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АНГЛИЙСКИЙ ЯЗЫК ДЛЯ ОБУЧАЮЩИХСЯ ПО ПРОГРАММАМ МАГИСТРАТУРЫ

Учебное пособие

Пермь
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УДК 42(075)
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В учебном пособии представлены задания, направленные на развитие коммуникативных навыков различных видов речевой деятельности, навыков аннотирования и реферирования научной литературы, составления презентаций и устных докладов на английском языке.

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Хлыбова Марина Анатольевна

АНГЛИЙСКИЙ ЯЗЫК ДЛЯ ОБУЧАЮЩИХСЯ
ПО ПРОГРАММАМ МАГИСТРАТУРЫ
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Contents

Введение

Учебное пособие предназначено для обучающихся по программам магистратуры аграрных вузов. Пособие составлено в соответствии с рабочей программой дисциплины «Профильный иностранный язык» (уровень высшего образования - магистратура).

Целью пособия является совершенствование иноязычной коммуникативной компетенции обучающихся, имеющей своей основной целью развитие навыков и умений в сфере академического и профессионального общения. Пособие направлено на развитие таких навыков, как обсуждение научной темы, аннотирование и реферирование научной и профессиональной литературы, составление презентаций и устных докладов.

Пособие состоит из четырех разделов, каждый из которых включает словарь по теме раздела, оригинальные тексты, а также комплекс условно-речевых и речевых упражнений, образцы коммуникативных ситуаций диалогической и монологической речи. Работа над каждым разделом дополняется грамматическими упражнениями, способствующими усвоению наиболее трудных грамматических правил и конструкций.

В приложениях представлены, сокращения и аббревиатуры, русско-английские лексико-синтаксические конструкции, а также грамматический материал, необходимый для обучения чтению и переводу профессиональной литературы.

Unit 1. Starting master's degree studies

Vocabulary

- степень бакалавра – Bachelor’s degree / first degree
- степень магистра – Master’s degree
- степень доктора философии – Doctor of Philosophy / PhD / doctoral degree
- степень кандидата наук – candidate’s degree / candidate of science(s) degree (кандидат сельскохозяйственных наук – candidate of agriculture / candidate of agricultural sciences). *«I have a candidate’s degree which corresponds to the Ph.D. degree in your country».*
- степень доктора наук – Doctor of Science degree. *«The Russian Doctor of Science degree is the highest research degree in this country. Many scientists having this degree are professors».*
- диссертация – thesis / dissertation (амер.)
- выпускная квалификационная работа – graduation qualification work
- магистратура – master’s program / postgraduate study (course) / master’s-level study
- аспирантура – postgraduate studies / doctorate school
- выпускник вуза (бакалавриата) – graduate
- магистрант – postgraduate student / master’s student
- аспирант – postgraduate student / graduate student (*амер.*)
- научный руководитель – research supervisor / research adviser
- старший преподаватель – senior lecturer
- доцент – associate professor
- профессор – professor / full professor (*амер.*)
- заведующий кафедрой – head of department
- декан – dean

- научный сотрудник – research associate
- старший научный сотрудник – senior research associate
- исследовать – to research / *syn*. to study / to investigate (тщательное исследование) / to examine (исследовать, проверять) / to explore (исследовать, разведывать) / to concider (изучать, рассматривать)
- область исследования – area of study / field of knowledge / field of interest / field or specialization
- собирать данные – to collect data / to gather information
- публиковать научные работы – to publish research papers / to publish scientific articles
- научная стажировка – internship
- тема исследования – topic / theme of research
- актуальность исследования – relevance of research
- предмет исследования – subject of research
- объект исследования – object of research
- цель исследования – aim / objective of research
- задачи исследования – research tasks
- гипотеза исследования – hypothesis of research
- методы исследования – methods of investigation
- новизна – original contribution
- значимость – significance
- внедрения – implementations
- выводы – conclusions

1) Match the words in English with their Russian equivalents.

1. to publish	a. собирать данные
2. to defend a graduation work	b. ученая степень
3. original contribution	c. практическая значимость
4. research	d. кафедра

5. associate professor	e. обучаться в магистратуре
6. research team	f. научный руководитель
7. to study for a master's degree	g. опубликовать
	h. исследовательская группа
8. to collaborate	i. область исследования
9. research supervisor	j. защищать выпускную работу
10. department	
11. to gain more knowledge	k. (научное) исследование
12. relevance of research	l. научный сотрудник
13. scientific degree	m. участвовать
14. to collect data	n. актуальность исследования
15. to participate	o. отрасль
16. branch	p. заниматься ч-л
17. research associate	q. сотрудничать
18. practical significance	r. новизна
19. subject area of study	s. доцент
20. to be engaged in	t. получить больше знаний

2) Fill in the gaps in the definitions below.

Graduate PhD degree Candidate's degree Master's degree Postgraduate student Bachelor's degree Doctor of Science degree

1. _____is an undergraduate academic degree awarded by colleges and universities upon completion of a course of study.
2. _____is the highest research degree in Russia.
3. _____is a degree which corresponds to the PhD degree.
4. _____is the highest university degree, awarded after a course of study and presentation of an original research.
5. _____is a degree above Bachelor's degree but below PhD.

6. _____is someone who has completed the first university degree.
7. _____is someone studying to complete his Master's or PhD degree.

3) Translate the sentences and identify what part of speech the word «research» is (noun / verb / adjective).

1. The job combines teaching and *research*.
2. He spent so much time on teaching that there was not much left for *research*.
3. He *researches* the effects of acid rain.
4. He wants to devote more time to his *research work*.
5. His *researches* produced some interesting results.
6. He is famous for his *research* in microbiology.
7. He works in the Grasslands *research* institute.
8. She's *researching* the history of agriculture.
9. Very little *research* has been done in this field.
10. Students who get first degrees are usually given the opportunity to do *research*.

4) Find synonyms and arrange them in pairs.

1. research	a. publications
2. technology	b. instrument
3. branch	c. to finish
4. to obtain	d. to be busy with
5. importance	e. field
6. collaborator	f. to get
7. team	g. significance
8. postgraduate student	h. to conduct a research
9. research supervisor	i. to enrol in master's program
10. to enable	j. to come across

11. subject area of study	k. specialty
12. to pass a thesis defense	l. to gather information
13. to collect data	m. master’s student
14. to encounter	n. co-worker
15. to be engaged in	o. group
16. to complete	p. research adviser
17. scientific papers	q. to defend a dissertation
18. to carry out a research	r. field of knowledge
19. major	s. to allow
20. to enter master’s program	t. investigation

Text 1: Getting started with a master's degree

I am a first year master’s student of the Perm State Agro Technological University. I passed an entrance examination – in specialty. I decided to get a Master's degree because I want to gain more knowledge on the subject I study.

My research deals with agriculture. The (approximate) theme of my research work is «Methods to improve the system of …». I got interested in the problem when I was a student so by now I have collected some valuable data for my thesis. My work is of both theoretical and practical importance.

I work in close contact with my research supervisor. He is Doctor of Agriculture, Professor and head of the department at our University. He has published over 50 research papers. He often takes part in the work of scientific conferences. I always consult with my research supervisor when I encounter difficulties in my work.

At present I am engaged in collecting the necessary data. I review the agricultural literature and plan my future research work. I hope it will be a success and I will finish my work on time.

5) Answer the questions.

1. Where do you study?
2. What entrance examinations did you pass?
3. What's your field of interest?
4. Why did you decide to study for a master's degree?
5. What is the theme of your research work?
6. Do you work individually or in a team?
7. Who is your research supervisor?
8. When do you consult with your research supervisor?
9. Do you encounter difficulties in your research?
10. What are you engaged in at present?
11. Have you got any publications on the subject you study?

6) Insert the right word from the text.

1. I am a first year … student of the Perm State … University.
2. I have only passed the exam in … .
3. My … deals with agriculture.
4. By now I have collected some valuable … for my … .
5. My work is of both theoretical and … importance.
6. I work in close contact with my … .
7. He has published over 50 research … in journals.
8. He often takes part in the work of … conferences.
9. At present I am engaged in … the necessary data.
10. I … the agricultural literature and … my future research work.

7) Match the verbs on the left with the nouns on the right.

1. to solve	a) research papers
2. to hold	b) literature
3. to make	c) problems
4. to draw	d) a meeting
5. to collect	e) recommendations
6. to gain	f) data

7. to conduct	g) an experiment
8. to pass	h) an examination
9. to review	i) knowledge
10. to publish	g) conclusions

8) Complete the sentences supplying them with the missing information.

1. It is … who is responsible to the faculty for the progress of his postgraduates.
2. A suitably qualified supervisor should be … for advice, support and assistance.
3. It is vital do understand that management of the project is student's … .
4. A candidate is to be … of the requirements for the degree in which he/she is enrolled.
5. Research project is to be … within definite time limits.
6. The nature and frequency of contacts are agreed between …
7. The progress review report is to be … annually by a postgraduate to his research supervisor.

9) Here are the parts of two dialogues. Match questions with suitable responses. Learn and act out one of the dialogues.

1)

Questions	Answers
1. Have you got a research supervisor?	a) Thanks a lot.
2. Haven't seen you for ages! What are you doing here in Perm?	b) Yes, of course. We have already started working on my research work.
3. I congratulate you on a	c) This year I have become a

good beginning. They say «Well begun is half done». I wish you success in your research.	master's student of the Perm State Agro Technological University.
4. Do you want to carry on research in agriculture?	d) I have only passed specialty exam.
5. Have you passed all your entrance examinations?	e) Oh, yes, I do. I am very interested in this field of knowledge.

2)

Questions	**Answers**
1. I have heard you have entered the Master's program after having got the Bachelor's degree.	a) I am quite well, thank you.
2. Hello! How are you?	b) It's a very good idea.
3. I think about taking the course of postgraduate studies in Economics next year too.	c) It's the combined taught and research program, because then I am going to attend graduate school and become PhD.
4. What will it give to you?	d) In my opinion, the programs for research and further studies expand the knowledge in the chosen area and improve the career prospects as well. And what's your choice?
5. What kind of program have you chosen?	e) Yes, I have entered the Master's program in Agriculture.

Text 2: Postgraduate education

All further education which comes after baccalaureate can be regarded as postgraduate education. It supposes carrying a lot of research work, acquiring new knowledge and new trends. It may lead to either a Master's degree (a three-year program of study) or PhD (usually a two-year course of study).

A Master's degree is a level qualification above Bachelor's degrees but below PhDs. Study involves completing a series of modules and writing a dissertation. Master's degrees may broadly be organized into three categories – research, advanced study and professional. Full-time Master's program usually involves one or two years of study, while part-time programs last between two and four years.

Purpose of Master's degree enables students

- to focus on a particular aspect of a broader subject area in which they have prior knowledge or experience through previous study or employment,
- to focus on a particular subject area of study in greater depth than they encountered during the course of previous study or experience,
- to undertake a research project on a topic within the area of interest,
- to learn how to conduct research and undertake training in research methods,
- to specialize or to become more highly specialized in the area of employment or practice related to a particular profession.

10) Answer the questions.

1. What is postgraduate education?
2. What does postgraduate education suppose?

3. What is a Master’s degree?
4. What are the categories of Master’s degrees?
5. How many years does full-time Master's program last? (part-time program)
6. What are the main purposes of Master’s program?

11) Complete the following sentences according to the text:

1. A … degree is a level qualification above Bachelor’s degrees but below PhDs.
2. All further education which comes after baccalaureate can be regarded as … education.
3. Postgraduate education may lead to either a … degree or … .
4. Full-time Master's program usually involves … years of study, while part-time programs last between … and … years.
5. Purpose of Master’s degrees enable … to undertake a … project on a topic within the area of interest.
6. Master’s degrees study enables to focus on a particular subject area of study in greater … .
7. Master’s degrees may broadly be organized into … categories – …, advanced study and … .

12) Use the correct form of the verb in brackets in the Active voice (see Appendix 3.1). Translate the sentences into Russian.

1. Master’s students … their scientific research at different departments of the University (to carry out).
2. It is the problem that … much disputes yesterday (to cause).
3. When we came to the University, the meeting … already …. (to begin).
4. They … this problem for 2 hours (since 10 a. m.) (to discuss).
5. They … the examination in English next spring (to pass).

6. How many papers … you already … (to publish)?
7. In 2001 he … his master's degree (to get).
8. The job … teaching and research (to combine).
9. Yesterday at 11 o'clock he … with his research supervisor (to meet).
10. Before she started writing a report she … the literature very attentively (to read).
11. We … carefully … the monograph (to study).
12. … you … this problem for a long time (to research)?
13. Your research supervisor … through your paper meant for the conference (to look). He … some critical remarks now (to make).

13) Ask your friend using Present Continuous Active (see Appendix 3.1).

1. ... if he is working for a Master's degree at present.
2. ... what experiments he is performing now.
3. ... if he is taking part in the work of scientific conferences.
4. ... what his co-worker is doing at present.
5. ... if he is collecting some data to explain the phenomenon.
6. ... if he is reviewing the special literature.
7. ... if he is working in close contact with his research supervisor.
8. ... what book he is looking for.
9. ... if he is performing research individually or in a team.

14) Use the vocabulary of the unit to express the following sentences in English. Pay attention to the tense form.

1. Степень магистра очень важна, она является ступенью для получения степени кандидата наук.
2. Я работаю в тесном контакте с сотрудниками нашей кафедры.

3. Ваша работа имеет огромное теоретическое и практическое значение. Мы дадим Вам дополнительные денежные средства (additional funds), чтобы ускорить ее.
4. Научный руководитель и его аспирант обсуждают новую идею, которую выдвинул молодой ученый (put forward).
5. Научный руководитель проверил статью для конференции и сделал несколько замечаний (critical remarks).
6. К концу срока обучения магистрант должен представить текст исследования для обсуждения на заседании кафедры.

Text 3: Conducting a research

I am a first year master's student of the Perm State Agro Technological University. I conduct research in agronomy which aims at increasing the yields, fertility of soil and improving the quality of crops. My specialty is crop growing.

My research is of both theoretical and practical importance and is devoted to the study of spring cereal grains yield formation in the Urals. I have been working on the problem for three years. I got interested in it when I was a student.

I think this problem is very important nowadays for our region. Spring cereal grains are very valuable crops in organic farming, and much effort has been put into optimizing the yield and quality of organically grown spring cereal grains. The search for effective strategies of optimizing the yield and quality of organically grown spring cereal grains determines the relevance of research.

The subject of my research is the influence of changing crop varieties and meteorological conditions on spring cereal grains yield, its quality and phytosanitary state.

The theoretical significance of my work is that it may be used as a guide for other scientific works in optimizing the yield and quality of organically grown spring cereal grains.

The practical value of my research is that the developed methods and obtained results may be used in agricultural practice to increase the yield and improve the phytosanitary state of spring cereal grains.

My research work consists of several stages. They are: analysis of scientific literature, selection of crops and variety, development of plans and methods, field experiment, analysis of obtained results. The experiment will be carried out on the field of the Perm State Agro Technological University.

My work is based on the theory developed by my research supervisor, Professor S. He is head of the department at the Perm State Agro Technological University. I always consult with him when I encounter difficulties in my research. We often discuss the collected data. These data enable me to define more precisely the theoretical aspects of the spring cereal grains yield formation. I have not completed the experimental part of my work yet, but I'm through with the theoretical part.

I take part in various scientific conferences where I make reports on my subject and participate in scientific discussions. The results of the research are presented at scientific conferences. For the moment I have 4 scientific papers published.

