МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
ОДЕСЬКИЙ ДЕРЖАВНИЙ ЕКОЛОГІЧНИЙ УНІВЕРСИТЕТ

МЕТОДИЧНІ ВКАЗІВКИ

до практичних занять з навчальної дисципліни

«Англійська мова»

для студентів 2 року

денної та заочної форми навчання

Спеціальність: 101 «Екологія»

Затверджено

на засіданні групи забезпечення спеціальності

101 Екологія

Протокол № _____ від «____» _____202 р.

Голова групи Чугай А.В.

Затверджено
на засіданні кафедри іноземних мов
Протокол № _____ від «____» _____202 р.

Зав. кафедрою П'янова І.Ю.

2021

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Одеса 2021

Методичні вказівки до практичних занять з навчальної дисципліни «англійська мова» для студентів 2 року денної та заочної форми навчання.

Напрям підготовки: 101 «Екологія».

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ПЕРЕДМОВА

Методичні вказівки для практичних занять з навчальної дисципліни «англійська мова» призначені для студентів ***II року*** денної та заочної форми навчання зі спеціальності «**Екологія**».

Мета запропонованих методичних вказівок — розвинути навички читання, аналізу, перекладу текстів, а також їх переказу на матеріалі наукової літератури за фахом.

Методичні вказівки складаються з 8 уроків, де подано відповідний граматичний матеріал за програмою, а також тексти, що відібрані з оригінальної науково-популярної та наукової літератури.

Тексти A та B призначені для аудиторній роботи студентів: для читання, усного перекладу, аналізу елементів тексту, анотування та переказу.

Лексичні вправи призначені для вивчення та закріплення лексичного матеріалу кожного уроку та охоплюють лексику основних текстів. Вони можуть бути використані також для контролю (самоконтролю) засвоєння лексичного матеріалу уроку. Під час виконання лексичних вправ рекомендується не тільки підбирати українські або англійські еквіваленти наведених слів та словосполучень, але й знаходити у тексті або складати самостійні речення з зазначеними словами, звертаючи увагу на багатозначність слів.

Граматичні вправи спрямовані на аналіз найскладніших граматичних явищ англійської мови, розвиток навичок орієнтування у граматичній структурі англійського речення, що сприяє вірній інтерпретації текстів, усної мови та матеріалів наукової літератури.

Після вивчення даного курсу студенти повинні знати і вміти:

читати та перекладати науково-технічну англомовну літературу за фахом для отримання необхідної інформації;

розуміти зміст прочитаного та лексико-граматичний матеріал, наданий у методичних вказівках;

розуміти і володіти відповідними граматичними конструкціями та матеріалом;

брати участь в усному спілкуванні англійською мовою в обсязі матеріалу, передбаченого програмою.

LESSON 1

Pre-text exercise 1.

Read and remember the following words and their meaning:

Word	Meaning
conservation effort	measures to protect and restore the natural world
ecosystem	the ongoing relationship between living things and their environment
endangered species	animals or plants that are likely to go extinct
environmentalist	a person who cares about the natural world and makes an effort to protect it or raise awareness for its needs
extinction	the loss of a species in this world
food chain	a group of organisms that feed off each other
global warming	the gradual increase in temperature on earth
habitat	the area where a species naturally lives, eats, and reproduces
recover	to help a certain species repopulate an area
reforestation	the planting and growth of new trees
risk	engage in a dangerous act
vulnerable	likely to face injury or danger
wildlife	plants and animals living in a natural environment

Text A

Exercise 1. Read, translate and retell text A:

ENVIRONMENTAL CRISIS

There is a world-wide environmental crisis today, which has resulted in the genetic erosion of fauna and flora and the depletion of natural resources. The responsibility for this natural holocaust rests squarely with man. Man seems to be at constant war with nature and thinks that he can absolutely control and manipulate nature, which is just a delusion. Overexploitation of

natural resources often results in inviting destruction in the form of floods and droughts. erosion of soil, depletion of resources and climatic changes. The time has come when man should learn to treat Nature like his mother. He should care for her even as he benefits from her bounty.

Most of our environmental problems are the result of the imbalanced approaches and behaviours of man. The miracle of modem science and the towering achievements have provided us measure of mastery over nature on one hand and environmental degradation on the other. If the environment is not protected from pollution, its damage will extract its cost from those living in the vicinity ofk from others living at a distance or even from those coming generations.

With rapid socio-economic models of growth and industrial development in the country, the humanity has over exploited the natural resources. This in turn has affected the environment. To rehabilitate the ecosystem, it is essential to take measures to control the population explosion, forestry, animal husbandry and fisheries, conservation of biodiversity.

Control of air and water pollution, non-polluting energy systems specially renewable ones with high energy efficiencies, recycling of wastes and residues, ecologically compatible housing and slum improvement, environment-friendly technologies, poverty alleviation, checking global warming and protecting the ozone layer.

Complete neglect of environment would invite multiple problems, deteriorate the quality of life and socio-economic fabric. Production methods should be improved and all the industrial units should be provided with treatment plants so that the wastes are property treated and recycled. There is a dire need to bring professionalism in the area of environment and development. Environment lies at the intersection of science, technology, sociology, economics, law, ethics and diplomacy.

The population explosion has further exerted pressure on the productivity of the soils, mass migration, rapid urbanisation and indanustrialoinnsatied forests developmental activities have shattered the aesthetic set up, transformed into agricultural lands and further into residential and industrial complexes.

The unplanned and haphazard development has destroyed the natural habitats as a result many rare species of animals have become extinct. The watersheds have been damaged and there have been repeated flash floods and droughts in the country. The greenhouse gases are damaging the ozone layer and global warming is responsible for epidemics. The pollutants that are released from the industries are deteriorating the quality of life.

A large variety of specific chemicals, mostly organic, are widely used to control plant diseases and pests, in agricultural operations. But the continued usage of some of these chemicals during the last 2 to 3 decades has caused a great ecological imbalance, and are hazardous to man and the

environment. These chemicals, broadly termed as pesticides, herbicides, insecticides, fungicides etc, while controlling the diseases and pests, on one hand, are strongly adsorbed on the soil surface and persist in the soil as residues for a long time. By the chemical, biochemical and microbial activities, some of these chemicals are further degraded, dtransformed and transported as their metabolites; and in some cases have proved to be more resistant than the original ones. In the soil-water-plant-ecosystem, a part of these chemicals is absorbed by the biosystem, plants and food materials, and the rest is transported downward or is evaporated into the atmosphere. The persistence of toxic pesticides and chemicals in the environment, above a critical level, is a great risk to humanity.

In view of environmental degradation and health hazard by the pesticides and toxic chemicals, sincere global research efforts have been made to understand the chemical and biochemical pathways of pesticides contamination and their effects on soil, plant ecosystems; and remediation measures have been developed. Yet more is to be understood on chronic long-term, low dose effects of these chemicals, their metabolities and degradation products in different soil climatic conditions; and particularly in the subsoil region which is likely to affect the quality of groundwater.

It is high time now that we speak strongly against the on slaughts made by man on nature his life sustainer.

We may not have answer to every problem of our affected society, but the shortcomings and the dangers inherent in the common rapid destruction of our forests, disappearing of various species of our flora and fauna, the rapid increase in our population and scarcity of water we drink, air that we inhale, food we eat to sustain our lives and that of future progenies as also of other animals and plants that are the important symbiont of human life on earth. The prevailing situation need to be looked into with awe striken conscience.

The past two decades have witnessed a growing awareness of the effects of human activity upon our planet's resources. During this period, environmental pollution has evolved a multidisciplinary field of study to examine the interaction of people and their environment.

Environmental problems can be dyficult to deal with for several reasons:

Environmental processes may be complex and not fully understood Fo example, both the physical and chemical pathways a pollutant takes through ther environment may not be fully understood, nor may its exact effects ec s as it is dispersed and transformed.

Environmental problems are not respecters of political boundaries. The ultimate environmental problem may be the so-called "greenhouse effect" resulting from increased levels of carbon dioxide In the atmosphere. Fossil fuel burned anywhere on the planet contributes to the problem, so that it can only be fully addressed at an international level.

The solution of one environmental problem may become the cause of another. For example, air quality regulations require "scrubbers", which remove a certain percentage of sulphur from the smokestacks of coal-containing sludge can prove to be a source of ground water pollution.

Environmental issues can arouse strong emotions and produce formidable conflict because environmental decisions may deliver large gains and large losses to particular individuals and groups.

In general the approach to environmental problems has been piecemeal, one pollutant or one source of emissions or one land-use question at a time. This is not because of shortsightedness or lack of vision. The problem of achieving higher levels of environmental quality is simply so complicated that a unified approach in which all side effects are considered has yet to be devised_

Exercise 2. Make up 15 questions to Text A.

Exercise 3. Answer the following questions.

1. How has a world-wide environmental crisis resulted in?
2. Whom does the responsibility for natural holocaust rest with?
3. Can the man absolutely control and manipulate nature?
4. How does overexploitation of nature resources often resulted in?
5. Are most of our environmental problems the result of the imbalanced approaches and behaviours of man?
6. What will it happen if the environment is not protected from pollution?
7. Is it essential to take measures to control the pollution explosion? Why?
8. Would complete neglect of environment invite multiple problems?
9. What should be improved?
10. All the industrial units should be provided with treatment plants, shouldn't they?
11. Has the population explosion exerted pressure on productivity of soils, rapid urbanisation and industrialization?
12. Why many rare species of animals have become extinct?
13. What is responsible for damaging the ozone layer and epidemics?
14. Why the quality of life is deteriorating?
15. What is widely used to control plant diseases?
16. What has caused a great ecological imbalance?
17. Chemicals are hazardous for man and environment, aren't they? Why?
18. Have remediation measures been developed or not? made by man on nature?
19. Is it high time to speak strongly against the on slaughts

20. What have past two decades witnessed about?

Exercise 4. Express the main idea of the text in a few sentences.

Pre-text exercise 1.

Read and remember the following words and their meaning:

Word	Meaning
bamboo	a type of woody plant that grows very quickly
biomass	organic material and waste that can be used for fuel
buzz words	words that are popular during a certain time period, especially in the media
carbon	material that is released into the atmosphere when fossil fuels are burned
carbon footprint	the measurement of damage a single person does to the environment (how much greenhouse gas each person produces in a lifetime)
car share program	allows a group of people in a community to take turns using the same car, instead of owning separate vehicles
durable	strong, long-lasting
eco	related to the environment/natural habitat
energy efficient	uses less resources to produce energy
global warming	the gradual increase in temperature on earth
green initiative	an effort to protect the natural environment
in the works	being developed now

Word	Meaning
non-toxic	not harmful for people or the environment
pesticides	chemicals that are sprayed on crops to prevent insects from destroying them
self-sufficient	ability to function without outside help
unprecedented	never recorded before

Text B

Exercise 1. Read, translate and retell text B:

HAZARDOUS WASTES

The present methods of storage and disposal of many chemical wastes and other toxic substances pose severe risks to human health and to the viability of other species and ecological processes. All countries produce and dispose of hazardous substances on an increasing scale, but many of them, especially developing countries, lack awareness of the hazards. They also lack the data and analytical capacity needed for the safe management of hazardous wastes. After decades of uncontrolled dumping, industrialized countries and an increasing number of developing countries have discovered that the cost of ignorance and neglect is extremely high in terms of air, water, and land pollution and consequent harm to health and productivity.

The traditional low cost methods of hazardous waste disposal are landfill, storage in surface impoundments, and deep-well injection. Recently, thousands of landfill sites and surface impoundments used for dumping hazardous wastes have been found to be entirely unsatisfactory; corrosive acids; persistent organics, and toxic metals have accumulated in them for decades. Some of the unsatisfactory dumping has exposed people directly to hazardous chemicals. In two major cases in the Netherlands and the United States, homes were built on reclaimed land containing paint solvents, pesticides, chemicals used in making plastics, and the sludge from the bottom of stills. Hundreds of families had to be evacuated from the sites in both cases.

In Japan in the 1950s and 1960s, mercury discharged from a chemical factory into the sea contaminated fish eaten by local people; nearly two thousand people suffered neurological disorders and about four hundred died. Although dumping of waste at sea is now controlled under international and regional contentions, several countries are still using this method for the disposal of hazardous waste, and underground storage of hazardous waste is practiced on a limited scale in a few developed countries.

Until more production processes that produce far less hazardous waste can be devised and implemented, technical and regulatory measures will be necessary. They will be needed to ensure safe handling and disposal of the existing output of waste, especially in the developing countries. These measures should include methods to evaluate alternative means and sites of waste disposal and to assess the implications of importing such wastes.

An active exchange of information and experience between developed and developing countries could do much to advance the latter's capabilities to deal with such wastes. Special emphasis should be put on strategies of waste minimization, recycling, and that could yield large economic and environmental gains.

Several physical, chemical, and biological methods can be used to reduce the bulk or toKicity of the waste. Of all the treatment technologies available, properly designed incineration systems can provide the highest overall degree of destruction and control for the broadest range of hazardous waste streams. Ideally, incineration should produce carbon dioxide, water vapour, and inert ash. But small quantities of a multitude of other more dangerous emissions may be formed. Such emissions appear to pose little increased risk to human health, but more detailed studies are needed. Rising costs, scarce treatment capacity, and public opposition to new treatment and disposal facilities plague hazardous waste disposal programmes virtually everywhere. Incineration at sea in specially designed ships costs much less than land-based incineration, since emissions are not as tightly controlled. However, there is now a trend to limit marine incineration or ban it altogether.

As controls on hazardous waste disposal have been tightened in some countries, industries have increasingly resorted to exporting their waste to foreign countries. Recent publicity about the dumping of hazardous wastes in some African countries has triggered widespread concern. The shipment of hazardous wastes from the North to the South is likely to grow even if illegal dumping is prevented. Developing countries may accept hazardous wastes in return for hard currency or needed industrial goods, even though it is extremely difficult for them to ensure that the wastes are properly handled and disposed of. Export of hazardous wastes transfers the risks involved to the importing countries, without necessarily transferring the knowledge or managerial capability to deal with them. Transboundary transfer of hazardous wastes may magnify such risks, therefore, and it weakens incentives for

reduction of waste generation at the source. Reduction at the source appears to be the most reliable way to reduce the impact of hazardous waste, and is probably the cheapest in the long run.

Sludge treatment and disposal.

Ultimate disposal

The options for ultimate disposal of sludge are limited to air, water, and land. Strict controls on air pollution complicate incineration, although this certainly is an option. Disposal of sludges in deep water (such as ocean) is decreasing owing to adverse or unknown detrimental effects on aquatic ecology. Land disposal may be either dumping in a landfill or spreading the sludge out over land and allowing natural biodégradation to assimilate the sludge into the soil. Because of environmental and cost consideration, incineration and land disposal are presently most widely used. These is increasing interest in the use of sludge as a fertilizer.

Incineration is actually not a method of disposal at all, but rather a sludge treatment step in which the organics are converted to H_20 and $C0_2$, and the inorganics drop out as a non-putroscent residue. Two types of incinerators have found use in sludge treatment: multiple heart and fluid bed. The multiple hearth incinerator, as the name implies, has several hearths stacked vertically, with rabble arms pushing the sludge progressively downward though the hottest layers and finally into the ash pit. The fluidized bed incinerator is full of hot sand and is suspended by air injection, and the sludge is incinerated within the moving sand. Owing to the fluid bed, scraper arms are unnecessary. The sand acts as a "thermal flywheel", allowing intermittent operation.

The second method of disposal - land spreading - is becoming more popular, as sludges become less contaminated with heavy metals. The ability of land to absorb and to assimilate it depends on such variables as soil type, vegetation, rainfall, slope, etc. In addition, the important variable of the sludge itself will influence the capacity of a soil to assimilate sludge.

Generally, sandy soils with lush vegetation and gentle slopes have proven most successful. Mixed digested sludges have been spread from tank trucks, and activated sludges have been sprayed from fixed and moving nozzles. The application rate has been variable, but 100 dry tons/acre-yr is not an unreasonable estimate. Most unsuccessful land application systems may be traced to overloading the soil. Given enough time (and absence of toxic materials) and soil will assimilate sprayed liquid sludge.

There has been some successful use of land application for sludge as fertilization, particularly in silviculture operations. Forests and tree nurseries are far enough from population centers to minimize aesthetic objections, and the variable nature of sludge is not so problematical in silviculture as m other

agricultural applications. Sludge may also be treated as packaged fertilizer and plant food. The city of Milwaukee has pioneered the drying, disinfection, and deodorizing of sludge, which is packaged as the fertilizer Milorganite.
Transporting liquid sludge is often expensive, and volume reduction by dewatering is necessary. The solid sludge may.then be deposited on land and disked in. A higher rate (tons/acre-yr) may by achieved by thenching where 1 -m (3-ft^2) trenches are dug with a backhoe, and the sludge is deposited and covered. The sludge seems to assimilate rapidly, with undue leaching of nitrates or toxins.

In the last few years a method of chemically bonding the sludge solids so that the mixture "sets" in a few days has found use in industries that have especially critical sludge problems. Although chemical fixation is expensive, it is often the only alternative for besieged industrial plants. The leaching from the solid seems to be minimal.

Sludge toxicity may be interpreted in several ways: toxicity to vegetation, toxicity to animals (including people) who eat the vegetation, and poisoning of groundwater supplies. Most domestic sludges do not contain sufficient toxins such as heavy metals to cause harm to vegetation. The total body burden of heavy metals is of some concern, however. It is possible to precipitate out the metals during sludge treatment, but the most effective means of controlling such toxicity seems to be to prevent metals from entering the sewerage system. Strong enforced sewerage ordinances are necessary and may be cost-effective.

