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ENGLISH FOR ACADEMIC COMMUNICATION

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Учебное пособие представляет собой практический курс английского языка. Основной целью данного курса является формирование коммуникативной компетенции, которая в соответствии с ФГОС ВО для уровня магистратуры, определяется как способность применять коммуникативные технологии, в том числе на иностранном языке, для академического и профессионального взаимодействия. Достижение поставленной цели обеспечивается комплексом проблемно-творческих заданий, стимулирующих интеллектуальную деятельность студентов и направленных на развитие навыков устной и письменной коммуникации в международной научной среде.

Предназначено для магистров всех специальностей неязыковых вузов.

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Unit 1 Getting started in research

Vocabulary

1. Match these English phrases (1-8) with Russian phrases (a-h)

1 to become a scientist	a получить повышение
2 to do (scientific) research	b стать компетентным специалистом
3 to get a promotion	с углубить знания
4 to get new knowledge	d получить степень магистра
5 to become a competent specialist	e стать ученым
6 to get a Master degree	f заниматься исследованиями
7 to advance in knowledge	g получить новые знания
8 to develop oneself as a specialist	h развивать себя как специалиста

Planning a career in science

2. Use the words in vocabulary to answer the questions. Make notes.

- 1) Why did you choose a career in science?
- 2) What field of science are you currently working or studying in?
- 3) What would you like to do next in you work or studies.

3. In pairs, take turn asking each other questions in ex.1 and giving a reply.

Encourage a conversation.

We can encourage conversation in the following ways:

<i>Showing interest/surprise</i>	<i>Asking follow-up questions</i>	<i>Using the speaker's words in a follow-up questions</i>
<i>Really? I'm surprised to hear that. Do you? Did you? Are you? Have you?</i>	<i>What do you think of ...? When are you going ...? How do you feel about...?</i>	<i>- So I am going to write an article. - An article?</i>

4. Look at the table “Higher education for science in the US.” Make a similar table for Russia and then answer the questions. Use these words to help you:

Bachelor of Science	бакалавр наук
Master of Science	магистр наук
Ph.D., candidate of Science	кандидат наук
Specialist	специалист
Undergraduate	студент старших курсов
Graduate	выпускник
Postgraduate course	аспирантура
Professor	профессор
Associate professor	доцент
Doctor of science	доктор наук

Higher education for science in the US

<i>Qualification</i>	<i>Category</i>	<i>Duration (full-time)</i>	<i>Place of study</i>
Associate of Science degree	undergraduate	2 years	Community college or junior college
Bachelor of Science degree	undergraduate	2 or 4 years	College or university
Master of Science	graduate (postgraduate)	2 years	University or graduate school
Doctoral degree (PhD)	Graduate (postgraduate)	3 or 8 years	University or graduate school

Higher education for science in Russia

Qualification	Category	Duration (full-time)	Place of study

5. Answer the questions

- 4) Is science education in the US similar to science education in Russia?
- 5) What is the name and qualification of your scientific advisor (supervisor)?
- 6) If you decided to study for science, which qualification would be best for you?

6. Eriko is from Japan and soon will complete a PhD in biotechnology in London. She is discussing the next stage in her career with her supervisor, Susana.

- 1) Read the part of their conversation and tick the options which interest her and put a cross next to the options which do not.
 - teaching (undergraduate) students
 - doing post-doctoral research
 - supervising a research team

- finding a full-time position at the university
- discussing theory
- doing practical fieldwork
- finding a well-paid job

Susana: ... and have you thought about what you'll do once the PhD is finished?

Eriko: It's actually rather scary. I know I don't want to stop doing science and become an accountant, but beyond that ...

Susana: Well, let's start with a simple choice. Academia or industry?

Eriko: Oh, easy – academia. I've really enjoyed the teaching I've done, so I don't want to give that up.

Susana: But in industry you could supervise more junior researchers. You wouldn't have to give up teaching.

Eriko: No, but it's different. I find it really interesting to explain quite complex topics. Supervising people would be more practical. I really love communicating the theory side of things.

Susana: Well, yes... but I don't think working in industry would be completely different. You would also be out in the field more. Someone would pay you to go to real disasters to try the robots out.

Eriko: Hm. That's true. But I'm not so interested in doing that. As long as I have time to do work on developing the robots in the lab, that's fine for me. I do really want to teach though. I actually quite enjoy preparing lectures and thinking of creative ways to explain theory.

Susana: Really? OK, so suppose you go for academia...

Eriko: I'd like to get a post-doc position first.

Susana: So then you'd be looking at a full-time position in higher education?

Eriko: Yes.

Susana: And all the paperwork doesn't stop?

Eriko: Well. I don't actually mind it that much. So no, it doesn't bother me.

Susana: And the money? You're not attracted by the salaries in industry?

Eriko: Not at all. Well, maybe a bit. But there are more important things than money. I know I'm not going to get rich this way. But industry work? I really don't think it's for me.

Susana: But it's good to know there is as a possibility.

Eriko: That's true – if things don't work out...

- 2) Do you agree with Eriko's words "But there are more important things than money. Why? / Why not?"
- 3) What will be the next stage in your career. Would you prefer to work in industry or at a university? Why?

