Africa and New Zealand. h) The curriculum in this country is uniform and each university has little to distinguish itself. i) A marked feature of this education is the de-emphasis on lecture and examination. Students are evaluated according to their performance in individual courses where discussion and written essays are important. j) Higher education in this country is free and open to all students who have passed examination.

Reading

2. Group work (expert group):

Each group will read one of the texts about some systems of higher education and will make a summary of its specific features.

SYSTEMS OF HIGHER EDUCATION IN FRANCE AND GERMANY

Both France and Germany have systems of higher education that are basically administered by state agencies. Entrance requirements for students are also similar in both countries. In France an examination called the *baccalauréat* is given at the end of secondary education. Higher education in France is free and open to all students who have passed this examination. A passing mark admits students to a preparatory first year at a university, which finishes in another, more strict examination. Success in this examination allows students to attend universities for other three or four years until get the first university degree, called a *licence* in France.

Basic differences, however, distinguish these two countries' systems. French educational districts, called *academies,* are under the direction of a rector, who is appointed by the national government and is in charge of the university. The uniformity in curriculum in the country leaves each university with little to distinguish itself. That is why many students prefer to go to Paris, where there are better accommodations and more entertainment for students. Another difference is the existence in France of higher-educational institutions known as great school, which give advanced professional and technical training. Different great schools give a scrupulous training in all branches of applied science and technology. Their diplomas have higher value than the ordinary *licence*.

In Germany, a country made up of what were once strong principalities, the regional universities have autonomy in determining their curriculum under the direction of rectors. Students in Germany change universities according to their interests and the strengths of each university. In fact, it is a custom for students to attend two, three, or even four different universities in the course of their studies, and the professors at a particular university may teach in four or five others. This mobility means that

schemes of study and examination are free and individual, what is not typical for France.

Each of these countries has influenced higher education in other nations. The French, either through colonial influence or through the work of missionaries, introduced many aspects of their system in North and West Africa, the Caribbean, and the Far East. In the 1870s Japan's growing university system was remodeled along French lines. France's *great schools* have been copied as models of technical schools. German influence has come in philosophical concepts regarding the role of universities. The Germans were the first to stress the importance of universities in the sphere of research. The doctoral degree, or Ph.D., invented in Germany, has gained popularity in systems around the world.

THE SYSTEM OF HIGHER EDUCATION IN GREAT BRITAIN

The autonomy of higher-educational institutions is important in Great Britain. Its universities enjoy almost complete autonomy from national or local government in their administration and the determination of their curricula. However the schools receive nearly all of their funding from the state. Entry requirements for British universities are rather difficult. A student must have a General Certificate of Education (corresponding to the French *baccalauréat*) by taking examinations in different subjects. If they have greater number of "advanced level" passes, in contrast to General Certificate of Secondary Education ("ordinary level") passes, then the student has better chances of entering the university of his choice. This selective admission to universities, and the close supervision of students by a tutorial system, makes it possible for most British students to complete a degree course in three years instead of the standard four years. Great Britain's academic programs are more highly specialized than the same programs in other parts of Europe. Great Britain's model of higher education has been copied to different degrees in Canada, Australia, India, South Africa, New Zealand, and other former British colonial territories in Africa, Southeast Asia, and the Pacific.

THE SYSTEM OF HIGHER EDUCATION IN THE UNITED STATES

The system of higher education in the United States differs from European in certain ways. In the United States, there is a national idea that students who have completed secondary school should have at least two years of university education. That is why there is a great number of "junior colleges" and "community colleges." They give two years of undergraduate study. Traditional universities and colleges, where a majority of students complete four years of study for a degree. Universities that provide four-year study courses can be funded privately or can have state or city foundations that depend heavily on the government for financial support. Private universities and colleges depend on students payments. The state governments fund the nation's highly developed system of universities, which give qualified higher education.

In the American system, the four-year, or "bachelor's," degree is ordinarily given to students after collecting of course "credits," or hours of classroom study. The quality of work done in these courses is assessed by continuous record of marks and grades during a course. The completion of a certain number (and variety) of courses with passing grades leads to the "bachelor's" degree. The first two years of a student's studies are generally taken up with obligatory courses in a broad range of subjects, also some "elective" courses are selected by the student. In the third and fourth years of study, the student specializes in one or perhaps two subject fields. Postgraduate students can continue advanced studies or research in one of the many graduate schools, which are usually specialized institutions. At these schools students work to get a "master's" degree (which involves one to two years of postgraduate study) or a doctoral degree (which involves two to four years of study and other requirements).

A distinctive feature of American education is the de-emphasis on lecture and examination. Students are evaluated by their performance in individual courses where discussion and written essays are important. The American model of higher learning was adopted wholesale by the Philippines and influenced the educational systems of Japan and Taiwan after World War II.

3. Group work (expert group):

Each expert group member will return to their home group and will retell the summary of their system of education.

4. Group work (home group):

Return to your home group and correct the tables with educational systems in different countries.

Discuss, find the distinctive features and present the system of higher education in Russia.

1.2 Reading

1. *Read the text about Higher Education in different countries and say if the following statements are true or false.*

1. British certificates, diplomas and awarded degrees are the best throughout the world.
2. The British programs on getting a bachelor's and master's degrees last only for 4 and 2 years respectively.
3. America and Canada are very popular among European students.
4. The close connection between science and practice is the strength of the Canadian university.
5. In the U.S. there is uniform state system of education.
6. You do not have to pay for education in state institutions in France.
7. French baccalaureate is similar with the English bachelor.
8. The main principle of higher education in Germany is "academic freedom".
9. A diploma Abituris a kind of admission to study at German university.
10. The enter campaign to universities of Germany is once a year.

Higher Education in Different Countries

In modern society a new "tradition" has appeared most recently: wealthy people tend to send their children abroad to study. For some it is a tribute to the new fashion, but for others – is a major step forward. The most popular is a higher education abroad. In fact, it is much more effective to go to learn when you have already decided on the future profession, than just receive secondary education in colleges or high schools. The education in England is considered as the most prestigious.

The advantages of studying in the UK:

1. British certificates, diplomas and awarded degrees are the best throughout the world and certainly the most prestigious. Education received in England is a reliable foundation for any career, and a guarantee of high wages (even for beginners)!
2. Most modern teaching methods, the equipment is constantly modernized at schools and, most importantly, professional teachers of British universities help to fulfill the full academic and creative potential of students.
3. British universities are in the "tops" of the educational rankings. Many countries have taken the British model of education as a basis.
4. The knowledge, gained in the courses of English, will form the basis for your future career or guarantee of the successful education in students' own country. Worldwide, the English language used in business, science and information technology.
5. The British programs on getting a bachelor's and master's degrees last only for 3 and 1 years respectively, compared with 4 and 2 years in most other countries. Thus, due to the intensity of training, its term is reducing, and hence the cost of education and accommodation.
6. United Kingdom is a multinational and multicultural country. It absorbed the cultural diversity of its former colonies, and many other countries.
7. Educational traditions of Great Britain, among which, by the way, the tradition of taking students from different parts of the Earth, rooted in the distant past. The UK was one of the first countries in which there were universities. The famous Oxford and Cambridge quickly gained popularity and fame throughout

the world and evolved into the international educational centers. As such, they are more than 700 years give the world many talented scientists, writers, and physicians. The share of the UK accounts for nearly 5% of all researches in the world. But British scientists have received more Nobel Prizes than any other country in the world except the United States.

8. Continuous monitoring! All universities (both old and new) are regularly inspected and assessed by special public and state institutions such as the Office for Standards in Education, The British Council and British Accreditation Council.

America and Canada are not so popular among European students, because they are on another continent. Flights to America takes a long time (on average about 12 hours), and tires. Nevertheless, education is high quality, and diplomas of many American universities are highly regarded throughout the world.

So, Canadians and foreigners pay for education ridiculous money according to American standards. You can, for example, find a university in the eastern provinces of the country with the cost of the course of about USD 2.500 per year. This is due to the fact that in Canada there are no private schools (except for some private religious schools). All schools are funded by two-thirds of the state budget and public funds. Another thing is that due to the global economic crisis, Canadian prices are rising by an average of 10% per year. However, they are now much lower, for example, than U.S. Established in 1911 the Association of Universities and Colleges of this country (AUCC) brings together 90 universities and about 100 (of 175) colleges, most of which have a good reputation far beyond the borders of Canada. Two-thirds of university's professors have a doctorate. They have a lot of charges: in Canadian universities more than 500 thousand students and 75 thousand graduate students study.

The close connection between science and practice is the strength of the Canadian university. According to official statistics, a Canadian university science creates in the country the 150-200 thousand jobs annually. Canadians are the leaders in the development of satellite navigation systems and life support systems, methods of relieving stress and pain.

In the U.S. there is no uniform state system of education; each state has the right to determine its own structure. In the U.S. there is no clear definition of the term "institution of higher education". Any institution that carries out further training after high school, so-called "post-secondary educational institutions" (postsecondary school), could be equally called "college", "school", "institute" or "university". Higher education is one of the expensive things in the U.S. The procedure of enrollment and screening of applicants to the U.S. institutions of higher education depends on their prestige. There are no uniform requirements for applicants. In particular, some universities carry out the selection by competitive examination, interview, test, while for others the only condition is the presence of secondary education (for example, open enrollment in the two-year colleges). A common requirement for entering the college is to provide documentations of secondary school completion; a list of subjects studied at school and received marks on them, total scores on the tests, the characteristics, the results of interviews during the entering campaign. Every educational institution creates a students' contingent according to own system without worrying about whether everyone will finish the full course, and where they will be able to work. Formally, the U.S. universities accepted the person of any age. Duration of training is also not limited. The maximum value of average annual expenditure per student ranges from $7,000 in state universities up to $15,000 in private institutions. The U.S. has more than 1,350 local colleges and 2,000 colleges and universities, 65% of which are private.

The best balance between price and quality belongs to French institutions of high education. To study there is cheaper than in the English-speaking countries, but graduates of these institutions occupy senior positions in various enterprises. So, for education in state institutions in France you do not have to pay. However, a small fee, which ranges from 130 to 700 euros per semester, depending on the university and the chosen specialty, it is necessary to make for use of the library, laboratories, campus infrastructure, etc. Accommodation in the hostel will cost 140-400 euros per month, food – about 130-200 euros. Therefore, it is the most prestigious education in France and to get into such institution is not easy, especially for a foreigner. Certifi-

cate and an excellent knowledge of French at a high level do not guarantee entering the institution.

The University learning process is divided into three cycles. Each of them completed with the pass of exams and get of a diploma. *The first cycle*, which comes at the end of the French lyceum (lycée), lasts two years and provides general education. French baccalaureate has nothing similar with the English bachelor. In France, the bac is passed at the end of the lyceum, and only those who have passed all the exams successfully, receive a bachelor's degree and are eligible to enter the college. After two years of study students take exams and receive a diploma of general university education – DEUG, or the degree of scientific and technical education – DEUST. During *the second cycle* of education, which also lasts two years, students have more specialized knowledge. The first year of the second cycle, called license, ends with the award of the degree of Licentiate. Licentiates, having studied for a year, received a master's degree – maitrise. To do this, the student must choose a theme and write a thesis. *The third cycle*, which many foreigners tend to enter, lasts one year and ends up with getting a full-fledged diploma. There are two types of diplomas. First is a diploma DESS – a diploma of special higher education. It is issued after a year of specialization in a particular occupational area, and provides training from 3 months to six months. Further employment significantly depends on the correct choice of training. The second one is a diploma DEA (Diplôme d'études appliquées) – Diploma of Higher Education in-depth that allows the holder to continue his/her scientific work and apply for the writing of a thesis.

Germany has the standard general rules for entering the institution of higher education. A diploma Abitur, which is issued as a result of study in high school or in public school on high school which is issued as a result of study in high school or public-school program for high school, is a kind of admission to study at university. To obtain this diploma school graduates must pass exams in four core subjects. Compliance with educational standard, fixed by diploma Abitur, usually allows to enter the university without examinations, but now some prestigious universities accept into the ranks of students those who pass the entrance exams at faculty (especially in

the medical). The main principle of higher education in Germany is "academic freedom" – a system that allows any student to determine the list of disciplines that will be part of his diploma. The higher education system in Germany also means the combination of the educational process and scientific research. These characteristics determine the schedule of the educational process in universities: each semester consists of a lecture period (14-20 weeks) and non-lecture, during which the student engaged in independent research work.

Germany's higher education system combines 326 institutions, most of which are public (non-public institutions are required to have a state license on teaching). The base of system is formed by universities (Universität) and related institutions of higher education (total number – 78): classical universities (faculties of medicine, humanities and natural sciences, theology, sociology, economics, agriculture and forestry, engineering), technical universities (Technische Universität) (Engineering), general universities (Gesamthochschulen) (special professional education and scientific researches), pedagogic institutions (Pädagogische Hochschulen), medical colleges, philosophical-theological and ecclesiastical colleges (Theologische Hochschule), Sports College. Among the non-university higher education institutions there are professional high schools (Fachhochschulen) (professional education in the fields of business, economics, services, agriculture and crafts) and Colleges of Art (Kunsthochschule and Musikhochschule).

The average duration of training in higher educational institution of Germany lasts for 5 years, although there are institutions with a four or six-year courses. The maximum duration of higher education in Germany is 10 years. The enter campaign to universities of Germany is twice a year: spring, before the summer semester and fall semester before the winter. Results of study during the semester can be expressed in credit points, which are awarded to students after each session. University course is divided into two parts: the base (3-4 semesters), which is assigned on the basis of Licentiate (Vordiplom), and primary (4-6 years), following which is assigned to a master's degree (Magister Artium) (students of technical specialties instead of this degree

receive a diploma.) In addition to the graduation from the university on basic course, the graduate must defend a thesis or dissertation.

Focus on your ability! Because cheap education is not a measure of non-prestigious. University diplomas of other countries, where education is cheaper (Poland, Czech Republic, etc.) give the graduate an opportunity to find work and settle abroad. In most cases this is the purpose of applicants of the foreign universities.

Read the text again and be ready to answer the questions:

1. What tradition has appeared in modern society most recently?
2. Why are British certificates, diplomas and awarded degrees considered to be the best throughout the world and the most prestigious?
3. How many years does it take to get a bachelor's and master's degrees in England?
4. Why is United Kingdom considered to be a multinational and multicultural country?
5. Why do you think Oxford and Cambridge universities are the most popular and prestigious in the world?
6. Explain the reasons why education in Canada not expensive according to American standards?
7. What is the strength of the Canadian university?
8. How can explain that in the U.S. there is no uniform state system of education?
9. What does the procedure of enrollment and screening of applicants to the U.S. institutions of higher education depend on?
10. What are uniform requirements for applicants in U.S.?
11. What age should a person be to be accepted to American University?
12. How much can you pay for education in state institutions in France?
13. What does the first cycle of the University learning process in France include?
14. What does the second cycle of education end with?

15. What two types of diplomas can you get after the third cycle of education in France?
16. What are the standard general rules for entering the institution of higher education in Germany?
17. What is the main principle of higher education in Germany? What does it mean?
18. How many institutions are there in Germany's higher education system? Describe them.
19. How long is the average duration of training in higher educational institution of Germany?
20. What two parts is University course divided into?

Choose one of the countries and prepare a Power point presentation about the education system of this country.
(https://www.assignmentexpert.com/blog/higher-education-in-different-countries/)

1.3 Grammar focus

Порядок слов в английском предложении

Look through the Grammar material (Appendix 3) and do the exercises.

Ex. 1. Make sentences putting the words in the right order.

1. the party/ very much/ enjoyed/ they
2. we won/ easily/ the game.
3. quietly/ the door/ I / closed
4. Diana/quite well/ speaks/German.
5. Tim/ all the time/ television/ watches
6. football/ every weekend/ Ken / plays
7. some money/ he/ borrowed/ from a friend/ of mine
8. job/ learning/ for / English/ your / you / are

9. English/ you/ started/ learning/ in childhood
10. tennis/ often/ plays/ she
11. is / near / school / There / new / a / our / cinema
12. got / my / problem / I / with / have / homework / a
13. when / a / helps / she / thinks / problem / trouble / Mary / has / doll / her / a
14. well / think / your / very / I / don't / father / drives
15. to / we / On / a / restaurant / sometimes / Sundays / go
16. circus / went / with / we / ago / the / Two / my / to / parents / months
17. did / very / The / trick / well / magician / his
18. after / Jim / sister / Mother / look / asked / his / to / younger
19. her / Cindy / you / I / found / Can / tell / that / have / necklace
20. way / on / bike / Mike / on / already / been / his / to / his / school / has

Ex. 2. Put the subject of the sentence in the right place if it is necessary according to the word order in the sentence.

1. Curly hair has her brother.
2. Steve cakes likes.
3. A bad cold has Jessica.
4. It froze hard last night.
5. These exercises I did well.
6. Daddy met me at the station.
7. Those shoes Mary bought at the market.
8. Dinner have they in the big dining-hall.
9. Jim doesn't like very much baseball.
10. Ann drives every day her car to work.
11. When I heard the news, I immediately called Tom.
12. Maria speaks very well English.
13. After eating quickly my dinner, I went out.
14. You watch all the time television.

15. Liz smokes about 20 cigarettes every day.
16. I think I'll go early to bed tonight.
17. You should go to the dentist every six months.
18. We went last night to the movies.
19. We go every summer to the sea in August.
20. In the evening my parents go to the cinema with their friends.

Ex. 3. Make sentences putting the word combinations in the right order.

1. And / for/ of interest / related materials / amorphous alloys / applications / a diverse range / are.
2. To do / these changes / nothing / the difficulty / with / has.
3. A full review / it is not appropriate / the mechanical properties / here of / to undertake / of amorphous alloys.
4. Among the features of / these are just discussed/ there are / some particular to / shear bands / wear scars / the vein pattern and / amorphous alloys / the inducing of crystallization.
5. Do not possess / understanding of / any / cause and effect / we / accurate.
6. Chemical effects / was playing / in the wear / shown in Fig.9 / the dominant role / to be strong / because/ it / for these tests / was concluded that / oxidation / would be expected / in the results.
7. The new model / with the help of / can be done away / these effects.
8. At a higher speed / is / the alloy richer / consistent with / in nickel / to be / this difference / to show / more oxidation resistant / its transition / would be expected / and therefore / the oxidation mechanism / as.
9. Earned / among / the scientist / great popularity / his colleagues / the achievements.
10. And / occurs / of annealing / by nucleation / the more extreme consequence /crystallization / which is / growth.
11. Under rather / both arithmetic / making it possible / electronic computers / per-

form / and logical operations, to control / complicated conditions / the process.

12. Whang and Giessen / sliding or / simple correlation / already discussed / between / abrasive wear resistance / there is no / and / showed that / hardness / in the previous section / the work of.

UNIT 2 MY CAREER

2.1 Planning your career

1. JOB INTERVIEW IN ENGLISH

- Have you ever gone through a job interview? What questions were you asked?
- Have you ever gone through a job interview in English? How did you manage? What questions were you asked?

Study the most common sample questions at the job interview and the answers to them (pay attention to comments given in brackets).

1. How would you describe yourself?

(Also: What are your strengths / positive traits? Why should we hire you?)