I plan to finish writing the thesis by the end of the next year and defend it in the Scientific Council of the Perm State Agro Technological University. I hope to get my master's degree in agriculture.

15) Complete the sentences according to the information given in the text:

1. … aims at increasing the yields, fertility of soil and improving the quality of crops.
   a) Organic farming
   b) Agronomy

c) Vegetable growing

2. My research is devoted to the study of … yield formation in the Urals.
    a) autumn cereal grains
    b) spring cereal grains
    c) winter oilseed rape
3. The search for effective strategies of optimizing the yield of organically grown spring cereal grains determines … .
    a) the relevance of research
    b) practical importance of the study
    c) the subject of the study
4. … is the influence of changing crop varieties and meteorological conditions on spring cereal grains yield, its quality and phytosanitary state.
    a) The theoretical significance of the study
    b) The subject of my thesis
    c) The object of my study
5. My work is based on the theory … .
    a) of genomic selection in plant breeding
    b) of evolution and natural selection by Ch. Darwin
    c) developed by my research supervisor
6. The collected data enable me to define more precisely … of the spring cereal grains yield formation.
    a) the theoretical aspects
    b) the practical significance
    c) the research questions
7. The results of the studies are presented at … .
    d) scientific conferences
    e) the Scientific Council of the Perm State Agro Technological University
    a) the department of plant growing.

16) Speak about your research work answering the following questions.

1. Have you been working on the problem for a long time?
2. What is the relevance of your research?
3. Why did you choose this theme?
4. What is the purpose of your work?
5. What is the practical importance of your research?
6. What stages are there in your research work?
7. Where will you conduct your experiment?
8. What methods do you use in your work?
9. When do you consult with your research supervisor?
10. How many scientific papers have you published?
11. Do you take part in the work of scientific conferences?
12. When are you going to get a master's degree?

17) Complete the following sentences with the correct form of the following words. Pay attention to using of these synonyms.

study	investigate	examine	analyse
explore	research	consider	

1. My … is of both theoretical and practical importance.
2. The problem of improving the quality of crops is … .
3. This important issue must be carefully … .
4. Stages of the experiment are … .
5. The … deals with the problem of increasing the yield.
6. The author has … the material obtained.
7. The authors will … these ideas in more detail in chapter 7.

18) Choose the right preposition.

of (2)	on (2)	for	into (2)	about	in	with

1. In 2008 Da Silva published a book … the history of agriculture.
2. The authorities conducted an investigation … the matter and presented a report on their findings.
3. The article offers an analysis … the potential impact of the excessive use of herbicides.
4. He gave a lecture … the problem of global warming.
5. One difficulty … this approach is that a set of results may allow different interpretations.
6. They plan to collect and analyze data … the research.
7. The developed methods and obtained results may be used … agricultural practice.
8. Much effort has been put … optimizing the yield and quality of organically grown spring cereal grains.
9. Artificial intelligence is still a topic … great interest to industry leaders.
10. Planting date had significant effect … all vegetative characteristics.

19) Insert the right word.

subject	object	research tasks	aim
significance	relevance of research		methods
literature review	conclusion	hypothesis	

1. The … of my work is to investigate this particular problem.
2. The subject of study is the broader concept, while the … of study is the specific thing that is being investigated within the context of the subject of study.

3. … of our research is spring cereal grains yield formation in the Urals.
4. In our research we used different … : theoretical analysis of integrative type, control of the process, qualitative and quantitative analysis of data, correlation analysis.
5. The … determines the … of our study.
6. The practical … of our research lies in the fact that the basic difficulties were brought up to light and then systematized.
7. The search for effective strategies of achieving success determines the … .
8. The … should clearly demonstrate that the author has a good knowledge of the research area.
9. A research paper should end with a well-constructed … .
10. A … is a statement of expectation or prediction that will be tested by research.

20) Speak about the structure of your research. Use the following phrases.

Topic / Theme of Research

- The theme of the research is …
- The theme of our study is devoted to …

Relevance of the Topic

- The problem of … is one of the most important.
- The problem of … has not lost its significance.
- The problem requires a detailed study.
- Much has been done in the field of … but undoubtedly much remains to be done in it.
- At present there is a growing interest in …
- The problem arises (is / was raised) in connection with …

Subject of Research

- The topic of our work is …
- We turn our attention to a new and more urgent problem.

Aim of Research

- The (main) aim of the study is …
- One of the chief aims was to test hypothesis …
- The purpose of the work is to examine and investigate …
- It is the purpose of this research to explain the principles of this viewpoint …

Research Tasks

- The main task is as follows …
- The primary task is to study …
- The task requires considerable rethinking and revision …

Significance

- The practical significance of our research lies in the fact that …
- The question of great practical importance deals with …
- The theoretical significance is that it may be used as a guide for other scientific works in …
- The practical value is that the developed methods and obtained results may be used in …

Methods of Investigation

- There are different approaches to the solution of the problem.
- The approach used here is …
- A modern approach to this problem of … is based on …
- Our work is being carried out in the following directions …
- Our approach is to study …
- The application of the new method allows us to …

Conclusions

- We must conclude that …
- Having described … we must conclude in general that …
- On the basis of the work made we have come to the following conclusion …

- We would like to sum up the main points we made above …
- The results of the work show that …

Recommendations for further research

- This research has thrown up many questions in need of further investigation.
- Further work needs to be done to establish whether ...
- It is recommended that further research be undertaken in the following areas …
- Further experimental investigations are needed to estimate ...

Unit 2. Writing abstracts

Vocabulary

- научная статья – scientific article, paper
- журнал из перечня Высшей аттестационной комиссии (ВАК) – journal approved by Higher Attestation Commission
- заголовок – title
- аннотация – abstract
- введение – introduction
- общая часть – materials, procedures
- результаты – results
- выводы – conclusions
- рекомендации – recommendations
- благодарности – acknowledgements
- использованная литература – references, literature, bibliography
- изучать, исследовать – to study, to investigate
- рассматривать, проверять – to examine
- анализировать, проводить анализ – to analyse, to perform analysis of
- рассматривать – to consider
- описывать, давать описание – to describe
- обсуждать – to discuss
- кратко описывать, описывать (в общих чертах) – to outline
- получать (наиболее широкое значение) – to obtain
- определять, получать, находить (любым способом) – to determine
- находить, обнаруживать – to find
- устанавливать, определять – to establish
- вычислять, подсчитывать, находить, определять величину (при помощи арифметических действий) – to calculate

- подсчитывать, производить численный расчет (часто с помощью вычислительной техники) – to compute
- измерять, делать измерения – to make measurements of (on)
- проектировать (прибор, схему) – to design (device, scheme)
- изготовлять (прибор) – to construct, to fabricate, to create (device)
- собирать (прибор) – to assemble (device)
- решать (задачу, уравнение) – to solve (problem, equation)
- пытаться, стараться – to make an attempt
- оценивать, находить количественную величину – to estimate
- оценивать (величину, количество) – to evaluate
- подробно, детально – thoroughly, in detail

1) Find synonyms and arrange them in pairs.

1. to construct	a. to estimate
2. thoroughly	b. to consist of
3. conclusions	c. results
4. abstract	d. to create
5. to analyse	e. in detail
6. to evaluate	f. procedures
7. to calculate	g. brief summary
8. to study	h. bibliography
9. materials	i. to try
10. literature	j. to conduct
11. to obtain	k. to consider
12. scientific article	l. to perform analysis of
13. title	m. paper
14. to examine	n. to indicate
15. to make an attempt	o. to get
16. to carry out	p. to compute

17. to be made up of	q. to make measurements
18. to point out	r. heading
19. to measure	s. to investigate

Text 1: What is an abstract?

An abstract is a brief summary of the content and purpose of an article. In some journals, the abstract is used in place of a concluding summary. The abstract allows readers to survey the contents of an article quickly. It is self-contained, fully intelligible without reference to the body of the paper. Information or conclusions that do not appear in the paper are not supposed to appear in the abstract.

There are two kinds of abstracts: short and extended. A short abstract is placed immediately after the title page. The length of the short abstract should be no more than 100 to 250 words.

An extended abstract is a short research article where the project is presented in a concise way. The length of an extended abstract may be up to 2-3 pages.

Tips for writing an abstract

Writing an abstract involves summarizing the whole manuscript and providing as much new information as possible. The best way to write an effective abstract is to start with a draft of the complete manuscript and follow these 10 steps:

1. Stick to the word limit. Abstracts are usually 100-250 words long.
2. For each chapter or section, list keywords and write one to two sentences that summarize each section. Assemble the above information into a single paragraph.
3. Omit background information, literature review, and detailed description of methods.

4. Reference specific details of your findings. Be specific «20 and 40 kg/acre of nitrogen» rather than «two treatments of nitrogen», «...increased by 50%» rather than «...increased».
5. Never use «I» statements in an abstract. Report your information impersonally, as though it were written by someone else. It is recommended to use the passive voice when it is more important to emphasize an action (an object / a process) than the person doing the action.
6. Use past tense to describe what previous research has been done and the research the authors have conducted, the methods they have followed, and what they have found. In justification for the research (what remains to be done), use the present tense. Use present tense to introduce the study and to explain the significance of the study.

Keep in mind the ABCs of a good abstract: **accuracy, brevity, clarity**. After you've completed your abstract, go back over the ABCs of a good abstract and ask yourself a few questions:

How **accurate** is my abstract? Is it consistent with the information in the original document?

How **brief** is my abstract? Did I substantially reduce the amount of text necessary to convey the main ideas?

How **clear** is my abstract? Can a non-specialized reader easily understand all the information?

2) Answer the following questions.

1. What is an abstract?
2. What is the purpose of the abstract?
3. What are the kinds of abstracts?
4. Where is the abstract placed within a paper?
5. What is a common length of a short abstract (extended abstract)?
6. What are the ABCs of a good abstract?

Text 2: Structure of abstracts

If you are writing an abstract for a less-structured document like an essay, editorial, or book, you will write a descriptive abstract. Descriptive abstracts are generally used for humanities and social science papers. Most descriptive abstracts have certain key parts in common. They are:

- Background
- Purpose
- Particular interest / focus of paper

If you are writing an abstract for a strictly-structured document like an experiment, investigation, or survey, you will write an informative abstract. Most informative abstracts also have key parts in common. Each of these parts might consist of 1-2 sentences. The parts include:

- Background / motivation
- Aim or purpose of research
- Method used / the procedure
- Findings / results
- Conclusion

Notice how the abstract clearly summarizes information from each of the report's major sections (IMRaD):

Introduction	Tile drainage is a common water management practice in many agricultural landscapes in the Midwestern United States. Drainage ditches regularly receive water from agricultural fields through these tile drains. This field-scale study was conducted to determine the impact of tile discharge on ambient nutrient concentration, nutrient retention and transport in drainage ditches.

Method	Grab water samples were collected during three flow regimes for the determination of soluble phosphorus (SP), ammonium nitrogen (NH4+-N), nitrate nitrogen (NO3-N) concentrations and their retention in three drainage ditches.
Results	Measured nutrient concentration indicated lower SP and NH4+-N, and greater NO3-N concentrations in tile effluents compared to the ditch water. Net uptake lengths were relatively long, especially for NO3-N, indicating that nutrients were generally not assimilated efficiently in these drainage systems. Results also indicated that the study reaches were very dynamic showing alternating increases or decreases in nutrient concentration across the flow regimes.
Discussion	The drainage ditches appeared to be nutrient-rich streams that could potentially influence the quality of downstream waters

3) Read and translate the following abstracts paying attention to the underlined word combinations. Identify the key parts of the abstracts.

Text 3: Sample abstracts

1. Organic research in Canada over the past few decades has been led by a relatively small group of researchers whose dedication to finding ecological approaches to crop production has helped to build the credibility for the science and practice of organic agriculture. The fruit of these efforts has now been recognized with the development of Canada's new Organic Science Cluster (OSC). Research priorities for this cluster were

developed from consultation with farmers across Canada in all areas of organic production. The OSC has identified 10 sub-projects including 30 research activities that will be conducted by over 50 researchers plus 30 collaborators in approximately 45 research institutions. Activities of the OSC will include work in fruit horticulture, agronomy, cereal crop breeding, soil fertility management, vegetable production, greenhouse production, dairy production systems, parasite control in ruminants, environmental sustainability, and food processing. This research comes at a time when there is renewed emphasis on innovation, efficiency (energy, labour, economics), and capturing value added markets. Most of this research directed toward organic agriculture can also be applied to conventional production systems, drawing interest to this cluster from producers across Canada.

2. Field experiments were conducted at the research field of the National Cereals Research Institute, Badeggi, Niger State, Nigeria. The experiments were designed as 5 x 4 factorial in Randomized Complete Block and laid out in split-plots arrangement, replicated three times. Results showed that the application of different combinations of organic manure and inorganic fertilizer resulted in significantly better growth and grain yield (2.51 t/ha for 1 t/ha + 20 kg N/ha urea and 2.26 t/ha for 0.5 t/ha + 40 kg N/ha urea), compared to the none application of any form of soil amendment (control) (1.38 t/ha), with the parameters also varying significantly among the soil amendments. The use of combined organic manure and inorganic fertilizer, more importantly, 1 t/ha PM + 20 kg N/ha and the cultivation of the NERICA 1 rice variety, are hereby recommended for the farmers in the experimental area.

4) Arrange the parts of the abstracts in the correct order.

1)

____These results suggest that greenfall may have a major influence on decay processes and nutrient cycling in forests that experience large-scale green foliage removal.

____Green leaves displayed significantly higher rates of decompositions than did senescent litter among all four species. Green leaves also had significantly higher nitrogen concentrations and lower lignin to nitrogen ratios compared to senescent leaves.

____In many forest ecosystems, green leaf deposition (greenfall) constitutes an enrichment over background levels of litterfall nutrients and may therefore influence key ecosystem processes.

____This study examined the litter quality and decomposition rates of green leaves compared to senescent litterfall for four dominant tree species in a lower montane rain forest at Luquillo Experimental Forest, Puerto Rico.

____Green leaves from the canopy and freshly senesced leaves from the forest floor were analyzed for carbon, nitrogen, and fiber and placed in litterbags in the field for up to 16 weeks.

2)

___These design features must cover all the layers of the proposed model, including the individual, conversation, community and commerce levels.

___We also propose a new model and a set of principles for guiding social commerce design.

____This new phenomenon is commonly referred to as social commerce.

___This study offers literature review to explain the concept of social commerce, discusses relevant design features as they relate to e-commerce and Web 2.0.

___The findings indicate that, for any social commerce website, it is critical to achieve a minimum set of social commerce design features.

____E-commerce is undergoing an evolution through the adoption of Web 2.0 capabilities to enhance customer participation and achieve greater economic value.

5) Add missing words: *accurate, in detail, thoroughly, detailed, significantly, comprehensive.*

1. A … study of flow charts was made
2. The control system was … investigated .
3. These data were investigated … .
4. Parameters are varying … among the soil amendments.
5. A … study of the phenomenon was made.
6. An … description of this programming language has been given.