Unit 2 Research funding

Vocabulary

1. Match English phrases (1-8) with Russian phrases (a-h)

1 scholarship	a лицо, дающее рекомендацию
2 outcome	b выдающийся
3 applicant	c стипендия
4 outstanding	d перемещение
5 relocation	e кандидат
6 to award	f обеспечивать покрытие
7 to cover	g присуждать
8 referee	h результат

Applying for research fund

2. Read the following extract from a website and then discuss the questions below.

About

The Sheridan Australian Research Fellowship (SARF) aims to develop science in Australia by attracting outstanding scientists in their field to continue their research in an Australian university or research institution. SARF fellowships are awarded to individual scientists with future potential for leadership in their field. Successful applicants for leadership receive a 5-year grant covering salary, travel and relocation costs.

- 1) Can an organization apply for this scholarship?
- 2) What relocation costs are the most important for you (accommodation search, visas and work permits, removal and shipping assistance, school

- search, integration programmes, partner employment assistance)?
- 3) Would you be interested in applying for SARF? Why/why not?
 - 4) What information might you need to include on your application form?
 - 5) What are the advantages of attracting scientists “with future potential for leadership in their field” to a country?
 - 6) Have you ever applied for a scholarship? What did it involve?
 - 7) Can providing money to scientists at the beginning of their career be considered as an investment?
3. Eriko has decided to apply to SARF and has downloaded an application form. Look at the list of sections on the form (1-10) and match each one to Eriko’s notes on the information she needed to provide (a-j).

SHERIDAN AUSTRALIAN RESEARCH FELLOWSHIP

Application Form

1. applicant
2. current appointment and address
3. location of proposed study
4. sponsor’s recommendation
5. departmental support
6. project title
7. project summary
8. details of proposed research
9. budget
10. nominated referee with personal knowledge of applicant

- a. an explanation of how I'll do the research and why it is important
- b. a short description of what I'll research
- c. a statement from a senior researcher explaining why I'm a suitable applicant
- d. how much I plan to spend on my research
- e. the job I do now
- f. the name of someone to support my application
- g. what I'll call my research
- h. permission from my head of faculty to use his/her resources
- i. where I plan to study
- j. my personal info

4. Section 7 of the form asks applicants to write *a project summary* of their research proposal.

Project Summary

Provide a brief summary of aims, significance, and expected outcomes of the research plan

Alina is an architect. She is also interested in applying for a research fund. Read Alina's project summary and answer the following questions.

- 1) What is the aim of her research?
- 2) What problem does she try to solve?
- 3) Why is her topic worth researching?
- 4) What are the expected outcomes of her research?
- 5) What do you think might be the commercial applications Alina's research?

Architectural morphology in the context of impossible forms

In the pursuit of entertainment and external effects modern architecture creates fantastic shapes and an illusory composition: modern drop-type and blot-type buildings, labyrinths, in which impossible figures can be guessed, can confuse and arouse interest.

On the one hand this situation is mostly connected with rapidly developing technologies that are introduced in design, making projects and creating new architectural structures.

On the other hand in modern scientific knowledge, space is not perceived as single and simple, defined by three straight lines, but as irregular, unexpected, distorted. **That is why** the term "impossible figure" has appeared.

The impossible figure is a type of optical illusion. It consists of a two-dimensional figure, which is instantly interpreted as a three-dimensional object [4]. There are many different techniques to create illusions in architecture.

However, there is little knowledge about visual illusions in architectural composition and modern architecture theory.

The proposed research will concentrate on new geometric theories and methods like geometry of Lobachevsky and many others which have become popular among architects. They create new strategy of understanding architectural forms, environment and morphology.

This strategy will help to build structures, which create an optical illusion, disorient the person and move him into another space. Simple buildings seem to be multi-level. **To add to this** one more dimension in optical illusion is introduced by electronics. **For example**, a building with a media facade. **Due to this** it is impossible to understand how many floors there are in the building. In the daytime the facade looks like an absolutely smooth mirror surface, and in

the evening some patterns appear on the surface due to the illumination system.

This research aims to identify the role of visual illusions in architectural composition.

The work should justify recommendations to take into consideration more than one plane for full analysis of the building structure and to look at the entire architectural morphology anew.

5. Write out the linking words and useful phrases from the summary. Translate them into Russian.
6. Think about a research project in your area. Summarise the project following instructions (1 – 5) below.
 - 1) State the aims of your research
 - 2) Define what the problem is
 - 3) Explain why your topic is worth researching
 - 4) Say what the expected outcomes of the research are
 - 5) Outline the procedures you will follow
7. Write a short project summary for your research according to the instructions in Ex.6. Use written out phrases and linking words in your project summary

Unit 3 The scientific community

Vocabulary

1. Match these English phrases (1-8) with Russian phrases (a-h)

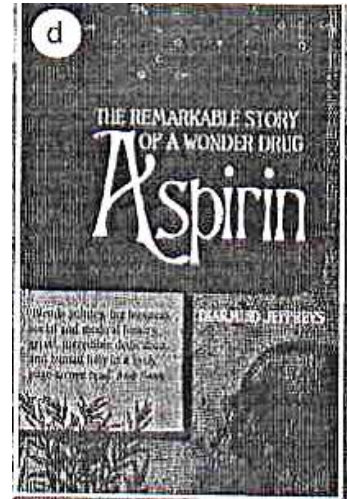
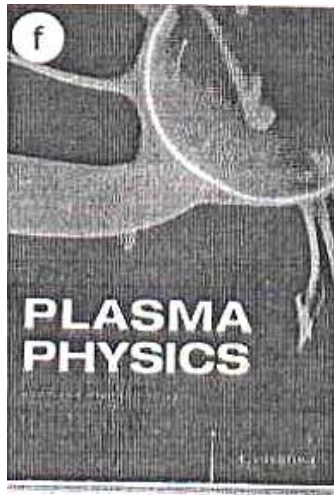
1. to network	a. избегать
2. to contribute	b. повторение
3. findings	c. обменяться идеями
4. replication	d. разработка
5. to collaborate	e. сотрудничать
6. to blur	f. делать вклад
7. to avoid	g. создавать/поддерживать деловые связи
8. development	h. полученные данные
9. to “bounce” (ideas off)	i. размывать

Communicating with scientific communities

2. Match the methods of communication (1-6) to the following sources of information (a-f).

1. an academic journal
2. a conference
3. an online forum or science blog
4. a popular science magazine
5. a popular science book
6. a newspaper





Which of these ways do you usually use to communicate?