Exercise 2. Answer the questions on text B:

1. What do present methods of storage and disposal of many chemical wastes pose risks to?
2. Are all countries aware of hazards of wastes disposal?
3. What is the cost of ignorance?
4. What are the traditional low cost methods of hazardous wastes disposal'?
5. Are all landfill sites and surface impoundments used for dumping wastes satisfactory?
6. What measures will be necessary to ensure safe landing and disposal of toxic wastes?
7. Do we need an exchange of information and experience between developed and developing countries?

Exercise 3. Translate and study the following words and expressions from the text:

Storage and disposal; toxic substances; to pose severe risks; viability of species; to lack the data; uncontrolled dumping; harm to health and

productivity; landfill; storage in surface impoundments; deep-well injection; corrosive acids; persistent organics; to expose people to; reclaimed land; paint solvents; can be devised and implemented; to evaluate alternative means and sites of waste disposal; to assess the implication; strategies of waste minimization.

Exercise 4. Make up 15 questions to Text B.

Exercise 5. Give a brief summary of Text B.

***Note** that:*
-**A summary begins with an introductory sentence** that states the article's title.
-**A summary must contain the main thesis or standpoint of the text**, restated in your own words.
-**A summary is written in your own words.**
-**A summary is always shorter than the original text**, often about 1/3 as long as the original.

Exercise 6. Translate the following word combinations:

Transport and maintenance needs, environmental impact, green movement, to reduce emissions, major issue, communities aim to, fresh indoor air, natural and non-toxic, local suppliers, zero emissions, construction industry, heating and hot water, retail space, a self-sufficient community, environmentally-friendly property.

Exercise 7. Pick out the synonyms from the words given below, remember them:

Impact, to distribute, to promote, community, priority, influence, lively, warming, society, to reduce, autonomous, pollution, decrease, advantage, to share, emissions, to encourage, heating, fresh, self-sufficient.

Exercise 8. Pick out the antonyms from the words given below, remember them:

Advantage, harmful, great, manmade, dependent, incontinuous, to build, disadvantage, self-sufficient, tiny, to crush, common, non-toxic, eco, long-lasting, unprecedented.

Exercise 9. Put the necessary words into the following sentences:

1. There is a growing concern over the …. of species habitat and ……. .
2. The earth's resources are being …. at an alarming rate.
3. The greenhouse ……. is an increase in the amount of carbon dioxide and other …… in the atmosphere which is believed to be the cause of a gradual of the surface of the Earth.
4. The energy generated by the ….. is both very efficient and clean.
5. There have been many reports about …… which is destroying large areas of tropical rain forest .
6. The Japanese ….. recycle more than half their waste paper.
7. We're not doing enough to protect the environment from …. .

(pollution, deforestation, warming, windmill, recycle, gases, used up, biodiversity, warming, protection)

Exercise 10. Read, translate in a written form and title the texts:

A)

Since ancient times Nature has served Man, being the source of his life. For thousands of years people lived in harmony with environment and it seemed to them that natural riches were unlimited. But with the development of civilization man's interference in nature began to increase.

Large cities with thousands of smoky industrial enterprises appear all over the world today. The by-products of their activity pollute the air we breathe, the water we drink, the land we grow grain and vegetables on.

Every year world industry pollutes the atmosphere with about 1000 million tons of dust and other harmful substances. Many cities suffer from smog. Vast forests are cut and burn in fire. Their disappearance upsets the oxygen balance. As a result some rare species of animals, birds, fish and plants disappear forever, a number of rivers and lakes dry up. The pollution of air and the world's ocean, destruction of the ozone layer is the result of man's careless interaction with nature, a sign of the ecological crises.

B)

Biological warfare is the use of any bacteria, virus or other disease-causing organism or toxin found in nature, as a weapon of war to incapacitate or kill an adversary.

The use of biological agents for military purposes is not new, but before the 20th century, biological warfare took two main forms. The first is deliberate poisoning of food and water with infectious material and the

second is the use of microorganisms, toxins or animals, living or dead, in a weapon system.

Biological warfare has been practised repeatedly throughout human history. During the 6th Century B. C., the Assyrians poisoned enemy wells with a fungus that would make the enemy delusional. In 184 BC, Hannibal of Carthage had clay pots filled with poisonous snakes and instructed his soldiers to throw the pots onto the decks of enemy ships, etc.

C)

Billions of tons of coal and oil are consumed around the world every year. When these fuels are burnt, they produce smoke and other by-products, which is emitted into the atmosphere. Although wind and rain occasionally wash away the smoke, given off by power plants and automobiles, but it is not enough.. These chemical compounds undergo a series of chemical reactions in the presence of sunlight; as a result we have smog, mixture of fog and smoke. While such pollutants as particulates we can see, other harmful ones are not visible. Among the most dangerous to bur health are carbon monoxide, nitrogen oxides, sulfur dioxide and ozone or active oxygen.

Factories emit tons of harmful chemicals. These emissions have disastrous consequences for our planet. They are the main reason for the greenhouse effect and acid rains.

D)

Ozone occurs at all levels in the atmosphere, but most of it is found in the stratosphere, between about 15-50 kilometres above the Earth's surface, where it plays a very important role. Ozone absorbs harmful ultraviolet radiation which is produced by the Sun- Ultraviolet radiation can damage cells of living things — plants, animals and people. Whereas small doses result in nothing worse than sunburn, larger amounts may cause cataracts or skin cancer, and can affect the growth of plants.

The damage of ozone has been caused by complex chemical reactions involving chlorine and bromine. Large amounts of gas called CFCs were produced in twentieth century for use in everyday appliances like fridges, aerosol spray cans, and fire extinguishers. At ground level, these compounds are chemically non-reactive. However they are carried on wind systems up into the high atmosphere, where the ozone layer is. CFCs can be broken up by the intense sunlight, but before their destruction CFCs gases become reactive and damage the ozone layer.

E)

Weather patterns have been changing recently due to the global warming-up process and its major reason — the greenhouse effect. The greenhouse effect is created by carbon dioxide emissions, released by

industrial facilities and a constantly increasing number of cars. Thus it is of vital importance that the world should start cutting down the release of gases that contribute to the greenhouse effect. What is the reason for people getting so much worried about the state of environment? The answer to this question is fairly simple. The thing is the deterioration of the environment is telling heavily on people. They are paying for this with their health. And it is obvious what all people need is a healthy environment.

Grammar exercises

Exercise 1. Translate the following sentences. Pay attention to the use of the Infinitive.

1. Sarah agreed to help me. 2. His health appeared to be better. 3. Peter arranged to stay with his uncle in Paris. 4. She asked to leave. 5. He began to talk. 6. He can't bear to be ignored. 7. David can't stand to work in an office. 8. He doesn't care to participate in the charity run. 9. The government ceased to provide free healthcare. 10. I chose to help. 11. She claimed to be a doctor. 12. She continued to talk. 13. We decided to go to Paris. 14. He demanded to speak to the manager. 15. He deserves to go to jail. 16. I dread to think what might have happened. 17. They expect to arrive early. 18. He failed to get enough money to pay for the new project. 19. I forgot to lock the door when I left. 20. She happened to be in Latin America during the riots. 21. He hates to be proved wrong. 22. She hesitated to tell me the problem. 23. I hope to begin college this year. 24. We intend to visit you next spring. 25. I learned to speak Russian when I was a kid. 26. Chris likes to read. 27. We love to scuba dive. 28. He managed to open the door without the key. 29. I need to study. 30. She neglected to tell me the date of the meeting. 31. Donald offered to drive us to the supermarket. 32. We plan to go to America this summer. 33. He prefers to eat at Italian restaurants. 34. They prepared to take the test. 35. The child pretended to be a monster. 36. She promised to stop smoking. 37. Dad proposed to pay for the trip. 38. The guard refused to let them enter the building. 39. I regret to inform you that your application was rejected. 40. Did you remember to lock the door when you left? 41. Sarah seemed to be disappointed. 42. Marc started to talk really fast. 43. Anne swore to tell the truth. 44. Matt tends to be a little shy. 45. Alison threatened to leave forever. 46. Joanna tried to lift the table, but it was too heavy. 47. Teresa vowed to get revenge. 48. Sue waited to buy a movie ticket. 49. I want to study Spanish. 50. I wish to stay.

Exercise 2. Put "to" in front of the infinitive where it is nessessary.

1. I like … play the guitar.
2. My brother can … speak French.
3. We had … put on our overcoats because it was cold.
4. They wanted … cross the river.
5. It is high time for you … go to bed.
6. May I … use your telephone?
7. They heard the girl … cry out with joy.
8. I would rather … stay at home today.
9. He did not want … play in the yard any more.
10. Would you like … go to England.
11. You look tired. You had better … go home.
12. I wanted … speak to Nick, but could not … find his telephone number.
13. It is time … get up.
14. Let me … help you with your home work.
15. I was planning … do a lot of things yesterday.
16. I saw him... enter the room.
17. Do you like ... listen to good music?
18. That funny scene made me ... laugh.

Exercise 3. Choose the correct form (infinitive with or without to).

1. I can (speak / to speak) English. 2. We have (do / to do) our homework. 3. You must (to stay / stay) at home. 4. I will to (help / help) you. 5. He cannot (see to / see) us. 6. My little sister learns (to speak / speak). 7. They want (go / to go) to the cinema. 8. You should (ask / to ask) your parents. 9. I'd like (have / to have) a dog. 10.May we (come / to come) in? 11. I failed (to persuade / persuade) my boss to give me a rise. 12. I need (change / to change) tires on my car. 13. He hates (get up / to get up) early. 14. I hope (to have / have) better luck next time. 15. Would you prefer (have / to have) dinner now or later?

Exercise 4. Read the first sentence, and choose the most suitable verb to complete the second sentence.

1. "Ellie, would you like to come to my party?"
   Ellie's friend *invited / instructed / obliged* her to go to the party.
2. "Mum, will you let me go to the party?"
   Ellie *encouraged / begged / asked* her mum to let her go to the party.
3. "Please, please, please mum, PLEASE let me go to the party!"
   She *forced / begged / persuaded* her mother to let her go to the party.

4. "Ellie, you are absolutely NOT allowed to go to the party."
   Ellie's mum *forbade / forced / allowed* her to go to the party.
5. "Now go upstairs and do your homework."
   Ellie's mum *advised / trained / ordered* her to go upstairs and do her homework.
6. "And don't forget to tidy your room"
   Ellie's mum *reminded / begged / instructed* her to tidy her room.
7. "Don't forget to clean under the bed, or there will be trouble!"
   Ellie's mum *advised / warned / encouraged* her not to forget to clean under the bed.

Exercise 5. Read the first sentence. Then rearrange the words and phrases to complete the second sentence.

For each sentence, there are 2 words that you **do not need to use**!

1. "Remember you have to pick your jacket up from the dry cleaner's."
   ... ... to the dry cleaner's.
   to warned she me ordered reminded go

2. "It's really hot in here. Would you mind opening the window?"
   ... ... the window.
   he asked begged her ordered open to

3. "Would you like to have dinner with us on Friday?
   He ... ... with them on Friday.
   invited persuaded commanded have them to inner

4. "We'd be delighted if you could all be with us at the ceremony"
   They ... ... attend the ceremony.
   warned their reminded to invited friends all

5. "Well, if I were you I'd start saving up for my holiday."
   ... ... saving up for my holiday.
   started me advised advise start he to

6. "Don't drive too fast. The police are cracking down on speeding."
   He ... ... too fast.
   drove warn not to warned drive him

7. "He's just bought a car, so I can visit her any time"
   Buying a car ... ... her any time.

reminded visited has enabled him visit to

8. “Come on, it's about time you looked for a new job, you know!”
Jack ... ... a new job.
look to me encourage encouraged look for

Exercise 6. Translate the following sentences pay attention to the form of the Infinitive.

1. I am awfully glad **to have met** you. 2. I do not like **to be interrupted**. 3. Which is more pleasant : **to give** or **to be given** presents? 4. I hope **to see** you on Monday. 5. I am sorry **to have kept** you waiting. 6. I am happy **to have been living** in Kiev for 25 years. 7. She didn’t want **to be found**. 8. He is sorry **to have said** it.9. He seems **to be reading** now. 10. I want **to be sent** to England. 11. We were sorry **to have missed** the train. 12. I am sorry **not to have been informed** about it. 13. We are happy **to have helped** him. 14. I am happy **to have been examined** yesterday. 15. He asked me **to wait**. 16. She began **to talk**.

Exercise 7. Complete the sentences so that the meaning is similar to the first sentence.

Examples: I hope the bank will lend me a thousand pounds.
I want the bank to lend me a thousand pounds.

We were surprised that Manchester United lost the match.
We didn't expect Manchester United to lose the match.

1. We would be very happy if you came on holiday with us.
We would love _____
2. Kevin said that I could ride his horse.
Kevin allowed _____
3. I was surprised that the bill was so expensive.
I didn't expect _____
4. Don't let me forget to buy some more milk.
Remind _____
5. Jennifer hopes her boss will give her an award.
Jennifer wants _____
6. George said to me "Please don't worry".
George told _____
7. Dad said I must not go on my boyfriend's motorbike.
Dad forbid _____
8. Shirley gave him singing lessons.

Shirley taught _____

Exercise 8. Put the infinitives into the right form.

1. He seems (to read) a lot.
2. He seems (to read) now.
3. He seems (to read) since morning.
4. He seems (to read) all the books in the library.
5. I want (to take) you to the concert.
6. I want (to take) to the concert by my father.
7. She hoped (to help) her friends.
8. She hoped (to help) by her friends.
9. I hope (to see) you soon.
10. We expect (to be) back in two days.
11. He expected (to help) by the teacher.
12. The children seem (to play) since morning.
13. I am glad (to do) all the homework yesterday.
14. She seems (to work) at this problem ever since she came here.
15. I am sorry (to break) your pen.

Exercise 9. Join the elements of a Subjective Infinitive construction. Use the proper form of the verbs.

Example: He – to fall in love with her. (to be sure) He is sure to fall in love with her.

1. They – to enjoy the film much. (to appear) 2. Tom – to catch the train. (to happen) 3. Ann – to be married. (to prove) 4. She – to have lost her money. (to turn out) 5. Her classmates – to be having a test. (to seem) 6. Jill – to have been badly injured in a car accident. (to say) 7. The concert – to begin at 8. (to report) 8. Her husband – to get a pay increase next month. (to expect) 9. The man – to have told the police about the accident. (to believe) 10. We – to phone him at work. (to suppose) 11. Your sister – to have behaved foolishly. (to think) 12. His father – to be in hospital now. (to know) 13. She – to take sleeping tablets. (to allow) 14. I – to miss the lecture. (to let) 15. He – to leave his job. (to force) 16. My boss – to sign the contract. (to make) 17. He – to paint the door. (to see) 18. The boys – to swear. (to hear) 19. The two men – to have broken the window. (to discover) 20. His visa – to be no longer valid. (to find) 21. They – to find a job at the moment. (to be unlikely) 22. All my group mates – to pass the exams. (to be likely) 23. George – to recognize you. (to be sure) 24. The secretary – to type your letters on time. (to be certain).

Exercise 10. **Put the infinitives into the right forms.**

1. Is there anything else (to tell) her? I believe she deserves (to know) the state of her sick brother.
2. He seems (to know) French very well: he is said (to spend) his youth in Paris.
3. The women pretended (to read) and (not to hear) the bell.
4. You seem (to look) for trouble.
5. It seems (to snow) heavily since early morning: the ground was covered with a deep layer of snow.
6. They seemed (to quarrel): I could hear angry voices from behind the door.
7. Perhaps it would upset her (to tell) the truth of the matter.
8. The only sound (to hear) was the snoring of grandfather in the bedroom.

Exercise 11. Use the appropriate form of the Infinitive as a part of a compound verbal predicate.

Example: The boy is sure (to punish) for what he's done. The boy is sure to be punished for what he's done.

1. I happened (to pass) by your house when I heard the noise. 2. Where's Jim? He seems (to leave). 3. You look so flushed. You seem (to run) a high temperature. 4. It's so nice here. Everybody appears (to enjoy) the party. 5. The storm is reported (to cause) much damage and (to kill) many people. 6. The public was reported (to give) a warm reception to the pop group. 7. Our yachtsman Konyukhov is said (to visit) many countries on his way round the world. 8. He is also known (to conquer) Mount Everest, the highest in the world. 9. He is known (to set) some world records. 10. Look, it's raining again. It seems (to rain) for ages. 11. The weather isn't likely (to change) for the better today. 12. Why are you here? You seem (to forget) about you appointment with the dentist who is certain (to wait) for you now. 13. This was the moment that seemed (to mark) the start of the interview. 14. She seemed (to listen) carefully to what he said. 15. Such idle talk was little likely (to reach) the ears of Mr. Dombey.

Exercise 12. Translate into English.

1. Мені дуже прикро, що я пропустив цю цікаву лекцію.
2. Він дуже задоволений, що закінчив свою книгу.
3. Наші спортсмени пишаються тим, що виграли кубок.
4. Він попросив, щоб його провели в актову залу.

5. Я тільки хочу, аби мені дозволили допомогти вам.
6. Я був вдячний, що мені дали кімнату з великим вікном.
7. Він був щасливий, що повернувся додому.
8. Він був щасливий, що знов вдома.
9. Мені прикро, що я перервав вас.
10. Джейн була щаслива, що їде від місіс Рід.
11. Рис був радий познайомитись з Джейн.
12. Рис був радий, що познайомився з Джейн.

Exercise 13. You are planning a trip to Paris or London. As you have only a few days off, you decide to fly there. What are you going to do? Use suggested words and phrases and add something of your own.

Example: to choose a flight – First of all I'm going to choose a most suitable flight.

to choose an airline; to get a visa; to look up the time-table; to make a reservation; to book the ticket beforehand; to pack the luggage; to take a taxi to go to the airport; to go through the customs; to submit the passport at the passport control; to check (by the security service); to go to the departure lounge and wait there till the flight is announced; to have a good book to read on the plane.