6) Add missing words: *significant effect, results of this study, experiment, crop, planting dates, data, potassium.*

Potato is a high input intensive and a shallow rooted (1)… which requires an efficient cropping management to ensure adequate nutrient uptake to attain optimum crop growth. (2)… was conducted with four (3)… (22nd October, 1st, 11th and 21st November) and four fertilizer rates *viz*. 75, 100, 125 and 150% of recommended fertilizer dose in the region for optimum productivity in a randomized complete block design with three replications. (4)… was recorded on plant height, leaf, and stem weight, and leaf area index and NPK uptake. Planting date had (5)... on all vegetative characteristics and recorded the highest

values at 1st November planting date and lowest in 21st November planting date. Maximum uptake of nitrogen, phosphorus and (6)… by leaves, stems and tubers was also observed at 1st November planting date. Plant height, leaf area index, leaf and stem weight increased with increase in fertilizer dose. Thus, the (7)… suggested that optimum planting time (1st November) is very critical for maximum nutrient uptake of the applied fertilizer dose to the potato crop under semi-arid conditions.

7) Complete gaps 1–5 with the correct words: *considers, respect, assessed, evidence, justify.* Add linking words where appropriate: **firstly, secondly, generally, in addition (a-d).**

The expansion of higher education systems, new demands on institutions and growing pressures on resources have become common trends across most developed countries. (a) This paper explores the early career paths of academics. (b) It makes initial comparisons between different higher education systems. (c) We have written this paper with 1 ___ to the Changing Academic Profession study. This study 2 ___ the following facts: respondents' degrees, age at which they qualified, disciplines they studied and now teach. The conditions of academic work are 3___. The collected data 4 ___ various degrees of flexibility and mobility required of academics in the early and later stages of their careers. The study provides 5 ___ that academics are becoming more mobile domestically and internationally. Academics from the 17 countries in the study are quite satisfied with the technical resources provided by their institutions. (d) They criticize the personnel and funds available to support teaching and research.

8) Match the following Russian and English sentences. Pay attention to the verbs of the Passive voice (see Appendix 3.3).

1. Изучается новая проблема. 2. Была исследована причина снижения урожайности. 3. Описаны преимущества этого метода. 4. Обсуждаются конструкция и рабочие характеристики прибора. 5. Получены предварительные данные. 6. Была определена структура этого устройства. 7. Эти данные изучались во всех подробностях. 8. Проводилось тщательное изучение этого явления. 9. Полученные данные подтверждают значение такого эксперимента.	a. A thorough study of the phenomenon was made. b. The advantages of the method are outlined. c. The design and operating conditions of the device are discussed. d. These data were investigated in detail. e. The structure of this device was determined. f. A new problem is studied. g. Preliminary data were obtained h. The results obtained confirm the importance of such an experiment. i. A cause of the decrease in crop yield was investigated.

9) Complete the following sentences with appropriate verbs in the Passive voice.

study establish discuss conclude analyze describe determine compute find propose investigate

1. Advantages of new methods are … .
2. The fact of increasing the quality of erosion control has been …
3. The results obtained are … .

4. From the results it is … that… .
5. Functions of graphical methods have been … .
6. Soil conditions are … .
7. The structure of this device was … .
8. The sequence of operations has been… .
9. The results of the experiment were … .
10. It has been … that … .
11. Another method of treatment is … .

10) Translate the verbs and put them in the appropriate tense form of the Passive voice.

1. (Были получены) the results of the experiment (Past Ind.).
2. (Была проанализирована) the structure of crop rotation (Past Ind.).
3. (Определена) the sequence of operations (Pres. Perf.).
4. (Рассматривается) a new method of erosion control (Pres. Ind.).
5. (Исследуется) the loss of natural organic fertilizer (Pres. Ind.).
6. (Изучено) water consumption of this crop (Pres. Perf.).
7. (Обсуждается) organic agriculture (Pres. Ind.).
8. (Было описано) the harmful effects of deforestation (Past Ind.).
9. (Рассматривается) the role of the meteorological conditions (Pres. Ind.).
10. (Был проанализирован) the method of integrating the equation (Pres. Perf.).
11. (Определяется (путем оценки) dry grain weight of the crops (Pres. Ind.).
12. (Вычислено) the content of nitrogen in winter wheat grain (Pres. Perf.).

11) Rewrite the sentences in the Passive voice.

Example: We can solve the problem. The problem can be solved.

1. They should investigate the problem.
2. We investigated the formation of spring cereal grains.
3. Someone will demonstrate the program to the students.
4. The author has analysed the material obtained.
5. Someone explained the procedure to me.
6. Scientists expect better results soon.
7. Students should send their complaints to the head of department.
8. The paper studies some properties of this substance.
9. The author gives the data which are concerned with crop rotation.
10. We found an approach to the problem.
11. The investigation deals with the problem of properties of this substance.
12. The paper considered a series of standard programs.
13. The authors developed some theoretical models.
14. Everyone knows this fact very well.

12) Use the vocabulary of the unit to express the following sentences in English.

1. В статье описывается теоретическое обобщение всех данных, полученных … .
2. Автором дано обоснование для применения новой методики.
3. В статье представлено научное описание эксперимента.
4. Были получены предварительные результаты.
5. Обсуждаются результаты экспериментов.

6. Обнаружено, что они подтверждают существующую гипотезу.
7. Аналогичные результаты были получены путем дальнейшего экспериментирования.
8. Предлагается (рекомендуется) еще один метод обработки.
9. Рекомендуется новый метод очистки.

13) Write an informative abstract of your own article using the following key patterns and word combinations.

Some hints on how to write the abstract follow:

- The paper/article
  - discusses /deals with …
  - analyses/considers/explains/describes/establishes/introduces …
  - develops / presents/provides/studies/represents …
  - contains / concentrates on .....
  - covers / suggests/proposes/shows .....
  - demonstrates the feasibility of .....
  - opens up a new field/issue
  - gives / aims to give a comprehensive account of .....
  - offers a solution to .....
  - serves as an introduction to .....
- The article is focused on …
- The main objective/goal/purpose of the paper/article is to investigate / to propose .....
- Special attention is / was paid to / was given to……
- This article presents a new approach / proposes a new methodological framework …
- It is spoken in detail about …
- It is reported that …
- The text gives a valuable information on…
- Much attention is given to…

- The article is of great help to …
- The article is of interest to…
- The article gives a detailed analysis of …
- Recent experimental results concerning … are presented
- The results were observed and studied …
- It was found that ...
- The results of this study suggest / indicate / show / confirm ….
- The experiment shows the effectiveness of the proposed method
- It is spoken in detail about / It is reported that …
- The experiment shows the effectiveness of the proposed method

Common mistakes:

Wrong:

In this paper there/it is presented a novel method of …

This paper presents a novel method of ...

Right:

In this paper, a novel method of ..... is presented.

Unit 3. Presenting at conferences

Vocabulary

- научная встреча – scientific meeting
- конференция – conference
- семинар – seminar / scientific workshop
- сессия, заседание – session
- пленарное заседание – plenary session
- панельное заседание – panel discussion / a panel
- стендовое заседание – poster session
- организационный комитет – organizing committee
- приглашение присылать статьи (тезисы), информационное письмо – call for papers
- реферат выступления – summary of the presentation
- сборник – volume of abstracts
- труды конференции – conference proceedings
- форма заявки участника – application / registration form
- регистрационный взнос – registration fee
- проводить конференцию – to hold a conference
- ежегодная конференция – annual conference
- справочное бюро – information desk
- участник конференции – attendee, participant, member
- выступающий – speaker / presenter
- обзорный доклад – review report
- отчетный доклад – report
- доклад по приглашению – invited report
- доклад, заявленный по инициативе самого участника – contributed paper
- выступление, презентация – presentation
- структура презентации – structure of presentation
- содержание презентации – content of presentation
- введение – introduction

- основная часть – body
- заключение – conclusion
- наглядные пособия – visual aids
- аудитория – audience
- подача материала – presentation delivery
- раздаточный материал – handout
- круговая диаграмма – pie chart
- столбчатая диаграмма, гистограмма – bar chart
- блок-схема – flowchart
- график – graph
- таблица – table

1) Match the English words with their Russian equivalents.

1. to take place	a. стендовое заседание
2. call for papers	b. справочное бюро
3. summary of the presentation	c. доклад, представленный участником
4. paper manuscript	d. обзорная статья
5. attendee	e. наглядные пособия
6. accommodation	f. пленарное заседание
7. information desk	g. основной докладчик
8. keynote speaker	h. происходить, состояться
9. session	i. выступить
10. review paper	j. принимать участие
11. proceedings of the conference	k. читать лекцию
12. to lecture	l. реферат выступления
13. to take the floor	m. участник
14. to take part in	n. заседание
15. poster session	o. рукопись статьи
	p. размещение

16. contributed paper 17. plenary session 18. visual aids 19. pie chart	q. информационное письмо r. круговая диаграмма s. труды конференции

2) Complete the following sentences with the appropriate words or word combinations.

speaker participants a summary of a paper session discussion groups of experts conference a call for papers reviews congress paper

1. The paper presented by the … was not interesting.
2. If I am not mistaken the University … was held in March.
3. There weren't any simultaneous sessions held during this … .
4. The atmosphere of the conference hall gave good opportunities for relaxed … between … .
5. There will be a few … from our department at the conference.
6. It's unnecessary to submit … for the conference.
7. This plenary … is concerned with the problems of regional economy.
8. When … is received, we are to submit a summary of the presentation.
9. We would also welcome general summaries and … .
10. The most important … was presented by Dr. Fox.

3) Find synonyms and arrange them in pairs.

1. participant 2. speaker 3. to take place 4. scientific associate 5. head	a. to submit a paper b. conference c. round tables d. attendee e. reporter

6. scientific meeting	f. chief
7. to take the floor	g. seminar
8. to present a paper	h. research associate
9. seminar	i. review paper
10. overview paper	j. parallel session
11. concurrent session	k. to be held
12. round table discussions	l. to speak

Text 1: Academic conference

An academic conference is a conference for researchers to present and discuss their work. Together with academic or scientific journals, conferences provide an important channel for exchange of information between researchers.

Generally, work is presented in the form of short, concise presentations lasting about 10 to 30 minutes, usually including discussion. The work may be submitted in the written form as academic papers and published as conference proceedings. Often there are one or more keynote speakers (usually scholars of some standing), presenting a lecture that lasts an hour or so, and which is likely to be advertised before the conference. Panel discussions, roundtables on various issues, workshops may be a part of the conference.

A large meeting will usually be called a conference, while a smaller one is termed a workshop. They might be single track or multiple-track, where the former has only one session at a time, while a multiple track meeting has several parallel sessions with speakers in separate rooms speaking at the same time.

Depending on the theme of a conference, social or entertainment activities may also be offered; if it’s a large enough conference, academic publishing houses may set up displays offering books at a discount. At larger conferences business

meetings for learned societies or interest groups might also take place.

Academic conferences fall into three categories:

- the themed conference, small conferences organized around a particular topic;
- the general conference, a conference with a wider focus, with sessions on a wide variety of topics. These conferences are often organized by regional, national or international learned societies, and held annually or on some other regular basis;
- the professional conference, large conferences not limited to academics, but with academically-related issues.

Conferences are usually organized either by a scientific society or by a group of researchers with a common interest. Larger meetings may be handled on behalf of the scientific society by a Professional Conference Organizer.

4) Answer the following questions.

1. What is an academic conference?
2. What do conferences provide together with scientific journals?
3. What is the usual schedule for a presentation?
4. What is a workshop?
5. What are the forms of presentations?
6. What kinds of papers can be submitted to a conference?
7. What may be offered at a large conference?
8. What is the difference between the themed, general and professional conferences?
9. Who are usually the organizers of conferences?

5) Learn and act out the following dialogue.

A: My name is David Johnson. May I have you for a few minutes?

B: Why, sure. What can I do for you?

A: Your report was a real success and has made a great impression on me. I'm very interested in your research and would like to receive more information on this problem.

B: Well, you are welcome.

A: Could we discuss the results of your research more in greater detail?

B: Unfortunately, I'm on a tight schedule, but I can give you the paper where the results I've reported are thoroughly discussed.

A. Oh, it suits me fine. Thank you so much.

B: Not at all.

6) Complete the following sentences with suitable modal verbs (see Appendix 3.2).

must to have to may should to be able to be to can

1. You … prepare your thesis.
2. They will … to take part in the conference.
3. She … answer the questions at the conference yesterday.
4. You will … pass the examination in English next spring.
5. Doctoral thesis … be an original contribution to knowledge.
6. You … consult him on the research next Monday.
7. The participants arriving at the conference … pay the registration fee.
8. This result … be easily obtained.
9. She … go to Vienna conference next spring.
10. One of my colleagues … report the results of his experiment at the conference.

7) Speak about your participation in the conferences answering the following questions.

1. Did you receive a call for papers?

2. Was it a regional or an international conference?
3. When and where was it held?
4. What was the most interesting paper presented at this scientific meeting?
5. How long did this conference last?
6. How many simultaneous sessions were held on the same day?
7. Did you or any of your colleagues make presentations at this conference?
8. What was the subject of your report?
9. Was your paper discussed in detail?
10. What is your general impression of the conference?
11. Were conference proceedings published?

Text 2: Making a scientific presentation

Like scientific papers, oral presentations at a conference or internal seminar are for sharing your research work with other scientists. Oral presentations – like papers – must emphasize both the motivation for the work and the outcome of it, and they must present just enough evidence to establish the validity of this outcome. In contrast, presentations differ from papers in at least three ways: they are more localized in space and time, they impose a sequence and rhythm to the audience, and they normally include some level of interaction. These three differences affect the selection of presentation content.

Structure is even more important in presentations than it is in written reports, and needs to be emphasized at frequent intervals. One of the most common formats for presenting reports is: a welcoming and informative introduction (opening); a series of the main points presented in a logical sequence (body), purposeful conclusion (closing).

Tips for creating and delivering an effective presentation

1. The basic principles of an effective presentation are: clear structure, appropriate content interesting delivery, good illustrations of points, audibility and visibility, keeping to time.
2. Keep to the agreed time: if it is supposed to be 10 minutes, make sure it doesn't go on for half an hour. Don't have more than four or five main points. People can't usually remember more than that anyway, so make four or five your maximum.
3. Keep sentences short. On the average, most sentences should be shorter than 25 words. But sentences should vary in length and structure. Prefer simple to complex sentences and phrases. Prefer familiar word but build your vocabulary.
4. Key elements of an effective **introduction** include:
   - a positive start: *«Good afternoon, my name is …»*. (who)
   - a statement of what will be discussed: *«I'm going to explore …»*. (why)
   - a statement of the treatment to be applied to the topic: *«I'll be comparing the four main principles of…»*. (what)
   - a statement of the outcomes of the presentation: *«I hope this will provide us with …».* (why)
   - a statement of what the audience will need to do: *«I'll pass round a handout that summarizes my presentation before taking questions at the end»*. (how)
5. Important elements of a **conclusion** are:
   - a review of the topic and purpose of your presentation: *«In this presentation I wanted to explore …».*
   - a statement of the conclusions or recommendations to be drawn from your work: *«I hope to have been able to show that the effect of …»*.

- an instruction as to what happens next (questions, discussion or group work): *«I would now like to give you the opportunity to ask questions …».*
- a thank-you to the audience for their attention and participation: *«Thank you very much for listening».*

8) Answer these questions.

1. What is the purpose of the oral presentation?
2. What is the difference between a written paper and an oral presentation?
3. How important is the structure in presentations?
4. Which of the phrases below does the presenter use to …
   a. explain the purpose of the presentation (Why)
   b. describe the structure of the presentation (What)
   c. say when he'll answer questions (How)

9) Learn the following introductory words which are useful for delivering a presentation.