3. In pairs, discuss the questions.
 - 1) Who did you last communicate with about your scientific work?
 - 2) Did you have any difficulties in the communication? If so, how did you solve them?

4. Why is it important for scientists to keep in touch with:
 - a. other people in their field (e.g. architecture)?
 - b. people in their specialism (e.g. design of architectural environment)?
 - c. people in other fields of science?

5. Read the following ideas about questions in exercise 4 and tick the ideas which are the same as yours.

a

- developments in one specialism within the field can contribute to research in other areas;

- to network;
- to ensure they have a more rounded picture of the field;
- for general interest.

b

- to share protocols/materials/results;
- to compare findings;
- to network;
- to “bounce” ideas off one another;
- to avoid replication of experiments;
- to collaborate on particular areas of research.

c

- for general interests;
- the boundaries between fields are often blurred;
- developments in one field can have a knock–on effect on other fields

Presentation skills

- 6.** 1. Work in pairs. Read the quotation and discuss the questions. Do you agree with the quotation? Why/Why not?
- A man who cannot speak well will never make a career. (Anonymous)*
- 7.** Think of a presentation you have given recently. Complete the questionnaire Write *yes* or *no* below next to each question.
- 1) prepare thoroughly: check the meaning and pronunciation of new words, create slides, rehearse the speech, etc.?
 - 2) start the talk in an interesting way to get the attention of the audience?
 - 3) speak from notes rather than read a whole text?
 - 4) give an overview of your talk at the beginning?
 - 5) use phrases to help the audience follow your ideas?
 - 6) provide examples to illustrate complex and/or original ideas?

- 7) provide visual support?
- 8) invite the audience to ask questions?
- 9) emphasise the main points by slowing down and leaving pauses?
- 10) make eye contact with your audience?
- 11) use effective gestures?

8. How many positive answers have you got? What would you like to improve?

9. Presentation goal.

Tip:

The structure, style, and delivery of a presentation depend on its goals. There are normally several goals, but it is possible to choose a primary one.

Match events 1–5, which involve speaking in public, to definitions a-h.

1. lecture	a. an occasion when a teacher or expert and a group of people meet to study and discuss something
2. demonstration	b. a formal talk on serious subject given to group of people, especially students
3. seminar	c. a talk describing a product that can be bought
4. conference presentation	d. the act of showing someone how to do something or how something works
5. commercial presentation	e. a talk to people of the same field, usually about your research

What kind of talk have you given? What was your audience?

10. Presentation structure

Put the stages of a presentation (a-i) in a logical order (different answers may be possible).

a. present the main body of the talk	g. have a strong ending
b. handle questions	h. introduce the presentation topic and objectives
c. signal the beginning of the talk	i. outline the presentation structure
d. greet the audience	j. thank the audience
e. summarise the main points	k. say when you would like to take questions
f. introduce yourself	

Is the structure of a Master degree project presentation different from the structure of a conference presentation?

Presenting a Master degree project

11. Look at the phrases below. Are they used to: introduce yourself (Y), introduce the subject of your research (S), explain the goals of the research (G), underline the relevance (R), describe the experiment (E), make a conclusion (c) or deal with questions (Q)?

- 1) My study deals with the problems of.../is devoted to the investigation of...
- 2) I am a master degree student at the department of .. .
- 3) That completes my presentation. Thank you.
- 4) I'll be happy to answer questions at the end.
- 5) I think the results of the work will be of considerable practical significance, because ...
- 6) My major interest is in the field of....

- 7) The main purpose/aim of my research is...to find out/to define/to characterize/ explore/ to investigate/to analyse/to gain/.....
- 8) To sum up, I would like to say that
- 9) The focus of my research is on.....
- 10) My scientific advisor is Prof....
- 11) The methods and techniques we apply in this research include experiments (observations, laboratory tests, field and pilot plant study,...)
- 12) I am currently doing my masters degree in..... studies

To check your answers see Appendix 1 *Useful language for presenting a master degree project.*

12. Working with visuals

Work in groups. Think about presentations you have seen at conferences. Create a list of *dos* and *don'ts* for an effective slide-based presentation.

Do	Don't
<ul style="list-style-type: none"> • give a title to each slide 	<ul style="list-style-type: none"> • use complete sentences

13. Read the text about creating presentation slides and fill in the gaps with the words and expressions from the box.

When you create slides, you should follow certain requirements. The first slide usually contains ¹ The second slide shows your presentation plan and objectives. The presentation follows a 3.3 rule, which means²

It is also important to have a slide with the summary of your presentation and conclusions or results. The last slide contains ³ if anyone would like to contact you afterwards. You should remember that each slide illustrates only one topic.