Exercise 14. Translate into English using the correct form of the Infinitive:

1. Я радий, що розповів вам цю історію. 2. Я радий, що мені розповіли цю історію. 3. Я хочу познайомити вас з цією людиною. 4. Я хочу, щоб мене познайомили з цією людиною. 5. Я радий, що зустрів її на станції. 6. Я радий, що мене зустріли на станції. 7. Ми дуже щасливі, що запросили його на вечір. 8. Ми дуже щасливі, що нас запросили на вечір. 9. Він буде щасливий відвідати цю знамениту картинну галерею.10. Він був щасливий, що відвідав цю знамениту картинну галерею.11. Діти люблять, коли їм розповідають казки. 12. Я не думав зупинятися на цій станції.13. Я не очікував, що мене зупинять.14. Мені прикро, що я спричинив вам стільки клопоту.15. Він не виносить, коли йому брешуть.16. Я згадав, що вже зустрічав це слово в якійсь книзі.17. Мені дуже шкода, що я пропустив цю цікаву лекцію. 18. Вона щаслива, що чула концерт відомого італійського диригента. 19. Він дуже задоволений, що закінчив свою книгу. 20. Наші спортсмени пишаються тим, що виграли кубок. 21. Я тільки хочу, щоб мені дозволили допомогти вам. 22. Я був вдячний, що мені дали кімнату з великим вікном. 23. Він був щасливий, що повернувся додому. 24. Він був

щасливий, що знову вдома. 25. Я шкодую, що перервав Вас. 26. Я жалкую, що не застала вас вдома. 27. Джейн була щаслива, що їде від місіс Рід. 28. Рочестер був радий познайомитися з Джейн. 29. Рочестер був радий, що познайомився з Джейн. 30. Він буде радий відвідати цю лекцію. 31. Він був радий відвідати цю лекцію. 32. Він не переносить, коли йому брешуть. 33. Я згадав, що вже зустрічав це слово у якийсь книзі.

Test 1. Choose the correct variant:

1. My younger brother hates to read; he prefers _____ to.
a) to read b) to be reading c) to be read c) to have read

2. I was very upset and I didn't know whom _____ to for advice.
a) to turn b) to be turning c) to have turned d) to have been turned

3. It was nice of you _____ me your Grammar book. Without it I would have been lost.
a) to lend b) to be lending c) to have lent d) to be lent

4. He suddenly awoke from his trance; there was a decision _____ .
a) to be made b) to make c) to have made d) to have been made

5. That woman is still sitting. She seems _____ over an hour.
a) to wait b) to be waiting c) to have been waiting d) to have waited

6. There was nothing _____ , but to wait for the next train which was due at six.
a) to do b) to be done c) to be doing d) to have been doing

7. I am glad _____ to stay with them in their country-house.
a) to invite b) to be invited c) to have invited d) to have been invited

8. Can anybody ____ me how to use a computer?
a) show b) be showing c) have shown d) be shown

9. It is not hard _____ decisions when you know what your values are.
a) to be making b) to have made c) to make d) to be made

10. My friend Marion is coming from Chile. I am sorry not _____ about it earlier.

a) to tell b) to be told c) to have been told d) to have told

Test 2. Choose the correct variant:

1. She could not but _____ to hear such a sad story.
a) to weep b) weep c) weeping d) to weeping

2. We saw him _____ out of the gate.
a) to go b) go c) to going d) went

3. It was _____ for him to finish the work in a day.
a) false b) likely c) hard d) certain

4. She was unhappy because her father would not _____ her go to the party.
a) let b) permit c) allow d) get

5. She does not know _____ to open it with.
a) how b) what c) who d) whether

6. I hoped _____ you by phone, but I couldn't. Why didn't you pick up the receiver?
a) to reach b) to have reached c) to be reaching d) to have been reaching

7. No words can describe the fascination of the place. It must _____ .
a) see b) be seen c) have seen d) have been seen

8. It is not enough to have a good mind; the main thing is _____ it.
a) to be using b) to use c) to have used d) to have been using

9. It would certainly be much better not _____ to him at all.
a) to speak b) to be speaking c) to have spoken d) to have been speaking

10. The only way to get the best of an argument is _____ it.
a) to be avoiding b) to have avoided c) to have been avoiding
d) to avoid

Test 3. Choose the correct variant:

1. Too much drinking will lead him _____ himself.
a) ruining b) to ruin c) to have ruined d) to be ruined

2. I wanted you to help me _____ my assignment after school.
a) finish b) to be finished c) to be finishing d) finished

3. I am sorry _____ waiting out of the room for a long time.
a) to have kept you b) having kept you c) keeping you d) have kept you

4. He was _____ to leave the room, when the phone rang.
a) just b) soon c)about d) immediately

5. I will have _____ writing the report by next week.
a) finished b) hoped c) expected d) promised

6. This apron has no pocket _____.
a) to put things b) to be things put c) putting things in d) to put things in

7. His wealth enables him _____ to England.
a) to have gone b) to be going c) to go d) went

8. She makes it a rule _____ early in the morning.
a) get up b) to get up c) to be getting up d) got up

9. We have _____ him to be more careful in everything.
a) suggested b) hoped c) proposed d) expected

10. _____ with, I have no time to have a date with you.
a) to begin b) beginning c) begin d) to beginning

Test 4. Choose the correct variant:

1. She isn't rich enough _____ the piano, let alone buy it.
a) rent b) renting c) to rent d) to be rented

2. She has no alternative but _____him.
a) to see b) seeing c) going to see d) see

3. It is sometimes difficult _____ you have just met.

a) to make pleasant conversation among people b) making pleasant conversation to people c) making pleasant conversation to for people
d) to make pleasant conversation with people

4. The workers accepted the cut in salary without complaint because they were afraid _____ their jobs.
a) to lose b) to be lost c) to have lost d) lose

5. I would rather study than _____ to such a place.
a) to go b) go c) going d) have gone

6. On my way home I stopped _____ some bread at the bakery.
a) buying b) to buying c) to have bought d) to buy

7. The dog needs _____.
a) to train b) train c) to be trained d) to have trained

8. I never know _____ when I go on a trip.
a) what clothes should be take b) what clothes to take c) what clothes will I take d) I take what clothes

9. When inflation is rampant, many families find it difficult _____ the life style to which they are accustomed.
a) to maintaining b) to maintain c) in maintaining d) maintain

10. Almost everyone fails _____ the driver's test on the 1st try.
a) passing b) to have passed c) to pass d) in passing

Test 5. Choose the correct variant:

1. _____ , my tennis went daily from bad to worse, and the worse it became, the more I loved it.
a) To honest be b) If I be honest c) To be quite honest d)Being honest

2. When a molar started to ache, I decided it was time _____ a dentist.
a) see b) to see c) to have seen d) seeing

3. He wasn't _____six miles every day.
a) strong enough to walk b) enough strong for walking c) enough strong to walk d) strong enough for walking

4. He asked me if John had the capability _____.
a) to do that b) to doing c) doing that d) do that

5. The tennis champion has been asked _____ an exhibition game at the tennis club next Sunday.
a) play b) to play c) to be played d) to have played

6. Inland canals are used _____ farm and factory goods to nearby towns or seaports.
a) shipping b) to shipping c) to ship d) in shipping

7. I am free _____ I did not quite know the sort of creature I had to deal with.
a) to confess b) confessing c) confess d) in confessing

8. I muttered encouraging words to myself _____ up my courage.
a) to keep b) being kept c) keeping d) to have kept

9. After studying hard to become an accountant, he discovered that it was not what he wanted _____.
a) to do b) that c) doing d) to

10. Pragmatists were hardly the first men _____ beliefs control behavior.
a) insist b) insisted c) who insists d) to insist

LESSON 2

Pre-text exercise 1.

Read and remember the following words and their meaning:

Word	**Meaning**
Soil erosion	absolute soil losses in terms of topsoil and nutrients
Land degradation	covers all negative changes in the capacity of the ecosystem to provide goods and services (including biological and water related goods and services)

Word	Meaning
Prevention	use of conservation measures that maintain natural resources and their environmental and productive
Mitigation	intervention intended to reduce ongoing degradation. This comes in at a stage when degradation has already begun
Rehabilitation	is required when the land is already degraded to such an extent that the original use is no longer possible
Desertification	another common term used for (a) land degradation in dryland areas

Text A

Exercise 1. Read, translate and retell text A:

SOIL DEGRADATION

Soil is a natural structure which develops from the surface weathered parent rocks and residues of organic matter. The formation of soil results from the joint action of climate and living organisms on the parent rocks occurring on the Earth's crust. The quality of soil is considerably affected by human activities. Fertility is an inseparable and developing property of soil.

The flow of harmful substances originating from many sources, including the atmosphere, water, wastes and fertilisers, is directed into the soil. Accumulation, transformation and release of harmful substances into other parts of the biosphere often takes place in the soil. The chemical pollution of the environment is very high, particularly in certain regions. Unlike the majority of organic contaminants, heavy metals are not degraded and therefore accumulate in soil.

With the exception of localities with geochemical anomalies, the increasing concentrations of risk substances and, especially, of heavy metals, result above all from sources of pollution caused by human activity. These include industrial and automobile emissions, depots of industrial and energy-generation wastes, agrochemical and waste materials used in agriculture.

Until now, soil has been the medium which was least monitored. This neglect is due to its considerable heterogeneity. Soils comprise a complicated, polydispersed, three-phase system. Soils are an extremely stable environment in which the migration of contaminants is very slow. For this reason the level of contamination in the neighbourhood of sources of technogenous pollution is much higher than the global level. Natural levels of potentially toxic elements in soils, among which Pb, Cd, Hg, As, Cr, Ni and Zn are the most monitored at present, vary considerably because their occurrence is dependent on a number of factors. These include soil substrate, physicochemical properties of soil, climatic and geographic conditions and, last but not least, the properties of the element itself.

Soil degradation is defined as a change in the soil health status resulting in a diminished capacity of the ecosystem to provide goods and services for its beneficiaries. Degraded soils have a health status such, that they do not provide the normal goods and services of the particular soil in its ecosystem.
Soil degradation is a serious global environmental problem and may be exacerbated by climate change. It encompasses physical, chemical and biological deterioration. Examples of soil degradation include loss of organic matter, decline in soil fertility, decline in structural condition, erosion, adverse changes in salinity, acidity or alkalinity, and the effects of toxic chemicals, pollutants or excessive flooding.

Soils host the majority of the world's biodiversity and healthy soils are essential to securing food and fibre production and providing an adequate water supply over the long term. Ecosystem services provided by soils are integral to the carbon and water cycles and include cultural functions. There are strong links between climate change and soil condition. Increases in soil carbon can help to mitigate Australia's greenhouse gas emissions and enhance adaptation to climate change.

Soils are one of NSW's fundamental natural resources. Therefore, maintaining and improving the condition of the State's land and soil resources by avoiding soil degradation is crucial to our well-being. The NSW State Plan includes two State-wide targets for land and soil management. They are:
- improve soil condition
- increase the area of land managed within its capability.

Types of Soil Degradation:
Soil degradation can be classified into four main types of degradation: water erosion, wind erosion, chemical deterioration and physical deterioration.

Water Erosion.

Water erosion means that soil particles are detached either by splash erosion (caused by raindrops), or by the effect of running water. Water erosion is influenced by four factors: rainfall, soil type, slope gradient, and soil use/vegetation cover.

Rainfall: The impact of raindrops on the soil surface can break down soil aggregates and disperse the aggregate material over the surface. Lighter aggregate materials such as very fine sand, silt, clay and organic matter can be easily removed by the raindrop splash and runoff water. Greater raindrop energy or runoff amounts might be required to move the larger sand and gravel particles. Runoff can occur whenever there is excess water on a slope that cannot be absorbed into the soil or trapped on the surface. The amount of runoff can be increased if infiltration is reduced due to soil compaction, crusting or freezing.

Soil type: Soil erodibility is an estimate of the ability of soils to resist erosion, based on the physical characteristics of each soil type. In general, soils with faster infiltration rates, higher levels of organic matter and improved soil structure have a greater resistance to erosion. Sand, sandy loam and loam-textured soils tend to be less erodible than silt, very fine sand, and certain clay textured soils.

Slope gradient: Naturally, the steeper the slope of a field, the greater the amount of soil loss from erosion by water. Soil erosion by water also increases as the slope length increases due to the greater accumulation of runoff.

Soil use: Plant and residue cover protects the soil from raindrop impact and splash, tends to slow down the movement of surface runoff and allows excess surface water to infiltrate.

Wind Erosion.

The rate and magnitude of soil erosion by wind is influenced by the following factors:

Erodibility of soil: Wind can suspend very fine particles and then transport it over great distances. Fine and medium size particles can be lifted and deposited, while coarse particles can be blown along the surface (commonly known as the saltation effect).

Soil surface roughness: Soil surfaces that are not rough or ridged offer little resistance to the wind. However, over time, ridges can be filled in and the roughness broken down by abrasion to produce a smoother surface susceptible to the wind.

Climate: The speed and duration of the wind has a direct connection to the extent of soil erosion. Soil moisture levels can be very low at the surface during periods of drought, thus releasing the particles for transport by wind.

Vegetative cover: The lack of permanent vegetation cover in certain locations has resulted in extensive erosion by wind. Loose, dry, bare soil is the most susceptible. The most effective vegetative cover for protection should include an adequate network of living windbreaks combined with good tillage, residue management, and crop selection.

Chemical Deterioration.

Chemical deterioration as a type of soil degradation involves loss of nutrients or organic matter, salinisation, acidification, soil pollution, and fertility decline. The removal of nutrients reduces the capacity of soils to support plant growth and crop production and causes acidification. In arid and semi-arid areas problems can arise due to accumulation of salts, which impedes the entry of water in plant roots. Soil toxicity can be brought about in a number of ways. Typical examples are from municipal or industrial wastes, oil spills, the excessive use of fertiliser, herbicides and insecticides, or the release of radioactive materials and acidification by airborne pollutants.

Chemical degradation is a result of the decreased content of fertile top-soil. The maximum absorption capacity is decreased but at the same time the soil becomes saturated by excessive rates of mineral fertiliser application. This factor causes a reduction in the buffering capacity of the soil.

The situation of forest soils is somewhat different in this respect. The effects of chemical degradation can also be observed here, but the causes are different. These include enhanced input of acidifying substances contained in the rain, fog and frost and the direct absorption of sulphur dioxide, nitrogen oxides and ammonium. This is accompanied by a decrease in the soil pH and intensified leaching of nutrients, enhanced weathering of soil minerals, changes in the processes of decomposition of organic soil matter and in nitrification, release of cations of toxic metals, and a reduced availability of phosphorus.

One of the indicators of chemical soil degradation is the increasing content of heavy metals and toxic organic compounds. These come in part through the atmosphere, in part from the application of plant protection chemicals (pesticide residues, mercury) and in part from low quality phosphorus fertilisers containing cadmium.

Mechanical degradation.

The undesirable translocation of soil particles, particularly the smallest ones, takes place mainly by water erosion and partly through wind erosion. The main reason for increasing erosion is the short-sighted unification of fields, which has involved removal of hedge borders and has created long, continuous slopes. Further reasons are alterations in land use such as ploughing on meadows and pastures, the large-scale cultivation of crops which are vulnerable to erosion and the decrease of the fertile topsoil content.

Physical Deterioration.

Physical deterioration involves soil crusting, sealing and compaction and can be caused by several factors like compaction through heavy machines or animals. This problem occurs in all continents, under nearly all climates and soil physical conditions, but has increased with the use of heavy

machinery. Soil crusting and compaction tend to increase runoff, decrease the infiltration of water into the soil, prevent or inhibit plant growth and leave the surface bare and subject to other forms of degradation. Severe crusting of the soil surface because of breakdown of soil aggregates can inhibit water entry into the soil and prevent seedling emergence.

One of the first aspects of physical degradation is the undesirable compaction of soil. This is a result of a number of factors, the most obvious being the mechanisation of agriculture. Agricultural policy is partly responsible to improper organisation of the soil fund, lack of discipline in transportation and, last but not least, density and condition of field Mad& nevertheless, the main factor, the high pressures exerted by field machinery on the soil.

The general decrease of the fertile top layer of soils is very alarming. Since widely available information on this subject is lacking, it is possible to make only approximate estimates.

The liquid manure should contain at least 8% of dry matter, but it actually seldom contains more than 2%. When applied on a field, most of the nutrients are carried away by the surface flow of excessive water. This results in erosion, particularly during periods when barren fields are available and liquid manure is repeatedly applied to the same fields.

The introduction of cereal species with short straw (wheat mainly) caused a further decrease in organic matter inputs into the soil. This occurs only where the soil straw 'is missing' at present, since very little straw is being used for bedding. However, as soon as agriculture returns to the full use of bedding, the shortage of straw will be imminent, and the deficit in farmyard manure production will be noticeable.

Biological degradation.

There are still many soil users who treat the soil as a lifeless substrate, ready to withstand any chemical effects. They apply unlimited pesticides to their fields, in addition to mineral fertilisers. However, there is no pesticide which does not affect directly or indirectly the soil organisms. Herbicides in particular, which are declared by their manufactures to be inactivated by contact with the soil, affect the soil fauna by their residues. Many pesticides persist in the soil for a long time. The half-life of DDT is 17 years, for example.

Accompanying the continuing degradation is a decline and eventually a complete loss of the detoxification properties of the soil. The input of foreign substances restricts the life in the soil. The quantities of earthworms, for example, used to amount to hundreds of kilograms per hectare, but today regions can be found where an earthworm is a rarity.