- аналогично	- similarly, likewise
- поэтому, следовательно	- hence, therefore
- во-первых, во-вторых, в-третьих	- firstly, secondly, thirdly
- наоборот	- on the contrary
- тем не менее	- nevertheless, still, yet
- кроме того	- besides, also, in addition
- сначала	- at first
- далее, затем	- next, further, then
- наконец, итак	- finally
- вкратце	- in short, in brief

10) These are some expressions used in the presentation. Put them in a logical order. Pay attention to the introductory words.

a. I'm here to talk about effective erosion controls.
b. If you look at this table, you'll notice ... .
c. There will be time at the end for questions.
d. Finally there will be some case studies.
e. I will start with basic information.
f. To get started, let me ask you ... .
g. Good morning, everyone.
h. I think the best way to answer that question is ... .
i. I will then look at some of the problems we face.
j. My name is Jane Brown.

11) Choose the right preposition.

at of to for in into about with before from

1. I'll be pleased to answer any questions … the end … my talk.
2. I'm going to talk … you today … my research.
3. Let me start … some basic facts.
4. I've divided my presentation … four parts.
5. I've tried to put our recent difficulties … some kind of perspective.
6. I'd like you to look … this graph .
7. Thank you very much … listening … my talk.
8. … my presentation this afternoon I'd like to outline three main points.
9. I'll pass round a handout that summarizes my presentation … taking questions … the end.

10. The keynote speaker is a distinguished scientist … the University … London.

12) Complete the following presentations with appropriate words from the box.

1.

here level parts talk secondly year finally make look end graph like happy

Good morning, ladies and gentlemen. I'm … today to tell you about crop yields … of our grain farm. I've divided my presentation into four … . Firstly, I want to … about the current situation. …, I'd like to examine our performance over the past … . Thirdly, I'll … at our prospects for the next twelve months. …, I'll … some recommendations. I'll be … to answer questions at the … of my presentation. I'd … you to look at this … .

2.

outline happy have finally like Firstly time take then here

Good afternoon. I'm … to be … today. Ok, today I'd … to talk about the developments in the Beijing office. In my presentation this afternoon I'd like to … three main points. …, I'll briefly outline our small beginnings two years ago; …… I'll explain how we adapted the RB 409 range to suit our local market and … I'll show our success. If you have any questions, there'll be … at the end. Before I start, I … a handout for you. Would you like to … one? Here you are.

13) Put the following mini-presentations into correct order.

a.

… The next is shopping.

… The third most popular is playing computer games.

… The pie chart presents the most popular activities for young people.
… As you can see, the most popular is going to nightclubs and bars.
… Therefore you can see that our product is well placed in the market.
b.
… In the first quarter, sales of the Aztec range rose sharply.
… In the third quarter, sales leveled out.
… Let's look at the figures more closely.
… But then sales took a dip in the second quarter.
c.
… You can see that the departments are listed across the top in the first row.
… If you look closely you'll see that office staff did much better this year.
… It shows the results of the company language test.
… Take a look at this table.
… and the names of those who took the test are listed on the left in the first column.

14) Complete the following sentences with the correct word.

1. I have the diagrams for the last three months to … to you.
    a) have
    b) introduce
    c) present
2. Much attention is … to the development of international scientific contacts.
    a) given
    b) taken
    c) expected

3. I’d like to … the main points of my talk.
    a) preview
    b) overview
    c) outline
4. What we’re really … are likely developments in the structure of our farm over the next five years.
    a) driving at
    b) aiming at
    c) looking at
5. The current plan of the farm … in detail our main recommendations.
    a) outlines
    b) reviews
    c) sets out
6. And the main conclusion we’ve … is that massive corporate restructuring will be necessary before any privatization can go through.
    a) thought
    b) got to
    c) come to
7. I’d like to … your attention to some of the difficulties we’re likely to face.
    a) turn
    b) draw
    c) focus
8. I’ve tried to … our difficulties into some kind of perspective.
    a) put
    b) fill
    c) bring
9. I’m going to be … at the arguments against fertilizers.
    a) showing

b) telling
c) looking

15) Rearrange these sentences to make a complete presentation. Pay attention to using the introductory words given above.

a. Now about steps you can take to control erosion. The first things to look at are what you should stop doing. Here are just a few of the practices which can accelerate erosion…
b. And finally I'll mention our future plans. I'll be pleased to answer any questions at the end of my talk.
c. I'm going to talk to you today about erosion control. I've divided my presentation into four parts.
d. Firstly, I'll give you some basic information about erosion control.
e. Secondly I'll talk about steps you can take to control erosion.
f. Let me start with some basic facts about erosion control. Fortunately there are some relatively easy ways to keep erosion under control.
g. Good morning, everyone. Thanks for coming to my presentation. My name's Marta Brown. I am Director of the Grassland farm.
h. Thirdly I'll talk about the practices of our farm. We have achieved excellent results.
i. Finally, a few words about our new project. We are planning to use new important techniques in preventing soil erosion.
j. Well, thank you very much for listening to my talk. Are there any questions?
k. Next point I would like to discuss is our recent achievement in erosion control. As you might know the erosion control is a complex problem which has many options. One of them is a straw mulching which is now the most widespread and

effective form of erosion control and is the most cost effective means of stabilizing large areas of open ground as a result of earthworks.

16) Translate the following sentences into Russian. Define the type of conditional sentences (see Appendix 3.6).

1. If I were free tomorrow, I should come to the meeting.
2. If I had more time we could discuss some points in more detail.
3. If he had come earlier he would have spoken to the professor.
4. We could have introduced the new technology if the machinery had been delivered in time.
5. He spoke as if he were an expert in that field of knowledge.
6. I would like to stress that this paper would not have been written if I hadn't received critical remarks of my research supervisor.
7. Had they met with such difficulties before, they would have known what to do now.

17) Give Russian equivalents of the following word combinations and memorize them.

- generally speaking
- as mentioned above
- frankly speaking
- as emphasized above
- as already observed
- broadly considered
- strictly speaking
- as stated above

18) Translate the following sentences and analyze the use of Participles (see Appendix 3.7.3).

1. The speaker presents a report covering the most important problems in the field of agriculture.

2. Making the presentation the author mentioned the latest achievements in this field.
3. The method employed in this research is quite different from that discussed above.
4. The proposed analysis discloses several issues that need to be dealt with very carefully.
5. The data dealing with field experiment will be discussed in the next part of our conference.
6. Given all necessary conditions, such work can be done in our laboratory.
7. Having discussed the problem in detail, the speaker arrived at a definite conclusion.
8. Generally speaking, these experiments carried out in their laboratory are much more difficult than the previous ones.
9. As pointed out in the previous report, the speaker has a different opinion on this phenomenon.
10. The paper on heat conduction of gases followed by the report on diffusion was presented by Dr. Lewes.

19) Choose the correct form of Participles.

1. I’ve always been interesting / interested in this field of knowledge.
2. My exam results were rather disappointing / disappointed. I have to retake the exams in September.
3. The speaker said he was quite satisfying / satisfied with his report.
4. You look confusing / confused. Haven’t you understood what I’m talking about?
5. The special effects of your presentation were amazing / amazed.
6. His argument was more convincing / convinced than mine.

Text 3: Guidelines about using visual aids to maximum effect

Visual aids are an important factor in a successful science presentation, and as a speaker, you should give careful consideration to your approach to visual aids. Think about using a variety of different visual images. Try using photographs, models, tables, diagrams, charts, graphs, drawings, key words, video sequences, and multimedia presentations. Be creative and deliberate in your choice of images to achieve the most impact.

1. Your visual aids must be large enough for everyone to see.
2. Handouts are incredibly useful. Use a handout if your information is too detailed to fit on a slide or if you want your audience to have a full record of your findings.
3. Keep charts, maps and graphs very simple. Don't try to show too many details in one visual aid. Let your visuals speak for themselves.
4. Do not pass out objects or papers during your speech. If people are looking at objects or reading papers, they will not be listening to what you are saying.
5. Look at your audience – not at your visual aids. When you are showing a picture, graph, etc., be sure to maintain eye contact with your listeners.
6. Never compete with your visuals. When showing a visual, keep quiet and give people time to take it in, and then make brief comments only.
7. If you are giving a presentation with Power Point or something of that nature, make the information on your screen very simple. The rules of presentation are the same all the time. Five words per line, five lines per slide, and five slides per presentation is the target.

20) Answer the following questions.

1. What is an important factor in a successful science presentation?
2. What are the forms of visual aids?
3. What is probably the most commonly used form of visual aids now?
4. What are the rules for using visual aids?
5. Do you use visual aids in your presentations?

21) Here are some rules for using visual aids. For each one select the correct missing word from the options.

1. Prepare visual aids … .
    a) in advance
    b) on the day before the presentation
    c) right before the presentation
2. Make sure your visual aids are … enough for all to see.
    a) simple
    b) large
    c) expressive
3. … stand in front of visual aids.
    a) Do
    b) You
    c) Do not
4. Don’t try to show too … details in one visual aid.
    a) much
    b) little
    c) many
5. … give a handout to your audience while you are speaking.
    a) Do not
    b) Always
    c) Do

6. Use your aid … the speech.
    a) during
    b) after
    c) before
7. … giving your audience too much text or overly complicated diagrams.
    a) Avoid
    b) Try
    c) Think about
8. Use animations … .
    a) often
    b) when appropriate
    c) as soon as possible
9. Look at … at least 80% of the time. Avoid turning your back to the audience.
    a) the aid
    b) the audience
    c) the floor

22) Choose the correct verb from the in the box below and put it into the sentence. Make sure the verb agrees with the subject.

leave see draw show look represent find note indicate notice

1. I'll … the slide up while I talk.
2. If you … closely at the diagram, you'll see that there are seven bars.
3. You can … the figures on my next slide.
4. The vertical axis … average annual yield.
5. I'd like to … your attention to the second graph.

6. This diagram … a plan of a new farm.
7. Let me … the relevant slide.
8. It's interesting to…. that crop quality has increased dramatically.
9. Each line … the progress of a different product.
10. As you may … the yields peaked last year.

23) Match the sentences or phrases with the same meaning.

Sales grew in 2002.	Sales rose steadily.	Sales increased the most in 2002.
The charts illustrate the changes in …	Overall, …	2002 had the highest sales.

1. The graphs show the trends in …
2. In general, …
3. The biggest increase in sales was in 2002.
4. There was a steady rise in sales.
5. Sales saw growth in 2002.
6. The highest sales come from 2002.

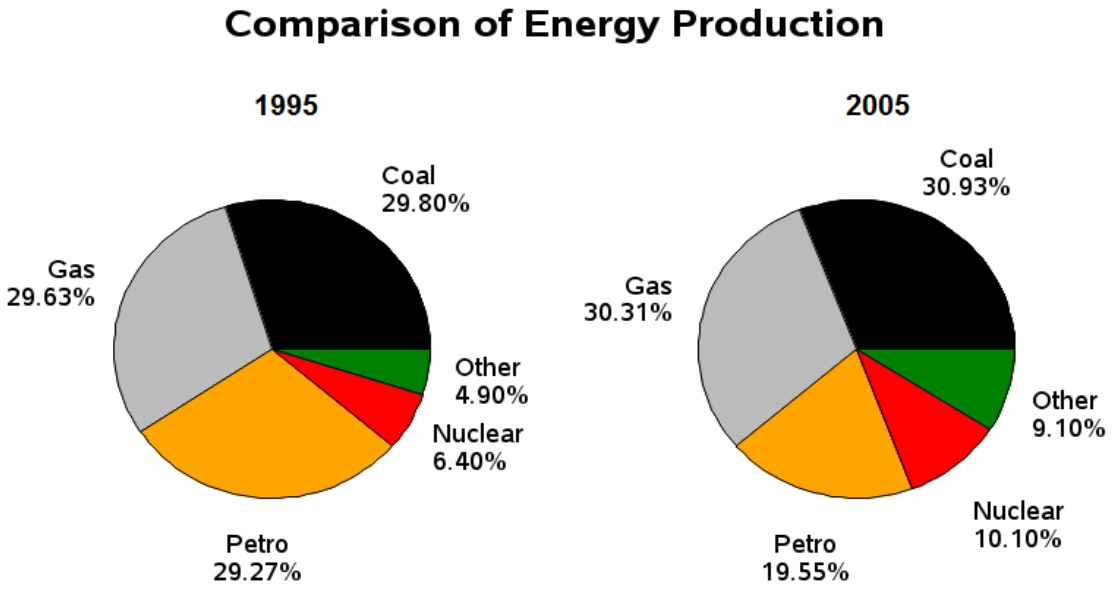
24) Choose words from the box which are the opposite to each of the following words.

decline decrease halve escalate expand fall get worse go down improve peak

1. rise - _____
2. get better - _____
3. increase - _____
4. shrink - _____
5. go up - _____
6. collapse - _____

7. deteriorate - _____
8. hit bottom - _____
9. double - _____
10. soar - _____

25) Complete the text with information obtained from the given pie charts.



The two pie charts illustrate … types of energy production in France in … and …..

Overall, in both years, the most significant sources of energy were gas and … , which together accounted for over half the production of energy, while nuclear and other kinds of energy sources generated the least amount of energy in France. In all types of energy production there was only minimal change over the … year period.

Energy produced by coal comprised of …. in the first year and this showed only a very slight increase of about a mere 1% to …. in ….

Likewise, in … , gas generated … which rose marginally to 30.1% ….years later. With regards to the remaining methods of producing energy, there was an approximate … growth in

production from both … power and other sources to 10.10% and 9.10% respectively. … , on the other hand, was the only source of energy which decreased in production from … in 1995 to around a fifth (19.55%) in … .

26) Imagine you are delivering a presentation at the conference. Use the following patterns.

Greeting, name, position

Good morning. My name's ….

Title / Subject

I'd like to talk (to you) today about ….
The subject of my presentation is … .
I'm going to present the recent … / explain our position on …/ inform you about …/ describe …..

Purpose / Objective

The purpose of this talk is to put you in the picture about … / give the background to … .

Outline / Main parts

I have divided my presentation into four parts. They are … .
Firstly / First of all ….
Secondly / then / next ….
Thirdly / and then we come to ….
Finally / lastly / last of all …

Questions

I would be glad to answer any questions at the end of my talk.
Please interrupt me if there is something which needs clarifying.
There'll be time for discussion at the end.

Reference to the audience

Look at this picture\table\graph.
You may remember … .
I'm sure we would all agree … .

Signalling the end

That brings me to the end of my presentation.

That completes my presentation.
Before I stop / finish, let me just say ….

Summarizing

Let me just run over the key points again.
I'll briefly summarize the main issues.
To sum up...

Concluding

In conclusion I'd like to say that … .
I'd like to leave you with the following thought / idea.

Closing

Thank you for your attention.
Thank you for listening.
I hope you will have gained an insight into ….

Inviting questions

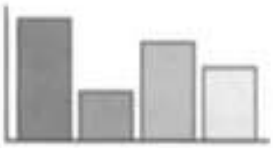
I'd be glad answer any questions.
Any questions?
Thank you for your attention
Thank you for listening.

27) Use the following vocabulary to represent graphs/diagrams.