The titles of the slides should be short, not more than ⁴ words written in the same style: either all questions or similar phrases. The bulleted lists in the body-do not contain full sentences. Usually there are 5 – 6 words per line.

The number of lines on a slide is normally ⁵ to make it easy for the listeners to follow your ideas. The font ⁶ is often used for titles.

For the text on slides suitable fonts are ⁷ The text can be accompanied with visuals, but the common rule for slides is 'less is more'.

You can estimate the number of slides if you use the following method:⁸....., where n is the number of slides and t is the time. The beginning should not take longer than ⁹ seconds. If you want to take questions at the end you should leave about 25% of your time for them.

a. Arial or Tahoma 28-32.	f. 3 or 4
b. $n=t/2$	g. three parts - an introduction, a body with three main points in it and a conclusion
c. "thank-you" and your contact details	h. 2-5
d. 90	i. Verdana size 40
e. the title of your presentation, your name and the name of the event with date	

14. In pairs, compare your texts. What information is new for you?
15. Prepare a presentation of your Master degree project.
 - write a plan using your project summary from **Unit 2**write the text of your presentation. Pay attention to the structure and use the phrases from **Appendix 1** *Useful language for presenting a master degree project*.
 - check the text for any mistakes
 - prepare the slides
 - practice the text and make sure you don't speak for more than 5 min.
16. Take turns to listen to your colleagues' presentations and ask questions if appropriate. Give your colleagues some feedback using the Feedback Form in Appendix 2.

Unit 4 Reading a research paper

Vocabulary

1. Match these English phrases (1-8) with Russian phrases (a-h)

1 research paper	а цель
2 evaluate	б осуществлять, выполнять
3 to consider	с проводить научное исследование
4 investigation	д оценивать
5 to conduct research	е обнаруживать, выявлять,
6 aim	ф рассматривать
7 to search	г актуальность
8 to implement	h научная статья
9 relevance	г исследование
10 to reveal	h искать

2. Do you read popular science articles? Why? On what occasions?

The passages below refer to the article “*The history of architecture and urban planning in the city of Gorky in the period from 1955 to 1975*”.

Read the passages A – H and match them to these sections of the article.

What helps you decide? Put the passages in the right order (from 1 to 7).

- 1) Introduction/ general information
- 2) Description/ purpose of the research
- 3) Findings
- 4) Researcher’s comments and conclusion

A The architects began to design new neighborhoods and thus new look of the city started forming. The design of new neighborhoods was carried out according to principle "svobodnaya planning" (a random placement of buildings) (the middle of the 1950s – the end of the 1970-ies) [1].

B Public buildings of the period under study can be divided in two types. Some of them reflect the Soviet Union's trends of that period, the others were notable for their regional features. Public education buildings (schools, kindergartens) were built using standard projects and developed series. Administrative buildings, theatres and cinemas, train stations and cafes gained its uniqueness due to vertical segmentation of facades by pylons (the building of the Moscow Railway Station), symmetry, austerity and monumentality of forms and etc.

C The architecture and urban planning in the period from 1955 to 1975 present a special interest for the history of the city of Nizhny Novgorod (in the past named Gorky). The era of standardization and typification, engineering approach to the design of houses and neighborhoods, the creation of new methods of construction - all these allowed to change the appearance of the city significantly and to create a new architectural environment. We can see it in Nizhny Novgorod these days. This period has not been investigated in details before, and this fact allows to speak about relevance of the topic.

D Architecture and urban planning of the middle of the 1950s - the end of the 1970s are important for the history of architecture of the city. Obtained during the study information will allow to create the most complete picture of the regional architectural characteristics of the "capital" of the Volga region.

E The conducted research will allow to expand the field of knowledge relating to the period of development of the regional architecture of Nizhny Novgorod in the period from 1955 to 1975. The study will help to identify and explore the principles of planning and development of the city, the techniques of stylistic and compositional organization of the architecture. The results of the research can assist in the design of contemporary buildings. Moreover, research can be useful for solving problems of reconstruction of existing buildings constructed during the period under study.

F The aim of my research is to describe peculiarities of architecture and urban planning of the city of Gorky in the period under study. To attain the aim, it is necessary to implement the following task: firstly, to study the domestic experience of construction in the period from 1955 to 1975; secondly, to analyze urban planning of Gorky in this period, to investigate general and individual features of the development of neighborhoods in the planning structure of the city; thirdly, to identify the features of the residential architecture on the basis of standard design in the city of Gorky and to examine architecture of public buildings in the city of Gorky; fourthly, to consider the current state of architecture and to evaluate creativity of leading Gorky architects in the period under study.

G The study of architectural solutions of residential houses allowed to talk about the existence of different standard designs. According to materials of archives of Nizhny Novgorod [5, 6] there were discovered some of the most used series of houses (different variations of series 1-464, 1-466 of big-blocks and variations of series 1-447 of brick). Also, new methods of construction of the period under study were revealed. Method of Big-block standard residen-

tial house construction and method of «narodnaya stroyka» can be referred to them. The method of Big-block standard residential house construction was developed and firstly used in Nizhny Novgorod. The method of «narodnaya stroyka» was created in this period in the city and later was used across the country.

3. Read the whole article again and write down the words and expressions describing each section of the article. Translate them into Russian.

Example: presents a special interest- представляет особый интерес (Introduction)...