Exercise 2. Answer the following questions:

1. What is soil degradation?
2. Why healthy soils are so important?
3. There are strong links between climate change and soil condition, aren't they? Why?
4. What kinds of soil degradation are?
5. What can water erosion be caused by?
6. What is the impact of raindrops on the soil surface?
7. How do you understand the term "the saltation effect"?
8. How can the wind cause the erosion?
9. What are the examples of chemical degradation?
10. What is physical deterioration? Why is it harmful for the soil?
11. From which a natural structure of soil does develop?
12. Does the formation of soil result from the joint action of climate and living organizms on the parent rocks?
13. What is the quality of soil considerably affected by?
14. Where do harmful substances originate from?
15. What is directed into soil'?
16. What takes place in the soil?
17. How much is the chemical pollution?
18. Are automobile emissions, depots of industrial and energy-generation wastes, agrochemical wastes caused by human activity?
19. Has the soil been the medium which was least monitored until now?
20. Is the migration of contaminants very slow?
21. What toxic elements in soils are the most monitored at present?
22. What kinds of soil degradation are?

Exercise 3. Translate the following word combinations:

Loss of nutrients, lack of permanent vegetation, soil surface roughness, the world's biodiversity and healthy soils, water cycle, within its capability, toxic chemicals, excessive flooding, inhibit plant growth, speed and duration, soil moisture levels, can be filled in, plant and residue cover, crop selection, greater raindrop energy, decline in soil fertility, to be detached by, to prevent seedling emergence, water in plant roots.

Exercise 4. Give English equivalents:

Зміни в грунті, втрата органічних речовин, затоплення, кругообіг води, підтримка, поліпшення умов грунту, загальнодержавна мета, важка техніка, проникнення води, забруднення повітря, поверхні грунту,

сильний вітер, прямий зв’язок, сповільнити, пригнічувати ріст, управління відходами.

Exercise 5. Pick out the synonyms from the words given below, remember them:

Nutrient, distance, capability, energy, to avoid, to pour, biogenic, to increase, plants, to unite, force, contamination, link, opportunity, synthetic, boost, to prevent, vegetation, to combine, to fill, chemical, to extend, length, connection, pollution, improve.

Exercise 6. Complete the following sentences:

1. Examples of soil degradation include……
2. The amount of runoff can be increased if……
3. Soils are one of NSW's fundamental…..
4. Soil degradation can be classified into four main types…..
5. The speed and duration of the wind has a direct connection to…..
6. Plant and residue cover protects the soil from…..
7. Severe crusting of the soil surface because of breakdown of soil aggregates can……
8. Runoff can occur whenever there is excess water on….
9. Soils host the majority of the world's biodiversity and….
10. The removal of nutrients reduces the capacity of soils to support plant growth and….

Text B

Exercise 1. Read, translate and retell text B:

10 WAYS TO CONSERVE SOIL

1. Forest Protection

The natural forest cover in many areas has been decreased due to commercial activity. One of the purposes this cover provided was the protection of the soil. Businesses involved in building can conserve by ensuring these areas are protected.

2. Buffer Strips

Soil erosion is a large problem that is being battled around the country. This is particularly an issue where there are natural bodies of water. Buffer strips come in handy for conservation efforts. They provide protection where stream banks exist. They can be created with grass, trees and shrubs.

3. Fewer Concrete Surfaces

Soil requires an adequate amount of water in order to function properly. Lots of concrete surfaces, especially in residential areas make it difficult for water to get to the soil. Using paving stones for patios and gardens work to protect the soil. They are also a tool to prevent soil erosion in specific areas.

4. Plant Windbreak Areas

Windbreaks are composed of shrubs, plants and trees. They work in combination and serve a conservation purpose. These will work together to slow the force of wind over ground areas. This is a method that can also work to prevent erosion of the soil.

5. Terrace Planting

This type of planting is done by maximizing the topography of the land. It benefits from the way the rain water flows naturally. This is a way to protect the soil from erosion. It is also a proven method to encourage growth from moist soil areas.

6. Plant Trees

Simply planting trees is a good conservation method. As the tree grows, its roots become even more secure in the soil. This soil is protected in numerous ways because of the trees existence. Erosion is prevented from this planting process.

7. Crop Rotation

The way you plant your crops can have an impact on the soil. Crop rotation is a process that works to conserve soil. It is accomplished by planting and growing a serious of different crops in the same soil. This process prevents overgrowth of pathogens and a lack of fertility in the soil, overall.

8. Water the Soil

This is a simple process that provides a lot of benefits to the soil. Watering your soil along with plants and vegetables is important. This helps to not only nourish the soil but to protect it. Moist soil is not in danger of erosion due to wind activity.

9. Add Earthworms

There are a variety of things that live in the soil around us. You can add earthworms to your soil to ensure its health. This is a conservation method that encourages the decomposition of organic material. This is what earthworms do on a regular basis. They increase the soil's ability to absorb nutrients.

10. Afforestation

Planting trees is a method of conserving the soil. Protecting the areas under trees, also called afforestation, is another method. This means planting foliage in forest undergrowth areas. This works to encourage healthy soil and water absorption.

CHERNOZEM

Chernozem - translated as "black soil, dirt or earth") is a black-coloured soil containing a high percentage of humus (7% to 15%), and high percentages of phosphoric acids, phosphorus and ammonia. Chernozem is very fertile and produces a high agricultural yield.

The chernozems of central Ukraine, among the most fertile soils in the world, occupy about two-thirds of the country's area. These soils may be divided into three broad groups: in the north a belt of the so-called deep chernozems, about 5 feet (1.5 metres) thick and rich in humus; south and east of the former, a zone of prairie, or ordinary, chernozems, which are equally rich in humus but only about 3 feet (1 metre) thick; and the southernmost belt, which is even thinner and has still less humus. Interspersed in various uplands and along the northern and western perimeters of the deep chernozems are mixtures of gray forest soils and podzolized black-earth soils, which together occupy much of Ukraine's remaining area. All these soils are very fertile when sufficient water is available. However, their intensive cultivation, especially on steep slopes, has led to widespread soil erosion and gullying.

The smallest proportion of the soil cover consists of the chestnut soils of the southern and eastern regions. They become increasingly salinized to the south as they approach the Black Sea.

There are two "chernozem belts" in the world: the Eurasian steppe which extends from eastern Croatia (Slavonia), along the Danube (northern Serbia, northern Bulgaria (Danubian Plain), southern Romania (Wallachian Plain) and Moldova) to northeast Ukraine across the Black Earth Region and southern Russia into Siberia, and the other from the Canadian Prairies in Manitoba through the Great Plains of the United States as far south as Kansas. Similar soil types occur in Texas and Hungary. Chernozem layer thickness may vary widely, from several inches up to 60 inches (1.5 metres) in Ukraine. The terrain can also be found in small quantities elsewhere (for example, on 1% of Poland). It also exists in Northeast China, near Harbin. The only true

chernozem in Australia is located around Nimmitabel producing some of the richest soils in the nation.

Exercise 3. Answer the following questions:

1. What is chernozem?
2. What does chernozem consist of?
3. Chernozem is called – “black soil”, isn’t it? Why?
4. Where can you find chernozem in Ukraine?
5. Where can you find chernozem outside Ukraine?
6. How many "chernozem belts" are in the world?

Exercise 4. Make up 15 questions to Text B.

Exercise 5. Express the main idea of text B in a few sentences in a written form (10 sentences).

Exercise 6. Pick out the synonyms from the words given below, remember them:

to exist, wood, highland, sufficient, growing, district, combination, different, agriculture, to create, soil, to be, ground, forest, enough, mixture, to produce, cultivation, region, farming, various, upland.

Exercise 7. Read, translate in a written form and title the text:

Soil is the name for the top layer of earth. Typically, soil is softer than the rocky layers beneath it. It is also usually of a black or brown hue. It is made up of smaller particles, which clump together when wet. Soil is nutritious and rich in minerals – and as such plants need it to survive. Soil is a valuable resource of India. Much of the Indian agriculture depends upon the extent and qualities of soil. Weathering prepares loose materials on the surface of the Earth and mixed with decayed organic matters it forms soil. India is a large country and witnesses diverse range of climatic and other natural conditions. The nature of soil in a place is largely influenced by such factors as climate, natural vegetation and rocks. The various types of soil found in India includes Alluvial soil, Laterite soil, Red soil, Black soil, Desert soil, and Mountain soil. They are each discussed below.

Grammar exercises

Exercise 1. Translate into Ukrainian paying attention to the Participles.

1. Leaving the cinema the people were talking about the film.
2. He stopped before a closed door.
3. Turning to us she said it was time to do it.
4. There were many people standing at the bus stop.
5. This is a road leading to our institute.
6. Being tired I could hardly work.
7. The approaching car was of black colour.
8. Pieces of broken glass lay on the floor.
9. A car driven by a woman came along the road.
10. Hearing these words he ran out of the room.
11. When discussing the problem they argued a lot.
12. The man called Peter came up to us.
13. My sister likes boiled eggs.
14. We stopped before a shut door.
15. This is a church built many years ago.
16. The coat bought last year is too small for me now.

Exercise 2. Rewrite the sentences replacing the underlined part with the Present Participle.

Example: She was talking to her friend and forgot everything around her.
Talking to her friend she forgot everything around her.

1. *Since we watch the news every day* we know what's going on in the world.
2. *They are vegetarians* and don't eat meat.
3. *The dog wagged its tail* and bit the postman.
4. *While she was tidying up her room* she found some old photos.
5. *He was a good boy* and helped his mother in the kitchen.
6. *As they didn't have enough money* they spent their holidays at home last year.
7. The man was sitting in the cafe. *He was reading a paper*.
8. *Since I didn't feel well* I didn't go to the cinema.
9. *She walked home* and met an old friend.

Exercise 3. Translate into Ukrainian paying attention to the Participles (Active or Passive forms).

1. The boy lay sleeping when the doctor came.
2. The broken arm was examined by the doctor.
3. While being examined, the boy could not help crying.
4. Having prescribed the medicine, the doctor went away.
5. The medicine prescribed by the doctor was bitter.
6. While using a needle you should be careful not to prick your finger.
7. Being very ill, she could not go to the institute.
8. The first rays of the rising sun lit up the top of the hill.
9. The tree struck by lightning was all black and leafless.
10. Having been shown the wrong direction, the travelers soon lost their way.
11. Having descended the mountain they heard a man calling for help.

Exercise 4. Make up the sentences and make clear that the people don't / didn't/ won't do it themselves.

Example:

Yesterday, (I / cut / my hair).
Yesterday, I had my hair cut.

1. Every Friday, (Joe / wash / his car).
2. Tomorrow, (she / repair / her shower).
3. Each Saturday, (we / deliver / a pizza) to our home.
4. Last year, (Bob / clean / his house) by a charwoman.
5. As Phil had a broken arm, (he / type / his texts) by his secretary.
6. (I / pick up / the goods) tomorrow in the afternoon.
7. (we / redecorate / our walls) last summer.
8. Whenever Clara is staying at this hotel, (she / carry / her bags) into her room.
9. (we / organise / our last party) by professionals.

Exercise 5. Rewrite the sentences replacing the underlined part with past participle.

Example: I have a cat <u>that is called</u> Tari.
I have a cat called Tari.

1. The dinner was more expensive *<u>than they had expected</u>*.
2. *He <u>was accused of murder</u>* and arrested.
3. *<u>She was shocked by the bad news</u>* and burst into tears.

4. *The event is organised by our team* and will surely be a great success.
5. *The film is based on real events* and tells the story of a reporter.
6. *She was born in Hollywood* and knows all the famous movie stars.
7. *The car was taken to the garage.* It was repaired within an hour.
8. *She was admired by everyone* and began to grow arrogant.
9. *He was dumped by his girlfriend* and felt really lousy.

Exercise 6. Rewrite the sentences replacing the underlined part with perfect participle.

Example: We switched off the lights before we went to bed.
Having switched off the lights we went to bed.

1. *The boy asked his mother's permission* and then went out to play … the boy went out to play.
2. *As he had drunk too much*, he didn't drive home himself. ... he didn't drive home himself.
3. *We have written two tests today*, so we are very exhausted. … we are very exhausted.
4. *She filled the washing machine* and switched it on. ... she switched it on.
5. *She had been to the disco the night before* and overslept in the morning ... she overslept in the morning.
6. *We had worked in the garden all day* and were sunburned in the evening. ... we were sunburned in the evening.
7. *She had not slept for two days* and therefore wasn't able to concentrate ... she wasn't able to concentrate.
8. *Since I had not seen him for ages*, I didn't recognize him ... I didn't recognize him.
9. *I had not ridden a horse for a long time* and found it very difficult to keep in the saddle. ... I found it very difficult to keep in the saddle.

Exercise 7. Fill in the Perfect Participle. Decide whether using active or passive voice:

1. (stop) … the car, the police officer wanted to see the documents.
2. (write) … the test, we felt relieved.
3. (work) … ll day, we were quite exhausted in the evening.
4. (send) … to counter 24, I had to return to counter 3.
5. (confess) …, he was accused of even more criminal offences.
6. (arrive) … at the station, we called a taxi.
7. (type) … by the secretary, the letter was signed by the boss.
8. (interrupt) … several times, he was rather annoyed.

9. (live) … in Oxford for two years, she spoke English like a native speaker.
10. (rescue) …, the injured man was taken to hospital.

Exercise 8. Rewrite the sentences without using the participle constructions.

1. We were sitting around the fire singing songs.
2. Did you see the boy jumping up and down?
3. When going to London, they always did a sightseeing tour.
4. While being on the boat, Bob got seasick.
5. Being an exemplary pupil, he always does his homework.
6. Having told me the news, he went away.
7. The boy excited about the presents sat on the couch.
8. Sleeping in the garden, I didn't hear the telephone.
9. The children were sitting at the beach building a sandcastle.
10. Last month I read a book written by a Scottish author.

Exercise 9. Change the Infinitives into the Present Participle or the Perfect Participle.

1. (to eat) all the potatoes, she drank a cup of tea.
2. (to drink) tea, she scalded her lips.
3. (to look) through some magazines, I came across an interesting article about UFOs.
4. (to write) out and *(to learn)* all the new words, he was able to translate the text easily.
5. (to live) in the south of our country, he cannot enjoy the beauty of St.Petersburg's White Nights in summer.
6. (to talk) to her neighbour in the street, she did not notice how a thief stole her money.
7. (to read) the story, she closed the book and put it on the shelf.
8. (to buy) some juice and cakes, we went home.
9. (to sit) near the fire, he felt very warm.

Exercise 10. Translate the following sentences. Pay attention using the Present Participle (Participle I).

1. People living one hundred years ago knew nothing of radio. 2. Students making such mistakes must work hard at their English. 3. The engineer testing the device is a good specialist. 4. The man standing at the window lectures physics. 5. Take the book from the table standing in the corner of the

room. 6. You can find those data in the table hanging on the wall. 7. It is impossible to use the device making such mistakes. 8. The device functioned all the time using the energy of the sun. 9. Testing this device the engineer used some new methods. 10. Studying at school he was interested in physics very much. 11. While studying at the institute he became interested in electricity. 12. While orbiting the Earth the first experimental space station was functioning perfectly well. 13. Working with electricity everyone must be very attentive. 14. He is a thinking student. 15. Translating this text I didn't use the English-Russian dictionary.

Exercise 11. Translate the following sentences. Pay attention using the Past Participle (Participle II).

1. We stopped before a shut door. 2. They saw overturned tables and chairs and pieces of broken glass all over the room. 3. This is a church built many years ago. 4. The books written by Dickens give us a realistic picture of the 19th century of England. 5. A broken cup lay on the table. 6. The coat bought last year is too small for me now. 7. Nobody saw the things kept in that box. 8. This firm is interested in the purchase of automobiles produced by our plants.

Exercise 12. Change the Infinitives into the Present Participle or the Perfect Participle.

1. (to translate) by a good specialist, the story preserved all the sparkling humour of the original.
2. (to approve) by the critics, the young author's story was accepted by a thick magazine.
3. (to wait) for some time in the hall, he was invited into the drawing-room.
4. (to wait) in the hall, he thought over the problem he was planning to discuss with the old lady.
5. They reached the oasis at last, (to walk) across the endless desert the whole day.
6. (to phone) the agency, he left (to say) he would be back in two hours.
7. (to write) in very had handwriting, the letter was difficult to read.
8. (to spend) twenty years abroad, he was happy to be coming home.
9. She looked at the enormous bunch of roses with a happy smile, never (to give) such a wonderful present.
10. (not to wish) to discuss that difficult and painful problem, he changed the conversation.

Exercise 13. Translate into English.

1. Професор, який читає лекції другому курсу, відомий усій країні.
2. Лекція, прочитана професором, справила велике враження на аудиторію.
3. Прочитавши студентам лекцію, він вийшов з аудиторії.
4. Лектор, що прочитав цю лекцію, працює у нашому інституті.
5. Студенти завжди з цікавістю слухають лекції, що читаються цим викладачем.
6. Читаючи лекції, він завжди наводить багато прикладів.