- ***I consider myself*** *hardworking / reliable / dependable / helpful / outgoing / organised / honest/ cooperative.*
- *I'm a* ***team-player / an experienced team-leader / a seasoned*** *(experienced)* ***professional / a dedicated worker****.*
- ***I'm good at*** *dealing with people / handling stress.*
- ***I pay attention to details.***
- *I understand my* ***customers' needs.***

- *I learn quickly and **take pride in my work**.*
- *I love challenges and **getting the job done.***

2. What kind of qualifications do you have?

- *I **graduated in** IT **from** the University of London.*
- *I **hold a** master's **degree** (MA) / a bachelor's degree (BA) in Modern Languages from the University of New York.*
- *I **took** a one year accounting **training program** at Oxford College.*
- *I **haven't done any formal training** for this job, but I have worked in similar positions and **have ten years of experience in this field.***

3. Why did you leave your last job?

- *I was **laid off / made redundant**, because the company **relocated / downsized / needed to cut costs**.*
- *I **resigned from my previous position**, because I didn't have enough **room to grow** with my employers.*
- *I wanted to **focus on finding a job** that is **nearer to home / that represents new challenges / where I can grow professionally / that helps me advance my career.***

4. What do you do in your current role?

- ***I'm responsible for** the day-to-day running of the business / for recording and conveying messages for the departments.*
- ***I ensure** that high standard of customer care is maintained.*
- ***I liaise with** the Business Development and Business Services Units.*
- ***I deal with** incoming calls and correspond with clients via e-mails.*
- ***I'm in charge of** the high-priority accounts.*

5. What relevant experience do you have?

(It might be a good idea to revise Present Perfect Simple and Continuous to talk about experiences you've had/ actions that you started in the past and are still in progress.)

- ***I have worked as a*** *Sales Representative* ***for*** *several* ***years****.*
- *I* ***have*** *good* ***organizational skills*** *as I have worked as an Event Organizer / Personal Assistant for the last six years.*
- *I* ***have*** *great* ***people skills****: I've been working in Customer Service and been* ***dealing with complaints*** *for five years.*

6. Why would you like to work for us?

- *I would like to* ***put into practice*** *what I learned at university.*
- *I would like to* ***make use of the experience I have gained*** *in the past ten years.*
- *I believe that your company will allow me* ***to grow both professionally and as a person****.*
- ***I've always been interested in*** *E-Commerce / Marketing / Computer Programming and* ***your company excels*** *(is one of the best) in this field.*

7. What are your weaknesses / negative traits?

- *I'm a* ***perfectionist*** *and I may be* ***too hard on myself*** *or my co-workers sometimes.*
- ***I might need to learn to*** *be more flexible when things are not going according to plan.* ***This is something I'm working on at the moment.***
- *I occasionally* ***focus on details*** *instead of looking at the bigger picture. I'm learning how to* ***focus on the overall progress*** *as well.*

8. When can you commence employment with us?

(When can you start work?)

- *I will be* ***available for work*** *in January, next year.*
- *I can* ***start immediately****.*
- *I have to* ***give three weeks' notice to*** *my current employer, so the earliest I can start is the first of February.*

9. Do you have any questions?

- ***What would be*** *the first project I'd be working on* ***if I was offered the job****?*
- *Who would I* ***report to****? Who would I be* ***working closely with****?*
- *Are there any* ***benefits*** *your company offers its employees?*
- *When will I get an answer?* ***How soon can I start****?*

Additional sample questions

Questions about your Qualifications

What can you do for us that someone else can't do?

What qualifications do you have that relate to the position?

What new skills or capabilities have you developed recently?

Give me an example from a previous job where you've shown initiative.

What have been your greatest accomplishments recently?

What is important to you in a job?

What motivates you in your work?

What have you been doing since your last job?

What qualities do you find important in a coworker?

Questions about your Career Goals

What would you like to being doing five years from now?

How will you judge yourself successful? How will you achieve success?

What type of position are you interested in?

How will this job fit in your career plans?

What do you expect from this job?

Do you have a location preference?

Can you travel?

What hours can you work?

When could you start?

Questions about your Work Experience

What have you learned from your past jobs?

What were your biggest responsibilities?

What specific skills acquired or used in previous jobs relate to this position?

How does your previous experience relate to this position?

What did you like most/least about your last job?

Whom may we contact for references?

Questions about your Education

How do you think your education has prepared you for this position?

What were your favorite classes/activities at school?

Why did you choose your major?

Do you plan to continue your education?

2. WRITING CV AND LETTER OF APPLICATION (Covering letter)

If you want to apply for a job you should present the information about yourself correctly. You can do this with the help of CV.

Parts of a typical CV

Curriculum Vitae

Profile

Education

Experience

Computer skills

Languages

Nationality

Marital Status

Referees:

Think about your personal data and make your own CV

Together with your CV you should write a covering letter. Here you are given some instructions on how to do this.

Read the instructions and answer the following questions:

- What is the covering letter for?
- What parts does it contain?
- What recommendations are given to you?

Writing a covering letter

Your covering letter could make the difference between getting a foot in the door or having it slammed in your face.

Covering letters are not just sent as a courtesy, but are an introduction to your potential employer. They are designed to complement your CV and provide extra information about you. The covering letter is the first impression a potential employer will have of you and without a good impact, they may not progress far with your CV.

Introducing yourself - making an impact

A covering letter should be concise and ideally no more than three paragraphs long. It needs to introduce you to the potential employer, say what you want to do for the employer, and show how and why you are suited for that particular work. Its main aim is to get your CV read.

The style of the covering letter should be reasonably formal and business-like and match the CV or application form you are sending. It should be typed using a clear font and on good quality, plain white or cream paper, preferably the same as the CV. If you are emailing it, make it look business-like.

• Always write to a named individual, whether you are applying for a job or writing a speculative letter. If you don't know who to address the letter to, use your initiative and contact the company to find out the name of the relevant person. Make sure you check the spelling of their name, no one likes to have their name spelled incorrectly.

• The opening paragraph should let the reader know why you are writing to them. If you are writing to apply for a position with their company, make clear which job you are applying for and where you saw the advertisement, give the title and date

of the publication that the vacancy was advertised in. For speculative letters outline what kind of work you are looking for.

- You need to show an interest in the position you are applying for and that you have some knowledge of the employer. Find out about the company by looking for other advertisements it may have, search the internet for its website, look through the company's literature and scan business journals and newspapers for other general information. Refer to any recent news about the company, this will show you understand what the company is about.

- Explain why you want to work there and emphasize what you can do for the company. Avoid using phrases like 'I think I could gain valuable experience with your company' or 'this is an area of my skill I have always wanted to develop'. The employer will hire you because of what you can do for the company, not because of what you think you can get from working there. Be keen, but genuine and avoid using cliché phrases.

- Don't state the obvious, e.g. 'I am writing to apply for the position, as you will see from my CV' etc. Rather reword the opening of each paragraph to get straight to the point, e.g. I am confident that my legal experience would make me a suitable candidate for this position and have attached my CV for further reference.

Why should you get the job?

Paragraph two needs to tell the employer, in more detail, why you are suited to the job and what skills you have got to offer. Why would the employer benefit from taking you on? This is the most important section of the covering letter and will probably make an employer decide whether to look at your CV or not. You need to flag up two or three of your key selling points and give some concrete information on the skills and experience you have.

Make sure you choose points that relate to the job you are applying for so you can match your skills to their needs. The covering letter also gives you a chance to show off skills that you might not be able to get across in the CV, such as maturity, teamwork or interpersonal skills. Make sure everything you say about your skills and experience in your covering letter is backed up by evidence in your CV.

Positive endings

Don't let your letter fizzle out at the end with just a bland 'yours sincerely'. Finish the letter with a strong, proactive phrase which sets the scene for the next stage - being called in for an interview, e.g. 'I am available for interview at your convenience and look forward to meeting you'. If you have addressed the letter to a named person (and you should have done), you should end the letter with Yours sincerely, if you wrote Dear Sir or Madam, it should end with Yours faithfully.

Point out several useful phrases that you can use in your covering letter.

- Look at the example of a covering letter.
- Does it correspond to the instructions given above?
- What should you add to the letter to make it better?

Dear Mr Sorefoot

Please find enclosed my completed application form for the above position.

As you will see from my form, I have ten years experience with Bates Retail as a Sales Manager.

I look forward to hearing from you and hope that you will be able to invite me for an interview.

I would very much welcome an opportunity to discuss my application in greater detail and convince you that I am the right person for the job.

Yours sincerely

Frances Slimwaist

You are looking for a job. Find in the Internet or in the newspaper an advertisement of a job you would like to have. Write your covering letter to apply for a job.

Useful phrases:

I wonder if you would be so {kind|good} as to...

Will you be so kind as to...

Will you kindly...

I {shall|should} be {happy|glad|pleased} if you...

We are so {happy|glad|pleased} to...

We {will|would} be most {happy|glad|pleased} to...

I cannot tell you how {happy|glad|pleased} I am to...

I have much pleasure in... It gives me great pleasure to...

It {is|was|would be} a great pleasure (to me) to...

It is a great honour and pleasure to...

I enclose {herewith/herein}...

You will find {enclosed/with this letter}...

Please find enclosed...

Attached to this letter you will find...

I am very glad of the opportunity to give my {attention|consideration} to...

I am very grateful to you for giving so much attention to...

I am really happy that I can offer you my {attention|consideration} to...

I hope to hear from you soon and remain with kindest personal regards.

I hope to receive your favourable reply.

We look forward to hearing from you.

I am looking forward to hearing you soon.

We look forward to the opportunity {of + [gerund]|that}...

I look forward to the possibility {of + [gerund]|that}...

We look forward to welcoming you in this country.

I look forward to the pleasure of hearing you.

2.2 Work in pairs.

Student A is an Interviewer (the representative of a construction company/ an architectural company) and Student B is an Interviewee (an applicant for a position in the company). Prepare a job interview using the phrases above.

2.3 Grammar focus

Атрибутивные словосочетание

Look through the Grammar material (Appendix 3) and do the exercises.

Ex. 1. Translate the following word combinations.

1. Duglas Plant,
2. Plane Plant,
3. Plant Strike,
4. Strike talks,
5. Duglas Plane Plant Strike Talks
6. absorption theory,
7. energy conversion,
8. any non-metal crystals,
9. one-soft metal,
10. the mixture formation,
11. company work force,
12. nuclear weapon,
13. election campaign committee,
14. the Mississippi freedom party delegates,
15. the mail train robbery case,
16. strategic arms limitation talk,
17. the civil rights commission,
18. the European nuclear disarmament appeal,
19. a contributor of the science policy research unit of Sussex University,
20. Europe's mass-market car makers,
21. city hall,
22. Security Council session,
23. a security crisis,
24. pollution standards,
25. weekend event,

26. suffocation death,
27. an emergency summit,
28. community pressure,
29. alcoholism and substance abuse treatment services,
30. Acquired Immune Deficiency Syndrome,
31. around-the-edges-of-things talk,
32. a world-class orchestra,
33. requirements document,
34. opportunities study,
35. these error recovery techniques,
36. minimal order linear time invariant differential feedback control system,
37. particle velocity,
38. rock feeding system,
39. the job scheduling problem,
40. oxygen free gas,
41. the failure prone device,
42. the tactical air-to-ground systems effectiveness model,
43. production engineering functional organizational chart,
44. automobile repair plant construction project.

Ex. 2. Translate the sentences and comment on the way of word combination translation.

1. George Bush went to South Africa for his five day five nation visit.
2. The airport was a thirty-minute drive at the most.
3. He said it in a slow, pleased coax-me drawl.
4. It would be hard to say which was carry-on baggage and which had been checked.
5. There was a take-out Turkish restaurant in the square.
6. Mopsa was wearing her defiant, nothing-really-matters face.
7. They were condemned by an ungrateful society forever to live in pre-war council houses.

8. He was going home — some ghetto in the north or east, some white no-go place.

9. Until now there had not been so much as a mention in a newspaper or word-of-mouth news.

10. He would have refused to see a National Health patient.

11. This statement gave me a curious confidence as an out-of-work actor.

12. It was a spur-of-the-moment thing.

13. Easy to think such things; but hard to live them, in the meanwhile-still-twentieth century.

14. The banker's man-of-the-world smile reappeared.

15. It's a real end-of-the-world feeling.

16. In any case he would discuss the case in his soon-to-be-published treatise.

17. The Tehran Conference was an off-again, on-again thing until the last minute.

18. His approach had been based on a "take me or leave me" attitude.

Ex. 2. Translate the sentences and find word combinations.

1. Air medical service stations function in every regional centre of the Russian Federation.

A large-scale capital construction programme is annually carried out in field of agriculture in our country.

3. Crystal frequency stability is a final factor determined by ambient temperature variation.

4 Twenty-four twelve-week old Laghorn cockerils were divided into four equal loups for the trial.

5 The effect of manganese sulfate solution temperature on absorption of manganese as very marked.

5. Minor element deficiency symptoms have been noted most frequently in the coastal areas of the U.S.

7. Harvest of wheat in the humid soft red winter wheat area in the Eastern U.S. is frequently delayed by rains.

8. Resistance in an alternating current power circuit of low frequency is always considered.

9. He was of the-look-before-you-leap, the think-before-you-speak sort.

10. They said they believed there could be some connection between behind-the-ne moves and the decision of the executive council.

11. The results are examined in the light of existing lower frequency data

12. To determine by analytical method how the degree-grouped conductors affect the conductor surface voltage gradients is the aim of this article.

UNIT 3 TECHNOLOGY

3.1 Advantages and disadvantages of technology

Work with your partner and discuss the questions

- What are the three items of technology you use most often?
- How important is technology for you?

Work in small groups. Do you agree with the following statements?

- People rely too much on technology nowadays.
- Technology can solve all the world's problems.
- Technology often lead to social and environmental problems.
- Technology does not make people's life better.
- The amount of technology in developed countries has a negative influence.

3.2 GMOs

What is genetically modified food?
Why do many people avoid buying it?
What is your opinion about genetically modified food?
Do you buy genetically modified products? Why?
What are the advantages and disadvantages of GMP?

Read the text and find answer to some of the questions.

Do you know what's in your food? Chances it's been genetically modified are up to 80% of processed foods in the U.S. But what does that mean, and what's all the fuss about GMOs these days?

“Like it or not, genetically modified foods are almost impossible to avoid,” says Sheldon Krimsky, PhD, an professor of public health and community medicine at Tufts Medical School in Boston.

Unless you eat only fresh, unprocessed foods that are marked as non-GMO or certified organic, you’re probably eating food that has been genetically modified. Is that a bad thing? It depends on who you ask.

What’s a GMO?

Genetically modified organisms (GMOs) may sound more like something out of Star Trek rather than anything you’d expect to find on your dinner plate. They are plants that have been changed by scientists. But they aren’t something new. They’ve been sold since 1994.

Want apples that won’t brown when you slice them? Potatoes that don’t get bruises from farm to table? The FDA has approved genetically modified versions of these foods that can do that.

People who are pro-GMO say they help farmers grow better crops faster. That means more, and cheaper, food for us.

But people on the other side of the GMO debate worry about their safety. They ask, "Do we know whether eating them over the long run can hurt people?"

How GMOs Are Made

Here’s how it works. Scientists take a plant. They change the plant by adding DNA from another plant, bacteria, or virus to it. DNA is what gives everything its special characteristics. So in this way, the original plant now has new qualities. The changes can make them more resistant to disease, bugs, or drought. It can give them other qualities too, like those that affect their taste or shelf life.

How is that different from the way we’ve improved crops for centuries? One big difference is that genetic modification speeds up the process.

Where it might take years to raise several generations of plants outside in fields to get all the right traits, inside, scientist can grow several generations in one year. Conditions are perfect in the lab. They don’t need to wait for the seasons to change.

Genetic modification has made plants with extra vitamins, minerals, and other benefits. Swiss researchers created a strain of "golden" rice with a lot of beta-carotene. This antioxidant is good for the eyes and skin. And those bruise-free potatoes are supposed to cut down on cancer-causing chemicals created when potatoes are fried.

What's another benefit of using science to build better plants, according to people who are pro-GMO? You can combine plants that could never mate in the wild. An example of this is "Roundup Ready" corn. It can survive being sprayed by the weed killer. It is made of DNA from a few different types of plants.

Because of this, farmers can treat their entire field instead of just targeting weeds. Weeds die, but the corn is OK.

Are GMO Foods Safe?

Industry and health leaders cite hundreds of studies to support the safety of GMOs. That includes 20 years of studies in animals that have eaten modified food.

But experts like Krimsky say nearly two dozen studies show bad effects, like harm to the kidneys, liver, heart, and other organs. He says they should carry more weight as people judge the pros and cons.

People who are against GMOs do not like that Roundup Ready corn is sprayed with toxic chemicals. Even though the corn can survive, they worry about how it might affect people or animals that eat it.

An agency of the World Health Organization has classified the main chemical used in Roundup as a "probable carcinogen." That means they think it probably increases the risk of cancer.

Monsanto, the maker of Roundup, disagrees and stands by the safety of its corn and GMO foods. The company is responsible for a lot of the world's genetically modified crops.

"They're the most thoroughly tested food on the market," says Dan Goldstein, MD, senior science fellow at Monsanto.

How Can I Tell If My Food Has Been Genetically Modified?

China, Australia, and the European Union require GMO foods to be labeled. The U.S. does not.

If you choose organic foods, you may be able to avoid GMOs. You can also look for foods that are labeled as non-GMO. The makers of these foods volunteer to tag them, but that isn't regulated by the government, so they may or may not be right.

More Pros and Cons

So are you good with GMOs? To make your decision, consider these other things.

The Pros

More food: Fans of GMOs say they will help us feed the extra 2 billion people that will fill the planet by 2050. Farmers can grow more food because these plants can live through a drought or cold snap. They aren't as likely to die from disease.

"Not using these tools would push us back 40 to 50 years in food production," Bradford says.

Less stress on the environment: Crops made so bugs won't like them lower farmers' need for toxic chemical pesticides, Goldstein says. Plants that resist weeds can live in fields that don't have to be tilled as often. Tilling, or stirring up the dirt, gets rid of weeds, but it also causes dirt to be washed away into streams and rivers.

The Cons

More medical problems: Opponents say that besides possibly leading to cancer, GMOs can cause new allergies and hurt the effects of antibiotics. But no studies confirm this.

The rise of "superweeds": Crops built to survive weed killer could breed with weeds. These "superweeds" would also survive. Farmers would have to use more and more and stronger pesticide to keep up.

Inventing new weed killers is hard and expensive. Plus, people worry about the safety of new chemicals that haven't been tested as much as older ones. On the other hand, people say this is nothing new.

Where Can You Find Non-Genetically Modified Food?

The movement to have non-modified food options is picking up some traction. Some food companies voluntarily label their foods as non-GMO. At least one fast food chain has pledged to take genetically modified foods off their menu. And at least one grocery store chain is working to label possible GMO foods in the coming years.

Group work 1:

Make two groups. One group will be in favor of GM product, another group will be against it. Collect arguments in favor of each opinion and be ready for the cross discussion.

Group work 2:

Read the quotation: *The rapid tempo of technology development has improved our lives.*

Group 1: for the quotation

Group 2: against the quotation

Collect arguments in favor of each opinion and be ready for the cross discussion.

These ideas can help each group

- People learn new skills
- There are more advances in medical treatment
- Housework is more convenient
- Communication is easier
- Technology can lead to future improvements in pollution
- Most people have a higher standard of living
- People lose their job
- People basically do not like change
- Medical advances only help rich people
- Technology can lead to more pollution
- People cannot communicate as well as before
- People may become richer, but not happier

3.3 Grammar focus

Сказуемое. Страдательный залог. Модальные глаголы

Look through the Grammar material (Appendix 3) and do the exercises.

Ex. 1. Translate the following predicates.