4. Find a research paper in English on the topic of your investigation. The authors of the papers should be from English- speaking countries. The article should be 4000 letters.
- 1) Read the article, decide, what section (introduction/ general information, description/ (purposes) of the research, findings, researcher's comments and conclusion) it is.
 - 2) Write out unknown words and terms, write their transcription and translation into Russian.
 - 3) Prepare to discuss the paper content with the teacher. Think how this research paper can help you in your research.

Unit 5 Writing a research paper

Vocabulary

1. Match these English phrases (1-10) with Russian equivalents (a-j).

1. abstract	a. предложение, соображение
2. background information	b. акцент
3. to cover	c. ссылки на литературу
4. hypothesis	d. аннотация
5. deals with	e. наблюдать
6. title	f. иметь дело, рассматривать
7. observe	g. гипотеза
8. suggestion	h. название
9. reference	i. исходная информация
10. emphasis	j. включать, освещать

1. Research papers are generally written for scientists working in the same field and can appear in specialist journals or be presented at conferences. Have you ever written a research paper? When? What was it about?

The structure of a research paper

2. There are normally 8 sections in a research paper or scientific report, and they usually follow each other in a fixed sequence. Read the description of all the sections and say if your research paper had all of them. Which section was the most difficult write? Why? (If you have never written a research paper, think what section *would* be the most difficult to write).

Title

It must precisely describe the report's contents

Abstract

A brief overview of the report

Introduction

Includes the purpose of the research

States the hypothesis

Gives any necessary background information

Methods and materials

Provides a description of material, equipment and methods used in the research

Results

States the results of the research. Visual materials are included here.

Discussion

Evaluation and interpretation

Was the hypothesis supported? If so, how? If not, why not? Relevant results are described in support.

Conclusion

Conclusions to be drawn from the results

Conclusions about the hypothesis

Additional research proposed

References cited

A list of the references includes references to any works cited in the review of literature.

Planning your Writing

3. A primary tool for a writer is making a plan before starting to write.
Work in pairs and complete the list of reasons for writing a plan.

Planning enables you to:

- 1) organise your thoughts efficiently,

- 2)
- 3)
- 4)
- 5)

4. There are different kinds of plans. Match the types of plans with their descriptions. What kind of plan do you usually write? Why?

I. A simple plan	a. Below the main points, you can list more specific points. Generally you do not have to be over-specific, but this is a way of making sure that the detailed points you want to make are not forgotten.
II. A complete plan	b. A simple sentence summarising the main point of each paragraph and section. These give you direction, and can sometimes form <i>the first or 'topic' sentences</i> of your paragraphs.
III. A question plan	c. Only the main points are written in an order that best serves the argument and information sharing of the paper.
V. A sentence plan	d. In these you write down the questions that you are trying to answer at each stage of your work. This form helps you to understand the reader's position and may help focus the plan and organize your strategy.

5. Write a plan for your research paper

Introductions to research papers

6. Introductions to scientific research papers are direct and to the point, maybe only one paragraph long. What do you need to write there?
Read the following suggestions and compare with your ideas.

You need to

- * tell the reader what the paper is about
- * say what the paper contains and says
- * explain why what it says is important and worth reading

7. Read the example of an introduction to a research paper and underline linking words and helpful phrases that you can use in introductions.

Example of an introduction to a research paper

There is a rising problem that public spaces are increasingly being neglected in many new construction projects. Even existing public spaces are also suffering from aggressive re-purposing into commercial objects like office buildings and apartment complexes. This article aims to justify the importance of public spaces for people. This is attempted by first defining the term “public spaces”. Then the article lists the desirable characteristics of a good public space. Finally, the emphasis is laid on the need to have public spaces.

8. Read the example of an introduction again. Does it cover the points listed in ex.6?
9. Write the introduction to your research paper. Use the following sample phrases.

Sample phrases you can use in introductions

Stating your purpose

In this paper, it will be shown that/

In this paper, ... will be discussed / are considered.

The present paper examines / presents/ aims to/ lists...

In this article, we report on ...

Our / My intention here is to highlight ...

In the following pages, we shall propose ...

This article will concentrate / focus on the arguments ...

The key question that this article will address is whether ...

This paper will report on work already carried out in this area.

Relating your paper to current work

In recent years, ... has become a topic of lively debate.

The issue of ... has become controversial recently.

The question of ... has been thoroughly researched over the last few years.

There is a rising problem that.....

Indicating the structure of your paper

The article has (6) main sections.

Firstly, we shall examine the question of ...

The next section briefly outlines ...

Then/ After a short discussion of ..., an overview of ... will be given.

This will be followed by ...

The final section will present ...

Finally, the emphasis is laid on ...

I / We shall then go on to suggest ...

The main body of a research paper

- 10.** Between the Introduction and the Conclusion, the main body of a research paper normally consists of three sections. Read the description of each section. Are you are going to include all of them in your research paper? If not, why?

Methods and Materials

In this section the researcher answers the following questions:

Where?	Location of the work, if relevant.
What?	What equipment and other materials were used in the research. They need to be thoroughly specified.
How?	The procedures and methods used in the research. Every detail should be included.

Results

This section follows Methods and Materials.

In this section you present the precise data and findings from the research, often using visuals to provide the information.

Data may be effectively presented in charts, tables, graphs, diagrams and photographs. These should be accompanied by explanatory text to highlight and interpret significant facts. See Appendix 3 *Describing Tables and Graphs* for examples of appropriate language to use.

Discussion

This section follows Results.

In this section you write about your interpretation of your findings and your evaluation of the research.

In particular, you give your opinion as to whether the work supported and proved your hypothesis, or whether it did not.