Test 1:

1. The language … in Canada is English.
a) to speak b) speaking c) spoken d) speaks

2. The police caught him … a car.
a) to steal b) stealing c) stolen d) to be stolen

3. A noise that disturbs someone is a … noise.
a) disturb b) disturbance c) disturbed d) disturbing

4. These are the facts … by the committee.
a) to gather b) gathering c) gathered d) being gathered

5. That is Mary … over there.
a) sitting b) to sit c) to be sat d) being sat

6. I had my suit … yesterday.
a) to press b) pressing c) press d) pressed

7. I am sorry to have kept you … so long.
a) to wait b) waiting c) be waiting d) be waited

8. She kept her eyes … all the time.
a) to close b) closing c) close d) closed

9. They got their car … at the garage.
a) to wash b) washing c) being washed d) washed

10. Can Mary make herself … in English?
a) understood b) understand c) to understand d) understanding

Test 2:

1. A worker on an exhausting job is an … worker.
a) exhaust b) exhausting c) to exhaust d) exhausted

2. The President was sitting on the chair … by his supporters.
a) surrounding b) to surround c) surrounded d) surround

3. A beggar was dragging his weary feet with many kids … behind.
a) following b) to follow c) followed d) being followed

4. Before … to the college, he had to go through an examination.
a) admitting b) to admit c) being admitted d) having been admitted

5. I started the clock … .
a) to go b) going c) gone d) to be gone

6. The room is crowded, but there are … .
a) a few seats to leave b) few seats left c) a few seats left d) few seats to leave

7. The dog, … , will make a good watch dog.
a) to train properly b) training properly c) properly to train d) trained properly

8. … with mine, your audio components are rather expensive.
a) comparing b) to compare c) to be compared d) compared

9. How was the concert last night? " It was … "
a) disappointing b) disappointed c) disappoint d) disappointment

10. All the students felt … listening to his lecture.
a) bored b) boring c) to bore d) bore

Test 3:

1. A … man will catch at a straw.
a) drowned b) to drown c) drowning d) being drowning

2. The gentleman sitting with his arms … was my boss.
a) folding b) to fold c) folded d) being folded

3. … his answer, she sent the second letter.
a) Receiving not b) Not to receive c) Not being received
d) Not having received

4. I saw Professor Lee … in the library last night.
a) works b) to work c) working d) worked

5. The concert conducted by Karajan proved very … .
a) exciting b) excited c) to excite d) being excited

6. Our school, … on a hill, commands a fine view.
a) located b) locating c) having located d) to locate

7. A man was killed. " Where is the body of the … man ?"
a) murder b) murdered c) murdering d)having murdered

8. … all things into consideration, his life is a happy one.
a) Taking b) Having taken c) Take d) To take

9. Beethoven wasted too much time … his symphony No. 9.
a) composed b) being composed c) compose d) composing

10. The name Nebraska comes from the Oto Indian word "nebrathka," … flat water.
a) to mean b) meaning c) it means d) by meaning

Test 4:

1. When I returned home, I found the window open and something … .
a) to steal b) stealing c) stolen d) stole

2. … that the train is gone, it is useless to wait.
a) Seen b) Seeing c) Having seen d) To see

3. Standing, … on a hill, his villa commands a fine view.
a) as it is b) as it was c) as he does d) as it does

4. Walking along the riverside path, … .

a) I met several groups of hikers b) the river met several groups of hikers
c) it was several groups of hikers
d) we met by several groups of hikers

5. Hidden … by a big tree , his house was not to be seen.
a) as it was b) as it is c) as it did d) as he did

6. Standing, … on a hill, his villa commands a fine view.
a) as it is b) as it was c) as he does d) as it does

7. We will go for a walk in the Grand Park tomorrow, weather … .
a) permitting b) to permit c) permitted d) having permitted

8. My father encouraged me in my painting, but never lived to see any of my works … in public.
a) exhibiting b) exhibited c) having exhibited d) exhibit

9. Asked if he could come to the party that night, … .
a) nobody said anything. b) they did not get an answer from him.
c) nothing was said by him. d) Tom nodded his head and left the room.

10. … that the train is gone, it is useless to wait.
a) Seen b) Seeing c) Having seen d) To see

Test 5:

1. She turned to me for help, … how to deal with the problem.
a) not being known b) not knowing c) not having known d) not known

2. A … kindness deserves no thanks.
a) forcing b) forced c) having forced d) to force

3. I want my phone number … because people often get the wrong number.
a) changed b) having changed c) being changed
d) be changed

4. The captain watched the sailors … the steamer.
a) unloading b) having unloaded c) unload d) unloaded

5. Mrs. Green doesn't explain things well. Her explanations are … .
a) confused b) confusing c) being confused d) cofuses

6. … to see as much as possible of the town, we hired a car.
a) Having wished b) Wishing c) Wished d) Has wished

7. The girl was sitting with her back to the window, her head half … .
a) being turned b) having been turned c) turned d) to turn

8. Lester Fisher was standing at his office window … to the street below.
a) looking down b) look down c)having looked down d)looked down

9. Going back to his office, Fisher had a … feeling of strong anger and mild grief.
a) mixing b) mixed c) being mixed d) be mixed

10. Alice didn't like her Biology classes; she thought they were … .
a) bored b) being boring c) boring d) being bored

LESSON 3

Pre-text exercise 1.

Read and remember the following words and their meaning:

Word	**Meaning**
Harmful	causing or capable of causing harm; injurious
Pollution noun	the action of polluting especially by environmental contamination with man-made waste; also : the condition of being polluted
To survivve verb	to remain or continue in existence or use
Circumstance	a condition, detail, part, or attribute, with respect to

Word	Meaning
noun	time, place, manner,agent, etc., that accompanies, determines, or modifies a fact or event; a modifying or influencing factor
Chemical noun	a substance produced by or used in a chemical process
Damage noun	loss or harm resulting from injury to person, property, or reputation

Text A

Exercise I. Read, translate and retell Text A:

WATER POLLUTION

Water pollution occurs mostly, when people overload the water environment such as streams, lakes, underground water, bays or seas with wastes or substances harmful to living beings.

Water is necessary for life. All organisms contain it, some drink it and some live in it. Plants and animals require water that is moderately pure, and they cannot survive, if water contains toxic chemicals or harmful microorganisms. Water pollution kills large quantity of fish, birds, and other animals, in some cases killing everything in an affected area.

Pollution makes streams, lakes, and coastal waters unpleasant to swim in or to have a rest. Fish and shellfish harvested from polluted waters may be unsafe to eat. People who polluted water can become ill, if they drink polluted water for a long time, it may develop cancer or hurt their future children.

The major water pollutants are chemical, biological, and physical materials that lessen the water quality. Pollutants can be separated into several different classes:

The first class is petroleum products: oil, fuel, lubrication, plastics. The petroleum products get into water by accidental spills from ships, tanker trucks and when there are leaks from underground storage tanks. Many petroleum products are poisonous for animals. Spilled oil damages the feathers of birds and the fur of animals, often it causes death.

The second class is pesticides and herbicides. There are chemicals used to kill harmful animals and plants. If they penetrate into streams, rivers, lakes,

these chemicals can be very dangerous. The chemicals can remain dangerous for a long time. When an animal eats a plant that's been treated with it, the poisons are absorbed into the tissues and organs of the animals.

When other animals feed on a contaminated animal, the chemicals are passed up to them. As it goes up through the food chain, the chemical becomes more harmful, so animals at the top of the food chains may suffer cancers, reproductive problems, and death. Nitrates can cause a lethal form of anemia in infants.

The third class is heavy metals, such as, mercury, selenium, uranium, radium, cesium, etc. They get into the water from industries, automobile exhausts, mines, and natural soil. Heavy metals also become more harmful as they follow the food chain. They accumulate in living being's cells and when they reach high levels of concentration in the organism, they can be extremely poisonous, or can result in long-term health problems. They can sometimes cause liver and kidney damage.

The fourth class is fertilizers and other nutrients used to promote plant growth on farms and in gardens.

The fifth class is infectious organisms and pathogens. They enter water through sewage, storm drains, runoff from farms, etc.

The last one is thermal pollution. Water is often taken from rivers, lakes or seas to be used in factories and power plants. The water is usually returned to the source warmer than when it was taken. Even a small temperature change in a body of water can drive away the fish and other species that were originally there, and attract other species in place of them. It breaks a balance and can cause serious circumstances in future.

In the future it will be necessary:

• To support the natural water-accumulating capacity of landscape and of soil.
• To reduce the consumption of water.
• To introduce economic tools into the system of water management
• To reduce the transfer of contamination from other components of the environment into the hydrosphere.
• To decrease the occurrence of breakdowns.
• To review legislative and organisational measures for water protection and to remove all exceptions.
• To favour ecological, landscaping, recreational and aesthetic functions of water.

Achieving improvement in the water quality is a long-term process. The present system of management in Protection Zones of Water Sources (i.e. the present measures for the protection of water quality) has been ineffective from the technical and managerial point of view. The most important is the elaboration of water management projects which can be enforced through the introduction of economic stimuli (taxes, subsidies) and a proper realisation of cadastre restructuring (purchase and rational exchange of individual plots).

As far as the ground water resources are concerned it will be necessary to regulate the uptake of water and to tighten up the principles of water management in protective zones. The aim is to eliminate sources of contamination according to the principles of protection in hydrogeological regions so that it will be possible to ensure the protection of the geological environment in which these waters occur.

A reduction in the effects of focal water pollution is one of the most important tasks. This can be realised above all through the construction of water treatment plants. Within the catchment area of water-supplying streams, the technologies of water treatment must be combined with the elimination of nitrogen and phosphorus (at least in the case of large sources).

For biologically degradable pollutants, it will be necessary to construct new water treatment plants, while for industrial pollution the prevention of occurrence and/ or treatment of waste water prior to its entry into the drainage system must be the principal requirement.

The same attention must be paid to large-area pollution. In particular this must be prevented in zones of hygienic protection, protected areas with natural accumulation of water and in basins of water-supplying streams. The so-called organic farming may also contribute to this protection. It is unacceptable to continue the present methods of large-scale agricultural production, since this involves erosion of the ploughing layers, the abuse of industrial fertilisers and pesticides and ecologically ill-considered land amelioration.

It will also be necessary to support the renewal of local sources of drinking and service water and to enforce the responsibility of local authorities for their protection and use. This, together with the rationalisation of consumption of losses in piping systems, should result in a decrease in investment requirements in new water resources, especially with regard to the construction of new costly dams and long-distance aqueducts.

Exercise 2. Answer the following questions:

1. When does water pollution occur?
2. Why do plants and animals require pure water?
3. What are the major water pollutants?
4. How can pollutants be separated?
5. How do petroleum products affect the animals?
6. Why can pesticides and herbicides be dangerous if they penetrate into streams, rivers and lakes?
7. What do heavy metals result in?
8. How do fertilizers penetrate to water?
9. What damage can thermal pollution cause?

10 . What measures will be necessary to improve situation of water pollution?
11. Is achieving improvement in water quality a long-term or a short-term process?
12. What point of view have the present measures for protection of water quality been ineffective from?
13. How can the elaboration of water management be enforced through?

Exercise 3. Translate the following words and word combinations:

pollution, to occur, mostly, environment stream, underground water, bay, harmful, living beings, to contain, to require, moderately, to survive, quantity, shellfish, to harvest, to ingest, to lessen, petroleum products, fuel, lubrication, accidental, to spill, tanker truck, leak, underground storage tank, poisonous, to penetrate, to remain, to absorb, tissue, contaminated, to suffer, lethal form, exhausts, to cause damage, liver, kidney, nutrient, sewage, storm drains, circumstance, Piping system, long distance aqueduct, water treatment ploughing layer, principal requirement catchment area, drinking water, treatment plant, elimination, consumption of water, water accumulating capacity, degradable pollutants, water-supplying streams, waste water, proper realisation, introduce economic tools, aesthetic function of water, local authorities, uptake of waler, managerial point of view.

Exercise 4. Translate the following word combinations:

Помірно, паливо, пошкодження нирок, отрута, розлита нафта, щоб перегрузити, чиста вода, струми та озера, відпочивати, кілька різних класів, дуже небезпечно, протягом тривалого часу, природній грунт, страждати, тканини, залишатися, в основному, кількість, затока.

Exercise 5. Pick out the synonyms from the words given below, remember them:

to happen, variety, to influence, wastewater, hazardous, organic, gulf, harm, origin, to occur, condition, harvest, natural, food-chain, to draw, circumstance, runoff, gasoline, crop, sewage, to cause damage, species, to attract, food pyramid, dangerous, bay, fuel, to affect, source, drain.

Text B

Exercise I. Read, translate and retell Text B:

MARINE POLLUTION

The oceans are so vast and deep that until fairly recently, it was widely assumed that no matter how much trash and chemicals humans dumped into them, the effects would be negligible. Proponents of dumping in the oceans even had a catchphrase: "The solution to pollution is dilution."

There is evidence that the oceans have suffered at the hands of mankind for millennia, as far back as Roman times. But recent studies show that degradation, particularly of shoreline areas, has accelerated dramatically in the past three centuries as industrial discharge and runoff from farms and coastal cities has increased.

Pollution is the introduction of harmful contaminants that are outside the norm for a given ecosystem. Common man-made pollutants that reach the ocean include pesticides, herbicides, chemical fertilizers, detergents, oil, sewage, plastics, and other solids. Many of these pollutants collect at the ocean's depths, where they are consumed by small marine organisms and introduced into the global food chain. Scientists are even discovering that pharmaceuticals ingested by humans but not fully processed by our bodies are eventually ending up in the fish we eat.

Many ocean pollutants are released into the environment far upstream from coastlines. Nitrogen-rich fertilizers applied by farmers inland, for example, end up in local streams, rivers, and groundwater and are eventually deposited in estuaries, bays, and deltas. These excess nutrients can spawn massive blooms of algae that rob the water of oxygen, leaving areas where little or no marine life can exist. Scientists have counted some 400 such dead zones around the world.

Solid waste like bags, foam, and other items dumped into the oceans from land or by ships at sea are frequently consumed, with often fatal effects, by marine mammals, fish, and birds that mistake it for food. Discarded fishing nets drift for years, ensnaring fish and mammals. In certain regions, ocean currents corral trillions of decomposing plastic items and other trash into gigantic, swirling garbage patches. One in the North Pacific, known as the Pacific Trash Vortex, is estimated to be the size of Texas. A new, massive patch was discovered in the Atlantic Ocean in early 2010.

Pollution is not always physical. In large bodies of water, sound waves can carry undiminished for miles. The increased presence of loud or persistent sounds from ships, sonar devices, oil rigs, and even from natural sources like earthquakes can disrupt the migration, communication, hunting, and reproduction patterns of many marine animals, particularly aquatic mammals like whales and dolphins.

Humans are beginning to see the shortsightedness of the "dilution" philosophy. Many national laws as well as international protocols now forbid dumping of harmful materials into the ocean, although enforcement can often

be spotty. Marine sanctuaries are being created to maintain pristine ocean ecosystems. And isolated efforts to restore estuaries and bays have met with some success.

CONTAMINATION OF THE BLACK SEA

Pollution, loss of biodiversity and coastal degradation have been identified as the major issues affecting the environmental state of the Black Sea. Scientists have identified several serious problems for the Black Sea associated with various types of pollution. The eutrophication phenomenon or the over-fertilization of the sea by compounds of nitrogen and phosphorus (also called nutrients), largely as a result of pollution from agricultural, domestic and industrial sources is a major transboundary pollution issue. This is a process degrading the Black Sea. Eutrophication has changed the structure of the Black Sea ecosystem. It has been estimated that the six coastal countries contribute about 70% of the total amount of nutrients flowing to the Black Sea as waste from human activities. Some of this amount and nearly all of the remaining 30% (from the countries with no direct access to the sea) enter the Black Sea through the Danube River.

In recent years chemical pollution has been identified as the most serious transboundary problem. Oil pollution threatens the Black Sea coastal ecosystems and the levels of pollution are unacceptable in many coastal areas and river mouths. Oil enters the marine environment as a result of operational or accidental discharges from vessels, as well as through insufficiently treated wastewaters from land based sources. Other toxic substances such as pesticides and heavy metals appear mostly as ‘hot spots’ near well identified sources. Heavy metals such as cadmium, copper, chromium and lead are usually associated with waste from the heavy industry and ash remaining from burning coal for generating electricity. Pesticides enter the sea mostly through rivers and streams due to agriculture.

Another major problem is the discharge of insufficiently treated sewage waters, which results in microbiological contamination and poses a threat to public health. Radioactive substances have been introduced to the Black Sea in small quantities from nuclear power plants and in more significant amounts after the nuclear power plant disaster in Chernobyl in 1986.

An unusual form of pollution from ships is the introduction of exotic species, mostly through exchange of ballast waters or other wastewaters. Introduced by accident into the Black Sea they proliferate in the new environment for lack of natural predators that can limit their numbers. The final major type of problematic pollutants is solid waste, dumped into the sea from ships and some coastal towns. Any floating or semi-submerged waste inevitably ends on the seashore. Therefore the Black Sea beaches tend to

accumulate a lot of garbage, which is unsightly and presents a risk to the health of humans and marine species.

Exercise 2. Answer the following questions:

1. What are the main sources of ocean pollution?
2. Do animals suffer from water pollution?
3. How do you understand the term “shoreline area”?
4. What are marine sanctuaries being created for?
5. Are there any laws prohibiting the release of toxic materials into the ocean?
6. What are there damaging effects of sound waves?

Exercise 3. Make up 15 questions to Text B.

Exercise 4. Translate the following word combinations:

Major problem, health of humans, human activities, coastal towns, to accumulate, microbiological contamination, pesticides and heavy metals, over-fertilization of the sea, various types of pollution, nitrogen and phosphorus, through rivers and streams, nuclear power plant, waste from the heavy industry, environmental state of the Black Sea, marine species, well identified sources, are unacceptable, in recent years.

Exercise 5. Write a summary of Text B.

Exercise 6.

a) Read the dialogue and translate it:

Anna: Hello James! How are you?
James: I am fine. What about you?
Anna: I am fine too. But I am somewhat worried about water pollution.
James: Yes, it is very alarming that the water of canals, rivers, and tanks is getting polluted day by day.
Anna: Exactly! This polluted water causes much harm to us.
James: But man is mainly responsible for water pollution. They pollute water by throwing waste into it.
Anna: Yes, farmers also use chemical fertilizers and insecticides in their fields. Rain and floods wash away some of the chemicals.
James: Right you are. And these chemical fertilizers and insecticides get mixed with the water of canals, ponds, and rivers, and thus pollute water.