1.1 was asked, 2 will be asked, 3 had asked, 4 would ask, 5 is asked. 6 have been asked, 7 will have asked, 8s asked, 9 was being asked, 10s are asking, 11 will have been asked, 12s were asked, 13 has asked, 14 asks, 15s are being asked

2. 1 have asked, 2 will ask, 3 shall have been asked, 4s were asked, 5 is being asked, 6 am asking, 7s are asked, 8s asked, 9 had asked, 10 will be asked, 11s were asking, 12 shall ask

3. 1 ask, 2s are being asked, 3 asked, 4 will have been asked, 5 should be asking, 6s are asked, 7 asks. 8 has asked, 9 will ask, 10s will have asked, 11 was asked, 12 are asking, 13 ask

4. 1 have stopped, 2s were being stopped, 3 is stopping. 4 has been stopped, 5s will be stopped, 6 stopped, 7 should have been stopped, 8 stops, 9s were stopping, 10 is stopped

5. 1 has transported, 2 transported, 3am transporting, 4 have been transported, 5s were transported, 6 is being transported, 7 will be transported, 8 transported, 9 will be transported, 10s should have transported, 11s are transported

6. 1 started, 2 have started, 3s were being started, 4s are starting, 5 was started, 6 would have been started, 7 starts, 3 will have started, 9s are started, 10 should be starting, 11 was started, 12 has started, 13s start, 14 should be started

7.1 was translated, 2 will be translated, 3 had translated, 4 would translate, 5 is translated, 6 have been translated, 7 will have translated, 8s translated, 9 was being

translated, 10s are translating, 11 will have been translated, 12s were translated, 13 has translated, 14 translates, 15s are being translated.

8. 1 have written, 2 will write, 3 shall have been written, 4s were written, 5 is being written, 6 am writing, 7s are written, 8s wrote, 9 had written, 10 will be written, 11s were writing, 12 will write.

9. 1 were reading, 2 reads, 3 has read, 4 am read, 5 is reading, 6 will read, 7 was being read, 8 had been read, 9 should read, 10 will be read, 11 reads.

Ex. 2. Convert the sentences from Active into Passive Voice like in the example

Example: *We investigated the structure of the atom.*
The structure of the atom (the atom structure) was investigated.

1. The authors developed some theoretical models.
2. We found an approach to the problem.
3. The investigation deals with the problem of robots design.
4. The author has analyzed the material obtained.
5. The paper considered a series of standard programs.
6. The author gives the data which are concerned with computer design.

Ex. 3. Translate the predicate in the sentences, put the appropriate form of the verb given in brackets like in the example. Mind the sentence structure.

Example:
Были получены (проанализированы) the results of the experiment (Past Ind.).
The results of the experiment were analyzed.

1. Изучалась (была проанализирована) the fine structure of films (Past, Ind.).
2. Рассматривается (проверяется его пригодность) a new method of integrating the equations (Pr. Ind.).

3. Исследуется (подробно) the development cycle of the phenomenon (Pr. Ind.).

4. Изучены blocking effects in scattering the particles (Pr. Perf.).

5. Обсуждается the electron creation rate (Pr. Ind.).

6. Был описан the design of this radio apparatus (Past. Ind.).

7. Рассматривается (учитывается весь процесс) the role of the changed conditions (Pr. Ind.).

8. Уже обсуждался (был проанализирован) the method of integrating the equation (Pr. Perf.).

9. Определяется (путем оценки) the shift of the energy Isvels (Pr. Ind.).

10. Была найдена (вычислена) the electron generation rate (Pr. Perf.).

Ex. 4. Analyze the sentence, find its predicate and translate the sentence into Russian.

1. This instrument is referred to as the fiber-optics colorimeter. 2. The role of simulators has been recognized as an important aspect of training in the health field that supports and improves patient safety. 3. Virtual reality-based technology is being used, evaluated, and researched in many areas of health care training. 20 4. Many kinds of materials have been introduced to the dental profession such as plasticized acrylic, fluoroelastomer, silicone rubber, and natural rubber. 5. Although the properties of soft lining materials have been much improved, they still have several drawbacks. 6. The teeth were selected visually to cover a wide range of natural tooth colors. 7. Factors influencing progressive liver disease have been identified as alcohol, gender, age at infection, extent of immunodeficiency and HCV genotype. 8. The color of the midcervical part of the labial tooth surfaces was evaluated by use of three different methods, referred to as methods 1 to 3. 9. When conventional optical instruments are adapted to color measurements on crowns of teeth by reducing the window diameter, the color determinations will be subject to errors. 10. The perception

of occlusal forces in an axial direction was compared in two groups of patients – one with reduced alveolar bone support and the other with normal bone support.

Ex. 5 Translate the following sentences paying attention to predicate in passive form and the subject of the sentence.

1. On May 24, 1844 the first long-distance message was sent by telegraph for
2. 64 kilometers.
3. The positive particle in the nucleus of the atom was given the name of "pro-ton".
4. These machine parts are subjected to high loads.
5. Radioactive isotopes are used in science and industry for many purposes.
6. The vector is drawn perpendicular to the plane of the couple.
7. The relay was given its initial position.
8. He was asked to take part in the conference.
9. They were promised every support in their research work.
10. Since the end of the 19th century Cantor's theory of sets has been widely used.
11. The scientists were offered new interesting themes for research.
12. They have been shown new laboratory equipment.
13. Now architects are seldom asked to design buildings like wonderful churches and cathedrals of the Middle Ages.

Ex. 5 Translate the following sentences into Russian paying attention to modal verbs.

A.

1. Forces can exist without motion, but motion is almost invariably associated with a force.
2. We cannot apply Newton's Third Law of Motion to a force acting at a distance.
3. A robot must obey the orders that are given by human beings.
4. They had to know the mechanical properties of a new alloy.

5. In order for a robot to carry out a particular task it has to be given a program, a list of instructions which are to be stored in its computer memory.

6. To convert chemical energy into electrical one we must make use of an electric cell.

7. We have to use an insulator to prevent electrical loss.

8. A machine will be able to do this work in a much shorter time.

B.

1. Heat may be converted into mechanical energy.

2. Newton's Third Law of Motion cannot be applied to a force acting at a distance.

3. Brakes must be applied to stop a train in case of emergency.

4. Therefore, the entire technological and economic effect has to be evaluated.

5. The individual recommendations should not be viewed separately.

6. Radiation may, however, be transmitted through any medium that does not absorb it.

7. An opposing force must be applied to stop a moving body.

8. The flow of electrical charge can be used to great advantage for power distribution because power can be generated wherever suitable and used wherever required, even hundreds of kilometers away from the point of generation.

C.

1. He might have known that the weight of a body is usually denoted by the letter "P".

2. One of the most interesting applications of these machines may have been in underwater work.

3. This plant must have been put in operation long ago.

4. He couldn't have broken the instrument during the experiment.

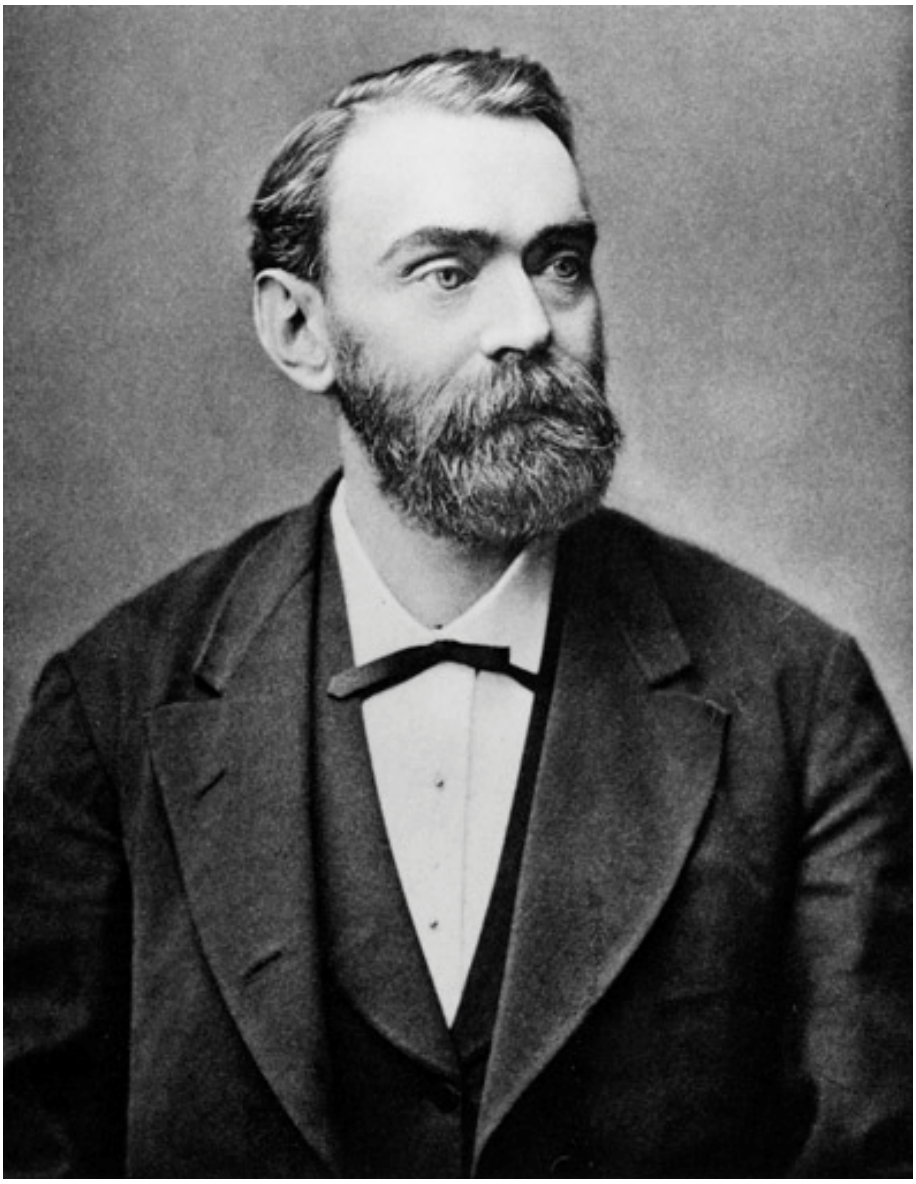
5. He couldn't have known that light and radio waves are of a similar nature.

6. All the preparations must have been completed long ago.

7. They must have paid more attention to the problem of corrosive wear.

UNIT 4 PEOPLE IN SCIENCE

4.1 FAMOUS SCIENTISTS



Group work (home group):

Collect information about the person from the picture.

- What does he do?
- What is his background?
- What is he famous for?
- When did he live?
- Where did he live?

You can use some expressions describing this person:

Stockholm, industry, prize, St. Petersburg, dynamite, literature, chemistry, secretary, entrepreneur, engineer, private life, peace

1. While reading mark the information (+ or – or !):
Put a mark next to the facts described in the text.

- I knew this fact (+)
- I was not right about this (–)
- This information was unknown for me (!)

Alfred Nobel

Alfred Nobel was born in Stockholm on October 21, 1833. His father Immanuel Nobel was an engineer and inventor who built bridges and buildings in Stockholm. In connection with his construction work Immanuel Nobel also experimented with different techniques for blasting rocks.

Alfred's mother, born Andriette Ahlsell, came from a wealthy family. Due to misfortunes in his construction work caused by the loss of some barges of building material, Immanuel Nobel wasforced into bankruptcy the same year Alfred Nobel was born. In 1837, Immanuel Nobel left Stockholm and his family to start a new career in Finland and in Russia. To support the family, Andriette Nobel started a grocery store which provided a modest income. Meanwhile Immanuel Nobel was successful in his new enterprise in St. Petersburg, Russia. He started a mechanical workshop which provided equipment for the Russian army and he also convinced the Tsar and his generals that naval mines could be used to block enemy naval ships from threatening the city.

Painting by Immanuel Nobel demonstrating his sea or naval mines to the Tsar of Russia.

The naval mines designed by Immanuel Nobel were simple devices consisting of submerged wooden casks filled with gunpowder. Anchored below the surface of the Gulf of Finland, they effectively deterred the British Royal Navy from moving into firing range of St. Petersburg during the Crimean war (1853-1856). Immanuel Nobel was also a pioneer in arms manufacture and in designing steam engines.

Successful in his industrial and business ventures, Immanuel Nobel was able, in 1842, to bring his family to St. Petersburg. There, his sons were given a first class education by private teachers. The training included natural sciences, languages and literature. By the age of 17 Alfred Nobel was fluent in Swedish, Russian, French, English and German. His primary interests were in English literature and poetry as well as in chemistry and physics. Alfred's father sent him abroad for further training in chemical engineering to widen Alfred's horizons. During a two year period Alfred Nobel visited Sweden, Germany, France and the United States. In Paris, the city he

came to like best, he worked in the private laboratory of Professor T. J. Pelouze, a famous chemist. There he met the young Italian chemist Ascanio Sobrero who, three years earlier, had invented nitroglycerine, a highly explosive liquid. Alfred Nobel became very interested in nitroglycerine and how it could be put to practical use in construction work. He also realized that the safety problems had to be solved and a method had to be developed for the controlled detonation of nitroglycerine. Together with his father he performed experiments to develop nitroglycerine as a commercially and technically useful explosive.

Alfred Nobel's laboratory in Bofors, Sweden.

He found that mixing nitroglycerine with *kieselguhr* would turn the liquid into a paste which could be shaped into rods of a size and form suitable for insertion into drilling holes. In 1867 he patented this material under the name of dynamite. To be able to detonate the dynamite rods he also invented a detonator (blasting cap) which could be ignited by lighting a fuse.

The market for dynamite and detonating caps grew very rapidly and Alfred Nobel also proved himself to be a very skillful entrepreneur and businessman. By 1865 his factory in Krümmel near Hamburg, Germany, was exporting nitroglycerine explosives to other countries in Europe, America and Australia. Over the years he founded factories and laboratories in some 90 different places in more than 20 countries.

Intensive work and travel did not leave much time for a private life. At the age of 43 he was feeling like an old man. At this time he advertised in a newspaper "Wealthy, highly-educated elderly gentleman seeks lady of mature age, versed in languages, as secretary and supervisor of household." The most qualified applicant turned out to be an Austrian woman, Countess Bertha Kinsky. After working a very short time for Nobel she decided to return to Austria to marry Count Arthur von Suttner. In spite of this Alfred Nobel and Bertha von Suttner remained friends and kept writing letters to each other for decades. Over the years Bertha von Suttner became increasingly critical of the arms race. She wrote a famous book, *Lay Down Your Arms* and became a prominent figure in the peace movement. No doubt this influenced Alfred Nobel when he wrote his final will which was to include a Prize for persons or organizations who promoted peace.

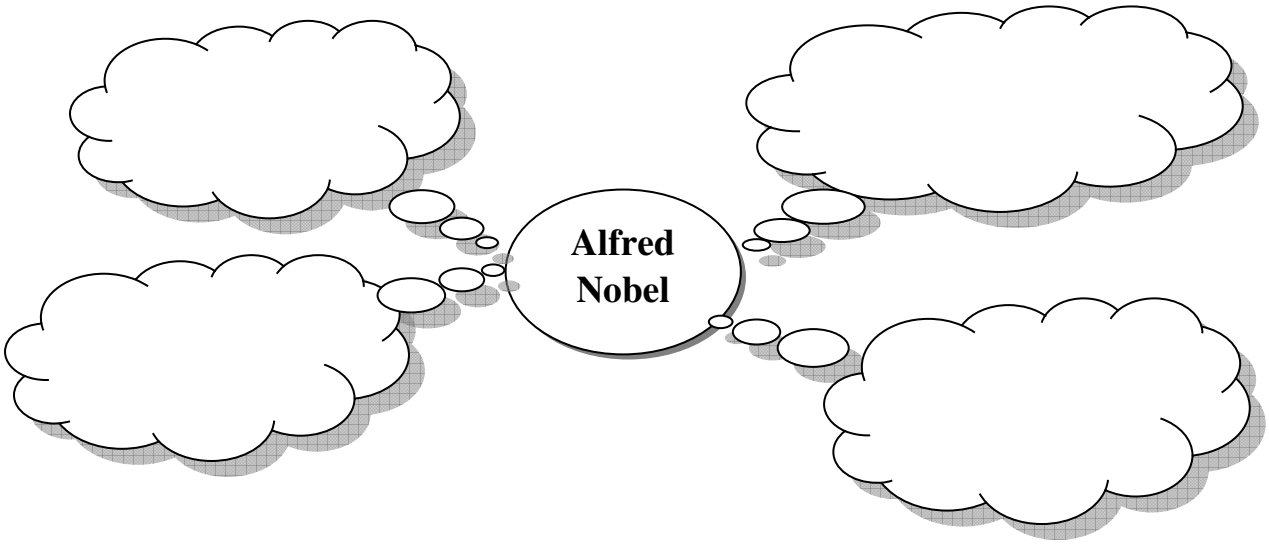
Bertha von Suttner.

Alfred Nobel's greatness lay in his ability to combine the penetrating mind of the scientist and inventor with the forward-looking dynamism of the industrialist. Nobel was very interested in social and peace-related issues and held what were considered radical views in his era. He had a great interest in literature and wrote his own poetry and dramatic works. The Nobel Prizes became an extension and a fulfillment of his lifetime interests.

Alfred Nobel died in San Remo, Italy, on December 10, 1896. When his will was opened it came as a surprise that his fortune was to be used for Prizes in Physics, Chemistry, Physiology or Medicine, Literature and Peace. The executors of his will were two young engineers, Ragnar Sohlman and Rudolf Lilljequist. They set about forming the Nobel Foundation as an organization to take care of the financial assets left by Nobel for this purpose and to coordinate the work of the entrepreneur - Awarding Institutions.

2. Compare the facts known to you and new information. Discuss this information in pairs.

3. Fill in the cluster with the most important facts from the Alfred Nobel biography. The cluster should contain the key words you can find in the text.



4. *Find information about a famous scientist in the field of your specialty (architecture, engineering, geodesy, etc.) and prepare a Power Point Presentation.*

4.2 Grammar focus

Причастие

Look through the Grammar material (Appendix 3), study the grammar rules and do the following exercises on participle usage.

Ex. 1. Translate different forms of the participle.

Приносящий, принесенный, принося, принеся, переводящий, переведенный, переводя, переведя, давая, написав, читающий, берущий, данный, прочитав, сделанный, пьющий, сказанный, будучи потерянным, нарисовав, написавший, делая, взятый, взяв, рисуя, выпитый, сделав, идя, пишущий, прочитанный, дав, рисующий, делающий, нарисованный, выпив, говорящий, беря, написанный, читая, идущий, дающий, сказав, сидевший, посмотрев, будучи забыт, строящий, строящийся, играя, поиграв, рассказанный, рассказавший, видя, принесший, будучи принесенным, построенный, продав.

Ex. 2. Translate into Russian paying attention to the different forms of Participle I and Participle II.

1. a) A letter sent from St. Petersburg today will be in Moscow tomorrow.
   b) He saw some people in the post office sending telegrams.
   c) When sending the telegram, she forgot to write her name.
2. a) Some of the questions put to the lecturer yesterday were very important.
   b) The girl putting the book on the shelf is the new librarian.
   c) While putting the eggs into the basket, she broke one of them.
3. a) A fish taken out of the water cannot live.
   b) A person taking a sunbath must be very careful.
   c) Taking a dictionary, he began to translate the text.
4. a) A line seen through this crystal looks double.
   b) A teacher seeing a mistake in a student's dictation always corrects it.

c) Seeing clouds of smoke over the house, the girl cried, "Fire! Fire!"