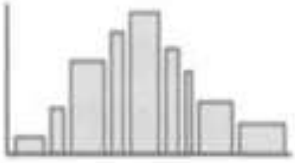
Starting	**Presentation Type**	**Verb**	**Description**
The given / The supplied / The presented / The shown / The provided	diagram / table / figure / illustration / graph / figure / chart / flow chart / picture/ presentation/ pie chart / bar graph/ line graph / table data/ data / information	shows / represents / illustrates / presents/ gives /describes / compares/ shows / figures / gives data on / gives information on/ presents information about/ shows data about	the comparison of the differences …. the number of …. information on …. data on …. the proportion of…. the amount of …. information on...

Chart types

pie chart



bar chart



histogram

Number	Amount
1	10
2	5
3	20

table

flowchart

cross-section

List with phrases to describe charts

- The pie chart is about ...
- The bar chart deals with ...
- The line graph (clearly) shows ...

- The slices of the pie chart compare the ...
- The chart is divided into ... parts.
- It highlights ...
- ... has the largest (number of) ...
- ... has the second largest (number of) ...
- ... is as big as ...
- ... is twice as big as ...
- ... is bigger than ...
- more than ... per cent ...
- only one third ...
- less than half ...
- The number ... increases/goes up/grows by ...
- The number ... decreases/goes down/sinks by ...
- The number ... does not change/remains stable

Unit 4. Writing summaries

Vocabulary

- краткое изложение – summary
- описательное изложение – descriptive summary
- критическое изложение – critical summary
- обзор, анализ – survey
- описание – description
- публиковать – to publish
- автор – author
- содержание – content
- состоять (из) – to comprise. *«The article comprises four parts».*
- упоминать – to mention
- исследовать – to explore
- охватывать – to cover. *«The article covers information on...».*
- анализировать – to analyse
- подавать, представлять материал – to give, to present (material)
- отражать, иллюстрировать – to reflect, to illustrate
- за последнее время – lately, за последние десятилетия
- часть – part
- раздел – section
- ссылки – references
- иллюстративный материал – illustrative material
- список литературы – list of literature
- широкий охват (литературы, материала) – extensive cover of (literature, material)
- подчеркнуть большое значение – to stress great significance. *«In conclusion I'd like to stress great significance of this work».*

1) Match the following Russian and English sentences.

1. The article is comprised of...	a. … анализируется в финальной части.
2. Part two discusses...	b. … представлено в третьей части.
3. ...is presented in the third part.	c. Автору удалось дать хорошее представление о …
4. ...is analyzed in the final part.	d. Статья начинается с вводной части.
5. The last part covers a very important problem of...	e. Следующая часть посвящена …
6. A list of literature...	f. Во второй части обсуждается
7. The article covers...	g. Авторы статьи начинают с руководства, в котором они рассказывают о …
8. Introduction is followed by the part devoted to...	h. Последняя часть охватывает очень важную проблему…
9. The article can be recommended for…	i. Статья может быть рекомендована для …
10. The article begins with an introductory part.	j. Наиболее важные результаты анализируются в …
11. The next part is devoted to … .	k. Статья состоит из…
12. The most important findings are analysed in …	l. Список литературы…
13. The article’s authors start with a guide where they talk about …	m. Статья охватывает….
14. The author succeeds in giving a good overview of …	n. За введением следует часть, посвященная…

Text 1: Writing a summary

A summary is a shortened version of a longer piece of text. A summary provides an overview of the most important information and ideas presented in the original text, without including all of the details.

The different types of summaries include:

- ***Descriptive Summary***: It provides an overview of the main ideas and key points of a text without any evaluation or interpretation.
- ***Critical Summary***: This evaluates the original text and provides an analysis of its strengths and weaknesses. It may also include the writer's personal opinion or interpretation.
- ***Abstract***: An abstract is a summary of a research article, thesis, or review of a particular subject. Moreover, it's often used in academic writing.

Here are *some steps* to follow that will help you write a clear and concise summary of an article:

1. Read the article carefully.
2. Identify the main idea.
3. Highlight key points/examples/supporting details that help to illustrate and explain the main idea.
4. Make a draft.
5. Summarize each section (break the article down into sections and summarize each one in a few sentences).

Tips on How to Write a Summary of an Article Effectively

- Focus on the most important ideas and arguments presented in the article, and avoid including unnecessary details**,** background information or supplementary details.
- It's important to use your own words. Avoid copying and pasting text from the original article. Instead, paraphrase the main ideas and arguments in your own words. The brevity

must come from you, in your own words, which demonstrates that you understand the article.

- Use transitional/linking words and phrases (such as moreover, thus, and nevertheless) to properly connect your sentences. It'll make your work easier to read and understand.
- Use the same order as in the article itself. There are some easy questions you can ask to identify the key points in each part.

Key points of a scientific article

Introduction	• What research question or problem was addressed? • Are any hypotheses formulated?
Methods	• What type of research was done? • How were data collected and analyzed?
Results	• What were the most important findings? • Were the hypotheses supported?
Discussion/conclusion	• What is the overall answer to the research question? • How does the author explain these results?

2) Answer the following questions.

1. What is a summary?
2. What is the purpose of a summary?
3. What are the key types of summaries?
4. What are the tips on writing an effective summary?
5. What do you have to extract of the article?
6. What are the key points of a scientific article summary?

3) Answer the following questions using the words and word combinations given in brackets.

Model: What does an article begin with? (an introductory part).

It begins with an introductory part.

1. What does an article introduce to? (the work done in …; the new data in the field of …; the up-to-date techniques in …).
2. What does an article acquaint us with? (recent discoveries in …; applications of new methods; the work done in the field of; experimental technique).
3. What does the second part cover? (a very important problem of… , the significance of …).
4. What is analyzed in the third part? (deep analysis of the experimental material, establishing a new mechanism of…).
5. What is the last part devoted to? (the most important findings, key recommendations, overall answer to the research question).

4) Read the following sentences and translate them into Russian paying attention to the underlined word combinations.

1. This article is written mainly for agronomists.
2. The article can be recommended for agricultural scientists.
3. This is a critical review of scientific topics of current agricultural relevance.
4. This originally appeared in «The journal of agricultural science».
5. Reference is made to interpretation of environmental impacts of agriculture and forestry from all available sources.
6. The subject matter appears under two headings.
7. Subject areas include the use of land resources throughout the world.

8. The article is highly readable.
9. The author makes concepts understandable and relevant.
10. The author succeeds in giving a good overview of the application of new analytical and study methods.

5) Translate the following sentences paying attention to the Infinitive, its functions in the sentence (see Appendix 3.7.1).

1. This topic seems to be exciting for any science student.
2. He is said to be a great scientist.
3. This article was considered to cause a wide discussion.
4. The author appears to be a very good specialist in the subject.
5. It was thought the problem was impossible to solve.
6. This is an example of a problem that is thought to be hard.
7. The purpose of this article is to describe certain properties of pure substances.
8. Consumers are turning to organic food because they believe it to be tastier, as well as healthier both for themselves and for the environment.
9. The author considers this question to be of great importance.
10. Many scientists expect major developments in the near future to take place in chemistry.

Text 2: Sammary examples

Example 1

In «The Global Warming Threat» Mark Thunen, a professor at the Central University of Norway, claims global warming is becoming a severe issue. Thunen supports this view by pointing out that natural disasters, like floods and wildfires, have become more frequent and disastrous than before. He notes that the statistics from meteorological institutes and scientific evidence

support his claim. In conclusion, Thunen points out that it’s time for humans to take action.

Example 2

In the article «Why Doesn't GM Sell Crack?» Michael Moore argues that companies need to be regulated so that they do not take actions that hurt the community or environment. He explains that many people believe that companies should have the right to do whatever will make the most money. However, he disagrees with this philosophy. He gives the example of selling crack, which would be very profitable for companies but bad for the consumers and community. Moore points out that most Americans agree that a company should not be able to sell crack just to make a profit. Therefore, he argues, we might extend this reasoning to other harmful actions, such as polluting the environment or treating workers unfairly. Moore believes that companies should be restricted from committing actions that hurt society.

6) Rearrange these sentences to make a complete summary of an article.

a) In the next part, the authors consider the interaction of rhizobacteria and humic acids with their simultaneous use.

b) The purpose of the article is to provide the reader with some material about the potential of the biostimulants to improve integrated pest control in agriculture.

c) In the first part, the authors tell about the work of biostimulants that are used to increase plant resistance.

d) The article’s authors start with a guide where they talk about threats to plants in the form of abiotic stresses and damage by pests and diseases

e) The second part of the article is devoted to rhizobacteria which promote plant growth, help plants to absorb various nutrients, and can affect the morphogenesis and development of plants.

f) Further, the authors describe the effect of humic acids on the balance of oxidative metabolism, where acids act as treating drugs from the production of reactive oxygen species - the result of pest damage.

g) In conclusion, the authors state that rhizobacteria and humic acids, having many effects, are able not only to increase the production of nutritious plants, but also to do it in such a way that the plants themselves are well protected while require less use of pesticides.

h) In the third part, the authors tell about humic substances and acids, that they have a significant role not only on the protective mechanisms against pests and external factors, but also on the growth and development of plants.

7) Translate the following sentences into Russian paying attention to the Gerunds (see Appendix 3.7.2).

1. The author has succeeded in basing his study on sound principles.
2. Current research is aimed at obtaining new and better sources of data and at improving the models and experiments.
3. The articles in this issue of Science highlight recent progress in applying of several important fertilizers.
4. Before discussing these parameters, it is first necessary to describe the mechanism of this formation.
5. Charts are particularly useful for summarizing large blocks of information.

6. In discussing the problem the authors touched upon some very interesting items.
7. The pie graph is best suited for illustrating simple distribution patterns.
8. Putting the discovery to use sometimes requires more effort than making it.
9. Without language there is no understanding among people, and without understanding there is no chance of their being able to work together.
10. Research is searching without knowing what you are going to find.
11. His research resulted in establishing a new mechanism of the process.

8) Transform the following sentences using the Gerund. The beginning of a new sentence is given to you. Do as in the model.

Model: They finished the experiment and then analyzed the results.

After finishing the experiment they analyzed the results.

1. He started his presentation. First he considered all the advantages of the new technique.

He started his presentation by _____

2. The paper was translated into Russian and then discussed at the lab meeting.

After _____

3. These figures are of little use if they are not studied carefully.

Without _____

4. This material is not only useful but it is easily available too.

In addition to _____

5. The authors studied all the facts and then they were able to come to some definite conclusions.

After _____

6. We have a large number of qualified specialists and we have made a lot of successes.

None of our successes would have been possible without _____

7. They analyzed their results carefully and found some errors.

They found some errors after _____

8. We are going to carry out a new experiment. We need a lot of new equipment.

We need a lot of new equipment for _____

9. They compared the data and received very interesting results.

By _____

10. We helped them and they finished the project on time.

They wouldn't have finished the project on time without our ___

9) Translate the following sentences into English.

1. Работа представляет собой критический обзор и теоретическое обобщение всех данных и результатов, полученных в этой области.
2. Статья охватывает большой материал, о чем можно судить (judging by) by по многочисленным подзаголовкам глав (subheadings under the chapters).
3. Важные данные приводятся как в первой, так и в последней частях книги (both ...and).
4. В работе дано множество примеров, иллюстрирующих основные положения, которые здесь обсуждаются (under discussion).
5. В заключение можно сказать, что рассматриваемая работа является выдающимся достижением в области сельского хозяйства.
6. Эту статью можно с уверенностью рекомендовать всем тем, кто интересуется данной областью науки.

10) Speak about your own publications. Use the following questions as a guide for your talk.

1. What is the subject of your thesis?
2. Have you already published any articles?
3. Where and when did you publish them?
4. What are the titles of your published papers?
5. What problems do you deal with in those papers?
6. What are you going to prove in the course of your research?
7. Is there much or little material published on the subject of your research?
8. Who is the intended audience of your papers?
9. What do you give much attention to in your published papers?
10. What is of particular interest in your paper?
11. How many parts does your paper consist of?
12. What is the purpose of your paper?
13. What do you treat in your introductory part?
14. What do you say in conclusion?

11) A summary is much shorter than the original text. Shorten the sentences using the appropriate replacement words.

1. The company *buys* compressors *from other countries*. 2. The theory can be *checked to see whether it is true and accurate*. 3. Jack is a person *who can do many different things*. He is quite talented. 4. The man *is expected to become the next* CEO of the company. 5. Pollution can *make* his asthma *become unpleasant and worse*.	a. verified b. imports c. versatile d. acquittal e. prospective f. aggravate g. infallible h. arbitrate

6. The case resulted *in a court decision that he was not guilty.* 7. The company decided to officially *settle the disagreement* between the two state government offices 8. He thought his theory *did not have any mistakes.*	

12) Read following texts paying attention to their shortened versions.

1. There is a beautiful park near my house. The name of the park is Tian-Tan Park. This was built several hundred years ago. It is the biggest park in Beijing. The Tian-Tan Park is famous not only for its beauty but its quietness as well. (46 words)

1.1. Near my house stands Tian-Tan, the biggest park in Beijing, built several hundred years ago and is now famous not only for its beauty but its peaceful atmosphere too. (28 words)

2. Computer games have been extremely popular for decades now and almost every household has at least one computer. However, it can be seen that playing these games causes social, educational and personal problems of several kinds both to youngsters and society. Firstly, youngsters who spend a great deal of time in front of a monitor are not playing sport. As a result, they are more likely to be overweight and less healthy, so more prone to diseases such as diabetes. In addition, the games themselves are often quite violent which add to many problems such as the lack of interaction and social skills with their friends and relatives. If we wish children to grow up to become welladjusted members of society, these games should be more tightly controlled. (128 words)

2.1. Nowadays almost every household has a computer. However, playing them causes social, educational and personal problems. Children can become overweight and more prone to diseases. Also, games are often violent and can lead to less interaction with friends and relatives. Therefore they need to be tightly controlled. (47 words)

13) Read the text and its summary. Identify the topic sentences of each paragraph and write your own summary using them.

Earthworms Back in the Garden

(1) Earthworms are the answer for every garden problem, according to Harold John Weigel. They can increase crop production, turn and freshen soil, and produce faster growth. Simply take care of the earthworms, and the earthworms will take care of the garden. Weigel is extremely enthusiastic about earthworms. They are tremendous creatures," the intestines of the Earth." Weigel says, quoting Charles Darwin.

(2) Weigel is so excited about the benefits of worms that he is writing a book about them. He gardens using thousands of earthworms. He has persuaded his wife to put worms in her houseplant pots. He even suggests eating worms which he claims are 70 per cent protein. He has dreams of armies of earthworms helping to replace topsoil in the country. It is a fact, he says that topsoil is disappearing every year through erosion. Wind and water carry away the soil, and nature needs centuries to replace it.

(3) Within one year, one thousand earthworms and their descendants can change approximately one ton of organic matter into one of the highest-yield growing materials known, according to Weigel. Worms eat organic material and produce what is known as worm castings. If 1,000 pounds of earthworms are

working one acre of land, every twentyfour hours they will produce 1,000 pounds of castings that function as a high-grade topsoil, Weigel said. They produce the same amount of topsoil in one day that nature could produce in 700 years through decomposition and erosive forces such as wind and rain.

(4) Planting gardens in worm castings offers plants more than just all the necessary nutrients. For example, castings are very porous, and water flows easily through them. They are very absorbent being able to hold water easily. In addition, worms tend to be happiest around the roots of plants. Water can then flow directly to roots through the worm channels. The worms' channels also give air to the plants. Because the worms dig in the soil, they create a planting area of even consistency. Thus, the earthworms act as natural ploughs.