11. Write the main body of your research paper using the ideas above.

Research paper conclusions

In a research paper 'Conclusions' is a separate section, as is the Introduction.

It usually contains four straightforward elements:

- 1) Conclusions about the hypothesis posed in the introduction (Did the hypothesis prove to be correct or incorrect? How? Why?)
- 2) Results of the research – and their theoretical implications (What did the research actually reveal? What was observed?)
- 3) Possible hypotheses raised by the results (What questions do the results raise? What possible answers or explanations can be hypothesised?)
- 4) Specific lines of additional research raised by the results (At each step of the research new questions arose; how might they be answered or explained?)

12. Write a conclusion to your research paper. Use Sample phrases from the box below.

Sample phrases you can use in conclusions

Summarising what you have done

In conclusion, we can say that ...

In this paper, we have seen that ...

This research paper has clearly shown that ...

The discussion in this article has given an overview of ...

This paper has provided a systematic study of ...

From the research that has been carried out, we can conclude that ...

The aim of the present paper was to examine whether ... and this has now

been achieved.

Finally, it is worth pointing out that ...

Indicating the limitations of your own work

This article has only been able to touch on the most general features of ...

Even a preliminary study, such as the one reported here, has highlighted the need for ...

Looking to the future and further research

Clearly, further studies are needed to understand / prove ...

In order to validate the work we have carried out, a more in-depth investigation into ... is needed.

Giving a title to your paper

1. Read seven suggestions for writing the title of a research paper. Which suggestion should you use to write a good title? Which suggestions don't give good advice?
 - 1) Make it about 50 words long
 - 2) Write it as a question
 - 3) Begin with a phrase like "A study of ..." or "An investigation into ..."
 - 4) Include a joke or play on words
 - 5) Include important key words for internet search tools
 - 6) Include information such as the species studied, the treatment used, etc.
 - 7) Present the key result

2. Work in pairs. Discuss the following titles for the article about Mars, decide which title you think would be the best.

- A. Is there life on Mars?
 - B. Are there any features on Mars that could provide protection against the severe surface conditions?
 - C. An investigation into whether Mars's surface material could provide protection for organisms
 - D. Protection for *Acidithiobacillus ferrooxidans* and *Deinococcus radiodurans* exposed to simulated Mars environmental conditions by surface material
3. Read the dialogue. Make a list of recommendations "How to give a title to your paper" using ideas from the conversation.

Mya: So, I have a few ideas for titles, but I don't know which is best.

Steve: OK, let's have a look then. Right, well, this first one, "Is there life on Mars?" is no good.

Mya: Yeah, I didn't think it would really be suitable, but I thought it was good to have something catchy, jokey though, with a fun reference.

Steve: Well, I don't know if that's true really. Look at this way, will all your intended audience understand the reference you're making? If they do, well, they'll laugh ... but if they don't get the joke, your title will be extremely vague.

Mya: That's true, I guess.

Steve: And looked at another way, who is going to find it when they're searching the online journals?

Mya: Well, someone who looks for "life" and "Mars"?

Steve: But would someone in the field search for such vague terms? Your title needs to contain the important keywords that someone would search for – otherwise it won't be found.

Mya: OK, so how about my second one: "Are there any features on Mars that could provide protection against the severe surface conditions?" It's got the idea of Mars, protection, the severe conditions ...

Steve: Yes, that's true, but it's still rather vague. It seems that what you've done here is just use your research question as your title.

Mya: I thought that would be a good idea. I mean, that tells people what I was looking at.

Steve: Yes, but that title could have been written before you did the research and anyone could ask a question: "Can you now, after your studies, give us an answer to the question?" So, instead of using the question you asked as your title, write a statement telling the reader what your key result was. That's much more informative.

Mya: So this one – "An investigation into whether Mars's surface material could provide protection for organisms" – is better. It explains the key finding. I mean, it sums up the content.

Steve: Well, it does to an extent, but it's still a little imprecise. Protection for organisms? For dogs? Cats? Humans?

Mya: For some organisms?

Steve: Why not tell us which ones? It's often good to include details like the species studied, or if you're focusing on one field location, the place – things like that are important. Also "protection". Protection from the rain? Say what they're protected from.

Mya: Oh, I thought it would be confusing if I used too many technical terms.

Steve: Yes, you're right, being too technical isn't good – but this isn't jargon, it's detail. And again, "an investigation into" tells us what you did, not what you found. Try to avoid starting with phrases like "an observation of" or "a study of". Your next suggestion "Protection for *Acidithiobacillus ferrooxidans* and *Deinococcus radiodurans* exposed to simulated Mars environmental conditions by surface material" is much, much better.

Mya: But it's too long?

Steve: No, I don't think so. I mean it tells us about key findings – what you found, in what organisms, under what conditions – it's probably the best of the lot. It really does enclose what the content is ... yes, it's the best.

Mya: So maybe it's a good idea to write out what the key finding is and then use that to form the title?

Steve: Yes, often you'll then just need to use more nouns ... to make it more like a title and less like a sentence.

4. Have you changed your mind about which titles are helpful to the reader?

5. Read the research paper for the conference "Festival nauki. Give the title to it using the rules above.

There is a rising problem that public spaces are increasingly being neglected in many new construction projects. Even existing public spaces are also suffering from aggressive re-purposing into commercial objects like office buildings and apartment complexes. This article aims to justify the importance of public spaces for people. This is attempted by first defining the term "public spaces". Then the article lists the desirable characteristics of a good public space. Finally, the emphasis is laid on the need to have public spaces.