5. a) The word said by the student was not correct,

b) The man standing at the door of the train carriage and saying goodbye to his friends is a well-known musician.

c) Standing at the window, she was waving her hand.

6. a) A word spoken in time may have very important results.

b) The students speaking good English must help their classmates.

c) The speaking doll interested the child very much.

d) While speaking to Nick some days ago, I forgot to ask him about his sister.

Ex. 3. Chose the necessary form of Participle I or Participle II.

1. a) The girl (writing, written) on the blackboard is our best pupil,

b) Everything (writing, written) here is quite right.

2. a) We listened to the girls (singing, sung) Russian folk songs,

b) We listened to the Russian folk songs (singing, sung) by the girls.

3. a) The girl (washing, washed) the floor is my sister,

b) The floor (washing, washed) by Helen looked very clean.

4. a) Who is that boy (doing, done) his homework at that table?

b) The exercises (doing, done) by the pupils were easy.

5. a) The house (surrounding, surrounded) by tall trees is very beautiful,

b) The wall (surrounding, surrounded) the house was very high.

6. Read the (translating, translated) sentences once more.

7. Name some places (visiting, visited) by you last year.

8. I picked up the pencil (lying, lain) on the floor.

9. She was reading the book (buying, bought) the day before.

10. Yesterday we were at a conference (organizing, organized) by the pupils of the 10th form.

11. (Taking, taken) the girl by the hand, she led her across the street.

12. It was not easy to find the (losing, lost) stamp.

13. I shall show you a picture (painting, painted) by Hogarth.

14. Here is the letter (receiving, received) by me yesterday.

15. Do you know the girl (playing, played) in the garden?

16. The book (writing, written) by this scientist is very interesting.

17. Translate the words (writing, written) on the blackboard.

18. We could not see the sun (covering, covered) by dark clouds.

19. The (losing, lost) book was found at last.

20. (Going, gone) along the street, I met Mary and Ann.

21. Look at the beautiful flowers (gathering, gathered) by the children.

22. His hat (blowing, blown) off by the wind was lying in the middle of the street.

23. "How do you like the film?" he asked, (turning, turned) towards me.

24. When we came nearer, we saw two boys (coming, come) towards us.

25. I think that the boy (standing, stood) there is his brother.

Ex. 4. Translate into Russian paying attention to the function of the participle.

1. Keeping in mind the topography, the weather, and the length of the hike, decide what you need to take. 2. You shouldn't waste time analyzing that old matter. 3. Looking at her, we decided to say nothing for the moment. 4. On the way back home she talked about other things, wishing to distract her sister from the current troubles. 5. Yesterday I racked my brains, trying to remember the title of the book Kate recommended me. 6. She noticed a handsome young man standing near her door. 7. He sat for a long time thinking about his future journey. 8. Nigeria is a living zoo. 9. Let sleeping dogs lie. 10. People ran in and out of the house, shouting and crying. 11. Sally spends all her time going to parties. 12. Maxim gave the photographs a last lingering glance before running to the door. Picking up his suitcase, he took a deep breath and went out.13. The conference taking place at the university is devoted to problems of nuclear physics. 14. The man standing at the time table was our teacher last year. 15. The people having waited for you have just gone. 16. Being asked what he thought of the innovation, the engineer said he approved of it. 17. Having been exam-

ined by the customs, the goods were let through.18. Changed into his uniform, he looked younger and slimmer. 19. Arrived at the ship, the passengers were shown their cabins. 20. Finished with his breakfast, he remained for some time at the table, looking through the newspapers. 21. The book referred to in this paper was published last year. The data obtained can be relied upon. 22. The experiment followed by a lecture was carried out by our professor's assistant. 23. His report followed by a paper on the same subject dealt with many problems of importance. 24. The session attended by foreign delegates was held on the first of November.

Ex. 5. Translate into Russian paying attention to the objective participial construction.

1. I watched him standing at door of his shop. 2. They spent last Friday listening to the Ministers telling the trade union leaders that it is right for workers to hold back on wage claims. 3. We hope to see this issue raised in all trades councils, in every union conference. 4. They saw their view point being taken increasingly into account by the White House. 5. We have observed bodies being charged by friction. 6. I felt him looking at me now and again. 7. I noticed the doctor frowning. 8. I had never before seen the game played.

Ex. 6. Translate into Russian paying attention to the causative forms of the participle.

1. I slaved all my life to have my sons educated. 2. The king had the conspirators shot. 3. If you leave the door open, you will have your house robbed. 4. He is so slow that he never gets his work done. 5.1 had my foot caught in the door and couldn't get it free. 6. It took four men to have the piano removed to the upper floor. 7. He wanted a government freely chosen by the will of the people. 8. They got the project endorsed. 9. These departments have their production schedules unified. 10. The porous partition keeps the solutions separated. 11. They have the program de-

bugged. 12. We have our research group presented at the last symposium. 13. They would like to have the results of their experiments put into practice.

Ex. 7. Translate into Russian paying attention to the absolute participial construction.

1. My colleague being away, I had to take the decision myself. 2. Weather permitting, the astronomer will proceed with his observation. 3. The signal given, the rocket starts immediately. 4. The astronomer proceeded with this observation, the sky having cleared. 5. They walked in the cold night, fresh snow crunching noisily underfoot.

1. There being many people in the conference hall, we could not enter it. 2. The sodium atom has eleven electrons, the eleventh one occupying a position outside the second shell. 3. Bans of trade lifted, political atmosphere in the world will improve at once. 4. She ran up the stairs, her heart thumping painfully. 5. With the experiments having been carried out, we started new investigations.

UNIT 5 MY MASTER DEGREE WORK

5.1. Giving presentations

- Have you ever given presentations in English?
- Was it a successful presentation? Why? Why not?
- What examples of good presentations can you give
- What examples of good presentations can you give
- What is important when you present
- something? Give your tips

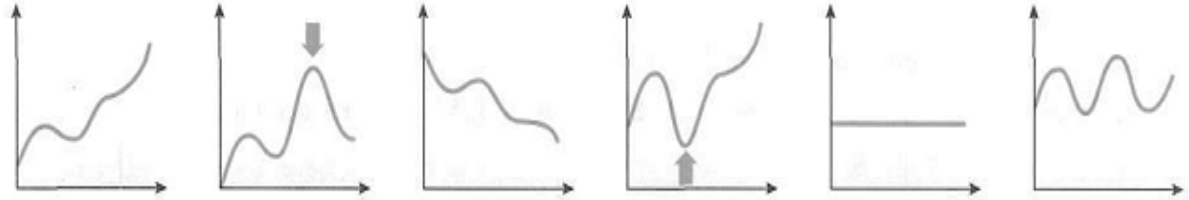
Compare your tips with those that presented in the diagram.

Presentation tips

5.2Describing trends

Trends

Brainstorm all the words you already know to describe the following graphs.



1 an upward trend 2 the highest point 3 a downward trend 4 the lowest point 5 stability 6 fluctuation

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

_____ _____ _____ _____ _____ _____

1. These verbs are used to describe movement or trends. Put them in the correct category.

climb, come down, decline, decrease, deteriorate, double, drop, even out, expand, fall, fluctuate, go down, go up, grow, hit a low, hold, firm, improve, increase, jump, level off, peak, pick up, plunge, reach a high, recover, remain stable, rise, rocket, shoot up, shrink, slump, stabilize, stagnate, slip back, stay the same, take off, ups and downs

2. Complete the gaps in these presentation extracts, using the words given above.

1 To our surprise, it was the sales of Product A that (1) t …… over the Christmas period with sales 51% above target and Product B that (2) s …….. with sales 34% below target. As a result, we are redesigning the packaging for Product B and are forecasting that sales will (3) r ……. by Easter. If this does not happen and sales show no (4) i ……., we will seriously have to consider taking Product B off the market.

2 In this period, Brand A's market share (1) s …….. from 9% to 8% and Brand B's share (2) p …….. from 6% to just 1%. Our Brand Z (3) r……... from 10% to 25%. If we look at the budget for TV advertising during this period, we can see clearly that Brand Z (4) d …… its budget from €250,000 to €500,000. The print advertising budget (5) r…….. during the same period but was concentrated on the target market.

3 I'd now like to focus on the carbon dioxide content. Have a look at this graph. There have been (1) u …… in the carbon dioxide content since the first unit was installed three years ago. It has (2) f …….. between 0.33% and 4% as we have experienced multiple failures. The units are now working efficiently and carbon dioxide content is (3) h…….at 0.33% and we expect this to (4) s…… at 0.2% by the end of the year.

4 Let's move onto the statistics. In 1900, 15% of the workforce was aged over 55 and by 2000 this had (1) g…….. to 33%. We expect this to (2) j……. to roughly 40% by 2030. Life expectancy was approximately 46 years in 1900 but this has (3) s…… to round about 80 today. What does this all mean for us when we look at the question of age diversity?

3. Complete the sentences with the correct form of the verb/adverb combinations in the box. The symbols indicates what kind of movement is described.

decline slightly • decrease steadily • fall dramatically • grow considerably increase-slightly • rise sharply

1. The line graph shows that turnover has increased slightly_____since May. ↗
2. You can see here that interest rates_____at the beginning of 2004. ↘
3. Overthe past six months, sales_____. →
4. The oil price_____after the fire in an oilfield. ↑
5. The number of online stores_____this year. ↗
6. Our sales force_____since 2001. ↘

4. Now, look at this graph and complete sentences 1—6, describing the sales. What tenses did you use and why?

1 ..... last June.
2 .....before the joint venture.
3 .....last November.
4 .....from last November to now.
5 Now.....
6 .....next January.

Complete these forecasts for your organization.

1 We expect ... 4 We foresee ...

2 I anticipate ... 5 I predict ...

3 I forecast...

5.3WORKING ON THE TOPIC: MY MASTER DEGREE PROJECT (THESIS, PAPER)

Useful tips

Plan your topic as follows:

First, let me introduce myself.

My name is…

I am a master degree student at the department of …

My scientific advisor is Prof….

I work under the guidance of professor...

My tutor is ....

The **field** which you major in and the title of your future thesis

I work in the field of ....

My major interest is in the field of....

I am currently doing my masters degree in ……. studies

I major (*specialize*) in the field of …

The **title** of my future thesis is....

The subject of my research is …

The object of my research is the operation (behaviour/ processes) of ….

(Объект исследования - это носитель проблемы, на который направлена исследовательская деятельность. Предмет исследования - это конкретная часть объекта, внутри которой ведётся поиск (явления, отдельные их стороны, некоторые аспекты и т.д.))

Let me now go into some detail regarding the subject I have mentioned.

I began with the study of **literature** on the subject including some basic works written by…

I have used many different sources of information, such as ...

These problems … are widely discussed (treated) in literature.

There are many papers discussing the state of the art in the development of…

The theory of ….. was constructed and developed by ….

The immediate **aim (goal/purpose)** is to examine the function (behaviour/ dynamics) of …

The main aims of your research work and the tasks to fulfill

The main purpose/goal/aim of it is...to find out/to define/to characterize/explore/ to investigate/to analyse/to gain/.....

It is aimed at .....

A current study in our laboratory is addressing the question of ….

The focus of my research is on the relationship between …. and … .

It is very important and interesting to examine (analyze/ evaluate/ describe) the complex interaction between … and …. .

I set myself a **task/ objective** to/of...

the tasks that face us /that we are faced with/are as follows....

Its objectives are the following:

The **methods and techniques** we apply in this research include experiments (observations, laboratory tests, field and pilot plant study ….)

The experimental part of my research will mostly consist of tests to be conducted on …

It is therefore quite encouraging that these methods may be used to solve a number of problems in this instance and get an insight in …

This work is devoted to an important **problem** into which too few scientists have researched until now.

The most challenging problems I have faced with are ...

My study deals in the problems of.../is devoted to the investigation of...

It touches upon the problems of...

Earlier studies of this subject show that the problem has not been yet properly explored.

I consider my work to be **relevant** nowadays because ...

Some of most recent **results** of the research in … make use of the …. and the theory of….

The results may be constructed into a theoretic framework that I am going to describe by systemizing the data obtained in the experiments (observations).

I think they will be of considerable **practical significance**, because …

I expect to obtain the following **results** ...

In the future I'm going to continue my studies and take a postgraduate course

In conclusion I would like to say that ...

Words and word combinations

analysis - анализ, исследование

critical analysis — критический анализ

advanced research — перспективные исследования

basic research — фундаментальные исследования

to be engaged in research — заниматься научно-исследовательской работой

This researches cover a wide field —исследования охватывают широкую область

after the study of the matter — после изучения этого вопроса …

humane studies — гуманитарные науки

history and allied studies — история и родственные ей предметы

a new study of Shakespeare — новая работа /книга/ о Шекспире

pilot study - предварительное, экспериментальное исследование

desk study - чисто теоретическое исследование

thorough examination — а) всестороннее исследование; б) тщательное изучение (материала)

to carry on an investigation — проводить исследовательскую работу

the scientific method of inquiry — научный метод исследования

we must apply .... to find a solution — мы должны применить...., чтобы решить

comparative [experimental] method of investigation — сравнительный [экспериментальный] метод исследования

his method is to compare different versions — его метод состоит в сопоставлении разных вариантов

there are several methods of doing this — существует несколько способов сделать это

ampliative inference — индуктивный метод

a method that is attended by some risk — метод, связанный с некоторым риском

convenient method — подходящий метод

to approximate to a solution of the problem — подходить к решению задачи

To use ... approach(to) - подход

interdisciplinary approach — подход с точки зрения различных наук

We began the work by collecting material —Мы начали работу со сбора материала

we have two problems before us — перед нами две задачи

data for study — материал исследования

laboratory data — данные лабораторных исследований

adequacy of data — достоверность данных

acceptance of a theory — согласие с какой-л. теорией

application of a theory in actual practice — применение теории в практической деятельности

the backbone of a theory — основа теории

to back up a theory with facts — подкрепить теорию фактами

to construct a theory — создать теорию

the results of the experiment contradicted this theory./agreed with the theory — результаты опыта шли вразрез сэтой теорией/согласовывались с теорией

5.4 Grammar focus

Герундий

Look through the Grammar material (Appendix 3) and do the exercises.

Ex. 1. a) Translate sentences into Russian paying attention to different forms of the gerund.

I like inviting guests	I like being invited
I don't remember having invited them	I don't remember having been invited

b) Think of your own examples.

Ex. 2. Translate sentences into Russian paying attention to different forms of the gerund.

1. Before the pot was put on the table, something happened that I did not remember having seen in that house or anywhere else. 2. Can you recall having mentioned the fact to anyone? 3. After having been rejected by a dozen magazines, the stories had come to rest in *The Globe* office. 4. People will talk, there is no preventing it. 5. He spends time telling people of his misfortune. 6. He denied having participated in the race. 7. Travelling abroad can be exciting enough, but just now it is more exciting being here. 8. This is laying the blame at the wrong door. 9. On being told the news she gave a gasp of surprise. 10. The idea is worth considering. 11. On the point of leaving the club Jolyon met the porter. 12. She hated being interviewed. 13. It doesn't matter being talked about. 14. I felt irritation at being disturbed. 15. Tom was terrified, terrified of having to touch something, and even more, of being touched. 16. Having been deeply offended some years ago she finds it difficult to trust people. 17. Having been bred in that communion was like being born an Englishman. 18. She stopped answering my letters and I wondered what the matter might be. 19. The host broke the awkward silence by inviting the guests to proceed to the dining-room.

Ex. 3. Open the brackets putting active or passive voice (non-perfect form) of the gerund.

Example: I like (to laugh) <u>laughing</u>. I hate (to laugh) <u>being laughed at</u>.

1. Why do you avoid (to see) me? 2. He tried to avoid (to see). 3. We insist on (to send) him there at once. 4. He insists on (to send) there instead of me. 5. Do you mind (to examine) the first? 6. He showed no sign of (to know) them. 7. She showed no sign of (to impress). 8. He had the most irritating habit of (to joke) at the wrong moment. 9. I was annoyed at (to interrupt) every other moment. 10. He hated (to remind) people of their duties or (to remind) of his. 11. On (to introduce) they easily fell to (to talk). 12. In (to discuss) the problem they touched upon some very interesting items. 13. The equipment must go through a number of tests before (to install). 14. The operator can set the machine in motion by (to push) the button or (to press) the pedal. 15. The water requires (to filter). 16. The matter is not worth (to speak of).

Ex. 4. Translate sentences into Russian paying attention to different functions of gerund in the sentence.

1. We didn't know of his having made the experiment.
2. I understand perfectly your wanting to leave.
3. A sprinter in a 100 meter race may perform work of very high intensity without actually using any oxygen at the time. The device for measuring the strength of the current is called ammeter.
4. The analysis of the phenomenon was very useful in helping us to understand the ways of nature and our ways of looking at it.
5. He succeeded in performing the experiment.
6. Monkeys get from one tree to another by swinging on lianas hundred of times a day.
7. Airplanes and helicopters can become highly electrically charged either from flying through dust or snow or from encountering strong electric fields in

clouds.

8. I wonder at Jolyon's allowing the engagement.

9. We can increase the current by reducing the resistance of the circuit. By analyzing the brightness of the luminescence they estimated the amount of bacteria in the leaf.

10. Wash minor wounds and grazes with soap and water and follow this by applying an adhesive dressing

Ex. 5. Translate sentences into Russian paying attention to different gerundial constructions.

1. But, on this proposal, there is a danger of grave errors being made.

2. There are unmistakable proofs of Singren's having been wrong in his solution.

3. We can hardly object to the author's not referring to those results.

5. The picture of atom's losing electrons was revolutionary at the time of Thomson's discovery.

6. This new procedure has led to the yield of product having dropped essentially.

7. When a fast neutron strikes a nucleus, the probability of its being captured by that nucleus is very small.

8. There is no hope of their obtaining new substantial findings.

9. Some philosophers have argued that in his choosing between standard and non-standard scales Vitren had no empirical reason to prefer one to the other.

10. Our starting point is the idea of the structure being derived from several sources.

11. The motivation for his resorting to this technique is obvious enough.

12. Grover is limited in his dealing with domains such as natural language.

13. A similar sample is not sufficient for his testing a potential model conclusively determining whether it is correct.

Инфинитив

Look through the Grammar material (Appendix 3) and do the exercises.

Ex. 1. Translate sentences into Russian paying attention to different forms of the infinitive.

1. He seemed to know all about it. 2. He didn't like to be laughed at. 3. We are waiting for his new novel to be published in English. 4. It was pleasant to be driving the car again. 5. His music seems to have been influenced by the rock culture of the seventies. 6. Young children often ask to be taken to the zoo. 7. She pretended to have been eating for so long not to join us. 8. She seemed to have forgotten our quarrel. 9. I took the article to have been written by my brother. 10. The burglars must have come in through the window as the lock seems to have been forced. 11. "Tom appears to be overtaking Mike on the last lap. – Yes, he's passed him!" 12. Ann claimed to have been invited to tom cruise's wedding while she was in America. 13. I see that to be sent to prison for five years has taught you nothing.

Ex. 2. Translate sentences into Russian paying attention to "Complex Object" infinitive constructions.

1. He heard the bell ring.
2. I saw my dreams come true.
3. You surely don't expect me to do all that work in one day, do you?
4. They watched the temperature rise gradually.
5. Dr. Messy believes the data to be reliable.
6. The experiment proved the substance to be a semiconductor.
7. Experiments have proved the pressure of a gas at fixed temperature to depend on its concentration.
8. We have thought this law to hold only for gases which are under normal conditions.
9. One may safely expect this prediction to be quite reliable.