(5) Worms offer all these benefits, yet they make few demands. They need only moisture, darkness, and food from the soil. Weigel gets his information on the benefits of earthworms from books and from the Worm Growers Association. That little-known group, which is active in many states, suggests that commercial farmers reintroduce earthworms in places where they have been killed through the use of synthetic fertilisers and other gardening chemicals.

Summary

Earthworms are the answer for every garden problem: they can increase crop production, turn and freshen soil and produce faster growth. Earthworms, it is claimed, are 70 per cent protein, so they can be eaten. They can replace topsoil which is disappearing every year through erosion. Within one year, 1000 earthworms and their descendants can change approximately 1 ton of organic matter into one of the highest-yield growing materials known. They produce the same amount of topsoil in one

day that nature could produce in 700 years through decomposition and erosive forces. Worms make the soil porous, absorbent and of even consistency. Worms offer all these benefits, yet they make few demands: they need only moisture, darkness and food from the soil.

14) Write summaries for the following texts.

Text 1: Crop Rotation Plan

A careful crop rotation plan is the cornerstone of organic crop production because it allows the grower to improve soil quality and proactively manage pests. Although growing a wide range of crops complicates the crop rotation planning process, it ensures diversity in crop residues in the soil, and greater variety of beneficial soil organisms. Individual organic farms vary widely in the crops grown and their ultimate goals, but some general rules apply to all organic farms regarding crop rotation. Rotating individual fields away from crops within the same family is critical and can help minimize cropspecific disease and non-mobile insect pests that persist in the soil or overwinter in the field or field borders. Pests that are persistent in the soil, have a wide host range, or are wind-borne will be difficult to control through crop rotation. Conversely, the more host specific, non-mobile, and short-lived a pest is, the greater the ability to control it through crop rotation. The amount of time required for a crop rotation is based on the particular pest and its severity.

A well-planned crop rotation is key to weed management. Short season crops such as lettuce and spinach are harvested before many weeds go to seed, whereas vining cucurbits, with their limited cultivation time and long growing season, allow weeds to go to seed before harvest. Including short season crops in the rotation will help reduce weed populations provided the

field is cleaned up promptly after harvest. Other weed reducing rotation strategies include growing mulched crops, competitive cash crops, short-lived cover crops, or crops that are intensively cultivated. Individual weed species emerge and mature at different times of the year, therefore alternating between spring, summer, and fall planted crops helps to interrupt weed life cycles.

Cash and cover crop sequences should also take into account the nutrient needs of different crops and the response of weeds to high nutrient levels. High soil phosphorus and potassium levels can exacerbate problem weed species. A cropping sequence that alternates crops with high and low nutrient requirements can help keep nutrients in balance. The crop with low nutrient requirements can help use up nutrients from a previous heavy feeder.

(Seaman A. Production Guide for Organic Potato. https://ecommons.cornell.edu/items/c5da512f-1385-49d3-9d7d-4986c893f616)

Text 2: The use of fertilizers

The use of fertilizers and manures is one of the common methods of increasing yields. As crops remove nutrients from the soil the latter may become deficient in some elements. Application of commercial fertilizers is to improve soil fertility and to ensure better quality of the crops to be grown.

Fertilizers are usually classified according to the food element which forms their main constituent. So, they may be grouped as nitrogenous fertilizers, phosphoric fertilizers, potassic fertilizers. To be effective, fertilizers should be applied where and when the plant needs them. Single yearly applications are insufficient for some crops, being unnecessary for others. To make repeated applications throughout the season is of great use in case of perennials or long-season annuals.

There are various methods of fertilization. Broadcast application means spreading the material uniformly over the soil surface, usually before the crop is planted. Sometimes the fertilizer is placed directly over the growing crop, which is known as top dressing. When plants are subject to injury fertilizers can be put alongside the plants as a side-dressing.

With many crops nitrogen is applied several times during the growing season because nitrogen is one of the elements most commonly used to increase crop yields. But one should not forget that too much nitrogen tends to cause lodging, late maturity, poor seed development in some crops, and greater susceptibility to certain diseases.

Phosphate fertilizers are effective when they are applied before the crop is sown, so that they can be worked into the soil and be evenly distributed by plowing. Lime used to correct soil acidity can be applied at any time of the year and to a crop at any stage of growth.

(Sustainable Soil Management
https://www.cambridgescholars.com/resources/pdfs/978-1-5275-0204-8-sample.pdf)

Text 3: Soil

Healthy soil is the basis of organic farming. Regular additions of organic matter in the form of cover crops, compost, or manure create a soil that is biologically active, with good structure and capacity to hold nutrients and water (note that any raw manure applications must occur at least 120 days before harvest). Decomposing plant materials will activate a diverse pool of microbes, including those that break down organic matter into plant-available nutrients as well as others that compete with plant pathogens in the soil and on the root surface.

Rotating between crop families can help prevent the buildup of diseases and nematodes that overwinter in the soil. Rotation with a grain crop, or preferably a sod that will be in place for one or more seasons, deprives many, but not all, disease-causing organisms of a host, and also contributes to a healthy soil structure that promotes vigorous plant growth.

The same practices are effective for preventing the buildup of root damaging nematodes in the soil, but keep in mind that certain grain crops are also hosts for some nematode species. Rotating between crops with late and early season planting dates can reduce the buildup of weed populations. Organic growers must attend to the connection between soil, nutrients, pests, and weeds to succeed. Unlike cash crops, which are grown for immediate economic benefit, cover crops are grown for their valuable effect on soil properties and on subsequent cash crops.

Cover crops help maintain soil organic matter, improve soil tilth, prevent erosion and assist in nutrient management. They can also contribute to weed management, increase water infiltration, maintain or increase populations of beneficial fungi, and may help control insects and diseases.

(Seaman A. Production Guide for Organic Potato. https://ecommons.cornell.edu/items/c5da512f-1385-49d3-9d7d-4986c893f616)

Text 4. What is agricultural biotechnology?

For about 10,000 years, farmers have been improving wild plants and animals through the selection and breeding of desirable characteristics. This breeding has resulted in the domesticated plants and animals that are commonly used in crop and livestock agriculture. In the twentieth century, breeding became more sophisticated, as the traits that breeders select for include

increased yield, disease and pest resistance, drought resistance and enhanced flavor.

Traits are passed from one generation to the next through genes, which are made of DNA. All living things - including the fruits, vegetables and meat that we eat - contain genes that tell cells how to function. Recently, scientists have learned enough to begin to identify and work with the genes (DNA) that are responsible for traits.

What is agricultural biotechnology?

Agricultural biotechnology is a collection of scientific techniques used to improve plants, animals and microorganisms. Based on an understanding of DNA, scientists have developed solutions to increase agricultural productivity. Starting from the ability to identify genes that may confer advantages on certain crops, and the ability to work with such characteristics very precisely, biotechnology enhances breeders' ability to make improvements in crops and livestock. Biotechnology enables improvements that are not possible with traditional crossing of related species alone.

How is agricultural biotechnology used?

Genetic engineering: Scientists have learned how to move genes from one organism to another. This has been called genetic modification (GM), genetic engineering (GE) or genetic improvement (GI). Regardless of the name, the process allows the transfer of useful characteristics (such as resistance to a disease) into a plant, animal or microorganism by inserting genes (DNA) from another organism. Virtually all crops improved with transferred DNA (often called GM crops or GMOs) to date have been developed to aid farmers to increase productivity by reducing crop damage from weeds, diseases or insects.

How long has biotechnology been used in agriculture and food production?

The first food product of biotechnology (an enzyme used in cheese production and yeast used for baking) appeared on the market in 1990. Since 1995, farmers have been growing GE crops. In 2003, 7 million farmers in 18 countries - more than 85 percent of them resource-poor farmers in the developing world - were planting biotech crops. Almost one third of the global biotech crop area was grown in developing countries.

(What is agricultural biotechnology. The Land Grant University Brochure, Cornell University, College of Agriculture and Life Sciences. http://absp2.cornell.edu/resources/briefs/documents/warp_briefs_eng_scr. pdf)

Text 5. Lawn care and maintenance

Planting and seeding

Early autumn, spring, and early summer are the primary seasons to seed, lay sod (turf), plant 'liners', or 'sprig' new lawns, when the soil is warmer and air cooler. Seeding is the least expensive, but may take longer for the lawn to be established. Aerating just before planting/seeding may promote deeper root growth and thicker turf.

Sodding (American English), or turfing (British English), provides an almost instant lawn, and can be undertaken in most temperate climates in any season, but is more expensive and more vulnerable to drought until established. Hydroseeding is a quick, less expensive method of planting large, sloped or hillside landscapes. Some grasses and sedges are available and planted from 'liner' and 4-inch (100 mm) containers, from 'flats', 'plugs' or 'sprigs', and are planted apart to grow together.

Fertilizers and chemicals

Various organic and inorganic or synthetic fertilizers are available, with instant or time-release applications. Pesticides, which includes biological and chemical herbicides, insecticides and fungicides are available. Consideration for their effects on the lawn and garden ecosystem and via runoff and dispersion on the surrounding environment, can constrain their use.

Sustainable gardening uses organic horticulture methods, such as organic fertilizers, biological pest control, beneficial insects, and companion planting, among other methods, to sustain an attractive lawn in a safe garden. An example of an organic herbicide is corn gluten meal, which releases an 'organic dipeptide' into the soil to inhibit root formation of germinating weed seeds. An example of an organic alternative to insecticide use is applying beneficial nematodes to combat soil-dwelling grubs, such as the larvae of chafer beetles. The Integrated Pest Management approach is a coordinated low impact approach.

(Dr. Arun, B. Bhosale. Fundamentals of Horticulture. https://www.google.ru/books/edition/Fundamentals_of_Horticulture/svThDwAAQBAJ?hl=ru&gbpv=1)

Text 6. High density planting

Accommodation of the maximum possible number of plants per unit area to get the maximum possible profit per unit of the tree volume without impairing the soil fertility status is called the High Density Planting. This concept has been successfully developed in a number of fruit crops by using various techniques in India.

High density planting is one of the improved production technologies to achieve the objective of enhanced productivity of Indian fruit industry. Yield and quality of the produce are two essential components of the productivity. High density planting aims to achieve the twin requisites of productivity by maintaining

a balance between vegetative and reproductive load without impairing the plant health.

Based on plant population, HDP is termed as low HDP with less than 250 trees/ha, higher HDP with 500-1250 trees/ha and ultra HDP with more than 1250 trees/ha. Recently, super high density planting system has been also established in apple orchards with a plant population of 20,000 trees/ha. Still dense population of about 70,000 trees/ha is followed in certain orchards and this system of planting is referred as meadow orcharding as practiced in apple. The term 'meadow orchard' which amounts to growing fruits without trees was coined by Hudson (1970) to describe an ultra high density apple orchard meant for mechanical harvesting by mowing the tress with their fruits as grass in a meadow.

Characteristics of HDP

The trees of HDP should have maximum number of fruiting branches and minimum number of structural branches.

These branches should be so arranged and trained in such a way that each branch casts a minimum amount of shade on other branches.

The height should be one and half its diameter at the base. A key to successful HDP depends upon the control of tree size.

Advantages of High Density Planting:

- Best utilization of land and resources.
- Increase in yield per unit area.
- Quality production of fruit crops.
- More efficient use of fertilizers and irrigation water due to greater root densities per ground area.
- Efficient pesticide application due to better spray interception.
- To obtain export quality of the harvest.

Disadvantages:

- Higher costs for planting and orchard care due to greater number of trees per hectare.
- Lack of promising dwarfing rootstocks in mango, guava, sapota, peach, sweet cherry etc.
- More important is buildup of high humidity, lack of cross ventilation in the orchard, which is more conducive for buildup of pests and diseases.
- Less life span of the fruit trees, reduction in yield in the long run after 15 years of age.
- Difficult to manage the tree canopy.
- Require high techniques for the maintenance of fruit trees.

(Dr. Arun B. Bhosale. Fundamentals of Horticulture. https://www.google.ru/books/edition/Fundamentals_of_Horticulture/svThDwAAQBAJ?hl=ru&gbpv=1)

Text 7: Text 7: Artificial Intelligence in Agriculture

Artificial Intelligence (AI) techniques are widely used to solve a variety of problems and to optimize the production and operation processes in the fields of agriculture, food and bio-system engineering. AI plays a pivotal role, propelling agriculture into a new era of precision, efficiency, and sustainability.

AI in agriculture offers several advantages to the farmers. Precision agriculture, for example, benefits from the detailed collection and analysis of data on soil, climate, and plant health, enabling precise application of agricultural inputs and reducing waste. Furthermore, AI also plays a vital role in disease and pest forecasting, detecting and predicting threats to crops through data analysis, providing targeted and rapid responses to minimize losses.

AI and resource use optimization, process automation

On the other hand, resource use optimization is powered by AI, which can maximize efficiency in the use of elements such as water, fertilizers, and pesticides, reducing both costs and environmental impacts. And process automation comes to life through robots and drones equipped with AI, capable of autonomously = performing agricultural tasks like planting, spraying, and harvesting, reducing the reliance on manual labor and boosting the efficiency of agricultural operations.

AI and agricultural finance

The integration of AI with agricultural finance heralds innovative prospects. This fusion accelerates insurance policy calculations, enabling risk assessment and the development of tailored financial products. Precision insurance for farmers gains prominence, simplifying processes and reducing bureaucratic hurdles. Remarkably, risks are diminished through this integration.

Keeping an eye on the future of AI in agriculture

The use of AI in the agriculture market is projected to grow at a compound annual growth rate of 23.1% from 2023 to 2028. And everyone is greatly emphasizing the short-term impact of AI and underestimating the long-term impact. We still can’t fathom the multitude of applicability and impact that AI will have in agriculture, but we need to be attentive to the daily changes.

(*Aguiar R., Soffiatti A-L. (2023) AI harvest: Transforming agriculture through technological evolution. https://agfundernews.com/ai-harvest-transforming-agriculture-through-technological-evolution)*

Useful phrases for summary writing

1.The title of the text (article)	The text (article) is headlined… The headline of the text (article) I have read is…
2. The author of the text (article), where and when the article was published.	The author of the article is… The article is written by… It is published in …
3. The general topic of the text (article), the aim of it.	The main idea of the text (article) is… The text (article) is about… The text (article) is devoted to … The text (article) deals with… The text (article) touches upon… The purpose of the text (article) is to give the reader some information on… The aim of the text (article) is to provide the reader with some material (data) on…
4. The contents of the text (article). Some facts, names, figures.	The author starts by telling the reader that… The author writes (states, stresses, thinks, points out) that… The text (article) describes… According to the text… Further the author reports (says) that… The text (article) goes on to say that… In conclusion… The author comes to the conclusion that…
5. Your opinion of the text (article).	I found the text (article) interesting (important, of no value, too hard to understand…)

Заключение

Организованная учебная и научная деятельность на основе данного учебного пособия предполагает дальнейшее совершенствование иноязычной коммуникативной компетенции обучающихся по программам магистратуры.

Показателем качественно организованной работы будет являться достижение запланированного результата в установленные сроки благодаря использованию оптимальных методов и эффективных инструментов.

Применение данного учебного пособия:

- способствует развитию всех компонентов иноязычной коммуникативной компетенции (лексика, грамматика, устная и письменная речь, чтение, перевод);

- позволяет знакомиться с зарубежными достижениями науки, расширяя профессиональный кругозор обучающегося, а также получать актуальные знания о международных достижениях в своей профессиональной области.