Anna: Mills and factories also pollute water by the waste materials.
James: Exactly! Leaking of oil from water vehicles, dead bodies, and rotten debrises of animals and plants also contribute much to water pollution.
Anna: Besides, germs of diseases and insanitary latrines are other factors that pollute water.
James: So, it is high time to stop water pollution. But how can we prevent water from being polluted?
Anna: Water pollution can be prevented in many ways. But the main way is to make people aware of the importance of pure water.
James: I agree with you. There is no alternative to make people aware of the bad effects of water pollution.
Anna: Thank you very much for discussing such an important issue.
James: You are most welcome. See you again.

b) Now think about this problem and express your ideas about *how can we prevent water from being polluted?* Discuss it in your group.

Exercise 7. Translate the text in writing.

Offshore drilling and production operations generate huge quantities of Waste. According to the National Academy of Science, drilling a single well produces between 1,500 to 2,000 tons of waste materials. These wastes are not the results of accidents but are the by-products of routine operations. Current regulations allow companies operating around the nation to discharge the equivalent of up to twenty-five separate oil spills of one thousand barrels each in wastewater and up to 15 million pounds of toxic metals in drilling waste. Drilling mud used during drilling operations to lubricate and cool the drill bit, control underground pressure, and remove drill cuttings - pieces of ground-up rock - contain toxic materials.

Oil and gas production also produces wastewater that can be contaminated by oil, grease, cadmium, benzene, lead, and other toxic organics and metals. These materials can poison aquatic organisms and waterfowl. The wastewater is usually dumped right into the ocean. Oil industry data indicate that over 1,5 million barrels of wastewater were discharged into the Gulf of Mexico each day in 1986.

Wastewater often contains carcinogenic aromatic hydrocarbon compounds, including benzene and naphthalene. An Environmental Protection Agency study of wastewater discharges in the Gulf of Mexico found naphthalene in concentrations of 1,5 parrs per million. That is one hundred times the level found by the U.S.Fish and Wildlife Service to be toxic to fish eggs and benthic organisms.

Toxic materials added to drilling fluids include bactericides, soluble salts, mineral oil, and ethylene glycol. Mixing and disposing the materials together can produce a synergistic effect that can increase their toxicity. This practice poses a hazard to both fish and birds.

Research conducted by the EPA shows that drilling wastes harm a variety of marine organisms in many ways. Scientists at the University of California at Santa Barbara discovered that even small concentrations of drilling wastes can interfere with the food-finding ability of such commercially important species of shellfish as spiny lobsters.

Grammar exercises

Exercise 1. Translate into Ukrainian paying attention to the Gerund.

1. I think of spending my next summer holidays in the Caucasus.
2. Everybody was surprised at seeing him there.
3. Robin Hood helped the poor by giving them food and shelter.
4. We did not succeed in getting tickets for the football match.
5. On learning that my friend was ill I went to see him immediately.
6. She is always afraid of catching cold.
7. When will you finish reading this book?
8. Do you mind my closing the door?
9. This film is not worth seeing.
10. Before leaving for London I shall let you know.
11. Have you finished writing?
12. Taking a cold shower in the morning is very useful.
13. She likes sitting in the sun.
14. It looks like raining.
15. My watch wants repairing.
16. Thank you for coming.
17. He talked without stopping.
18. Living in little stuffy rooms means breathing poisonous air.
19. Iron is found by digging in the earth.
20. There are two ways of getting sugar: one from beet and the other from sugar-cane.

Exercise 2. Translate the following sentences. Pay attention to the use of the Gerunds:

1. Doctors generally advised doing exercise. 2. The European Union doesn't allow smoking in bars. 3. I anticipated getting stuck in traffic. 4. I appreciated Danny helping me. 5. He avoided talking to her. 6. I began learning Spanish. 7. He can't bear being late. 8. He can't help drinking so much. 9. I can't see us living in London. 10. He can't stand her smoking in the street. 11. The government ceased providing free healthcare. 12. He completed renovating the house. 13. She considered moving to Amsterdam. 14. He continued talking. 15. The lawyer defended her making such statements. 16. He delayed replying to the letter. 17. He denied committing the crime.18. She despises waking up early. 19. We discussed working at the company. 20. She dislikes being ignored. 21. I don't mind helping you. 22. She dreads meeting her in-laws. 23. He encourages eating healthy foods. 24. We enjoy swimming. 25. He finished doing his homework. 26. I forgot giving you my book. 27. I hate doing the ironing. 28. He imagines working there one day. 29. The job involves travelling to Japan once a month. 30. She kept interrupting me. 31. She likes listening to music. 32. I love reading. 33. He mentioned going to the theatre tonight. 34. Do you mind waiting here for a few minutes. 35. She misses living near the shops. 36. The aquarium needs cleaning. 37. Sometimes she neglects doing her homework. 38. Most hotels do not permit smoking in restaurants. 39. He postponed returning to Paris. 40. She practiced singing the song. 41. He prefers sitting at the back of the movie theatre. 42. I proposed having lunch at the beach. 43. She quit worrying about the problem. 44. Tom recalled using his credit card at the store. 45. She recollected living in Spain. 46. Tony recommended taking the train. 47. She regretted saying that. 48. I remember telling her the address yesterday. 49 He reported her using office property for her personal use. 50. The certificate requires completing two courses. 51. Peter resented Danny's being there. 52. He resisted asking for help. 53. He risked being caught. 54. He started studying harder. 55. She stopped working at 5 o'clock. 56. They suggested staying at the hotel. 57. I tolerated them being at the party. 58. Sam tried opening the lock with a paperclip. 59. I understand his quitting. 60. They urge recycling bottles and paper.

Exercise 2. Complete the sentences with the gerund form of the verbs in brackets:

1. She is good at (dance). 2. He is crazy about (sing). 3. I don't like (play) cards. 4. They are afraid of (swim) in the sea. 5. You should give up (smoke). 6. Sam dreams of (be) a popstar. 7. He is interested in (make) friends. 8. My uncle is afraid of (go) by plane. 9. We insist on (cook) the dinner ourselves. he likes (paint) 10. I can't bear (listen) to loud music. 11. He enjoys (play) tennis. 12. Leila dreams of (set) up her own business. 13. He is interested in (emigrate) to Canada. 14. Are you good at (dance)? 15. She is crazy about

(read) romantic poems. 16. I can't help (laugh) when I watch Mr Bean. 17. I can't imagine (be) anywhere else but here.

Exercise 3. Put the verb in brackets into either the gerund (-ing) or the infinitive (with 'to').

1. I don't fancy (go) out tonight. 2. She avoided (tell) him about her plans. 3. I would like (come) to the party with you. 4. He enjoys (have) a bath in the evening. 5. She kept (talk) during the film. 6. I am learning (speak) English. 7. Do you mind (give) me a hand? 8. She helped me (carry) my suitcases. 9. I've finished (cook) - come and eat! 10. He decided (study) biology. 11. I dislike (wait). 12. He asked (come) with us. 13. I promise (help) you tomorrow. 14. We discussed (go) to the cinema, but in the end we stayed at home. 15. She agreed (bring) the pudding to the dinner. 16. I don't recommend (take) the bus - it takes forever! 17. We hope (visit) Amsterdam next month. 18. She suggested (go) to the museum. 19. They plan (start) college in the autumn. 20. I don't want (leave) yet.

Exercise 4. In the sentences below, replace the clauses with the gerund with "*of*".

1. I thought *I would come arid see you tomorrow.*

2. What do you think *you will do tomorrow'!*

3. I don't know now; I thought I *would go to the zoo,* but the weather is so bad that probably I shan't go.

4. I hear there are some English books at our institute book-shell now. - So you think *that you will buy some,* aren't you?

5. I thought *I would work in the library this evening,* but as you have come. I won't go to the library.

Exercise 5. In the sentences below, replace the clauses with the gerund with *"after"*.

1. *After I hesitated some minutes* whether to buy the hat or not, I finally decided that I might find one I liked better in another shop.

2. *When she had graduated from the University,* she left Kiev and went to teach in her home town.

3. *When he proved that his theory was correct,* he started studying ways and means of importing the conditions of work in very deep coalmines.

4. *After she took the child to the kindergarden,* she went to the library to study for her examination.

5. *When he had made a thorough study of subject,* he found that it was a great deal more important than he had thought at first.

Exercise 6. Replace the infinitives with the gerunds Translate the sentences into Ukrainian.

1. I like the idea of (to organize) a shooting contest.

2. Are you fond of (to play) tennis?

3. There is no chance of (to get) tickets for this foot-ball match.

4. We had much difficulty in (to translate) that article.

5. I was afraid of (to catch cold).

6. I remember (to tell) them about it.

7. I object to (to discuss) this question at the meeting.

8. Everybody was against (to arrest) that man, but the sheriff.

Exercise 7. Translate into Ukrainian.

1. She stopped coming to see us, and I wondered what had happened to her.

2. Can you remember having seen the man before?

3. She was terrified of having to speak to anybody, and even more, of being spoken to.

4. He was on the point of leaving the club, as the porter stopped him.

5. After being corrected by the teacher, the students' papers were returned to them.

6. I wondered at my mother's having allowed the journey.

7. I understand perfectly your wishing to start the work at once.

8. Everybody will discuss the event, there is no preventing it.

9. At last he broke the silence by inviting everybody to walk into the dining-room.

10. On being told the news she turned pale.

11. Having been carefully read and corrected by the secretary, the text contained no mistakes.

Exercise 8. Open the brackets using the gerund in its active or passive form.

1. Why do you avoid (to speak) to me?

2. She tried to avoid (to speak) to?

3. The doctor insisted on (to send) the sick man to hospital.

4. The child insisted on (to send) home at once.

5. Do you mind him (to examine) by a heart specialist?

6. He showed no sign of (to recognize) me?

7. She showed no sign of (to surprise).

8. He had a strange habit of (to interfere) in other people's business.

9. I was angry at (to interrupt) every other moment.

l0. He was always ready for (to help) people.

11. He was very glad of (to help) in his difficulty.

12. On (to allow) to leave the room the children immediately ran out into the yard and began (to play).

13. In (to make) this experiment they came across some very interesting phenomena.

14. The results of the experiment must be checked and rechecked before (to publish).

15. The watch requires (to repair).

16. The problem is not worth (to discuss).

Exercise 9. Translate into English using the Gerund.

1. Нарешті вони припинили сміятися.
2. Вона заперечувала, що вкрала гроші.
3. Пробачте, що я загубив вашу ручку.
4. Коли вона закінчить писати твір?
5. Я не заперечую (*to contradict)* проти того, щоб залишитися вдома та попрацювати над моїм перекладом.
6. Припинітъ тремтіти. Уникайте показувати цим людям, що ви їх боїтесь.
7. Я не можу не *(cannot help)* турбуватися про них: вони перестали дзвонити.
8. Ви не проти того, щоб відчинити вікно?
9. Я дуже люблю читати.
10. Ми отримали задоволення від плавання.

Exercise 10. Open the brackets using a necessary form of the gerund.

1. Excuse me for (to *break)* your beautiful vase.
2. Your never mentioned (to *be)* to Greece.
3. She was proud of (to *award)* the cup of a champion.
4. I don't remember ever (to *meet)* your sister.
5. I don't remember (to *ask)* this question by anybody.
6. The cat was punished for (to *break)* the cup.
7. The cat was afraid of punishing for (to *break)* the cup.
8. The machine needs (to *clean).*
9. I am quite serious in (to *say)* that I don't want to go abroad.

10. He seemed sorry for (to *be)* inattentive to his child.

11. She confessed to *(to forget)* to send the letter.

12. The old man could not stand (to *tell)* what he should do.

13. Going to the party was no use: he had no talent for (to *dance).*

14. The Bronze Horseman is worth (to *see).*

15. She accused him of (to *steal)* her purse.

Exercise 11. Replace the highlighted parts of the sentence with a gerundial phrase using the appropriate prepositions where they are necessary.

1. I am told *that you are very busy.*

2. Thank you *that you did it.*

3. When *young man graduated from Harvard,* he returned to Russia.

4. They gave up the idea *that they would find work.*

5. *After we had passed our examinations,* we had a very entertaining evening.

6. Michael remembered *that he had enjoyed the trip to the Bahamas.*

7. I am thankful *that 1 have been given a chance to hear this outstanding singer.*

8. Helen insisted *that she should be given that job.*

9. Tom was afraid *that he might be late.*

10. *The fact that you took English lessons some years ago* helps you in your studies now.

Exercise 12. Read for Errors. Find mistakes in the text and correct them:

Teaching a new puppy to walk on a leash takes a little bit of practice. The puppy will be playful but not very focused.

Find the right harness is very important. For a puppy, you will want one that attaches to the dog's chest not the dog's neck. Pull the puppy will cause the body of the dog to move forward. If the dog resists or pulls against you, don't force it.

Put a treat in front of the dog is another way to get the dog to walk ahead. Let the dog smell the treat in your hand. Then, walk forward. The dog's nose will follow. Don't let the dog have the treat right away. Let the dog take a few steps before rewarding the dog.

Use a tasty treat to encourge a specific behavior is very effective. With a little bit of practice, a lot of patience, and love, your puppy will become your walking companion.

Exercise 13. Choose the correct form of the verb is brackets:

1. Eliza recommended (eating / to eat) in a Dim Sum restaurant while we're in Hong Kong.
2. I demand (talking / to talk) to the manager of the hotel immediately.
3. My grandmother recalled (to see / seeing) a plane for the very first time when she was six.
4. She claims (being / to be) related to George Washington, but I don't believe her.
5. This broken bicycle needs (to fix / fixing) before someone can ride it.
6. I can't understand (driving / to drive) such a big car when gas prices are so high, not to mention what it does to the environment.
7. She refused (to speak / speaking) to me after our fight.
8. The wilderness adventure course lasts ten days and involves (to hike / hiking) more than fifty miles through rugged mountainous terrain.
9. Don't hesitate (asking / to ask) for help if you don't understand the directions.
10. She managed (communicating / to communicate) with them, even though she didn't speak their language.

Exercise 14. Put the verb in brackets into the gerund or the infinitive:

1. It appears (be) raining. 2. We intend (go) to the countryside this weekend. 3. I pretended (be) sick so I didn't have to go to work. 4. Can you imagine (live) without TV? 5. They tolerate (smoke) but they prefer people not to. 6. I anticipate (arrive) on Tuesday. 7. A wedding involves (negotiate) with everyone in the family. 8. He denies (steal) the money. 9. He claims (be) a millionaire but I don't believe him. 10. I expect (be) there about seven. 11. Julia reported (see) the boys to the police. 12. It tends (rain) a lot in Scotland. 13. Do you recall (meet) her at the party last week? 14. She mentioned (go) to the cinema, but I don't know what she decided to do in the end. 15. The teenager refused (go) on holiday with his parents. 16. I understand (be) late once or twice, but every day is too much! 17. I would prefer you (come) early if you can. 18. That criminal deserves (get) a long sentence. 19. She

completed (paint) her flat. 20. We arranged (meet) at four but at four thirty she still hadn't arrived.

Exercise 15. Translate the sentences using the gerund:

1. Ми проти того, щоб відправляти його на конференцію.
2. Ви повинні уникати змін в умовах поставки.
3. Вибачте, що турбую вас.
4. Я пропоную обговорення умов платежу.
5. Перед тим, як підписати контракт, ми повинні вивчити всі його умови.
6. Йому не подобається гаяти час.
7. Вони припинили продавати товар у кредит.
8. Ми відчуваємо великі труднощі з фрахтуванням судна.
9. Ми зацікавлені у проведенні випробувань.
10. Вибачте, що я поставив це запитання.