10. Let us take the force to equal 17 dynes.
11. On assuming the body with the mass *m* to be acted upon by force *f*, let us calculate the acceleration.
12. It is possible to observe the volume of a given mass of a gas to decrease as the temperature decreases.
13. Assume the total pressure to be equal to 10.
14. Examination with X-rays has shown the halogens even in the solid state to possess diatomic molecules.
15. They found radon to be 3 times as heavy as hydrogen.
16. Let us take the volume of this body to equal *v*.

Ex. 3. Translate sentences into Russian paying attention to "Complex Subject" infinitive constructions.

1. He is said to have graduated from Oxford University.
2. This scientist is known to be keeping in touch with the latest developments in his field of research.
3. The story may appear to be oversimplified.
4. They seem to have taken advantage of the favorable condition.
5. He is sure to argue about it.
6. The work is likely to contribute to the solution of the problem.
7. I was not able to write my test. It proved to be too difficult.
8. The experiment turned out to be more time taking than could be expected.
9. I happened to be out when he called.1
10. The guests are likely to arrive soon.
11. He chanced to observe an unusual effect.
12. Deformation appeared to have no measurable effect on conductivity.
13. They seem to have applied strong ionization.

14. The people from the Institute of Optics are known to work hard at a new device.
15. The new method is believed to have given good results.
16. All students are supposed to know Newton's laws of mechanics.
17. The result is expected to agree with theoretical predictions.

Ex. 4. Translate sentences into Russian paying attention to the prepositional infinitive constructions.

1. It is for him to decide. 2. There is no need for the steamer to call at Odessa. 3. It was necessary for him to return immediately. 4. There is no reason for us to change the terms of payment. 5. It is too late for you to go there. 6. It is impossible for the driver to stop the car at such a high speed quickly. 7. The water was too cold for the children to bathe. 8. It takes longer for the reaction to complete at low temperatures. 9. It required some minutes more for the pilot to know the height of the flight. 10. He was looking for someone to help him. 11. The only conclusion for her to make was the following.

ПРИЛОЖЕНИЕ 1

4.1 РЕФЕРАТ И АННОТАЦИЯ

Реферат и аннотация относятся к вторичным документальным источникам научной информации. Это те документы, которые сообщают сведения о первичных документах. Сущность аннотирования и реферирования заключается в максимальном сокращении объема источника информации при сохранении его основного содержания. Осуществляя компрессию первоисточников, аннотация и реферат делают это принципиально различными способами.

Аннотация (от лат.annotatio - замечание) – краткая характеристика содержания произведения печати или рукописи. Она представляет собой предельно сжатую описательную характеристику первоисточника. В ней в обобщенном виде раскрывается тематика публикации без полного раскрытия ее содержания. Аннотация дает ответ на вопрос, о чем говорится в первичном источнике информации.

Реферат (от лат. «refero», что означает «сообщаю») представляет собой краткое изложение в письменном виде или в форме публичного доклада содержания научного труда (трудов) литературы по теме с раскрытием его основного содержания по всем затронутым вопросам, сопровождаемое оценкой и выводами референта. Он должен дать читателю объективное представление о характере освещаемой работы, изложить наиболее существенные моменты ее содержания.

Речевые клише для написания рефератов и аннотаций

Образцы клишированных аннотаций на английском языке

The article deals with …

As the title implies the article describes ...

The paper is concerned with…

It is known that…

It should be noted about…

The fact that … is stressed.

A mention should be made about …

It is spoken in detail about…

It is reported that …

The text gives valuable information on…

Much attention is given to…

It is shown that…

The following conclusions are drawn…

The paper looks at recent research dealing with…

The main idea of the article is…

It gives a detailed analysis of…

It draws our attention to…

It is stressed that…

The article is of great help to …

The article is of interest to …

Образцы клишированных рефератов на английском языке

The paper is devoted to (is concerned with) ….

The paper deals with ….

The investigation (the research) is carried out ….

The experiment (analysis) is made ….

The measurements (calculations) are made ….

The research includes (covers, consists of) ….

The data (the results of …) are presented (given, analyzed, compared with, collected)

The results agree well with the theory ….

The results proved to be interesting (reliable) ….

The new theory (technique) is developed (worked out, proposed, suggested,

advanced) ….

The new method (technique) is discussed (tested, described, shown) ….

This method (theory) is based on ….

This method is now generally accepted ….

The purpose of the experiment is to show ….

The purpose of the research is to prove (test, develop, summarize, find) ….

Special attention is paid (given) to ….

Some factors are taken into consideration (account) ….

Some factors are omitted (neglected) ….

The scientists conclude (come to conclusion) ….

The paper (instrument) is designed for ….

The instrument is widely used ….

A brief account is given of ….

The author refers to …

Reference is made to ….

The author gives a review of ….

There are several solutions of the problem ….

There is some interesting information in the paper ….

It is expected (observed) that ….

It is reported (known, demonstrated) that ….

It appears (seems, proves) that ….

It is likely (certain, sure) ….

It is possible to obtain ….

It is important to verify ….

It is necessary to introduce ….

It is impossible to account for ….

It should be remembered (noted, mentioned) ….

Модельные конструкции

Это - отрывок из книги … (автор) … озаглавленный …	**This is an** *excerpt* from the book … by… (en)titled …

Эта статья озаглавлена … Книга (монография) названа … Работа носит название … Отрывок (статья) под заголовком … Этот научный доклад … Этот отрывок …	**This article** is (en)titled … The book (monograph) is headed… The paper bears the heading… The passage (article) under the heading… This scientific report… This ***excerpt*** (passage***)…***

В отрывке анализируется … В статье рассматривается проблема… Отрывок содержит комментарии по… Он(а) содержит описание … Отрывок освещает достижения… Доклад посвящен анализу… В работе рассматривается… В этом параграфе – обзор материала .. Он(а) касается …	**The passage examines** … The article deals with the problem of … The excerpt comments on… It carries the description of … The passage covers the state-of-the-art of The report is devoted to the analysis of… The paper considers… The paragraph reviews material on… It concerns…

В первых строках дается … В следующем параграфе содержится... В следующем разделе продолжается…	**The first lines give…** The following paragraph contains… The next section goes on with…

Автор… (Книга…) **начинает**(ся) с анализа … анализирует… описывает… **отмечает …** рассматривает, обсуждает … представляет…, содержит отчет о… **показывает**, иллюстрирует … показывает графически … демонстрирует … **обращает наше внимание** на … подробно обсуждает… подробно рассматривает … размышляет о том, что сосредоточивает внимание на …. подчеркивает … подробно анализирует … **предлагает** новую концепцию … предлагает нам рассмотреть …	**The author/writer… (The book…)** **begins** with the analysis of …. analyzes, examines… describes … **points out …** considers, reviews, discusses… presents…, reports on… **shows**…, illustrates… shows by graphical display… demonstrates … **draws our attention** to … gives a thorough treatment of … gives a thorough consideration of reasons, hypothesizes, theorizes that… concentrates on… , focuses on… highlights, emphasizes, stresses, gives a thorough treatment of … **suggests/proposes** a new concept of … suggests that we should consider …

предлагает…	proposes, offers …
выдвигает идею…	puts forward the idea of …
выступает с идеей о том, что …	comes up with an idea that…
вводит понятие …	introduces the conception of …
упоминает о том, что …	mentions the fact that …
касается вопроса…	**touches** on the issue of …
кратко описывает…	outlines…
дает примерное представление о…	gives us a rough sketch of…
защищает, выступает за / против	**advocates,** argues for/against …
высказывается в пользу…	favours, is in favour of ….
поддерживает …	supports….
ставит под вопрос, критикует…	**questions,** criticizes…
осуждает, отказывается от …	denounces…
выступает с возражениями против…	raises objections against…
настроен против…	is opposed to…
продолжает …	**continues with…**
продолжает мысль о том, что …	goes on to say that….
продолжает разъяснять …	proceeds to explain …
подводит итог …	**sums up, summarizes…**
делает заключение о том, что …	concludes, makes a conclusion that…
завершает, высказываясь о том, что	finishes (by) saying that…

Основная идея…	**The main idea...**
Вопрос/ проблема…	The problem, issue, matter …
Предмет…	The subject…
Тема…	The topic …
Момент…	The point …
Обсуждение	The discussion …
Опыт…	The experience …
Практический анализ…	The case study…

Вопрос, касающийся…	The issue concerning / regarding …
о том, как рассматривать…	of how to deal with…
связанный с …	associated with…
который здесь поставлен…	under consideration (here)
рассматриваемый здесь…	at (in) hand…
интересующий нас/автора …	in question…
связанный с этим вопросом…	involving this issue…
который освещается в …	covered in …
на примере…	by the example of …

имеющий большое значение…	of great importance…

Проблема обсуждается…	The problem is discussed…
состоит (заключается) в том, что	is…
анализируется …	is dealt with…
рассматривается…	is treated…
освещается…	is covered…
затрагивается…	is touched upon…
вызвана …	is caused by..
определяется…	is defined…
обсуждается…	is discussed…
считается (какой-л.)…	is considered to be…
заслуживает рассмотрения …	is worth considering…
относится к …	refers to …
по видимому, является…	seems to be …
может быть решена …	can be solved …

в физическом смысле/отношении…	in terms of physics…
в частности…	in particular…
вкратце…	briefly…
во многих аспектах…	in many ways
в соответствии с…	according to…
в связи с…	in relation to…
в контексте …	in the context of…
в рамках…	within the framework of …
позже …	later on …
в дальнейшем …	further on….

Как видно из названия (статьи, главы, отрывка),…	As the name of the (article, chapter, excerpt, passage) suggests, …
Судя по содержанию (статьи, главы, отрывка),…	Judging from the content of this passage (article, chapter, excerpt) … .

Считается (считают), что …	It is believed that…
Отмечается, что …	It is pointed out that…
Говорится о том, что…	It is said that…

Предполагается, что…	It is assumed/suggested that…
Подчеркивается, что…	It is stressed that…
Из этого очевидно, что…	It appears from this that…
Из сказанного следует, что…	It follows from what has been said that…

Можно сделать вывод о том, что…	We may conclude that …
В заключение можно сказать, что…	In conclusion one may say that
Можно обоснованно сделать вывод о том, что …	One might reasonably ***draw the conclusion*** that…
Если говорить кратко…	Briefly speaking…/ To put it briefly…

Глаголы с общим значением <u>исследования</u>:

Study – имеет наиболее широкое употребление и означает «изучать, исследовать».

Investigate – подчеркивает тщательность исследования.

Examine – помимо «изучать, исследовать», означает «рассматривать, внимательно осматривать, проверять».

Analyze – исследовать, изучать, анализировать.

Consider – изучать, рассматривать.

Глаголы с общим значением <u>описания</u>:

Describe – описывать, давать описание.

Discuss – обсуждать описывать (с элементом полемики), излагать.

Outline – кратко описывать, описывать (в общих чертах), очерчивать.

Consider – рассматривать, обсуждать (принимая во внимание разные параметры).

Глаголы с общим значением <u>получения</u>:

Obtain – получать (наиболее широкое значение).

Determine – определять, получать, находить (любым способом).

Find– находить, обнаруживать.

Establish – устанавливать, (точно) определять, (убедительно) показывать.

В английском языке более употребительны, чем в русском, глаголы, указывающие на способ получения:

derive (equations, expressions, curves, — получать (выводы, уравнения,

formulae, relations etc.)	выражения, кривые, формулы, соотношения и пр.)
produce (create) a compound plasma, power etc.	— получать (производить, создавать) соединение, плазму, вещество, мощность и т.д.

Глагол получать может включать понятие «получено путем вычисления, вычислено» — calculate, compute, estimate, evaluate.

Calculate — вычислять, подсчитывать, находить, определять величину (при помощи арифметических действий).

Compute — подсчитывать, производить численный расчет (часто с помощью вычислительной техники).

Estimate — оценивать, получать оценку (в числах), определять, находить количественную величину.

Evaluate — оценивать (величину, количество, степень, значение, роль) определять, выяснять, находить (причину явлений или событий).

При составлении реферата вам могут понадобиться следующие сочетания глаголов с существительными:

make (undertake, perform) a study	— исследовать, изучать, анализировать
carry out an investigation	— проводить исследование
perform analysis of (on)	— проводить анализ
make calculation, estimation, evaluation of (on)…	— подсчитывать, рассчитывать, давать оценку, находить, определять
make measurements of (on)	— измерять, делать измерения
give description of…	— описывать, давать описание, рассматривать

Несколько глаголов, которые могут быть полезны для сообщения о теме работы:

develop (method, technology, device) — разрабатывать (метод, прибор)

design (device, scheme)	— проектировать (прибор, схему)
construct, fabricate, create (a device)	— изготовлять, создавать, строить, сооружать (прибор)
assemble (device)	— собирать (прибор)
solve (problem, equation)	— решать (задачу, уравнение)
make, carry out, perform (experiment, study, work)	— проводить (делать, ставить) опыт

Для сообщения о результатах работы вам понадобятся следующие существительные: result (on, of) - результат; findings (on, of) - данные (о, по относительно); data (on, concerning, as to) - данные, сведения (о, относительно, что касается); evidence (for, of, on, concerning, that) - данные, доказательства, свидетельства; fact (of, concerning, that) – факт.

С вышеуказанными существительными можно употребить следующие глаголы:

obtain - получать; give, present, provide - давать, представлять; report - сообщать; check, test, verify - проверять; treat - обрабатывать; collect - собирать; summarize, sum up - суммировать; search for - искать; find - находить; extend to - распространять на.

Для оценки качества полученных результатов можно использовать следующие прилагательные:

simple — простой; complicated — сложный; accurate, exact — точный; excellent, good — хороший, satisfactory — удовлетворительный; important — существенный, важный; contradictory — противоречивый; convincing — убедительный.

При обсуждении результатов необходимо отметить, что они дают, показывают, объясняют и пр. Для этой цели можно использовать глаголы: show, indicate, demonstrate — показывать; confirm, verify — подтверждать; support — поддерживать; to speak in favour — говорить в пользу; contradict — противоречить, опровергать; prove — доказывать.

Полученные данные, результаты подтверждают или опровергают прежние предложения, допущения и пр. Поэтому при обсуждении результатов, вам могут понадобиться следующие лексические единицы: supposition — предположение; assumption — допущение; opinion — мнение; idea — представление; viewpoint — взгляд, точка зрения; correctness — правильность; previous — предыдущей, прежний; existing — существующий.

Заключительные предложения рефератов часто содержат следующие слова и словосочетания:

conclude — приходить к заключению (выводу); make, draw, reach a conclusion, come to a conclusion that… — делать заключение (вывод) относительно…; from the results it is concluded that… — на основании полученных результатов приходим к выводу; it may be noted that — можно отметить, что…; thus, therefore, consequently, as a result — таким образом, следовательно, в результате.

ПРИЛОЖЕНИЕ 2

ТЕКСТЫ ДЛЯ АННОТИРОВАНИЯ И РЕФЕРИРОВАНИЯ

THE BOLT THAT HOLDS THE IKEA EMPIRE TOGETHER

Ingvar Kamprad is no ordinary multi-billionaire. The founder of the Ikea furniture empire travels economy class, drives a 10-year-old Volvo and buys his fruit and vegetables in the afternoons, when prices are often cheaper. Ask him about the luxuries in his life and he says: 'From time to time, I like to buy a nice shirt and cravat and eat Swedish caviar'.

Mr. Kamprad is one of Europe's greatest post-war entrepreneurs. What began as a mail-order business in 1943 has grown into an international retailing phenomenon across 31 countries, with 70,000 employees.

Sales have risen every single year. The Ikea catalogue is the world's biggest annual print run – an incredible 110m copies a year. And Mr. Kamprad has grown extraordinarily rich. He is worth $13.4bn and is the 17th richest person in the world, according to Forbes, the US magazine.

The concept behind Ikea's amazing success is unbelievably simple: make affordable, well-designed furniture available to the masses. And then there is Mr. Kamprad himself – charismatic, humble, private. It is his ideas and values that are at the core of Ikea's philosophy.

Best known for his extremely modest lifestyle, he washes plastic cups to recycle them. He has just left his long-standing Swedish barber because he found one in Switzerland, where he lives, who charges only SFr14 for a cut. 'That's a reasonable amount,' he chuckles.

All Ikea executives are aware of the value of cost-consciousness. They are strongly discouraged from traveling first or business class. 'There is no better form of leadership than setting a good example. I could never accept that I should travel first class while my colleagues sit in tourist class,' Mr. Kamprad says.

As he walks around the group's stores, he expresses the feeling of 'togetherness' physically, clasping and hugging his employees. This is very uncharacteristic of Sweden. 'Call me Ingvar,' he says to staff. The informality and lack of hierarchy are emphasized by his dress style, with an open-necked shirt preferred to a tie.

Mr. Kamprad has had both personal and business battles. He has fought against dyslexia and illness.

One of Mr. Kamprad's characteristics is his obsessive attention to detail. When he visits his stores, he talks not only to the managers but also to floor staff and cus-

tomers. A recent visit to six of the group's Swedish stores has produced '100 details to discuss', he says.

By his own reckoning, his greatest strength is choosing the right people to run his business.

He is determined that the group will not go public, because short-term shareholder demands conflict with long-term planning. 'I hate short-termist decisions. If you want to take long-lasting decisions, it's very difficult to be on the stock exchange. When entering the Russian market, we had to decide to lose money for 10 years.'

Mr Kamprad has been slowly withdrawing from the business since 1986, when he stepped down as group president. He maintains that he is still 'too much involved and in too many details', although he admits to a distinct reluctance to withdraw altogether.

The question is: can there be an eternal Ikea without Mr. Kamprad? Does the group depend too much on its founder? Will the empire continue, as control of Ikea gradually moves to Mr. Kamprad's three sons?

U.S. STUDENTS KNOW WHAT, BUT NOT WHY

by Cathy Tran

The first-ever use of interactive computer tasks on a national science assessment suggests that most U.S. students struggle with the reasoning skills needed to investigate multiple variables, make strategic decisions, and explain experimental results.

Paper-and-pencil exams measure how well students can critique and analyze studies. But interactive tasks also require students to design investigations and test assumptions by conducting an experiment, analyzing results, and making tweaks for a new experiment. Those real-world skills were measured for the first time on the science component of the National Assessment of Educational Progress (NAEP) that was given in 2009 to a representative sample of students in grades four, eight, and 12.

"Before this, we've never been able to know if students really could do this or not," says Alan Friedman, a member of National Assessment Governing Board, which sets policy for NAEP. The overall scores on the 2009 science test were released in January 2011, and today's announcement focuses on the results from the portion of the test involving interactive computer tasks.

What the vast majority of students can do, the data show, is make straightforward analyses. More than three-quarters of fourth grade students, for example, could determine which plants were sun-loving and which preferred the shade when using a simulated greenhouse to determine the ideal amount of sunlight for the growth of mystery plants. When asked about the ideal fertilizer levels for plant growth, howev-

er, only one-third of the students were able to perform the required experiment, which featured nine possible fertilizer levels and only six trays. Fewer than half the students were able to use supporting evidence to write an accurate explanation of the results. Similar patterns emerged for students in grades 8 and 12.

"We've got our work cut out for us," says Friedman, who is also a consultant in museum development and science communication.

The computer simulations offer NAEP a much better way to measure skills used by real scientists than do multiple-choice questions, says Chris Dede, a professor at Harvard Graduate School of Education. "Scientists don't see the right answer. They see confusing situations and use methods like inquiry to get meaning from complexity. Science is a domain where paper and pencil is a poor match."