There are many definitions of a public space. This one is the most appropriate for the research : "A place where everyone has the right to come without being excluded because of social or economic conditions (payment of an entrance fee, membership fee or fulfillment of any other prerequisite condition)"¹. Examples of public spaces include parks, squares, sports grounds, markets and communication spaces like roads, alleys and bridges.

What makes a public space good or successful? When a public space is created, three questions should be taken into consideration: if there is a good

balance of gender, age, social groups; if the place is welcoming and the local community -friendly and tourists-friendly; if the locals take pride to have it in their community.

Moreover, a successful public place is usually:

- unique- it has some feature or activity that it can be identified with;
- accessible- it is easy to get to and it is connected to other parts of the community;
- safe- it is protected from vehicular traffic, from threat of personal injury and from criminal activity;
- comfortable- it has seating benches, shading from the natural elements like sunlight, wind and rain. It also has insulation from the surrounding hustle and bustle of daily scenes;
- interactive passively- it has fountains, statues, etc.;
- interactive actively- it has playgrounds, bike rinks, kart racing circuits, cafés, etc.;
- aesthetically pleasing - public spaces are greatly judged by their appearances.

The characteristics mentioned above are all from the point of view of the developer or designer or architect. The community, as a rule, must also be involved in creating these spaces. If the community is not involved in the process of creation, these places will be deserted and be just empty shells.

We need to keep in mind though, that a new public space needs time to mature to become successful and eventually be filled with human activities.

Why do we need public spaces?

Public spaces enhance our well being

This is especially true in the city environment. It does not really apply to rural settings. Public spaces like parks mitigate air and noise pollution. Water

fronts in some instances are also used as defenses to protect people from flooding.

Public spaces build a sense of community, civic identity and culture and promotes social cohesion

On its own account, a park cannot build a community as previously mentioned. It is the people who create and build communities by participating in daily activities and events. The public space merely provides a conducive environment for them. A good public space can and will inspire and attract citizens to come together and interact in that space.

Public spaces have the ability to drive economic growth

The obvious examples are markets, yamarka, shopping malls where physical money changes hands and deals are struck.

A study by the UN Habitat established a strong correlation between the amount of land allocated to public spaces in a city to the development of that city. The report recommends that as much as 45% - 50% of the city land should be allocated for public spaces; 30% -35% of which should be for streets and the remaining 15% - 20% for open spaces.

Public spaces can transform wasted space

Abandoned and wasted spaces take on a new life and stimulate economic growth.

Good public spaces give character and enhance architectural diversity

In a concrete jungle a dash of colour, some comedic relief, fake historical tiny buildings can give some diversity and uniqueness to the architecture of the city.

To sum up, the answer to the question: "Do people need public spaces?" is an emphatic YES! People do need public spaces. The absence or limited availability of public spaces leads to disharmony among people and low levels of

community participation and patriotism. It also fosters the growth of narcissistic behaviors, crumbling of human empathy, ecological and environmental degradation, difficulties to travel from one place to another, physiological and psychological stress and low citizen morale. All these lead to low productivity and hence negative economic growth.

It is a duty of architects as future professionals to protect public spaces from the forces that would like to destroy them or otherwise render them unusable. Architects need to protect public spaces, improve them and adapt them so that they can survive for the generations coming after to enjoy the benefits as well.

6. Discuss the titles as a class, choose the most suitable title, justify your option.
7. Write the most helpful to the reader title for your research paper .

Writing an abstract of the research paper

An **abstract** is a shortened version of the paper written for people who may never read the full version. Since abstracts are often reprinted in abstracting journals separated from the original paper, they need to be self-explanatory.

8. In pairs, discuss the questions.
 - 1) What is the purpose of an abstract?
 - 2) How can an abstract help a researcher choose which papers to read?
 - 3) What information does the abstract usually include?
 - 4) Why do some people think a good abstract is even more important in the internet age than it was before?

9. Read the abstract of the research paper about public spaces from Ex.6.
What information does it include?

The theme of the paper is public spaces in the cities.

The paper deals with the field of architecture and town-planning.

It tackles the problem that public spaces are increasingly being neglected in many new construction projects.

The author covers the following issues. Firstly, he gives definitions of a public space, secondly, analyses what makes a public space successful, then points out why people need public spaces.

Finally, it is stated that it is a duty of architects as future professionals to protect public spaces.

10. Read the abstract again and underline the words and expressions which you can use for writing abstracts.
11. Write an abstract for your research paper. Use Sample phrases from the table below. See Appendix 4 *Phrases to write an abstract of an article* for more examples of appropriate language to use.

Sample phrases you can use in abstracts

The theme of the paper is

The paper deals with the field of

The paper tackles the problem of.....

The author covers the following issues:.....