Exercise 16. Fill in the gerund with the correct preposition:

1. She is looking forward … his aunt in Chicago. (visit)
2. My wife is keen … pop songs. (sing)
3. His mother was excited … to Africa. (go)
4. The secretary carried … the letter. (type)
5. The construction workers worried … their jobs. (lose)
6. They tried to cope … in bad weather. (work)
7. The pupil is known … problems. (cause)
8. My wife apologized … late. (be)
9. The teacher always keeps … his timetable. (complain)
10. I insisted … the dog for a walk myself. (take)
11. The teenager is addicted … TV. (watch)
12. The actor is famous … crazy once in a while. (be)
13. The money will be devoted … the environment. (protect)
14. The au-pair succeeds … the children busy for some time. (keep)
15. He blamed me … the CD player. (damage)
16. George Clooney is proud … in humanitarian projects. (take part)
17. I’m tired … the same things over and over again. (repeat)
18. She said she was sorry … the vase. (break)
19. She is scared … alone at night. (be)
20. I’m very excited … tomorrow’s game. (attend)
21. Jamie is sick … hamburgers all the time. (eat)
22. She ran away … behind her. (look)
23. The hikers are worried … enough water. (not have)
24. We are accustomed … our own bath. (have)

25. He has a habit … in the morning. (smoke)
26. The main disadvantage … is that planes are often delayed. (fly)
27. Her reputation … difficult games is well-known. (win)
28. My sister has got a talent … languages. (learn)
29. He took credit … the goal. (score)
30. She has a lot of experience … with mentally ill patients. (deal)

Test 1. Choose the correct variant:

1. I would like … you and some of my other friends for dinner some time.
a) invite b) inviting c) to invite

2. Let's get together tonight. I want to talk about … a new business.
a) opening b) open c) to open

3. Don't switch off the light. The child is afraid … in the dark.
a) of sleeping b) to sleep c) sleep

4. George has a Newfoundland dog, Strickland by name, and he is responsible … it twice a day.
a) for walking b) walk c) to walk

5.As an English proverb says "It's no use … over spilt milk."
a) cry b) to cry c) crying

6. His son's car crushed into a wall. The terrible tragedy prevented him … doing what was right or reasonable.
a) of b) from c) in

7. Where do you and your friends plan … for the next summer vacations?
a) go b) going c) to go

8. Helen seemed genuinely pleased … seeing me.
a) with b) at c) on

9. My big grey cat Fluffy is good … mice.
a) to catch b) at catching c) catch

10. I don't like … these shorts; they are too tight.
a) to wear b) wearing c) wear

Test 2. Choose the correct variant:

1. I prefer … jeans in winter and light shorts in summer.
a) wearing b) to wear c) wear

2. Sheila is very upset. She isn't used … being treated like that.
a) on b) to c) in

3. Don't be afraid … into the swimming pool; it's quite deep.
a) of diving b) to dive c) dive

4. Lorna intended to help him … lending him some money.
a) on b) while c) through

5. I enjoy making practical jokes about people, but I hate … fun of.
a) being made b) to make c) making

6. At the beach I noticed a lot of people … the same sandals as mine.
a) to wear b) wearing c) wear

7. A: I can't remember if I've taken my tablets today.
B: I saw you … two after breakfast.
a) took b) take c) to take

8. I'm sorry … annoyed with you last night. I was tired.
a) for getting b) I get c) to get

9. I'm sorry … your friend, Caroline. I shouldn't have said what I said.
a) for criticizing b) to criticize c) I criticize

10. Hannah and I had some good times … a house.
a) sharing b) we shared c) having shared

Test 3. Choose the correct variant:

1. Nina can't walk, but that doesn't stop her … abroad.
a) travel b) to travel c) traveling

2. Do you think Philip would be interested … volleyball on Saturday? I'm trying to organise a game.

a) to play b) of playing c) in playing
3. I'm sorry … you this again, but what's your address?
a) for asking b) to ask c) I ask

4. Why did you decide … for the job at the bakery?
a) against applying b) not applying c) to applying

5. I don't think I'll have the energy … tomorrow after work.
a) for to go out b) to go out c) to going out

6. When I go camping, it takes me a night or two to get used … in a tent.
a) to sleep b) sleeping c) to sleeping

7. Hundreds of people have helped us … money for the children's hospital.
a) to raise b) to raising c) raising

8. If someone's angry with me, I like … the reason.
a) to know b) knowing c) to have known

9. … a big lunch, I wasn't hungry until late in the evening.
a) eating b) having eaten c) for eating

10. I regret … that I will be unable to attend the conference in July. I hope it is a success.
a) to say b) say c) saying

Test 4. Choose the correct variant:

1. Mary: I'm very sorry.
Jame: You don't need … . You haven't done anything wrong.
a) to apologise b) apologise c) apologizing

2. This cupboard is full of very old clothes. Most of them need … away.
a) to throw b) throw c) throwing

3. I'm really fed up with David … me all the time. He says some horrible things to me.
a) to criticizing b) criticizing c) to criticize

4. Greg won the competition despite … only 16.
a) to be b) to being c) being

5. If someone's angry with me, I like … the reason.
a) to know b) knowing c) to have known

6. I'm sorry. I didn't understand what you said. Would you mind … it again to me?
a) to explain b) explaining c) explain

7. George: Would you like to be a film star?
Finn: I'd rather … a pop star.
a) to be b) be c) being

8. Jack: Shall we keep these magazines?
Helen: I'd prefer … them away. They're very old.
a) to throw b) throw c) throwing

9. I regret … that I will be unable to attend the conference in July. I hope it is a success.
a) to say b) say c) saying

10. Owen has offered … me his computer for a few weeks.
a) to lend b) lend c) lending

Test 5. Choose the correct variant:

1. In last week's match, I felt someone suddenly … me in the face, but I don't remember anything after that.
a) hit b) to hit c) hitting

2. Selena: When did Michelle leave?
Smith: I don't know. I didn't see her … .
a) go b) going c) to go

3. John carried on … even though no one was listening.
a) to talk b) talking c) having talked

4. Nina can't walk, but that doesn't stop her … abroad.
a) travel b) to travel c) traveling

5. Could you give me the list of people coming to the conference … all their names?

a) to have b) for to have c) so that I have

6. We couldn't find anywhere … in the town centre.
a) to stay b) for staying c) to staying

7. Please remind me … Sam about this place. He would love it here.
a) tell b) to tell c) telling

8. Do you want … you from the station this evening?
a) that we collect b) we to collect c) us to collect

9. I'm going to London tomorrow, but I haven't decided yet … or go by train.
a) whether I drive b) whether to drive c) whether drive

10. I was interested … that the principal of my college is going to retire next year.
a) to read b) in reading c) for reading

LESSON 4

Pre-text exercise 1.

Read and remember the following words and their meaning:

Word	Meaning
Resource	a source of supply, support, or aid, especially one that can be readily drawn upon when needed.
Pollution	the action of polluting especially by environmental contamination with man-made waste
Smog	a fog made heavier and darker by smoke and chemical fumes; also : a photochemical haze caused by the action of solar ultraviolet radiation on atmosphere polluted with hydrocarbons and oxides of nitrogen especially from automobile exhaust

Word	Meaning
Nuclear waste	the radioactive by-products from the operation of a nuclear reactor or from the reprocessing of depleted nuclear fuel.
Ozone	an atmospheric layer at heights of about 20 to 30 miles (32 to 48 kilometers) that is normally characterized by high ozone content which blocks most solar ultraviolet radiation from entry into the lower atmosphere
Acidity	the quality, state, or degree of being acid

Text A

Exercise I. Read, translate and retell Text A:

AIR POLLUTION

Air is the most essential element for all living organisms and most humans play a big role in polluting this essential resource. Air pollution may not be as dangerous in its direct outcome as nuclear or water pollution can be but after a long term it will have a tremendous effect on the environment and health of the organisms living in. Asthma, cancer, acid rain and the disability of photosynthesize are only a few causes of air pollution. The atmospheric pollutants with the greatest effect onto the environment are the carbon monoxide, carbon dioxide, hydrocarbons, sulfur dioxide, nitrogen oxides, dust particles, radioactive isotopes, and chlorofluorocarbons. The major sources that enable carbon monoxide to enter the atmosphere are the exhausts of cars, the burning of fossil fuels, and the oxidation of natural methane. Carbon dioxide is caused by the consumption of fossil fuels only and it causes the possible greenhouse effect which has global warming as an outcome. Hydrocarbons are caused by the combustion of oil and petrol and it effects the environment with carcinogen. Carcinogen is a chemical agent that causes cancer. Sulphur dioxide is certainly one of the major atmospheric pollutants considered that it causes stinging eyes, lung damage, asthma, and acid rain. It is the result of coal-fired power stations. Nitrogen oxides that is produced by the exhaust of cars, causes pneumonia and asphyxia. The outcome of the well known dust particles is often underestimated. It is caused by industrial chimneys, car exhaust, and volcanic eruptions and it effects the environment

by toxic effects and damage of the lungs. Radioactive isotopes which are caused by small quantities from nuclear waste and nuclear accidents have an carcinogenic effect on the environment as well. The outcome of chlorfluorocarbons, which had been first discovered in the 80s is that it destroys the ozone layer. Many of those major atmospheric pollutants combined produce the dangerous and well known smoke and gas emission called smog.

Smog or dust dome is most often formed when a layer of cool air is trapped beneath a layer of still warmer air. The mixture of benzopyrene (a cancer causing substance that is produced by the evaporation of petrol), the waste of hydrocarbons, combined with nitrogen dioxide, oxygen, and sunlight produce the photochemical smog which can be recognized as the yellow cloud over every big city in the world. Besides that optical effect it causes an increase of ozone in the lower atmosphere and the health conditions of the particular organism living in such an area. For example, it is estimated that "Washington DC receives 10% less sunlight than at the begging of the century due to the shielding of atmospheric pollution." The ozone enters the leaves of plants turning them brown and makes it difficult for plant to photosynthesize. In addition to that, it causes skin cancer on humans. Most seriously though, it increases the acidity of the rain which is mainly caused by the rise of sulphur dioxide and nitrogen oxides that get caught up by clouds. All ready unpolluted rain is slightly acid due to dissolved carbon dioxide, but polluted rain may be very acidic. The effect of acid rain on terrestrial and aquatic ecosystems can be very different. "In Scandinavia, which receives a high proportion of its air pollution from Britain, once productive lakes are now completely devoid of fish." In addition to its direct effect on water, acid rain allows metal ions such as aluminum, which is highly toxic to fish, to be leached from the soil . Acid rain reduces the growth of trees and disables plants to photosynthesize which destroys them in the long term. It also reduces the activity of nitrogen-fixing bacteria. In the event of a nuclear accident or war, the main risks do lay only partly in the pollution of air and air as a carrier of the polluted particles. The main risks arise from inhalation of contaminant particles, fallout of radioactive isotopes on soil with subsequent incorporation into food, and contamination of water supplies. The outcome of all those pollutant factors are enormous. The smoke from car engines which contains lead, that causes brain damage in children, stinging eyes, damage of the lung, the death rate of 40.000 asthma patients every year, and the destruction of whole forests includes only a few examples of the effects of air pollution. There are many ways to control and reduce air pollution and it is not the lack of technology but the unwillingness of the humans to change their attitudes and life styles.

It exists a wide range of technology for effective air pollution. Emissions of dust can and should be controlled by filters which remove solid

particles before gases are discharged. Low sulphure fuels could be used in order to reduce the sulphure emission from coal-fired power stations. For all other forms of waste that get released during production into the air, technology provides a wide range of filters which are able to remove 80-95% of sulphur dioxide gas. The control of emission from the most common pollutant, the car, improvements can be made. The use of lead free patrol and catalytic converters would reduce toxic emissions to a fraction of their present level and prevent damage to the environment. Of course are the big companies the one which produce most waste and cause most pollution, but in order to change and reduce the air pollution, everyone, even the smallest household, needs to change its attitudes and be more responsible with the limited sources the nature is providing. If humans would be less greedy for money and willing to ensure a safe and clean environment for the children of tomorrow, vast improvements could be made that would be beneficial for the whole world.

HISTORY OF AIR POLLUTION

Air pollution, particularly in cities, is certainly not a new problem. Back in the Middle Ages the use of coal in cities such as London was beginning to escalate. The problems of poor urban air quality even as early as the end of the 16th century are well documented.

In the UK the Industrial Revolution during the 18th and 19th centuries was based on the use of coal. Industries were often located in towns and cities, and together with the burning of coal in homes for domestic heat, urban air pollution levels often reached very high levels. During foggy conditions, pollution levels escalated and urban smogs (smoke and fog) were formed. These often brought cities to a halt, disrupting traffic but more dangerously causing death rates to dramatically rise. The effects of this pollution on buildings and vegetation also became obvious. The 1875 Public Health Act contained a smoke abatement section to try and reduce smoke pollution in urban areas.

During the first part of the 20th century, tighter industrial controls lead to a reduction in smog pollution in urban areas. The 1926 Smoke Abatement Act was aimed at reducing smoke emissions from industrial sources, but despite the declining importance of coal as a domestic fuel, pollution from domestic sources remained significant.

The Great London Smog of 1952, which resulted in around 4000 extra deaths in the city, led to the introduction of the Clean Air Acts of 1956 and 1968. These introduced smokeless zones in urban areas, with a tall chimney policy to help disperse industrial air pollutants away from built up areas into the atmosphere.

Following the Clean Air Acts, air quality improvements continued throughout the 1970s. Further regulations were introduced through the 1974 Control of Air Pollution Act. This included regulations for the composition of motor fuel and limits for the sulphur content of industrial fuel oil.

However, during the 1980s the number of motor vehicles in urban areas steadily increased and air quality problems associated with motor vehicles became more prevalent. In the early 1980s, the main interest was the effects of lead pollution on human health, but by the late 1980s and early 1990s, the effects of other motor vehicle pollutants became a major concern. The 1990s have seen the occurrence of wintertime and summertime smogs. These are not caused by smoke and sulphur dioxide pollution but by chemical reactions occurring between motor vehicle pollutants and sunlight. These are known as photochemical smogs.

In 1995 the Government passed its Environment Act, requiring the publication of a National Air Quality Strategy to set standards for the regulation of the most common air pollutants. Published in 1997, the National Air Quality Strategy has set commitments for local authorities to achieve new air quality objectives throughout the UK by 2005. It is reviewed periodically.

GREAT LONDON SMOG

During the 19th century, the increase in industrialisation in the major cities of Britain gave rise to a dramatic increase in air pollution. Throughout the autumn months, during periods of calm, smoke particles from industrial plumes would mix with fog giving it a yellow-black colour. Such smogs, as they became known, often settled over cities for many days. Wind speeds would be low at these times causing the smog to stagnate, with pollution levels increasing near ground level. London became quite famous for its smogs, and many visitors came to see the capital in the fog.

During the first part of the 20th century, tighter industrial controls and the declining importance of coal as a domestic fuel led to a reduction in smog pollution in urban areas. However, on December 4th 1952, an anticyclone settled over London. The wind dropped and the air grew damp; a thick fog began to form. The Great London Smog lasted for five days and led to around four thousand more deaths than usual. The deaths were attributed to the dramatic increase in air pollution during the period, with levels of sulphur dioxide increasing 7-fold, and levels of smoke increasing 3-fold. The peak in the number of deaths coincided with the peak in both smoke and sulphur dioxide pollution levels.

In response to the Great London Smog, the Government passed its first Clean Air Act in 1956, which aimed to control domestic sources of smoke pollution by introducing smokeless zones. In addition, the introduction of cleaner coals led to a reduction in sulphur dioxide pollution.

Exercise 2. Answer the following questions:

1. Why is the air so important?
2. What other kinds of environmental pollution do you know?
3. What diseases can be caused by polluted air?
4. What are the most dangerous pollutants?
5. Do you know the main sources that enable carbon monoxide to enter the atmosphere? Whar are they?
6. What is a carcinogen? Why is it harmful?
7. What are the toxic elements in the air which affect the lungs?
8. What is smoge? How does it form?
9. Smog or dust dome is most often formed over big cities, isn't it? Why?
10. Are there many ways to control and reduce air pollution?
11. What can be used to control emissions of dust in the air?
12. What can people do to achieve vast improvements?
13. Is air pollution a new problem for big cities?
14. What was the base of the Industrial Revolution in the 18th century?
15. When was the Public Health Act passed?
16. Why was there a reduction in smog pollution during the first part of the 20th century?
17. What were the main impacts of the introduction of the Clean Air Acts?
18. During the 1980s the air quality got worse, didn't it? Why?
19. What do you know about the National Air Quality Strategy published in 1997?
20. How did increased industrialization effect air in Britain during the 19th century?
21. Was there an increase of smog pollution in the first part of the 20th century?
22. How many days did The Great London Smog last for?
23. What was the result of it?
24. Has the government reacted to The Great London Smog?
25. When was the first Clean Air Act published?
26. How has the level of the sulphur dioxide in the air changed with the introduction of cleaner coals?

Exercise 3. Translate the following words and word combinations:

a) To be less greedy, unpolluted rain, with the limited sources, coal-fired power stations, a wide range of technology, car engines, outcome of

something, to photosynthesize, dangerous and well known, attitudes and life styles, in the lower atmosphere, to be enormous, dust dome, a wide range of filters, vast improvements, damage of the lungs, to be combined with something, brain damage. **Exercise 3. Translate the following word combinations:**

b) smokeless zones, burning of coal, industrial air pollutants, reducing smoke emissions, air quality improvements, limits for the sulphur content, from domestic sources, a smoke abatement section, the increase in industrialization, to be famous for, increasing near ground level, were attributed to, a dramatic increase in, the major problem, aimed to control domestic sources of, the capital in the fog, led to a reduction in.

Exercise 4. True or False? Spot the errors:

1. Control of Air Pollution Act was published in 1780.
2. The Great London Smog resulted in around 4,000 deaths in the city.
3. There were no air pollution problems in London in the 16th century.
4. There was a reduction in smog pollution in urban areas during the first part of the 20th century.
5. The Great London Smog lasted for eight days.
6. Sulphur dioxide is not harmful for the environment.
7. Smokeless zones in urban areas were introduced after The Great London Smog.

Exercise 5. Supply the missing prepositions:

Is similar …, interact …, expose …, concentrate…, deal…, terms…, accumulate ... dangerous levels, release…., disperse…., have adverse effect ..., large contributors …, … acceptable levels, be dispersed ... winds.

Exercise 6. Translate the following sentences:

1. Без їжі людина може обходитися п'ять тижнів, без води - п'ять днів, а без повітря - найбільше п'ять хвилин.
2. Прийняті закони за якими керівники підприємств відповідають за очищення і знешкодження газів до їх викиду в атмосферу.
3. Вміст водяної пари в повітрі постійно змінюється (від 0,2 до 3%) залежно від її агрегатного стану.
4. Промисловий пил утворюється в результаті механічної обробки різних матеріалів.

5. Один з основних видів забруднення атмосфери – автомобільний транспорт.
6. Вихлопні гази дають одну третю вуглекислого газу, що викидається в повітря, сприяють утворенню парникового ефекту, який викликає глобальне потепління.
7. Фотохімічний смог формується в результаті дії сонячного ультрафіолетового випромінювання на вуглеводороди та окиси азоту.
8. Спалювання вугілля на теплових електростанціях супроводжується викидами диму, який містить двоокис сірки та окис азоту.
9. Одним з методів зниження темпів забруднення атмосфери – це очистка палива, а зокрема бензину від шкідливих домішок.
10. Необхідність залучати у виробництво більш ефективних і екологічно безпечних технологій визнають зараз у всьому світі.

Exercise 7:

a) Read the dialogue and translate it:

Liza: Hello Zarif! How are you?
Mike: I am fine. What about you?
Liza: I am fine too. But I am little worried about air pollution.
Mike: Oh, I see. Nowadays it has become a great problem which is creating a constant threat to our life
Liza: Exactly! Air is being polluted in many ways though it is called life-giving force.
Mike: Absolutely! The most common agent that pollutes air is smoke.
Liza: Yes, smoke pollutes air. Moreover, railway engines, bus, trucks, also use petrol and diesel oil. All these things create smoke and cause air pollution.
Mike: You are right. Smoke of all kinds produces carbon monoxide and carbondioxide and thus pollute air.
Liza: You might have noticed that the most serious air pollution occurs in big industrial areas where there are many big mills and factories.
Mike: Yes. Besides, it occurs in big cities where many buses, trucks and cars move on the roads every day.
Liza: Deforestation also plays an important role in air pollution by increasing CO_2 in the atmosphere.
Mike: You are right. And due to air pollution, our environment is getting warm and losing its balance.
Liza: Exactly! Besides, polluted air is causing different incurable diseases to human beings.