The more the test matches the domain, Dede adds, the less problematic teaching to the test becomes. Interactive computer tasks also allow examiners to speed up processes and eliminate safety concerns raised by having students perform actual hands-on tasks.

Computer simulations will continue to evolve at NAEP, which likes to call itself the nation's report card. Friedman says that so-called embedded assessments—which can provide the ability to track when students make a mistake and what they do to correct it—would be "dynamite information" to have. Keystroke data, for instance, have the potential to provide insight about the reasoning skills that students use to solve problems.

"It may give us a way to reward students who don't necessarily jump to the answer right away but show a deliberate process to get to the answer," says Friedman. It could also identify those students who have learned material without really understanding it. "There is no way to memorize for this test," says Friedman. "You really have to think on your feet."

U.S. STUDENTS FLOCK TO GRADUATE SCIENCE PROGRAMS

by Jeffrey Mervis

The data are strangely absent from most discussions about the inadequacies of science education in the United States. But a new report from the National Science Foundation (NSF) finds that the number of Americans pursuing advanced degrees in science and engineering has risen sharply over the past decade and stands at an all-time high.

U.S. politicians are constantly complaining that the nation's system of higher education isn't producing the high-tech workforce needed to keep the country's economy competitive. And one big reason, they say, is a lack of student interest in the so-called

STEM (science, technology, engineering, and mathematics) fields. But the numbers, at least for graduate education, tell a different story.

An NSF analysis released today shows that graduate enrollment in science and engineering programs at U.S. institutions increased 35% from 2000 to 2010, to a record 556,532. What experts regard as an even more sensitive barometer of student interest has shot up even faster, with first-time, full-time graduate enrollment in STEM programs registering a 50% increase over the decade.

A closer analysis of the numbers, which come from NSF's annual Survey of Graduate Students and Postdoctorates in Science and Engineering, offers still more encouraging demographic news. Although foreign students make up 30% of the total enrollment in U.S. graduate science and engineering programs, and while they constitute a majority in several fields, their slice of the overall pie has not grown in the past decade. Rather, the pools of U.S. citizens and those with temporary visas each grew by 35%.

Individuals and organizations trying to attract more women and minorities into careers in science and engineering also have cause for celebration. The number of female graduate students in STEM fields grew by 40% over the decade, outpacing the 30% growth rate for men. Likewise, the growth of Hispanic and African-American STEM graduate students rose by 65% and 50%, respectively, outpacing the 35% growth for the overall population.

The author of the report, NSF's Kelly Kang, points out that the increasing interest in STEM degrees among U.S. students is not a new phenomenon. She says her analysis simply provides additional evidence of a decade-long trend.

That is certainly true. On the other hand, it can take a long time for politicians to abandon arguments based on outdated numbers and to embrace new data that make the opposite case. The latest information from NSF has the potential to change minds and, in turn, influence the debate about preparing the next generation of U.S. scientists and engineers.

SWISS WANT TO BUILD A SATELLITE THAT REMOVES SPACE LITTER

by Daniel Clery

Space researchers in Switzerland are seeking funding to build a spacecraft that will home in on a redundant satellite, grab it, and drag it down to burn up when reentering the atmosphere. The idea is to stem the tide of debris that is littering space around the Earth.

Researchers at the Swiss Space Center at the École Polytechnique Fédérale de Lausanne have been working on the necessary technology for 3 years, says Swiss Space Center Director Volker Gass. The experimental probe's potential first target would be

Switzerland's first space mission, a picosatellite called SwissCube that was launched in 2009. Gass says the spacecraft, dubbed CleanSpaceOne, would cost an estimated $11 million to build and launch and could be ready between 2015 and 2017.

Space junk is an increasing problem for space agencies. It ranges in size from entire satellites that are uncontrolled to rocket stages or fragments from collisions. NASA tracks some 16,000 objects larger than 10 cm, but there are many more fragments smaller than this. Despite the objects' small size, their velocity gives them the ability to do a lot of damage.

In 2009, an operational Iridium mobile communications satellite collided with a redundant Russian communications satellite at a relative speed of more than 42,000 km per hour. NASA estimated that the crash created as many as 1000 new fragments larger than 10 cm and many smaller ones. The debris can also put astronauts at risk. The International Space Station often has to maneuver to avoid space junk, with its residents sometimes taking shelter in the escape capsule.

CleanSpaceOne is designed to take down larger pieces of junk. The semiautomatic probe will need a sophisticated guidance and control system to insert itself into the right orbit to reach a target moving at 28,000 km/h. Cameras will be used to optically identify the target satellite and ion microthrusters will ease the probe right up to it. The Swiss researchers are investigating biologically inspired gripping mechanisms to snag the target, such as one that has tentacles like a sea anemone.

Once captured, the combined object will have a new center of gravity and may be spinning in an uncontrolled way. The probe has to stabilize the trajectory and then guide itself onto a curve toward the atmosphere. "There are quite some challenges," says Gass.

Gass envisages a whole family of ready-made craft able to de-orbit different sorts of satellites. Another approach would be to sell "de-orbit kits" to be built into new satellites so that they could bring themselves down at the end of their useful lives. "Switzerland is a country that likes to keep things clean," Gass says. "So we decided to first get our own satellite down."

GENETIC VARIANTS BUILD A SMARTER BRAIN

by Moheb Costandi

Researchers have yet to understand how genes influence intelligence, but a new study takes a step in that direction. An international team of scientists has identified a network of genes that may boost performance on IQ tests by building and insulating connections in the brain.

Intelligence runs in families, but although scientists have identified about 20 genetic variants associated with intelligence, each accounts for just 1% of the variation in IQ

scores. Because the effects of these genes on the brain are so subtle, neurologist Paul Thompson of the University of California, Los Angeles, devised a new large-scale strategy for tackling the problem. In 2009, he co-founded the ENIGMA Network, an international consortium of researchers who combine brain scanning and genetic data to study brain structure and function.

Earlier this year, Thompson and his colleagues reported that they had identified genetic variants associated with head size and the volume of the hippocampus, a brain structure that is crucial for learning and memory. One of these variants was also weakly associated with intelligence. Those carrying it scored on average 1.29 points better on IQ tests than others, making it one of the strongest candidate intelligence genes so far.

The researchers have now used the same strategy to identify more genetic variants associated with brain structure and IQ. In the new study, they analyzed brain images and whole-genome data from 472 Australians, including 85 pairs of identical twins, 100 pairs of nonidentical twins, and their nontwin siblings. They identified 24 genetic variations within six different genes, all of which were linked to differences in the structural integrity of major brain pathways. "We measured the insulation of the neural pathways," says Thompson. "This affects how fast nervous impulses are routed around the brain. If the pathways are insulted poorly, the brain functions less efficiently and is less resistant to disease."

Many of the genes were already known, but "most haven't been linked to brain integrity before," says Thompson. He adds that the genes "help to make cell membranes and connections" in pathways that are involved in spatial abilities and working memory, which allows us to store information for short periods of time while performing mental tasks.

The researchers also found that some of the variants are associated with intelligence, in that individuals carrying them performed several points better on standardized IQ tests than others. The variants seem to amplify each other's effects, so that possessing more than one provided a synergistic IQ boost, the team reports online today in the Journal of Neuroscience. "We found a whole range of genetic variants that affect the impact of other variants," says Thompson, "and we are beginning to understand the guiding principles of these gene networks."

The researchers used a "highly sophisticated method" that simplifies the statistics involved by identifying gene networks rather than individual variants, says human geneticist Silvia Paracchini of the University of St. Andrews in the United Kingdom, who was not involved in the study.

She questions how robustly the experiments were designed, however, and says that the number of participants was relatively small for a study of this kind. "I would like to see the findings replicated, with further evidence from larger samples."

Epidemiologist Sarah Medland of the Queensland Institute of Medical Research in Australia adds another note of caution: Most large-scale genetic studies replicate their findings using preexisting sets of data, Medland says, but "There was no replication here." But that may be because there are no other appropriate data sets. Medland says she knows of only one other study that collected both IQ scores and the same kind of brain imaging data, and that "the data probably aren't comparable."

DO CELL PHONES CAUSE CANCER? AN EXPLOSIVE 'MAYBE'

by Jennifer Couzin-Frankel

Whether or not cell phones cause brain cancer is a question that's been debated (but not answered) for years, and today the World Health Organization (WHO) stepped into the fray. A WHO committee that evaluates various potential cancer-causing agents concluded that radiofrequency electromagnetic fields, including cell phones, are "possibly carcinogenic" to people. The announcement was seized upon and published in dozens of news outlets within minutes.

The International Agency for Research on Cancer (IARC) arrived at the conclusion of possible carcinogenicity after an 8-day review of the literature by 31 experts, in Lyon, France. The classification falls in the middle of IARC's hierarchy of risk, joining a group of more than 250 potential carcinogens that also includes lead, engine exhaust, and occupational exposure to dry cleaning. In a sign of how tough it is to determine that something doesn't cause cancer, just one of the 900 or so agents that IARC has evaluated, caprolactam, a component of fibers and plastics, falls in the "probably not carcinogenic" category.

When it comes to cell phones, "we found some threads of evidence telling us how cancer might occur, but I think there are acknowledged gaps and uncertainties," said Jonathan Samet, chairperson of the IARC Working Group and a physician and public health expert at the University of Southern California in Los Angeles, during a press conference. The working group was particularly influenced by an international study called Interphone that's examining whether exposure to radiofrequency electromagnetic fields from cell phones causes cancer. Last year, the Interphone study group wrote in the International Journal of Epidemiology that it saw "no increase in risk of glioma or meningioma." It continued: "There were suggestions of an increased risk of glioma at the highest exposure level, but biases and errors" make it tough to show that the phones were the cause. "The possible effects of long-term heavy use of mobile phones require further profound investigation," they concluded.

IARC would like more research as well. Samet noted that at this point there are almost 5 billion cell phone subscriptions worldwide, and "we anticipate an ever larger population that is exposed for longer and longer." That said, shifting cell phones from the "possible" category to a more definitive one won't be easy. Epidemiologic studies like Interphone tend to match healthy people with those who have brain cancer and ask both to recall their cell phone use. "We know that is inherently imperfect," said Samet. And because all these studies take time to conduct, they inevitably examine older technology. Animal studies looking at the risk from radiofrequency electromagnetic fields have been mixed, both in whether they see a danger and in why that might be.

Whether IARC re-evaluates cell phone hazards, the committee says, will depend on what new research comes out.

KEEPING GREENHOUSE EMITTERS HONEST

by Sid Perkins

A new study has a message for any country claiming to limit its emissions of greenhouse gasses: don't cheat. Using data gathered by sensors scattered around an urban area, researchers say they can track changes in a city's carbon dioxide output. That means that when a nation says it's complying with an emissions-limiting treaty, scientists may soon be able to see whether it's telling the truth.

The Kyoto Protocol, which was adopted in December 1997, has been signed and ratified by more than 190 countries, including 37 industrial or developing nations that agreed to reduce their emissions of carbon dioxide and three other greenhouse gases by 5.2% each year, on average, between 2008 and 2012. Although the United States signed the treaty, it stands alone as the only signatory to have not ratified the deal.

But signing a treaty is one thing. Actually following through is something else. So how can nations keep each other honest? One possibility is to use satellites to peer down on the atmosphere over a country and measure its carbon dioxide emissions directly. No probes now in orbit can do that, however, so researchers are looking into ground-based systems. And because most carbon dioxide emissions come from urban areas, cities offer tempting targets for observation.

A team led by Kathryn McKain, an atmospheric scientist at Harvard University, recently analyzed data gleaned by a network of carbon dioxide sensors in and around Salt Lake City where atmospheric concentrations of carbon dioxide have been measured since 2002. Six of the sensors are located in the city and its suburbs, and one is located atop a peak upwind of the city, giving a baseline measurement of carbon dioxide concentrations of the air flowing into the city. In particular, the researchers looked at data gathered during four intervals between mid-June and late December in 2006. The team compared actual carbon dioxide concentrations across the region with those produced by their computer simulation. The modeling predicted how wind

and weather patterns during those intervals would have distributed the city's estimated carbon dioxide emissions. It also calculated how trees and other vegetation in the region would have affected carbon dioxide concentrations on an hour-by-hour basis.

Patterns of carbon dioxide concentrations produced by the team's simulations are similar to those seen in real life, says McKain. Concentrations are higher at night, when the air is stable and emissions are typically trapped near ground level, than they are in the daytime when sunlight heats the ground, triggering mixing in the atmosphere. Also, average carbon dioxide concentrations are lower in the summer, when plants are growing and absorbing carbon dioxide, than they are in the winter. Overall, the combination of a few measured carbon dioxide concentrations and modeling can discern month-to-month changes in emissions of 15% or more.

The team's results, reported online today in the Proceedings of the National Academy of Sciences, "are a very important first step," says Riley Duren, a systems engineer at NASA's Jet Propulsion Laboratory in Pasadena, California. "This [technique] is a critical tool in our toolbox," he adds. "We can't really diagnose and assess the efficacy of emissions reductions if we don't measure what's going on in the atmosphere."

However, Duren notes, researchers need to develop techniques to track the changing emissions of other important greenhouse gases, particularly methane, which on a molecule-by-molecule basis traps heat much more effectively than carbon dioxide does. Also, he suggests, using this technique in other cities—many of which cover a much larger area and have a more complicated set of emission sources, including seaports—may prove more challenging.

An even bigger complicating factor might be vegetation, says John Miller, an atmospheric scientist with the National Oceanic and Atmospheric Administration in Boulder, Colorado. For example, off the Atlantic seaboard in winter, the amount of carbon dioxide generated by decomposition of fallen leaves onshore overwhelms the emissions from coastal cities, he notes. "You'd make a huge error assuming all of the carbon dioxide is coming from burning fossil fuels." One way to determine the fraction of the greenhouse gas coming from rotting leaves would be to measure its levels of carbon-14. While recently living plants contain a certain proportion of that carbon isotope, petroleum products and coal—and therefore the emissions generated by burning them—contain none.

ПРИЛОЖЕНИЕ 3

GRAMMAR

Порядок слов в английском предложении

В отличие от русского языка**, в английском языке порядок слов в предложении является фиксированным:** в утвердительном предложении на первом месте стоит **подлежащее**, **за подлежащим** следует **сказуемое**. Подлежащее и сказуемое составляют скелет английского предложения. Их наличие обязательно.

Место перед подлежащим (так называемое «нулевое») может быть занято обстоятельствами. Чаще всего нулевое место не занято.

Дополнения ставятся после сказуемого. Если дополнений несколько, то первым идет прямое дополнение (дополнение без предлогов), а после него – косвенное.

Обстоятельства, как правило, замыкают английское предложение.

«0»	«1»	«2»	«3»	«4»
обстоятельство	подлежащее	сказуемое	дополнение	обстоятельство

Обст-ва	***Подлежащее***	***Сказуемое***	Дополнение	Обст-ва
места,			(объект)	образа действия
времени				

где?	кто?	что делает?	с чем? с кем?	когда?где?
когда?	что?	что с ним		как?сколько?
		делается?	с пом-ю чего?	несмотря
				на что? как? и т.п.

On Sundays ***they***	***take***	*their children*	*to the Zoo.*
Some students	***know***	English	very well.
The students of our group	***will have***	the first exam	on 15 January.
We	***have sent***	them	10 E-mails.
The manager	***gave***	the letter	to me.
They	***are*** *all* ***Russian***.		
He	***is not***		in the classroom now.
My sister	***was trained***		to become a children’s doctor.

Препозитивные атрибутивные словосочетания

Препозитивные атрибутивные словосочетания в английском языке могут иметь различную структуру. Особую сложность для перевода представляют сочетания "существительное+ существительное" не только потому, что в русском языке такие атрибутивные сочетания не имеют структурного соответствия, но и потому что семантические отношения между существительными, составляющими эти словосочетания, могут быть очень разнообразными. Последнее касается также и отношений между прилагательным и существительным в словосочетаниях типа прилагательное + существительное. Даже одинаковые по структуре английские словосочетания часто передаются разными структурно семантическими сочетаниями в русском языке: *white man* ~ белый человек, *white power* — власть белых.

Трудность перевода препозитивных атрибутивных словосочетаний зависит также от многозначности их компонентов и, следовательно, определяется значением всего контекста. Одно и то же слово-определение в зависимости от значения определяемого существительного может переводиться по-разному: *public man* — политический деятель, *public opinion* — общественное мнение, *public scandal* — публичный скандал, *public denial* — официальное опровержение, *public property* — государственная собственность, *public image* — представление, сложившееся в общественном мнении, о деятеле, партии, стране.

Из сказанного ясно, что переводу должен предшествовать анализ отношений между элементами словосочетания (как структурный, так и семантический).

Перевод двучленных сочетаний типа “существительное + существительное”

Первый член такого атрибутивного словосочетания может передаваться на русский язык различными способами:

а) прилагательным

emergency meeting — внеочередное (экстренное) совещание

family obligations — семейные обязанности

б) существительным в родительном падеже

school graduate — выпускник школы,

wage rise — повышение зарплаты

budget increase — увеличение бюджета

в) существительным с предлогом

tax proposals — предложения по налогам

terrorist trial — суд над террористом

г) придаточным предложением

wage deadlock — тупик, в который зашли переговоры по зарплате

Перевод многочленных словосочетаний типа “существительное + существительное + существительное”

Перевод многочленных препозитивных атрибутивных словосочетаний этого типа предполагает следующие этапы:

1) перевести определяемое существительное (последнее слово группы);

2) проанализировать смысловые связи между членами словосочетания и разбить их на смысловые группы (анализ проводится слева направо);

3) перевести словосочетание, начиная с определяемого слова и затем последовательно каждую смысловую группу (справа налево).

В зависимости от смысловых связей многочленные словосочетания могут переводиться по принципу двучленных словосочетаний.

Особую трудность представляет перевод так называемых предикативных препозитивных словосочетаний, состоящих из целых предложений или различных сочетаний с другими частями речи, которые могут иметь вид цитат и соединяться дефисом или быть взятыми в скобки. Они могут быть сколь угодно длинны и переводятся причастным оборотом или придаточным предложением.

He is a quick-to-take-offence man. – Он человек, который легко обижается.

set-the-Thames-afire gentlemen. Господа, которые хотят удивить мир

"back to work before talks begin" declaration – заявление о том, чтобы рабочие вернулись к работе до начала переговоров.

Для перевода необходимо:

1) перевести определяемое существительное (последнее слово группы);

2) проанализировать смысловые связи между членами словосочетания и разбить их на смысловые группы (анализ проводится слева направо);

3) перевести словосочетание, начиная с определяемого слова и затем последовательно каждую смысловую группу (справа налево).

В зависимости от смысловых связей многочленные словосочетания могут переводиться по принципу двучленных словосочетаний.

Особую трудность представляет перевод так называемых предикативных препозитивных словосочетаний, состоящих из целых предложений или различных сочетаний с другими частями речи, которые могут иметь вид цитат и соединяться дефисом или быть взятыми в скобки. Они могут быть сколь угодно длинны и переводятся причастным оборотом или придаточным предложением:

- quick-to-take-offence man. – человек, который легко обижается;
- set-the-Thames-afire gentlemen – господа, которые хотят удивить мир;
- "back to work before talks begin" declaration – заявление о том, чтобы рабочие вернулись к работе до начала переговоров;
- economic development-aimed financial project – проект финансирования экономического развития.