Firstly, the author analyses

Secondly, the paper gives information,

Then, it is pointed out

Finally, it is stated

Appendix 1

Useful language for presenting a master degree project

(Y)	<p>First, let me introduce myself. My name is... I am a master degree student at the department of . . . My scientific advisor is Prof.... I work under the guidance of professor...</p>
(Q)	<p>I'll be happy to answer questions at the end. If you have any questions, please feel free to interrupt.</p>
(S)	<p>I work in the field of I am currently doing my masters degree in..... studies Let me now go into some detail regarding the subject I have mentioned. I began with the study of literature on the subject including some basic works written by... I have used many different sources of information, such as ... The theory of was constructed and developed by</p>
(G)	<p>The main purpose/goal/aim of my research is to find out/ define/ characterize/ explore/ investigate/ analyse/ gain/..... It is aimed at</p> <p>The focus of my research is on the relationship between and This work is devoted to an important problem into which too few scientists have researched until now. It is very important and interesting to examine (analyze/ evaluate/ describe)..... The most challenging problems I have faced with are ... My study deals with the problems of.../is devoted to the investigation of... I set myself a task/ objective to/of... Its objectives are the following:</p>
(R)	<p>I consider my work to be relevant nowadays because ... I think the results of the work will be of considerable practical significance, because ...</p>
(E)	<p>The methods and techniques we apply in this research include experiments (observations, laboratory tests, field and pilot plant study.....) The experimental part of my research will mostly consist of tests to be conducted on... I expect to obtain the following results</p>
C)	<p>In the future I'm going to continue my studies and take a Postgraduate course</p> <p>In conclusion I would like to say that</p> <p>To sum up, I would like to say that</p> <p>That completes my presentation. Thank you.</p>

Appendix 2 Feedback form

Presenter(s) _____

Title of the presentation _____

Criteria	Rating	Comments
Opening	5 4 3 2 1	
Structure, organization, transitions	5 4 3 2 1	
Examples, explanations	5 4 3 2 1	
Visual aids	5 4 3 2 1	
Summary/ Conclusion	5 4 3 2 1	
Interaction with the au- dience/ Eye contact	5 4 3 2 1	
Gestures	5 4 3 2 1	
Volume of voice	5 4 3 2 1	
Pace	5 4 3 2 1	
Q&A	5 4 3 2 1	
Enthusiasm	5 4 3 2 1	
Time	5 4 3 2 1	
Overall impression, Purpose, achievement	5 4 3 2 1	
Other aspects (specify)	5 4 3 2 1	
<p>Rating key: 1=poor; 2=fair; 3=acceptable; 4-good; 5=excellent</p>		

Appendix 3

Describing Tables and Graphs

The most important thing to keep in mind when describing graphs and tables is how to convey the information properly and accurately. Surprisingly, relatively few key words or grammar elements are needed when describing trends or movements. The following vocabulary items can be used:

To go up (a little)		To go down (a little)	
<i>Nouns</i>	<i>Verbs</i>	<i>Nouns</i>	<i>Verbs</i>
an increase	to increase	a decrease	to decrease
a rise	to rise	a fall	to fall (off)
a growth	to grow	a drop	to drop
an improvement	to improve	a decline	to decline
an upturn		a downturn	
to go up		to go down	
to slip			
an upward trend		a downward trend	

To go up (a lot)		To go down (a lot)	
<i>Nouns</i>	<i>Verbs</i>	<i>Nouns</i>	<i>Verbs</i>
a surge	to surge		to plummet
an upsurge		a plunge	to plunge
	to take off	a slump	to slump
	to shoot up	a crash	to crash
	to soar		to sink
	to rocket	a tumble	to tumble
a jump	to jump		
a leap	to leap		

No change	Change of direction	
	<i>Downward</i>	<i>Upward</i>
to remain stable	to peak	
to level off	to reach a peak	to reach a low point
to stay at the same level	to top out	to recover
to remain constant		to rebound
to stagnate		to revive
to stabilise		

To describe the degree of change			
<i>Adjectives</i>		<i>Adverbs</i>	
a dramatic	rise or fall	to rise or fall	dramatically
considerable			considerably
sharp			sharply
significant			significantly
substantial			substantially
moderate			moderately
slight			slightly

To describe the speed of change			
<i>Adjectives</i>		<i>Adverbs</i>	
an abrupt	rise or fall	to rise or fall	abruptly
a sudden			suddenly
rapid			rapidly
quick			quickly
steady			steadily
gradual			gradually
slow			slowly

Appendix 4

Phrases to make an annotation to the text

to devote to	посвящать ч-л.
to deal with	рассматривать
to draw attention to	обращать внимание на
to cover the issues	освещать вопросы
concerned with	связанные с
The article is devoted to (an important problem). The paper deals with the problem of...	статья посвящена проблеме...
The paper gives information	статья (доклад) сообщает сведения...
It is pointed out that	обращается внимание на то, что...
It is stressed that	подчеркивается, делается акцент на...
It is generally believed	общепринято, что ...

It is underlined	подчеркивается, выделяется, акцентируется
to raise an issue	поднимать вопрос
It is suggested	предлагается
to give explanation to	давать объяснение чему-либо
The article contains the description of	Статья содержит описание...
The article is entitled ...	статья называется...
The article entitled ...	статья под названием
to consider the problem of...	рассматривать проблему
The author is concerned with...	Автора интересует...
The first/second/third paragraph concerns the problem of...	Первый/второй/третий абзац касается проблемы...
considers...	рассматривает...
covers...	охватывает, освещает
The paper touches upon the problems of...	Статья касается проблемы...
The problem of... is observed here	Проблема... рассматривается здесь
The problem under discussion is...	Рассматриваемая проблема является...
At present there is a growing interest in...	В настоящее время наблюдается повышенный интерес к ...
The characteristic features are...	Характерными чертами являются...
The key feature of... is...	Отличительной чертой... является...
A special significance is attached to...	Особое значение придается...
This is proved by the fact...	Это подтверждается фактом...
The author lays special emphasis (stress) on ...	Автор уделяет особое внимание...
According to this point of view...	Согласно данной точке зрения...

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