Список использованной литературы

1. Качалова, К.Н., Практическая грамматика английского языка с упражнениями и ключами / К.Н. Качалова, Е.Е. Израилевич – Санкт-Петербург: КАРО, – 2018. – 608 с.
2. Новиченко, Н. М. Грамматика английского научного текста в таблицах и упражнениях: учебно-методическое пособие для аспирантов и соискателей / Н.М. Новиченко. – Минск: Институт подготовки научных кадров НАН Б, – 2006. – 160 с.
3. International Journal of Agricultural Sciences – Режим доступа: http://internationalscholarsjournals.org.
4. Processes for Writing Abstracts – Режим доступа: http://writing.colostate.edu.
5. Sample abstracts – Режим доступа: https://www.mdpi.com/search?q=&journal=agriculture&sort=pubdate&page_count=50
6. Studying Plant Breeding – Режим доступа: http://cropsci.illinois.edu.
7. Types of Summary – Режим доступа: https://open.library.okstate.edu/internationalcomposition/chapter/types-of-summary
8. What is agricultural biotechnology – Режим доступа: http://absp2.cornell.edu/resources/briefs/documents/warp_briefs_eng_scr.pdf
9. Writing a summary – Режим доступа: https://www.laspositascollege.edu/raw/summaries.php

Приложение 1. Сокращения и аббревиатуры

Abbreviations are frequently found in an academic context. Here are some which are common in academic writing.

a.f. – as follows – как указано далее
afsd – aforesaid – вышеупомянутый
a.m. – above mentioned – вышеупомянутый
a.o. – and others – и другие
app – approximate – приблизительный
Appx – appendix – приложение
a.s. – at supra (Lat.) – как сказано выше
BA – Bachelor of Arts – бакалавр гуманитарных наук
BC – before Christ – до нашей эры
b/f – brought forward – вынесенный на рассмотрение
bk – back – обратно, назад
B.R. – book of reference – справочник
BS – Bachelor of Science – бакалавр естественных наук
c – centre or class – центр или класс, разряд
c – copy – копия, экземпляр
c. – cubic – кубический
c. – current – текущий
c. – cycle – цикл
ca., cir., circ. (circa) – около, примерно
c.c. – chapters – разделы, главы
ch. – chapter – глава
cit. – cited – цитированный
chron. – chronology – хронология
conf. – confer – сравни
d. – degree – 1. градус, 2. степень, ранг
diss. – dissertation – диссертация
Dr. – doctor – (ученая степень)
dup., dupl. – duplicate – дубликат, второй экземпляр
e. – error – ошибка

ed. – edition – издание
e.g. – exempli gratia (Lat.) – например
Enc. – Encyclopedia – энциклопедия
equiv. – equivalent – эквивалент
esp. – especially – особенно
et al. – et alii (Lat.) – и другие
etc. – et cetera (Lat.) – и так далее
ff – following – следующий
fict. – fiction – беллетристика
fig. – figure – 1) цифра; 2) схема, изображение
fn – foot-note – сноска
for.fr. – former – прежний
fur. – further – далее
h. – hour – час
hdbk – hand-book – руководство, справочник
hf – half – половина
HM – Her (his) Majesty – ее (его) величество
Hon. – honorable – достопочтенный
hor. – horizon – горизонт, horizontal – горизонтальный
H.Q. – high quality – высшее качество
hum. – human – человеческий, гуманный; humanitarian – гуманитарий
i – inch – дюйм
i.e. – id est (Lat.) – то есть
i.f. – in full – полный, законченный, полностью
I.Q. – intelligence quotient – коэффициент умственного развития
ill. – illustration – рисунок, иллюстрация; illustrated – иллюстрированный
illeg. – illegal – незаконный
im – immediate – срочный, незамедлительный
in. – inch – дюйм
int – international – международный

intr – introduce – вводить; introduction – введение
inv – inverse – обратный, противоположный
i.o. – in order – в порядке
iss. – issued – выпущенный, изданный
lb. - libra (Lat.) - pound (фунт)
L. c. – loco citato (Lat.) – в цитированном месте
lang. – language – язык
lect. – lecture – лекции; lecturer – лектор
leg. – legal – законный
li – list – список, перечень
Lib. – library – библиотека
lit. – literature – литература, literary – литературный
ll. – lines – сроки
LLD – Doctor of Laws – доктор права
log. – logic – логика; logical – логический
Ltd. – limited – ограниченный
MA – Master of Arts – магистр гуманитарных наук
marg. – marginal – записанный на полях
max. – maximum – максимум; maximal – максимальный
meth. – method – метод; methodical – методический
misc. – miscellaneous – различный, смешанный
mk. – mark – знак, пометка
MS – manuscript – рукопись
MSc – Master of Science – магистр естественных наук
mns. – manuscript – рукопись
mvt. – movement – движение
N., n. – note – заметка, примечание
Nb., Nbr. – number – число, номер
N.B. – nota bene (Lat.) – запомнить хорошо
n.d. – no date – без даты
N.E. – new edition – новое издание
NEI – not elsewhere indicated – нигде не указано
n/m – not marked – нигде не указано

no. – number – число, номер
n.p. – no place of publication mentioned – место издания не указано
nt.wt. – net weight – чистый вес, нетто
o/a, o.a. – overall – всеобъемлющий
o.a.t. – one at a time – по одному
obj. – object – 1) объект, цель; 2) дополнение (прям.)
obs. – obsolete – устаревший
O.D., O/D – on demand – по запросу
of. – official – официальный
opp. – opposite – противоположный
ors – others – другие, прочие
p.a. – per annum (Lat) – в год
p.c. – per cent (Lat) – процент
P. G. – postgraduate – аспирант
Ph. D. – Doctor of Philosophy – доктор философии
pfd. – preferred – предпочтительный
pict. – pictorial – иллюстрированный
P.M. - post meridiem (Lat.) – после полудня
prec. – preceding – предшествующий
Pref. – preface – предисловие
pro tem. - pro tempore (Lat.) – временно, в данный момент
P.S. – post scriptum (Lat.) – приписка
pub. – public – публичный
Q. – quasi (Lat.) – как будто, как бы, почти
re. – reference (to) – ссылка (на)
ref. – reference – ссылка
res. – research – исследование, исследовательский
resp. – respective – соответствующий
rev. – reverse – обратный
rev. – revised – пересмотренный, исправленный
S/sec. – section – раздел, секция
Sig. – signature – подпись

Sc. – scale – масштаб
sq – square – квадрат, квадратный
Sr. – senior – старший
sym. – symbol – обозначение, символ
syst. – system – система; systematic – систематический
t.o. – turn over – смотрите на обороте
tech. – technique – техника, technical – технический
term. – terminology – терминология,
u. – unit – единица, united – объединенный
u.m./umn – undermentioned – нижеследующий
unf. – unfinished – незаконченный
univ. – universal – универсальный
viz. – videlicet (Lat.) – а именно
vol. – volume – 1) объем, 2) том
v.v. – vice versa (Lat.) – наоборот
v. s. - vide super (Lat.) – смотрите выше
vs. - versus (Lat.) – против
Wks. – works – труды, сочинения

Приложение 2. Полезные фразы

Numbers, units of measurement and common symbols

Fractions

Fractions are normally spoken as in these examples:

$\frac{1}{2}$	*a (one) half*
$\frac{1}{4}$	*a (one) quarter*
$\frac{3}{4}$	*three quarters*
$\frac{1}{5}$	*a [one) fifth*
$\frac{2}{3}$	*two thirds*
$\frac{1}{4}$ kilometre	*a quarter of a kilometre*
$\frac{1}{2}$ centimetre	*half a centimetre*

Complex fractions and expressions of division are usually said with *over.*

$\frac{27}{200}$	*twenty-seven over two hundred, twenty-seven divided by two hundred*

Decimals

Decimals are normally spoken as in these examples:

0.36	*nought point three six, zero point three six*
5.2	*five point two*

Percentages

Percentages are spoken as *per cent.*

16.3% *sixteen point three per cent*

Calculations

Calculations are normally said in the following ways:

7 + 3 = 10 *seven and three is/are ten (informal)*

seven plus three equals ten (more formal)

28 - 6 = 22 *six from twenty-eight is/leaves twenty-two (informal)*

twenty-eight minus six equals twenty-two (more formal)

8x2 = *16 eight twos are sixteen (informal), eight times two is sixteen (informal, the most common form), eight by two is/equals sixteen (informal), eight multiplied by two equals/is sixteen (more formal)*

27/ 9 = 3 *twenty-seven divided by nine equals three*

500 ± 5 *five hundred plus or minus five*

>300 *greater than three hundred*

<200 *less than two hundred*

$3^2 = 9$ *three squared is/equals nine*

$\sqrt{16} = 4$ *(square) root of sixteen is four*

$3^3 = 27$ *cubed is/equals twenty-seven*

$\sqrt[3]{8} = 2$ *cwhe root of eight is two*

$2^4 = 16$ *to power of 4 is equals sixteen (two to the fourth power ...)*

Units of measurement

Although the metric system is now common in the UK and

other English-speaking countries, non-metric units are still used in many contexts, especially in the USA.

Units of length and distance are normally spoken as follows:

3 in, 3" *three inches*

2 ft 7 in, 2' 7" *two feet seven inches* (or, very informally, *two foot seven inches)*

3 m (AmE = 3 mi.) *three miles*

500 mm *five hundred millimetres* (or, more informally, *five hundred mm*)

1.5 cm *one point five centimetres*

Units of area are normally spoken as follows:

11 sq ft *eleven square feet*

5 sq m, $5m^2$ *five square metres*

$7.25\ cm^2$ *seven point two five square centimetres*

Units of weight are normally spoken as follows:

3 oz *three ounces*

5 lb *five pounds*

300 g *three hundred grams*

18.75 kg *eighteen point seven five kilograms*

Units of volume, capacity and temperature are normally spoken as follows:

300 cc *three hundred cubic centimetres* (or, less formally, *three hundred c-c)*

3 pt *five pints*

3.2 gal *three point two gallons*

75 cl *seventy-five centilitres*

200 l *two hundred litres*

20° *twenty degrees*

American and British English spelling differences

British spelling	American spelling	Examples of British/American spellings	Comments
-ae-	-e-	aestivate/estivate aetiology/etiology anaesthetic/anesthetic haemoglobin/hemoglobin leukaemia/leukemia	Beware aero- words, which are the same in British and American spellings, e.g. aerofoil, anaerobic
-oe-	-e-	oestrogen/estrogen oesophagus/esophagus oedema/edema diarrhoea/diarrhea dyspnoea/dyspnea manoeuvre/maneuver	
-re	-er	centre/center fibre/fiber litre/liter metre/meter titre/titer	
-our	-or	behaviour/behavior colour/color humour/humor tumour/tumor	Note that ‘tumor’ is becoming the standard international spelling in gene and protein names (e.g. tumor necrosis factor)
-logue	-log	analogue/analog catalogue/catalog dialogue/dialog homologue/homolog	Note that -logue forms are sometimes used in US texts
-lyse	-lyze	analyse/analyze catalyse/catalyze hydrolyse/hydrolyze haemolyse/hemolyze	Applies only for verbs derived from ‘lysis’
-ical	-ic	anatomical/anatomic biological/biologic morphological/morphologic serological/serologic	Note that -ical forms are often used in US texts
-ence	-ense	defence/defense offence/offense licence (n.)/license pretence/pretense	

-l	-ll	fulfil/fulfill enrol/enroll distil/distill instalment/installment	But beware, e.g., install/install, compel/compel, which are spelled the same in British and American English
-lled, -lling, -eller	-led, -ling, -eler	labelled/labeled labelling/labeling modelled/modeled modelling/modeling modeller/modeler travelled/traveled travelling/traveling traveller/traveler	
-trophic, -trophin	-tropic, -tropin	adrenocorticotrophic/adrenocorticotropic gonadotrophin/gonadotropin thyrotrophin/thyrotropin	Words suffixed by '-trophic' meaning nourishment (e.g. heterotrophic) are spelled the same in British and American English, as are words suffixed by '-tropic' meaning directional growth (e.g. geotropic)

Приложение 3. Грамматический справочник

3.1. Действительный залог (Active Voice)

Всего в английском языке существует 12 времен, которые делятся на четыре группы:

- simple или indefinite (группа простых времен);
- continuous или progressive (группа длительных времен);
- perfect (группа совершенных времен);
- perfect continuous или perfect progressive (группа совершенных длительных времен).

Таблица времён. Действительный залог.

	Время	**Формы**		**Обстоятельство времени**
Indefinite показывает действие как факт (обычное, повторяемое)	Present	I,we,you, they he, she, it	ask asks	usually, sometimes, every day, often, seldom
	Past	+ed или II ф. неправ.глаг.	asked wrote	yesterday last year 3 years ago
	Future	I, we все остальные	will ask	tomorrow next year in 3 years
Continuous показывает действие как процесс	Present	am is are	asking	now, at present
	Past	was were	asking	yesterday from 5 till 6
	Future	will be	asking	tomorrow from 5 till 6
Perfect показывает действие, законченное до определённого момента в настоящем, прошедшем и будущем	Present	have has	asked	just, ever, never, yet, already, today, this year for, since
	Past	had	asked	by 3 o'clock yesterday
	Future	will have	asked	by 3 o'clock tomorrow

Perfect continuous показывает действие, начатое некоторое время назад и все ещё продолжающееся или только что закончившееся	Present	have been has been	asking	for, since
	Past	had been	asking	for, since
	Future	will have been	asking	for

Времена группы Simple

	Past	**Present**	**Future**
+	I, You, We, They, He, She — asked	I, You, We, They — ask He, She — asks	I, You, We, They, He, She — will ask
-	I, You, We, They, He, She — didn't ask	I, You, We, They — don't ask He, She — doesn't ask	I, You, We, They, He, She — will not ask
?	Did + I, you, we, they, he, she — ask	Do + I, you, we, they — ask Does + he, she — ask	Will + I, you, we, they, he, she — ask

Таблица неправильных глаголов английского языка

be	was, were	been	быть
beat	beat	beaten	бить, колотить
become	became	become	становиться
begin	began	begun	начинать
bend	bent	bent	гнуть
bite	bit	bitten	кусать
blow	blew	blown	дуть, выдыхать
break	broke	broken	ломать, разбивать,

bring	brought	brought	приносить
build	built	built	строить, сооружать
buy	bought	bought	покупать, приобретать
catch	caught	caught	ловить, поймать, схватить
choose	chose	chosen	выбирать
come	came	come	приходить
cost	cost	cost	стоить, обходиться
cut	cut	cut	резать
deal	dealt	dealt	иметь дело, распределять
dig	dug	dug	копать, рыть
do	did	done	делать
draw	drew	drawn	рисовать, чертить
drink	drank	drunk	пить
drive	drove	driven	ездить
eat	ate	eaten	есть
fall	fell	fallen	падать
feed	fed	fed	кормить
feel	felt	felt	чувствовать
fight	fought	fought	драться
find	found	found	находить
fly	flew	flown	летать
forget	forgot	forgotten	забывать о (чём-либо)
forgive	forgave	forgiven	прощать
get	got	got	получать, добираться
give	gave	given	дать,
go	went	gone	идти, двигаться
grow	grew	grown	расти, вырастать
hang	hung	hung	вешать, висеть
have	had	had	иметь, обладать
hear	heard	heard	слышать, услышать
hide	hid	hidden	прятать
hit	hit	hit	ударять
hold	held	held	держать
hurt	hurt	hurt	ранить
keep	kept	kept	хранить
know	knew	known	знать
lay	laid	laid	класть

lead	led	led	вести за собой, руководить
leave	left	left	покидать
lend	lent	lent	одалживать,
let	let	let	позволять, разрешать
lie	lay	lain	лежать
light	lit	lit	зажигать
lose	lost	lost	терять
make	made	made	делать
mean	meant	meant	значить
meet	met	met	встречать, знакомиться
pay	paid	paid	платить
put	put	put	ставить
read	read	read	читать
ride	rode	ridden	ехать верхом
ring	rang	rung	звенеть, звонить
rise	rose	risen	восходить, подниматься
run	ran	run	бежать, бегать
say	said	said	говорить
see	saw	seen	видеть
sell	sold	sold	продавать
send	sent	sent	посылать
set	set	set	устанавливать
shine	shone	shone	светить, сиять
show	showed	shown, showed	показывать
shut	shut	shut	закрывать
sink	sank	sunk	тонуть
sit	sat	sat	сидеть, садиться
sleep	slept	slept	спать
speak	spoke	spoken	говорить
spend	spent	spent	тратить
stand	stood	stood	стоять
stick	stuck	stuck	втыкать
strike	struck	struck, stricken	ударять, бить
swear	swore	sworn	клясться
sweep	swept	swept	мести
swim	swam	swum	плавать, плыть
take	took	taken	брать, хватать
tell	told	told	рассказывать

think	thought	thought	думать, мыслить
throw	threw	thrown	бросать, кидать
understand	understood	understood	понимать
wake	woke	woken	просыпаться
wear	wore	worn	носить (одежду)
win	won	won	победить
write	wrote	written	писать

3.2. Модальные глаголы

Модальными называются глаголы, выражающие не действие, а отношение к нему: возможность, необходимость, способность, вероятность и т.д. совершения действия, выраженного инфинитивом смыслового глагола, следующего за модальным.