ФОРМУЛА СКАЗУЕМОГО

АКТИВНЫЙ ЗАЛОГ

ПАССИВНЫЙ ЗАЛОГ

		Indefinite	Continuous	Perfect	Perfect Continuous	Indefinite	Continuous	Perfect
		*Действие – **факт** (вообще)*	*Действие – **процесс** (пока / все еще)*	*Действие – **результат** (уже)*	*Действие – **результат** **+процесс** (с... / в теч. ...)*	***Факт** (вообще)*	***Процесс** (пока / все еще)*	***Результат** (уже)*
Сейчас	Утв	*I – V(verb)* *he - V (s)*	*I am - Ving* *You are - Ving* *He is - Ving*	*I have - Ved(3)* *He has - Ved(3)*	*I have been - Ved(3) since* *He has been - Ved(3) for*	*It is – Ved (3)*	*It is being – Ved (3)*	*It has been - Ved(3)*
	Отр	*I don't – V* *he doesn't- V*	*I am not - Ving* *He is n't - Ving*	*I have n't - Ved(3)* *He has n't - Ved(3)*	*I haven't been - Ved(3)* *He has n't been - Ved(3)*	*It isn't – Ved (3)*	*It isn't being – Ved (3)*	*It has n't been - Ved(3)*
	Вопр	*Do you - V ?* *Does he - V ?*	*Am I - Ving?* *Is he - Ving?*	*Have I - Ved(3) ?* *Has he - Ved(3) ?*	*Have I been - Ved(3) ?* *Has he been - Ved(3) ?*	*Is it– Ved (3) ?*	*Is it being- Ved (3) ?*	*Has it been - Ved(3) ?*
Вчера	Утв	*I – Ved(2)* *he - Ved(2)*	*I was - Ving* *You were - Ving* *He was - Ving*	*I had - Ved(3)* *He had - Ved(3)*	*I had been - Ved(3)* *He had been - Ved(3)*	*It was –* *Ved (3)*	*It was being – Ved (3)*	*It had been - Ved(3)*
	Отр	*I didn't - V ?* *He didn't - V ?*	*I wasn't - Ving* *He wasn't - Ving*	*I hadn't - Ved(3)* *He had't - Ved(3)*	*I haven't been - Ved(3)* *He hadn't been - Ved(3)*	*It wasn't– Ved (3)*	*It wasn't being – Ved(3)*	*It hadn't been - Ved(3)*
	Вопр	*Did you - V ?* *Did he - V ?*	*Was I - Ving ?* *Was he - Ving ?*	*Had I - Ved(3) ?* *Had he - Ved(3) ?*	*Had I been - Ved(3) ?* *Had he been - Ved(3) ?*	*Was it– Ved (3) ?*	*Was it being – Ved (3) ?*	*Had it been - Ved(3) ?*
Завтра	Утв	*I 'll – V* *he 'll - V*	*I'll be- Ving* *You 'll be - Ving* *He 'll be- Ving*	*I'll have - Ved(3)* *He'll have - Ved(3)*	*I 'll have been - Ved(3)* *He 'll have been - Ved(3)*	*It will be* *– Ved (3)*		*It will have been - Ved(3)*
	Отриц	*I won't– V* *He won't- V*	*I won't be- Ving* *You won't be - Ving* *He won't be- Ving*	*I won't have - Ved(3)* *He won't have - Ved(3)*	*I won't have been - Ved(3)* *He won't have been - Ved(3)*	*It won't be –* *Ved (3)*		*It won't have been - Ved(3)*
	Вопр	*Will you - V ?* *Will he - V ?*	*Will you be - Ving ?* *Will he be - Ving ?*	*Will he have - Ved(3) ?* *Will he have - Ved(3) ?*	*Will he have been - Ved(3) ?* *Will he have been - Ved(3) ?*	*Will it be* *– Ved (3) ?*		*Will it have been - Ved(3) ?*

ИНФИНИТИВ, ГЕРУНДИЙ, ПРИЧАСТИЕ

В английской грамматике проводятся различия между личными неличными формами глагола. К последним относятся **инфинитив, герундий, причастие**.

Неличные формы сочетают глагольные свойства со свойствами других частей речи и выполняют в предложении синтаксические функции этих частей речи.

Неличные формы глагола обладают категорией времени, но в отличие от личных форм, которые выражают время по отношению к моменту речи, неличные формы выражают время по отношению к моменту действия, выраженного глаголом в личной форме.

Неличные формы вызывают трудности при переводе на русский язык. Данное пособие направлено на преодоление вышеуказанных трудностей.

Неличные формы глагола можно представить в следующей таблице.

Инфинитив **(The Infinitive)**	**Причастие II** **(The Past Participle)**	**Причастие I** **(The Present Participle)**	**Герундий** **(The Gerund)**
to V to do (делать)	V+ed(3формаглагола) done (сделанный)	V+ing doing (делающий)	(with) V+ing (with) doing (при делании)
to translate (переводить)	translated (переведенный)	translating (переводящий)	with translating (при переводе)

ПРИЧАСТИЯ I, II. ПРИЧАСТНЫЕ ОБОРОТЫ

Причастие обладает свойствами глагола и прилагательного и имеет следующие грамматические формы:

	Active	**Passive**
Indefinite	**discussing** (обсуждающий, обсуждая)	**being discussed** (будучи обсуждаемым)
	----------	**discussed** (обсужденный)
Indefinite Perfect	**having discussed** (обсудив)	**having been discussed** (будучи обсужденным)

Функции причастия в предложении

Функция определения

Причастия в функции определения стоят до или после определяемого существительного и отвечают на вопрос *какой?* Причастия переводятся соответствующей формой русских причастий:

I enjoy looking at flying birds.
Мне нравится смотреть на летающих птиц.
The flying birds made a lot of noise.
Пролетающие птицы создавали много шума.
The girl speaking to my mother is my classmate.
Девочка, разговаривающая с моей мамой, моя одноклассница.
The student being examined studies law.
Экзаменуемый студент изучает право.
Студент, которого экзаменуют, изучает право.
The fixed car was returned to the client.
Отремонтированная машина была возвращена клиенту.

The machine parts lie on a moving platform.
Детали машины лежат на движущейся платформе.
All moving parts of machines wear.
Все движущиеся части машины изнашиваются.
The substance being investigated is first weighed.
Исследуемое вещество сначала взвешивается.
A broken device was substituted by a new one.
Сломавшийся (сломанный) прибор был заменен новым.
Cosmic rockets launched with first space velocity become artificial satellites of the Earth.

Космические ракеты, запущенные с первой космической скоростью, становятся искусственными спутниками земли.

Примечание 1

Причастия в функции определения, стоящие в английском языке после определяемого существительного, при переводе ставятся перед определяемым словом:

The results achieved was thoroughly investigated.

Полученные результаты были тщательно исследованы.

Примечание 2

Стоящие после определяемого существительного страдательные причастия от глаголов involve — вовлекать, включать, влечь (за собой) и concern — касаться, интересоваться, заниматься переводятся *данный, о котором идет речь, рассматриваемый:*

The properties of the substances involved are as yet not clearly understood.

Свойства данных (рассматриваемых) веществ до сих пор еще не ясно поняты.

Часто из текста ясно, во что *включено, вовлечено* и т. д. определяемое существительное; это необходимо отразить в переводе:

The phenomenon is rather complicated and the processes involved are not yet clear.

Это явление весьма сложное, и связанные с ним процессы еще не ясны

Функция обстоятельства

В функции обстоятельства причастие можно перевести деепричастным оборотом, придаточным или самостоятельным предложением (последнее, если причастие выступает в функции сопутствующего обстоятельства) или иным способом, в зависимости от сочетаемости слов в русском языке. В функции обстоятельства Причастие 1 может предшествовать подлежащему или стоять после сказуемого.

Approaching this village I thought about my childhood.

Подходя к этой деревне, я думала о своем детстве.

Being asked what he thought of the method, the engineer approved of it.

Когда инженера спросили, что он думает об этом методе, он его одобрил.

Working with machines, sharp tools, motors, and electricity one must always be careful.

Работая с мвшинами, острыми инструментами, моторами и электричеством, мы должны быть осторожны.

Being adopted in the field of foreign trade relations these decisions are of great importance.

Так как эти решения были приняты в сфере международной торговли, то они представляют собой особую важность.

Перфектные причастия подчеркивает последовательность протекания событий:

Having crossed the bridge we turned to the right.
Пройдя по мосту, мы повернули на право.

Having thus finished his task the speaker smiled and waited for comments.
Закончив таким образом свое сообщение, докладчик улыбнулся и стал ждать выступлений.

Перфектные причастия страдательного залога используются не только для указания последовательности действий, но и для указания причинно-следственных связей.

Having been examined by the customs the goods were let through.
После проверки на таможне товары были отправлены.

Having been warmed to zero ice began to melt.
Будучи нагретым до нуля, лед начал таять.
Лед начал таять, так как был нагрет до нуля.

При переводе английского причастия в функции обстоятельства не следует злоупотреблять русской деепричастной формой *будучи , являясь.* Норма русского языка заставляет передавать английские обстоятельственные причастные обороты придаточным предложением с союзами: *поскольку, так как и др.* или самостоятельным предложением с союзом *причем.*

Viewed from the tower the city is very impressive.
Город производит большое впечатление, если смотреть на него с башни.

Operated properly such buses can transport more people.
При неправильном управлении, такие автобусы могут перевезти больше людей.

Причастие II (иногда причастие I), в зависимости от союза, за которым оно следует, может передавать также и другие обстоятельственные значения. Так, например, в сочетании с союзом **if** или **unless** причастие передает значение обстоятельства условия; после союза **though** — значение обстоятельства уступки. Такие причастные обороты переводятся на русский язык придаточными предложениями.

If reconstructed this building will be in use for many years.

Если это здание отреставрировать (будет отреставрировано), оно прослужит много лет.

Причастные обороты

Определительный причастный оборот

Стоит, как правило, после определяемого существительного и отвечает на вопрос «*какой?*» и переводится на русский язык причастным оборотом, соответствующей формой причастия или определительным придаточным предложением

We are going to study mechanisms underlying this phenomenon.

Мы собираемся изучать механизмы, лежащие в основе этого явления.

We can use the method suggested by Corner.

Мы можем использовать метод, предложенный Корнером (который предложил Корнер).

Обстоятельственный причастный оборот

Характеризует сказуемое и отвечает на вопрос «*когда, почему, как?*».

Английские обстоятельственные причастные обороты переводятся на русский язык деепричастным оборотом, группой отглагольного существительного с предлогом *при*, обстоятельственным придаточным предложением.

Reading this book the student found out many interesting things.

Читая эту книгу, студент обнаружил много интересного. Когда студент читал эту книгу, он обнаружил…

Being put into operation, the factory began to produce new lorries.

После того как завод привели в действие, он начал выпускать новые грузовики.

Considered from this point of view the question will be of great interest.

При рассмотрении с этой точки зрения, вопрос представляет большой интерес. Если вопрос рассматривать с этой точки зрения, он представляет большой интерес (он кажется весьма интересным). Будучи рассмотрен с

этой точки зрения, вопрос представит большой интерес (окажется весьма интересным).

Having made the measurements the experimenter then processed the data.

Проведя измерения, эксперементатор затем обработал данные. После того как эсперементатор провел измерения, он обработал данные.

Having been rejected by the publishers several times, the story was accepted by a weekly magazine.

Будучи отвергнутым издателями несколько раз, рассказ был принят еженедельным журналом. После того как рассказ был отвергнут издателями несколько раз, он был…

Объектный причастный оборот (сложное дополнение),

Объектный причастный оборот употребляется после глаголов выражающий восприятие посредством органов чувств *to see, to watch , to hear* , глаголами умственной деятельности to *know, to think* и глаголами желаний *to like, to love* и представляют собой сочетание существительного в общем падеже или местоимения в косвенном падеже с причастием (имя+причастие). Обычно переводится на русский язык придаточным предложением, вводимым союзами *как, что* или *чтобы.*

I heard our names mentioned.
Я слышал, как (что) упомянули наши имена.
They watched the temperature gradually rising.
Они следили за тем, как постепенно повышалась температура.
I do not want the problem being taskled at the meeting.
Я не хочу, чтобы эта проблема затрагивалась на собрании.
We know him having been working at this problem since 2000.
Мы знаем, что он работает над этой проблемой с 2000года.
They thought the reaction having been finished.
Они думали, что реакция уже закончилась.

Каузативный, или побудительный, оборот.

После глаголов **to have** и **to get** объектный причастный оборот **(have/get** + *имя-\-причастие)* образует так называемую каузативную, или побудительную, конструкцию, которая означает, что действие совершается не лицом, обозначенным подлежащим предложения, а кем-то другим за или для него. В русском языке нет аналогичной конструкции или специальных средств для выражения каузативности, поэтому перевод ее представляет значительную трудность, тем более, что конкретное значение этой конструкции зависит от контекста и может быть весьма разнообразным.

The device has the lens shifted.

У прибора смещены линзы.

Независимый причастный оборот
(Абсолютная причастная конструкция)

В независимом причастном обороте перед причастием стоит существительное в общем падеже или местоимение в именительном падеже. Это существительное или местоимение является субъектом действия, выраженного причастием, и не совпадает с субъектом действия, выраженного личной формой глагола. Независимый причастный оборот отделяется от главной части предложения запятой. Переводится обстоятельственным придаточным предложением с союзами *так как, после того как, когда, если* или самостоятельным предложением с союзами *а, и, причем.* Союз ставится перед существительным (местоимением), предшествующим причастию. Причастие переводится личной формой глагола в функции сказуемого, а стоящее перед ним существительное (местоимение) – подлежащим.

The students knowing English well, the examination didn't take long.
Так как студенты знали английский язык хорошо, экзамен не занял много времени.

Whole cities being razed to the ground during the war, the building of houses was priority number one.
Так как во время войны целые города были стерты с лица земли (разрушены до основания), строительство домов стало первоочередной задачей.

Независимый причастный оборот часто вводится предлогом **with,** который на русский язык обычно не переводится.

We continued our work, with our laboratory assistants helping us.
Мы продолжили нашу работу, а наши лаборанты помогали нам.

With water being cooled, the rate of the reaction was low.
Когда воду охлаждали, скорость реакции была низкой.

ГЕРУНДИЙ И ГЕРУНДИАЛЬНАЯ КОНСТРУКЦИЯ

Особенности герундия как части речи

Герундий в отличие от причастия обладает свойствами глагола и существительного и обозначает процесс совершения действия.

Герундий по форме совпадает со всеми грамматическими формами причастия I. Его можно отличить от причастия по следующим признакам:

- глагольная форма с окончанием -ing является герундием, а не причастием, если перед ней стоит предлог, существительное в родительном падеже или притяжательное местоимение;

- герундий отличается от причастия по синтаксическим функциям. В отличие от причастия он может выполнять в предложении не только функции определения и обстоятельства, но подлежащего и дополнения. Следовательно, глагольная форма с окончанием -ing является герундием, если она выполняет функцию подлежащего или дополнения. В тех же случаях, когда функции герундия и причастия совпадают, перед герундием стоит предлог;

-герундий переводится: неопределенной формой глагола, отглагольным существительным, деепричастием или личной формой глагола в функции сказуемого придаточного предложения, вводимого союзом *что (чтобы)* с предшествующим ему местоимением *то* в соответствующем падеже *(тем, о том* и др.).

Формы герундия

	Active	**Passive**
Indefinite	giving	being given
Perfect	having given	having been given

Функции герундия в предложении:

1) П о д л е ж а щ е е

Serfing the Internet helps to find a lot of useful information.

Работа в Интеренете помогает найти много полезной информации.

Carrying this test successfully requires careful investigations of outstanding scientists' works.

Для успешного проведения этого испытания требуется тщательное исследование работ выдающихся ученых.

2) П р я м о е д о п о л н е н и е

I remember having spoken about it already.

Я помню, что уже говорил об этом.

The turbulent flow of gases produces cooling.

Турбулентное течение газов вызывает охлаждение.

3) П р е д л о ж н о е д о п о л н е н и е

He insisted on *taking part* in the conference

Он настаивал на *участии (на том, чтобы принять участие)* в конференции.

We succeeded in obtaining the desired results.

Мы удалось получить желаемые результаты.

4) О б с т о я т е л ь с т в о

On coming home he always has a rest.

По приходе домой он всегда отдыхает.

Приходя домой, он всегда отдыхает.

Heat maybe produced by burning coal gas or any other fuel.

Тепло можно получить, сжигая уголь, газ или любое другое топливо.

Действие, выраженное перфектным герундием, относится к прошедшему времени, поэтому он переводится на русский язык личной формой глагола в прошедшем времени.

The author reports having applied a new method.

Автор сообщает о том, что он применил новый метод.

Притяжательное местоимение или существительное, стоящее перед герундием, указывает на субъект или объект действия, выраженного герундием. (В первом случае герундий имеет форму действительного залога, во втором — страдательного):

Excuse my coming late.

Простите мое опоздание.

Простите меня за то, что я пришел поздно.

I am surprised at his being awarded the prize.

Меня удивляет, что ему дали премию.

He confirms having approved of this arrangement as more economical.

Он подтвердил одобрение этого устройства как более экономичного.

Функции герундия в предложении

Функция подлежащего.

В этой функции герундий, как правило, переводится существительным или неопределенной формой глагола.

Meeting her seemed a good end of the day.

Встреча с ней казалась хорошим завершением дня.

Carrying out experiments is a must with every scientist.

Проведение опытов (проводить опыты) необходимо для каждого ученого.

Сочетание *there is no* с герундием в функции подлежащего переводится на русский язык неопределенно-личным предложением.

There was no avoiding her now.

Теперь встречи с ней невозможно избежать.

Функция сказуемого

В этой функции герундий употребляется после глаголов *be, stop,finish,go on,continue, keep on,*после выражения *can't help,*после предлогов *against, by, for, in,through,* и прилагательного *worth,* если им предшествует глагол *to be*

Being in love is thinking all the time about the other person
Быть влюбленным означает все время думать о другом человеке.

She couldn't help laughing.
Она не могла не рассмеяться.

If a job is worth doing, it is worth doing properly.
Если дело стоит делать, его стоит делать, как следует.

Функция обстоятельства

Герундий в функции обстоятельства всегда употребляется в сочетании с предлогом. Он может выступать в функции следующих обстоятельств:

1. времени, после предлогов **on (upon), after,** before, **in.** После предлогов **before** и **in** герундий переводится обычно на русский язык придаточным предложением; после **on (upon)** и **after** — деепричастием прошедшего времени.

After reading this text he will translate it.
После прочтения текста он будет переводить его.
In solving problems it is necessary to distinguish between fact and hypothesis.
При решении проблемы необходимо делать различие между фактом и гипотезой.
Решая проблемы, необходимо …
Когда решают проблемы надо …
After making this statement the minister said he was not going to reconsider his decision.

Сделав это заявление, министр сказал, что он не собирается пересматривать свое решение.

Но могут быть и другие варианты перевода герундия **в** функции обстоятельства времени в зависимости от сочетаемости слов в русском языке, например сочетанием предлога с существительным: **after (on) arriving** no *прибытии,* **after checking** *после проверки.*

2. сопутствующего обстоятельства, после предлогов **besides** *кроме того что,* **instead of** *вместо того чтобы,* **apart from** *не говоря уже, кроме,* **without** *без, без того чтобы.* В зависимости от предлога герундий переводится обычно на русский язык инфинитивом или придаточным предложением. С предлогом **without** герундий переводится отрицательной формой деепричастия, сочетанием предлога *без* с существительным или *без того чтобы* с личной формой глагола.

Instead of writing the letter himself he asked his friend to do it.
Вместо того, чтобы писать письмо самому, он попросил своего друга сделать это.
Besides being extremely unpopular this policy may lead to a complete failure of all their efforts.
Не говоря уже о том, что эта политика не пользуется популярностью, она может привести к тому, что все их усилия окажутся напрасными.

3. обстоятельства образа действия, с предлогами **in, by, without.** После предлогов **in** и **by** герундий переводится или деепричастием, или сочетанием предлогов *путем, при помощи* и т. п. с существительным, или самостоятельным предложением; с предлогом **without** — отрицательной формой деепричастия или существительным с предлогом *без.*

He improved his article by changing the end.
Он улучшил статью, изменив конец.

It can be done by sending deputations to MPs.
Это можно сделать, послав депутации к членам парламента.

He admitted that he had made a mistake in not supporting this proposal earlier.
Он признал, что допустил ошибку, не поддержав этого предложения раньше (тем, что не поддержал ....).

4. обстоятельства условия, с составными предлогами **in case of, in the event of** *в случае если,* **subject to** *при условии,* **without.** С предлогом **without** герундий переводится отрицательной формой деепричастия, сочетанием

предлога *без* с существительным или словосочетанием *без того чтобы* и отрицательной формой инфинитива. В остальных случаях — обычно личной формой глагола или существительным.

You will never speak good English without learning grammar
Вы никогда не будете говорить хорошо по-английски, не изучив грамматики. (если не изучите грамматики)

They promised not to undertake any actions without consulting their partners.
Они обещали не предпринимать никаких действий, не проконсультировавшись (без консультации; без того чтобы не проконсультироваться) со своими партнерами.

5. **обстоятельства причины,** с составными предлогами **owing to** из-за**,** *вследствие,* **for fear of** *из опасения* и др.; переводится личной формой глагола, **существительным или деепричастием.**

He did not dare to make public announcements about this plan for fear of being criticized.
Он не осмелился открыто объявлять об этом плане из опасения, что его подвергнут критике (опасаясь, как бы его не подвергли ...).

Функция определения

Герундий в функции определения обычно следует за предлогом of и переводится инфинитивом или существительным.

There are different ways of doing it.
Есть разные способы сделать это.

There is little probability of atmosphere being on that planet.
Маловероятно, что на той планете была атмосфера.

Функции дополнения (предложного и беспредложного)

В функции предложного дополнения герундий сочетается с очень большим количеством предлогов и, так же как и в функции беспредложного дополнения, в зависимости от его лексического значения и от сочетаемости слов в русском языке, переводится инфинитивом, существительным или придаточным предложением, вводимым словами *то, что ... .*
They succeeded in removing all the obstacles.
Им удалось устранить все препятствия.
Excuse my (me) reminding you about it.

Простите, что я напоминаю вам об этом.

Герундиальная конструкция

Герундиальная конструкция состоит из существительного в притяжательном падеже (если существительное не принимает притяжательного падежа, то оно стоит в общем падеже) или местоимения притяжательного или личного в объектном падеже.

I insist on Mary's (her) going there.
Я настаиваю, чтобы Мери (она) пошла туда.

Конструкция выступает как один сложный член предложения, соответствующий по значению придаточному предложению. Герундиальная конструкция переводится на русский язык придаточным предложением, вводимым словами *то, что ...*; *тот факт, что ...*; *(с тем) чтобы ...*; *после того как ..., что ...* и др.

We look forward to much attention being given to this question.
Мы рассчитываем на то, что этому вопросу будет уделено большое внимание.

Герундиальная конструкция выступает в предложении в следующих функциях.

Функции герундиальной конструкции

- **Сложное подлежащее**

В некоторых случаях подлежащее вводится местоимением *it.*

Jim's coming to that fishing village was a blessing.
(То, что Джим приехал) Приезд Джима в эту рыболовецкую деревню было благословением.

It is not much good my (me) coming, is it?
Не очень хорошо, что я пришел, не так ли?

- **Сложное прямое дополнение**

I began to picture to myself my being found dead.
Я начал представлять себе, как меня нашли мертвым.

- **Сложное предложное дополнение**

She wondered at his caring for things like that.
Она удивлялась тому, как он может интересоваться такими вещами.

- **Сложное определение**

There was little likelihood of his meeting anybody at that time.
Было маловероятно, что он мог встретить кого-то в это время.

- **Сложное обстоятельство**

How did you get out without his seeing you.
Как тебе удалось уйти с тем, чтобы он не заметил тебя

- **Сложное сказуемое**

The only thing I'm afraid of is the family being too sure of themselves.
Единственное, чего я боюсь, так это того, что члены этой семьи слишком самоуверенны.

ИНФИНИТИВ И ИНФИНИТИВНЫЕ ОБОРОТЫ

Инфинитив – это неличная форма глагола, обладающая свойствами глагола и существительного.

Формы инфинитива

	Active	Passive
Indefinite	**to give**	**to be given**
Continuous	**to be giving**	**----------**
Perfect	**to have given**	**to have been given**
Perfect Continuous	**to have been giving**	**----------**

Функции инфинитива в предложении

Функция подлежащего

Инфинитив выполняет функцию подлежащего, если он стоит в начале предложения, где нет другого слова, которое могло бы быть подлежащим. Переводится инфинитивом или отглагольным существительным.

To teach is a difficult work.
Обучать - трудное дело.
To be taught something is never late.
Обучаться чему-нибудь полезному никогда не поздно.
Примечание.
Если при подлежащем, выраженном инфинитивом, сказуемое выражено глаголом-связкой be+инфинитив то связка переводится «*значит»:*

To understand this phenomenon is to understand the structure of atoms.
Понять это явление — значит понять структуру атомов.

Функция определения

Инфинитив в функции определения переводится на русский язык, как правило, определительным придаточным предложением с модальным глагольным сказуемым, выражающим возможность или долженствование, или же глаголом-сказуемым в будущем времени.

This question will be discussed at the conference shortly to open in Moscow.
Этот вопрос будет обсуждаться на конференции, которая должна вскоре открыться (вскоре открывается) в Москве.

1) После слова **the last** и порядковых числительных (если в данном предложении они выполняют функцию составной части сказуемого) инфинитив в функции определения переводится личной формой глагола в том же времени, что и глагол-сказуемое главного предложения.

He was the first to realize the difficulty of the situation.
Он был первым, кто осознал трудность положения.

Если же эти слова выполняют какую-либо другую синтаксическую функцию, то инфинитив может также переводиться причастием.

The first person to prove it was Professor Brown.
Первым человеком, доказавшим это, был профессор Браун.

2) Пассивная форма инфинитива в функции определения сохраняет после себя предлог, с которым употребляется данный глагол, и переводится обычно на русский язык неопределенно-личным предложением.

He is the man to vote for.
Он тот человек, за которого мы должны голосовать.

3) В отдельных случаях инфинитив в функции определения может переводиться причастием, прилагательным или существительным с предлогом.
The curves to be presented in Part V were obtained not long ago.
Кривые, представленные в части V, были получены недавно.

Функция дополнения

Инфинитив в функции дополнения обычно переводится неопределенной формой глагола, иногда придаточным предложением.

I told him to go there.
Я велел ему пойти туда.
I remember to have seen this film.
Я помню, что видел этот фильм.

Функция обстоятельства

Инфинитив в функции обстоятельства может стоять в начале или в конце предложения. Переводится неопределенной формой глагола с союзами *для того чтобы, с тем чтобы, для того чтобы, так чтобы.*

He will go to the clinic tomorrow to be X-rayed.
Завтра он пойдет в поликлинику, чтобы сделать рентгеновский снимок.
To understand the text you must know all the new words.
Чтобы понять текст, вы должны знать все новые слова.

Инфинитив в функции обстоятельства может вводиться союзами *so as (to), in order (to)*
I was silent in order to give him time to think.
Я молчал, для того, чтобы дать ему время подумать.
I hired a taxi so as not to miss the train.
Я взял такси стем, чтобы не опоздать на поезд.

Инфинитив в составе составного сказуемого

а) Инфинитив в составном именном сказуемом употребляется в сочетании с глаголом-связкой *be*. Глагол *be* в этом случае встречается во всех временах группы Indefinite и Perfect. Глагол *be* в функции связки переводится: *заключается в том, чтобы (что), это,* а в настоящем времени часто опускается.

Our aim is to master English.
Наша цель заключается в том, чтобы овладеть английским языком. (Наша цель – овладеть…).

б) Инфинитив в составном модальном сказуемом. Глагол *be* перед инфинитивом в составном модальном сказуемом имеет модальное значение долженствования или возможности или передает сказуемому оттенок будущего времени.

This substance is rarely to be found freely in nature.
Это вещество редко можно найти в чистом виде.

Инфинитив как вводное словосочетание

Инфинитив может быть в предложении **вводным элементом:** *to tell the truth ... по правде говоря ..., to be frank… откровенно говоря…, to put it mildly…мягко выражаясь*…и т.п.

To put it mildly, she is just a bit inquisitive.
Мякго выражаясь, она немного любопытна.

Инфинитивные обороты

Инфинитивный оборот «сложное дополнение» (Complex Object)

Состоит из существительного в общем падеже или неопределенного местоимения или личного местоимения в объектном падеже и инфинитива и является одновременно дополнением к сказуемому всего предложения.

We know the scientists to study this proposal thoroughly.
Мы знаем, что этот ученый тщательно изучает это предложение.
Experience shows this strategy to have produced better results.
Опыт показывает, что эта стратегия риводила к лучшим результатам.

Глаголы, после которых может употребляться сложное дополнение, выражают:

1.Умственную активность (know, believe, show, prove и др.)
2. Желание, требование (want, demand)
3. Восприятие посредством органов чувств (see, hear, feel)

They heard him deny it.
Они слышали, как он отрицал это.
They believed the substance to have dissolved.
Они полагают, что вещество растворилось.
We want them to attend the conference.
Мы хотим, чтобы они присутствовали на этой конференции.

Субъектный инфинитивный оборот «сложное подлежащее» (Complex Subject)

Субъектный инфинитивный оборот состоит из подлежащего, существительного или местоимения и сложного сказуемого, состоящего из глаго-

ла в личной форме и инфинитива. Особенность оборота состоит в том, что действие, выраженное инфинитивом, относится к подлежащему, а стоящий перед ним глагол указывает на отношение к действию со стороны говорящего или вообще неуказанного лица. При переводе на русский язык английское подлежащее переводится подлежащим, инфинитив - сказуемым, а глагол в личной форме – неопределенно-личным предложением. Глаголы, после которых употребляется этот оборот, можно разделить на три группы:

1. глаголы умственной активности, употребляемые в страдательном залоге (assume, believe, suppose, announce, say)
2. глаголы-характеристики, употребляемые в действительном залоге (seem, appear,happen, prove)
3. обороты (to be likely, to be unlikely, to be sure, to be certain)

These variations were found to make liitle difference in the results.
Было обнаружено, что эти изменения почти не повлияли на результаты.
He seems to have given up this view.
По-видимому, он отказался от этой точки зрения.
The real situation is likely to be very complex.
Вероятно, реальная ситуация является (будет) очень сложной.

Инфинитивный оборот, вводимый предлогом for (предложный инфинитивный оборот)

В этом обороте конструкция, стоящая за предлогом for**,** включает в себя существительное в общем падеже или местоимение в объектном падеже, и затем инфинитив. Он образует единое смысловое целое, где инфинитив выражает действие, субъектом которого является существительное или местоимение. Такие обороты переводятся на русский язык придаточным предложением, подлежащим которого, становится субъект действия, а сказуемым – инфинитив. Тип придаточного предложения зависит от функции, выполняемой оборотом в предложении. Чаще всего оборот употребляется в функции обстоятельства. В таком случае, придаточное предложение вводится союзом *чтобы, для того чтобы*.

He asked for the documents to be sent to him by post.
Он попросил, чтобы эти документы переслали ему почтой.
There is a possibility for him to attend the conference.
У него есть возможность присутствовать на конференции.
For this method to be valuable it must be proved.
Чтобы этот метод представлял ценность, он должен быть доказан.

Независимый инфинитивный оборот

Независимый инфинитивный оборот (существительное + инфинитив) стоит в конце предложения и отделяется запятой. Она передает сопутствующее обстоятельство с модальным значением долженствования. На русский язык переводится предложением, вводимым союзом *причем.*

We asked him to help us, the work to be done in a week.

Мы попросили его помочь нам, так как работа должна быть сделана через неделю.

The sellers offered the buyers 5,000 tons of oil, delivery to be made in October. Поставщики предложили покупателям 5.000 тонн нефти, причем поставка должна быть произведена в октябре (которые могут быть поставлены ...).

We shall make the experiment with the raw materials to be taken from another laboratory.

Мы проведем этот эксперимент, причем исходные материалы будут взяты из другой лаборатории.

ЛИТЕРАТУРА

1. Английский язык для магистрантов и аспирантов естественных факультетов университетов. ГОУ ВПО УГУ, Екатеринбург, 2008. – 124 с.
2. Федеральные государственные образовательные стандарты высшего профессионального образования. [Электронный ресурс] / Режим доступа: http://fgosvo.ru/fgosvpo/8/6/2
3. Алешугина, Е.А. Способы отбора лексического содержания профессионально профессионально-ориентированной иноязычной подготовки студентов в неязыковом Вузе [Текст]: дис. … канд. пед. наук / Е.А. Алешугина. – Н. Новгород, 2009. – 153 с.
4. Алешугина Е.А., Лошкарева Д.А. Профессионально ориентированный английский язык для специалистов в области информационных технологий [Текст]: учебн. пос. для вузов / Е.А. Алешугина, Д.А. Лошкарева; Нижегор. гос. архитектур.-строит. ун-т – Н.Новгород: ННГАСУ, 2014. – 85 с.
5. Лошкарева, Д.А. Совокупность методов компетентностно-ориентированного совершенствования программы дополнительной профессиональной образовательной программы [Текст]: дис. … канд. пед. наук / Д.А. Лошкарева. – Н. Новгород, 2012. – 186 с.
6. Алешугина, Е.А. Проектирование лексического содержания иноязычной подготовки [Текст] / Е.А. Алешугина, В.М. Соколов // Инновационные технологии в образовательной деятельности Вуза: опыт, проблемы, пути решения: материалы и доклады межвузовской научно-методической конференции. – Самара: Изд-во «Самарский университет», 2008. – С.296–301.
7. Алешугина, Е.А. Об отборе содержания курса иностранного языка в Вузе [Текст] / Е.А. Алешугина, В.М. Соколов // Materiály IV mezinárodní vědecko-praktická konference “Vědecký potenciál světa – 2007”. – Díl 3. Pedagogika. Filologické vědy. Psychologie a sociologie. – Praha: Publishing House «Education and Science» s.r.o., 2007. – С.11–13.
8. Лошкарева, Д.А. Способы отбора содержания учебных дисциплин языкового цикла / Е.А. Алешугина, Д.А. Лошкарева // XIV международная научно-методическая конференция «Проблемы многоуровневого образования» 26-28 января 2011г. ННГАСУ. – 2011. – С.83–85.
9. Лошкарева, Д.А. Роль, место и процедура проектирования вузовского компонента образовательного стандарта (тезисы доклада) / Д.А. Лошкарева // Проблемы многоуровневого образования: тез.докл. XIII Междунар.науч.-метод.конф. Н.Новгород, ННГАСУ. – 2009. – С. 110.
10. Вербицкий, А. А. Активное обучение в высшей школе: контекстный подход : метод.пособие / А. А. Вербицкий / - М.: Высшая школа, 1991. – 207 с.
11. Маркушевская Л.П., Цапаева Ю.А. Аннотирование и реферирование (Методические рекомендации для самостоятельной работы студентов). СПб ГУ ИТМО, 2008. – 51 с.
12. Грудзинская, Е.Ю. Активные методы обучения в высшей школе / Е.Ю. Грудзинская, В.В. Марико // Учебно-методические материалы по про-

грамме повышения квалификации «Современные педагогические и информационные технологии». – Н. Новгород. – 2007. – 182 с.

13. Саркисян, Т.А. Профессиональный английский для ландшафтных архитекторов [Текст]: учебн. пос. для вузов / Т.А. Саркисян; Нижегород. гос. архит.-строит. ун-т – Н.Новгород: ННГАСУ, 2013. – 91 с.

14. Саркисян, Т.А. Формирование иноязычной речевой компетенции студентов нелингвистичеких вузов/ Т.А. Саркисян // Приволжский научный журнал. – 2013. – №2. – С.134–138.

15. Угодчикова, Н.Ф. Интенсивный курс обучения иностранным языкам / Н.Ф. Угодчикова, Л.П. Бельковец // метод. указ.для студентов неязыковых вузов – Н. Новгород, 1998. – 49с.

16. Руслякова З. В. Пособие по английскому языку. – М: МГТУ ГА, 2010 г. – 39 с.

17. Методические разработка по обучению реферированию и аннотированию научной литературы на английском языке для студентов магистратуры и аспирантов / сост. Е. П. Тарасова [и др]. – Минск: БГУИР, 2008. – 39 с.

18. Чтение и перевод английского научно-технического текста. Грамматический справочник/ И.Ю.Кипнис, С.А.Хоменко. – Мн.: БНТУ, 2003. – 146 с.

19. Алешугина Е.А. Неличные формы английского глагола / Г.К. Крюкова, Д.А. Лошкарева // метод. указ. для студентов по программе «Переводчик в сфере проф. коммуникации», магистрантов и аспирантов – ННГАСУ, Н.Новгород, 2009. – 30 с.

20. Алешугина Е.А. Обучение пониманию английского научно-технического текста / Г.К. Крюкова, А.Т. Колденкова, Д.А. Лошкарева // метод. указ. для студентов по программе «Переводчик в сфере проф. коммуникации», магистрантов и аспирантов – ННГАСУ, Н.Новгород, 2009. – 30 с.

21. Grussendorf Marion. English for Presentations. Oxford University Press, 2006. — 76 p.

22. Williams Erica J. Presentations in English. Macmillan Education, 2008. – 74 p.

23. Cotton David, Falvey David, Kent Simon. Language Leader. Upper Intermediate English coursebook / D. Cotton, D. Falvey, K. Simon. – Pearson Education Limited, 2008. – 190 p.

24. Britannica encyclopedia [Электронный ресурс]. – Режим доступа: http://www.britannica.com

25. GM products [Электронный ресурс]. – Режим доступа: http://www.webmd.com

ЗАКЛЮЧЕНИЕ

Авторы надеются, что предлагаемое учебное пособие будет полезным для преподавателей иностранного языка, ведущих занятия со студентами магистратуры, студентов, изучающих иностранные языки для академических целей и для магистров по различным направлениям подготовки.

Авторы желают успешной работы преподавателям и студентам, и будут признательны за высказанные замечания и пожелания, которые можно направлять на электронные адреса elenaaleshugina@mail.ru и dariashokina@list.ru.

Алешугина Елена Анатольевна

Лошкарева Дарья Александровна

Карцева Елена Вячеславовна

АНГЛИЙСКИЙ ЯЗЫК В ПРОФЕССИОНАЛЬНОЙ ДЕЯТЕЛЬНОСТИ (ДЛЯ МАГИСТРАНТОВ)

Учебное пособие

Подписано в печать формат 60x90 1/16. Бумага газетная. Печать трафаретная.
Уч. изд. л. 6,7. Усл. печ. л. 6,9. Тираж 100 экз. Заказ №

Федеральное государственное образовательное учреждение высшего образования
«Нижегородский государственный архитектурно-строительный университет»
603000, Нижний Новгород, ул. Ильинская, 65.
Полиграфический центр ННГАСУ, 603000, Нижний Новгород, ул. Ильинская, 65
http://www.nngasu.ru, rector@nngasu.ru