Модальные глаголы всегда употребляются с инфинитивом смыслового глагола, образуя составное глагольное (модальное) сказуемое.

Модальный глагол	**Выражает**	**Present**	**Past**	**Future**
can to be able (to)	мочь, уметь, быть в состоянии	can am / is / are able (to)	could was / were able (to)	- shall / will be able (to)
may to be allowed (to)	мочь, иметь разрешение	may am / is / are allowed (to)	might was / were allowed (to)	- shall / will be allowed (to)
must	быть должным	must	-	-
ought (to)	следует, следовало бы	ought (to)	-	-
to have (to)	вынужден, приходится	have / has (to)	had (to)	shall / will have (to)
to be (to)	должен (по плану)	am / is /are (to)	was / were (to)	-
should	следует, следовало бы	should	-	-
would	желать, вероятно; бывало	-	would	-
need	нуждаться	need	-	-

Примеры употребления модальных глаголов

Can	The company **can** control budgets of workers (Компания может контролировать бюджет работников) They **can't** repair it (Они не могут починить это) **Can** you help me? (Ты можешь мне помочь?)
Could	**Could** you spell this word again? (Не могли бы еще раз произнести это слово по буквам?) I think they **could** have another way of solving this problem (Я думаю, они могли бы получить еще один способ решения этой проблемы) She left her previous job so she **could** work for us (Она оставила свою предыдущую работу, поэтому могла бы работать на нас)
May	**May** I take another cup of tea? (Могу ли я взять еще одну чашку чая?) Our country **may** become a major economic power (Наша страна может стать могучей экономической державой
Might	Shop **might** give us a 20% discount (Магазин может сделать нам 20%-ую скидку)
Must	We **must** do it now (Мы должны сделать это сейчас) Servers **must** not interrupt its work if it's not necessary (Серверы не должны прерывать свою работу если в этом нет необходимости)
Ought to	We **ought to** hire a professional economist (Мы должны нанять профессионального экономиста)
Should	They **should** solve this problem at once (Им следует решить эту проблему сразу) I think you **should** check all sequence again (Я думаю, тебе следует снова проверить всю последовательность) Quality of playing **should** improve next month(Качество игры должно улучшиться в следующем месяце)

Would	**Would** you mind if I change this sequence (Не возражаете, если я изменю эту последовательность) **Would** you bring the salt please? (Не могли бы вы принести соль, пожалуйста) **Would** five o'clock suit you? (Пять часов вас устроит?) **Would** you like to play a basketball this week? (Ты бы не хотел сыграть в баскетбол на этой неделе?)

3.3. Страдательный залог (Passive Voice)

Пассивный залог (страдательный залог) – показывает, что лицо или предмет не сам совершает действие, а над ним совершают действие.

Употребление пассивного залога:

1. Действие само по себе более важно, чем лицо, которое его выполняет. *The new theatre will be opened by the Queen on June, 26.*
2. Страдательный залог в английском языке характерен для научного стиля речи. В предложениях со сказуемым в страдательном залоге используется прямой порядок слов (т.е. подлежащее стоит перед сказуемым).

Исследовались (были исследованы) свойства радиоактивных элементов.	*The radioactive properties of elements were studied.*

Сводная таблица спряжения глаголов в страдательном залоге

	Present	**Past**	**Future**	**Future-in- the Past**
Simple (Indefinite)	am, is, are + 3f V	was, were + 3fV	shall, will + be+ 3fV	should, would +be+3fV
	Papers are written every day. (Статьи пишутся каждый день).	The paper was written yesterday. (Статья была написана вчера).	The paper will be written tomorrow. (Статья будет написана завтра).	(He said that) the paper would be written the next day. – (Он сказал, что), статья будет написана завтра).
Progressive (Continuous)	am, is, are + being + 3f V	was , were + being + 3fV		
	The paper is being written now. (Статья пишется сейчас).	He paper was being written at 2 o'clock yesterday. (Статья писалась вчера в 2 часа).	-	-
Perfect	have, has + been + 3fV	had + been + 3fV	shall, will + been + 3fV	should, would + been + 3fV
	The paper has just been written. (Статья только что была написана).	The paper had been written by 3 o'clock yesterday. (Статья была написана вчера к 3 часам).	The paper will have been written by 3 o'clock tomorrow. (Статья будет написана завтра к 3 часам).	(He said that) the paper would have been written by 3 o'clock the next day. (Он сказал, что) статья будет написана к 3 часам завтра).

3.4. Типы вопросительных предложений

Общий вопрос		
Do you work?	Yes, I do	No, I don't
Does he live here?	Yes, he does	No, he doesn't
Are you a student?	Yes, I am	No, I am not
Is she reading?	Yes, she is	No, she isn't
Has he written the letter?	Yes, he has	No, he hasn't
Was the letter written yesterday?	Yes, it was	No, it wasn't
Специальный вопрос		
Where does she live?	She lives in Moscow.	
What is he writing?	He's writing a letter.	
When was the letter written?	It was written yesterday.	
Who is he?	He is Mr. Smith.	
Which book was read?	Mine.	
Вопросительно-отрицательный вопрос		
Isn't she at home now?	No, she isn't.	
Can't they write this letter?	Yes, they can.	
Haven't you seen this film?	No, I haven't.	
Why won't they help him?	They don't want to.	
Разделительный вопрос		
He works much, doesn't he?	Yes, he does.	
She is a student, isn't she?	No, she isn't.	
She can read, can't she?	Yes, she can.	
He hasn't done it, has he?	No, he hasn't.	
He will go there, won't he?	Yes, he will.	
He didn't live here, did he?	No, he didn't.	
He must stay here, mustn't he?	Yes, he must.	
Альтернативный вопрос		
Are you married or single?	I am single.	
Does she speak French or English?	She speaks English.	
Must he go or stay here?	He must go.	
Was he a student or a teacher?	He was a student.	

3.5. Сослагательное наклонение (The Subjunctive Mood)

Сослагательное наклонение показывает, что действие, выраженное глаголом, является не реальным фактом, а лишь желанием, предположением, условием, осуществление

которых сомнительно, невозможно (нереально) или предположительно.

There would be no life without water.

В научной английской литературе сослагательное наклонение используется главным образом в условных придаточных предложениях, выражающих маловероятное или нереальное условие.

В английском языке только глагол to be имеет особую форму сослагательного наклонения. Она очень проста: were для всех лиц.

If the design were better ... . – Если бы конструкция была лучше ... .

Остальные глаголы особой формы сослагательного наклонения не имеют. Для выражения желательности, необходимости, возможности или предположительности действия употребляются формы, совпадающие с Past Indefinite или Past Perfect, а также глаголы **should, would, may, might, could** в сочетании с инфинитивами.

3.6. Условные предложения (Conditional Sentences)

Условное предложение – это сложноподчиненное предложение с придаточным предложением условия, которое обычно начинается с союза ***If***. Условные предложения в английском языке могут принимать различную форму, но наиболее употребительная условная грамматическая конструкция имеет следующий эквивалент в русском языке:

If Condition, (then) Statement – Если Условие, (то) Утверждение.

Условные предложения делятся на три типа в зависимости от вероятности описываемых в них действий.

1) Условные предложения первого типа (First Conditional sentences)

Данные предложения используются для выражения реального действия в настоящем или будущем времени, то действие, которое может реально произойти.

If it is a sunny day I will go to the park. – Если будет солнечный день, я пойду в парк.

Придаточное предложение (условия)	Главное предложение
If + Present Simple/Present Continuous	Will +infinitive

2) Условные предложения второго типа (Second Conditional sentences)

Используются для выражения действия, которые в данный момент являются нереальным.

If I had a lot of money I would go to Paris. – Если бы у меня было много денег (сегодня или завтра), я бы поехал в Париж.

Придаточное предложение (условия)	Главное предложение
If + Past Simple/Past Continuous	Would/could/might+ infinitive

3) Условные предложения третьего типа (Third Conditional sentences)

Используется для выражения действия, которое было нереальным в прошлом.

If I had seen him yesterday, I would have asked him about it. – Если бы я видел его вчера, я спросил бы его об этом.

Придаточное предложение (условия)	Главное предложение
If + Past Perfect	Would/could/might+ have+3 форма глагола

4) Смешанный тип 1

Когда условное предложение относится к прошедшему времени, а главное – к настоящему.

If I had earned enough money last month, I would buy permit to Spain now. – Если бы я заработал достаточно денег в прошлом месяце, я бы купил путёвку в Испанию сейчас.

Придаточное предложение	Главное предложение
If + Subjunctive I (Past Subjunctive)	Subjunctive II (would + I)

5) Смешанный тип 2

Когда условное предложение, не относится ни к какому времени, а главное предложение относится к прошедшему.

If I had a bit more leisure time, I would have visited Spain long ago. – Если бы у меня было свободное время, я бы уже давно съездил в Испанию.

Придаточное предложение	Главное предложение
If + Subjunctive I (Past Perfect Subjunctive)	Subjunctive II (would have + III)

3.7. Неличные формы глагола (Non-Finite Forms of the Verb)

Неличные формы глагола отличаются от личных форм тем, что не имеют категории лица, числа, времени и наклонения. В предложении они самостоятельно не могут выступать в роли сказуемого.

Неличные формы имеют только две категории: вид и залог. В предложении они могут лишь входить в состав сложного сказуемого или быть частью форм простого сказуемого, а также могут выполнять функции других членов предложения. К ним относятся: **Инфинитив** (the Infinitive), **Причастие** (the Participle) и **Герундий** (the Gerund).

3.7.1. Инфинитив (the Infinitive)

Инфинитив в английском языке представляет собой неличную форму английского глагола, которая обозначает только действие, не указывая ни лица, ни числа. Инфинитив отвечает на вопросы: что делать? что сделать?

Функция в предложении	**Примеры**
Подлежащее	To design a good control system is not easy. (Спроектировать хорошую систему управления непросто).
Часть сказуемого а) после глагола-связки в) после модального глагола	a) Their aim is to improve the control system. (Их цель состоит в том, чтобы улучшить систему управления) b) You have to improve the control system. (Вы должны улучшить систему управления).
Дополнение	He would like to speak to Mr Brown. (Он хотел бы поговорить с м-ром Брауном).
Определение	They have the possibility to use the control system. (У них есть возможность использовать систему управления). The new equipment to be used at our laboratory is just arrived. (Новое оборудование, которое будет использовано в нашей лаборатории, только что прибыло).
Обстоятельство	I went in to see if they were ready. (Я вошел, чтобы посмотреть, готовы ли они).

3.7.2. Герундий (the Gerund)

Герундий является неличной формой глагола, которая сочетает в себе свойства глагола и существительного. Герундий может переводиться на русский язык существительным, неопределенной формой глагола, деепричастием или глаголом-сказуемым в составе придаточного предложения. Аналогичной формы в русском языке нет.

Герундий имеет 4 формы:

Формы герундия

	Активный	Пассивный
Простой	giving	being given
Перфектный	having given	having been given

Playing tennis is his favourite sport. – Игра в теннис – его любимый вид спорта.

He likes reading. – Он любит читать.

Функции герундия в предложении

Функция в предложении	Пример	Примечания
Подлежащее	Expecting too much leads to frustration.	
Часть сказуемого	Seeing is believing. (пословица)	
Дополнение • прямое • предложное	Science requires experimenting. I'm looking forward to hearing from you soon.	Герундий переходного глагола требует прямого дополнения
Определение • правое • левое	There is some reason for questioning this assumption. The flight was delayed; passengers had to wait for flying weather in the waiting room of the airport.	a) Определяет только отвлеченные существительные с предлогами: of, for, in. b) Образует устойчивые сочетания с неодушевленными существительными.
Обстоятельство • времени • образа действия	In solving problems it is necessary to distinguish between fact and hypothesis. By doing nothing we learn to be ill.	Перед герундием в функции обстоятельства всегда употребляется предлог.

3.7.3. Причастие (the Participle)

Причастие – это неличная форма глагола, которая сочетает в себе свойства глагола и прилагательного или наречия. В английском языке существуют две основные формы причастия: причастие I (Participle I) и причастие II (Participle II).

Причастие I образуется от инфинитива путем прибавления окончания -ing (write – writing, ask – asking).

Причастие II образуется от инфинитива правильных глаголов путем прибавления окончания -ed (ask – asked). У неправильных глаголов причастием II является их III форма, (write – written).

У причастия есть простые и сложные формы. К сложным формам относятся: 1) перфектные причастия (having used, having written), 2) пассивные причастия (being used, being written), 3) перфектные пассивные причастия (having been used, having been written).

Функции причастия в предложении

Вид причастия	**Часть сказуемого**	**Определение**	**Обстоятельство**
Participle I (active and passive voice)	He is solving a problem. (Он решает задачу). The problem is being solved. (Задача решается) Для образования времен Contininous	The engineer solving this problem work hard. (Инженер, решающий эту задачу, работает много). The problem being solved was difficult. (Решаемая задача была трудная)	(When, while) solving this problem he read many books. (Решая задачу, он прочитал много книг). While being solved, the problem offered some unexpected aspects. (Когда ее решали, задача представила некоторые неожиданные стороны).

Participle II (passive voice)	The problem is solved. (Задача решена)	The problem solved turned out to be fundamental. (Решенная задача оказалась фундаментальной).	If solved, the problem will offer numerous consequences. (Если ее решить, задача будет иметь многочисленные последствия)
Perfect Participle (active and passive voice)	-	-	Having solved the problem he left the classroom. (Решив задачу, он вышел из класса). Having been solved, the problem offered numerous consequences. (После того, как задача была решена, обнаружились некоторые ее многочисленные следствия.