Mike: But we must take steps to reduce air pollution. To ensure a healthier and happier life, there is no alternative to keep air free from pollution.
Liza: Of course. We all should be aware and protect our air from further pollution. Thank you.
Mike: You are most welcome. Bye and see you again.

b) Write your own dialogue between two friends on air pollution.

Exercise 8. Describe the air pollution problem and its sources in your hometown. Do this exercise in writing according to the plan:

- What type of pollution it is/ are there?
- Cause and effect of pollution.
- Why it had happen.

Exercise 9. Translate the following sentences:

1. Millions of people all over the world live in areas in which the air is not safe to breathe.
2. Waste, created by people may occur in the form of gases or particles of solid and liquid matter which appear as a result of burning fossil fuels.
3. Acid rain happens when sulphur and nitrogen compounds mix with moisture of the air and fall to Earth in rain or snow.
4. Air is an integral part of the ecosystem which is absolutely essential for all the living beings to be alive, so it’s really important to make it clean and to take care of it.
5. Giant volcanic eruptions can spew so much dust into the atmosphere that they block out significant amounts of sunlight and cause the entire planet to cool down for a year or more.
6. Renewable energy sources such as solar panels and wind turbines are helping us generate a bigger proportion of our power every year, but the overwhelming majority of electricity is still produced by burning fossil fuels such as coal, gas, and oil, mostly in conventional power plants.
7. Air pollution can harm the health of people and animals, damage crops or stop them growing properly, and make our world unpleasant and unattractive in a variety of other ways.
8. According to the World Health Organization (WHO), air pollution is one of the world's biggest killers: it causes around three million people to die prematurely each year.
9. The Earth's ozone layer protects life from the Sun's harmful ultraviolet rays, but in the 1970s, scientists found out that some chemicals let out into the atmosphere makes the ozone turn into oxygen.

10. Indoor air pollution involves exposures to particulates, carbon oxides, and other pollutants carried by indoor air or dust.

Text B

Exercise I. Read translate and retell Text B

Problem: Pollution

A pollutant is any substance that, when in an environment, poisons our air, land and water. Chemicals have poisoned all of the world, harming humans, wildlife, and plant life, on land, sea and air. Approximately 100,000 synthetic chemicals are now on the market, with one thousand new chemicals are added yearly.

Although companies test the toxicity of their products individually, they do not exist alone in the environment. Compounds are altered in combination with others, but the effect of these combinations are not tested or studied. Pesticides, designed to kill insects, weeds and fungus, are also toxic to human nervous systems, and are linked to cancer and reproductive, developmental, neurological and immune-system damage. Every chemical we use, every substance we produce, in manufacturing, farming, energy use, or consumption, remains here on Earth. These poisons may seem to disappear—but they are only hidden.

The World Health Organization reports that 3 million people now die each year from the effects of air pollution. This is three times the 1 million who die each year in automobile accidents.

In the United States, traffic fatalities total just over 40,000 per year, while air pollution claims 70,000 lives annually. U.S. air pollution deaths are equal to deaths from breast cancer and prostate cancer combined.

Point Source and Nonpoint Source Pollution (NPS)

Pollution sources are classified as point source or nonpoint source (NPS). Point source pollution comes from a particular place such as industrial and sewage treatment plants. In the last 25 years, the United States, has made considerable progress in cleaning-up this cause of pollution.

Non-Point source pollution occurs when rainfall or snow melt moving over and through the ground, picks up natural and human-made pollutants and finally deposits them into lakes, rivers, wetlands, coastal waters, and even our underground sources of drinking water. These non-point source pollutons include:

•Fertilizers, herbicides, and insecticides from agricultural lands and residential areas;

•Oil, grease, toxic chemicals and heavy metals from urban runoff and energy production;

•Sediment from improperly managed construction sites, crop and forest lands, and eroding stream banks;

•Salt from irrigation practices and acid drainage from abandoned mines;

•Bacteria and nutrients from livestock, pet wastes, and faulty septic systems;

Agriculture, forestry, grazing, septic systems, recreational boating, urban runoff, construction, physical changes to stream channels, and habitat degradation, careless or uninformed household management. [X]

Today, NPS pollution is the main reason approximately 40 percent of the rivers, lakes, and estuaries surveyed are not clean enough to meet basic uses such as fishing or swimming. The latest National Water Quality Inventory indicates that agriculture is the leading contributor to water quality impairments, and responsible for degrading 60 percent of the impaired river miles and half of the impaired lake acreage surveyed by states, territories, and tribes. Runoff from urban areas is the largest source of water quality impairments to surveyed estuaries.

If US homeowners reduced their use of Toxic Chemicals including pesticides by 10%, 2 million kilograms of toxic chemicals would be removed from the environment each year.

If US manufacturing firms reduced their toxic releases by 10%, 700 million kilograms would be removed from the environment.

Endocrine Disruptors

The threat of toxic substances has been misunderstood. Scientists had assumed that, if they could rule out cancer, then people would be protected from everything else as well. But a new threat has been discovered. Until recently, research on and regulation of synthetic chemicals and pollution focused on the dangers of genetic mutation, gross birth defects, and especially, cancer. A decade ago, it was assumed that if very high-dose testing was used, the probability of causing cancer would not be missed. Wildlife studies and laboratory experiments provide solid evidence that synthetic chemicals have contributed to dwindling wildlife populations by disrupting hormones, altering sexual development, impairing reproduction, and undermining the immune system.

These man-made chemicals, are now called endocrine disruptors, because they interfere with the body's hormones. Endocrine systems control body growth, organ development, metabolism and regular body processes such as kidney function, body temperature and calcium regulation. Endocrine disruptors include any chemical that interferes with hormones such as thyroid,

cortisol, insulin or growth regulators. These chemicals are being tested for potential links to prostate, testicular and breast cancers, as well as lowered sperm counts and behavioral and learning abnormalities.

Our Stolen Future by World Wildlife Fund (WWF) senior scientist Dr. Theo Colborn and coauthors Dianne Dumanoski and Dr. John Peterson Myers, demonstrates that many man-made chemicals interfere with the body's hormones. Contaminants can also transfer to the fetus where chemicals interfere with the hormonal signals directing fetal development. The effects may not appear until puberty or later. Some of these chemicals alter sexual development, some undermine intelligence and behavior, others make our bodies less resistant to disease. Fetal development is extremely sensitive to any variations in hormone signals. For a fetus to grow up according to its genetic blueprint, the right hormone message has to arrive at the right place in the right amount at the right time. These chemicals interfere with the delivery of that message.

Hormonally active chemicals can do damage at extremely low exposure levels, because these compounds do not behave according to the classic linear dose-response model (that is, the higher the dose, the greater the harm) that traditional toxicology assumes.

Exercise 2. Make up 15 questions to Text B.

Exercise 3. Give a brief summry of Text B.

Grammar exercises

Exercise 1. Read, translate and learn:

Finite verbs

Present Simple:	I type	I speak
Present Continuous:	I am typing	I am speaking
Past Simple:	I typed	I spoke

Present Perfect: I have typed I have spoken

Non-finite verbs

Infinitive: To type is a real skill. They want you to speak.

Present Participle: Typing speed Speaking engagement

Perfect Participle: Having typed Having spoken

Past Participle: Typed letters Spoken commentary

Gerund: Typing can be difficult. Do you find speaking stressful?

Exercise 2. Translate the following sentences. Comment the non-finite verbs.

1. Everyone seemed **to be talking**, and I, **sitting** in silence, felt awkward, but I was too shy **to break** into any of the groups that seemed **absorbed** in their own affairs.
2. The main cause of disturbance in an old injury that seems **to have been** disgracefully **neglected.**
3. The rain prevented us from **coming**.
4. There was nothing then **to wait** for.
5. Billy turned up three years later **having done** many jobs and **played** many parts in many theatres.
6. All the money **having been spent**, we started looking for work.
7. He could hear the car **coming** down the dirty road. Its sound was hard **to distinguish** from the sound of the wind.
8. I have some things **to do**.
9. **Looking** at pigs and things always soothes him, if he's been upset.
10. Is it necessary for you **to be** so economical?
11. What had happened seemed **to have happened** in another world.
12. I ought to have stopped her.
13. That' s why I want you **to come** and **help** me **find out** who did it and **unravel** the mistery, and all that.
14. ' No', I said, sorry for **having interrupted** her.
15. She needed **cheering** and he was prepared **to cheer** her.
16. And at that lunch I found myself **being regarded** as a distinctly more estimable character.

17. When I was younger I was used to **walking** long distances, but now I am out of practice.
18. He looked very funny **holding** the egg on his lap as if he weren' t supposed **to be eating** it.
19. Theodore was afflicted with the acute embarrassment that always seemed **to overwhelm** him when **greeting** or **saying** goodbye to someone.

Exercise 3. Identify the non-personal forms of the verb and name their form and meaning. Translate the sentences.

1. They love being dominated.
2. There is nothing to be said.
3. A rising wind made some of the willows rattle.
4. The picture must be hidden away at all costs. It had been mad of him to have the thing to remain, even for an hour, in a room.
5. Deeply flattered, John bowed from his hips as he had been taught at dancing school in Hades.
6. John saw Braddock Washington standing in the lighted lift, wearing a fur coat and a pair of riding boots.
7. Every evening he walked home from the city after having dined moderately in George' s Street.
8. She seemed not to have turned a hair over this business.
9. Michael, it is so nice to be dancing with you again.
10. My advice to you is to sit tight.
11. I think, when translated, any novel loses much of its originality.
12. Neither of us had seen Strickland for two or three weeks. I because I had been busy with Friends who were spending a little while in Paris, and Stroeve because, having quarreled with him more violently than usual, he had made up his mind to have nothing more to do with him.
13. I am sure Peter doesn' t feel like going to the discotheque. He is busy reading a detective story.
14. Being driven by an old horse, the cart was moving very slowly.
15. I am so sorry not to have written.
16. She was, to put it bluntly, a common little piece.
17. Newly arrived chisschaffs and willow-warblers sang in every bush and tree-top.
18. When I told him that I meant to live in Paris for a while, and had taken an apartment, he reproached me bitterly for not having let him know.
19. Her taking medicines too often is the real cause for her illness.
20. I must have eaten a record quantity of Italian pastries.
21. You must have been fighting! You have a black eye.

Exercise 4. Translate the following sentences and identifying nonfinite verbs in each sentence.

1. Are you reading? 2. I struggle to live. 3. He can't go with her. 4. He has gone out of station. 5. Going faster is dangerous for kids. 6. I do not go to school. 7. All the teachers have gone away to the university. 8. I am going in the studio tonight. 9. Reading is good for mind. 10. I don't have time to talk. 11. I am coming from the market. 12. I have to go, its urgent. 13. I want to go market. 14. Cooking is my favorite hobby. 15. We were dropped off at the camp. 16. The freshly cooked cookies are tasty. 17. I am going with her. 18. I like going to the swimming. 19. Doctor suggested me going for a walk daily. 20. I saw her going up the stairs. 21. The sleeping watchman is very careless. 22. I saw a snake going across the river.

Exercise 5. Identify the finite and non-finite verbs in the following sentences:

1. My little brother wants to be an actor.
2. She worked hard to pass the test.
3. I couldn't solve the problem.
4. To err is human.
5. Your duty is to cross the river without getting noticed.
6. The doctor is attending to the injured people.
7. She opened the door.
8. The students were asked to submit their assignments by Friday.
9. The teacher encouraged the students to work hard.
10. The dog wagged its tail to show its happiness.

Exercise 6. Choose the correct sentence:

1. a) I likes solving problems.
   b) They like solving problems.
   c) He like solving problems.
   d) They likes solving problems.

2. a) The car crash into the bus driving down the hill.
   b) The car crashed into the bus driving down the hill.
   c) The car has crashes into the bus driving down the hill.
   d) The car have crashed into the bus driving down the hill.

3. a) He was faking his illness.
   b) He were faking his illness.
   c) They is faking his illness.

d) They was faking his illness.

4. a) They traces the lost dog.
   b) He trace the lost dog.
   c) I traces the lost dog.
   d) I traced the lost dog.

5. a) He offer to pay for the damage.
   b) I offers to pay for the damage.
   c) They offers to pay for the damage.
   d) They offered to pay for the damage.

6. a) I hopes to expand the market.
   b) They hopes to expand the market.
   c) I hope to expand the market.
   d) He hope to expand the market.

7. a) I heard my mother talking on the phone.
   b) I hears my mother talking on the phone.
   c) I has heard my mother talking on the phone.
   d) I hearing my mother talking on the phone.

8. a) Please remind me to get the book from the library.
   b) Please reminds me to get the book from the library.
   c) Please reminded me to get the book from the library.
   d) Please reminding me to get the book from the library.

9. a) Would they minds opening the window?
   b) Would you minded opening the window?
   c) Would you mind opening the window?
   d) Would you minds opening the window?

10. a)I plan to study till midnight.
    b) I plans to study till midnight.
    c) He plan to study till midnight.
    d) They plans to study till midnight.

Exercise 7. Read and translate the text. Underline the non-finite verbs:

I am having a great time here at camp. Today, we went fishing, and I managed to set a new camp record by catching the biggest trout. We all laughed when Tommy reeled in his fishing line only to pull up an old tackle

box covered in slime. We were surprised to find a bottle inside. Inside the bottle was a message. When we read it, we realized it was a time capsule. We decided to make our own message in a bottle. We put ours in the box and threw it back in the lake.

Exercise 8. Translate the following sentences. Pay attention to the finite and non-finite verbs.

1. She was waiting in the room before he came in.
2. Does your brother know my brother?
3. The night before he had to leave, they sat on the small sofa in the living-room and looked at old family photos.
4. She tiptoed round the house so as not to wake anyone.
5. You need to paint the whole cupboard, starting from the bottom.
6. The firetruck, blaring its siren, sped down the road.
7. The freshly picked tomatoes look delicious.
8. To read is good for the mind.
9. We found him smoking behind the shed.
10. Tim gave Paul a menacing look.

Exercise 9. Put a necessary form of the gerund instead of the infinitive.

1. What is he doing? He is just trying (to open) the window.
2. Try (to taste) the meat before offering it to our guests.
3. Try (not to upset) yourself, darling. We must keep our heads.
4. You must try (to understand) what I say.
5. Try (to add) water to your drink.
6. Do you mind my trying (to mend) your watch?
7. Do you remember (to meet) her once at the dancing-party?
8. Please remember (to wipe) your feet before coming in.
9. I completely forgot (to turn off) the gas before leaving.
10. Don't forget (to take) your bathing things before setting off for the beach.
11. It's very hot this year. I'm afraid you will regret (to come) to the South.
12. I greatly regret (to tell) you I'm to go away. I'm being waited for.
13. Your composition is very poor, I regret (to say).
14. Passing by a radio-shop he suddenly remembered (to buy) some cassettes for his recorder.

Exercise 10. Determine which *–ing* forms are gerunds, which are participles and which are infinitives.

1. It is a true saying that a man must eat a pack of salt with his friend before he knows him (M. Cervantes)
2. But the real lasting victories are those of peace, and not a war. (R. Emerson)
3. He flattered himself on being a man without any prejudices, and this prenension itself is a very great prejudice. (A. France)
4. Enthusiasm is the leaping of lightning, not to be measured by the horse-power of the understanding. (R. Emerson)
5. Speaking truth is like writing fair, and comes only be practice. (J. Ruskin)
6. Welcome the coming, speed the parting guest. (A. Pope)
7. Be favourable to bold beginnings. (Virgil)
8. Life being very short and the quiet hours of it few, we ought to waste none of them in reading valueless books. (J. Ruskin)
9. Nationalism is a silly cock crowing on its own dunghill. (R. Aldington)
10. No pleasure is comparable to standing on the vantage ground of truth. (F. Bacon)
11. One must keep in training. (A. Chekhov).
12. Nothing astonises men so much as commonsence and plain dealing. (R. Emerson)
13. A reliable general is better than a dashing once. (Euripides)
14. The faculty of doubting is rare among men. A few choise spirits carry the germ of it in them, but these do not develop without training. (A. France)
15. The art of pleasing consists in being pleased. (W. Hazlitt)
16. Wisdom denotes the pursuing of the best end by least means. (F. Hutcherson)
17. Our teaching is not a dogma, but a guide to action. (K. Marx)
18. Opinion in good men is but knowledge in the making. (J. Milton)
19. More than an end to war, we want an end to the beginnings of all wars. (F. Roosevelt)
20. The test of a man or woman’s breeding is how they behave in a quarrel. (B. Shaw)

Exercise 11. Translate into English using *the Complex Object.*

1. Погана погода примусила нас повернутися додому.
2. Ми розраховуємо, що корабель прийде завтра.
3. Я бачив, як корабель зник за горизонтом.
4. Хвороба примусила його залишитися удома.
5. Мама хоче, щоб ми поїхали за місто.
6. Діти хотіли, щоб ялинку поставили в найбільшій кімнаті.

7. Ми розраховували, що він повернеться того ж дня.
8. Я наполягаю на тому, щоб ви пішли зі мною.
9. Я хочу, щоб ви допомогли мені.
10. Мама примусила мене поїхали на дачу в неділю.
11. Я бачив, як він пройшов мимо.
12. Я почув, як двері відчинилися.
13. Я хочу, щоб ви з'їздили до Франції.

Exercise 12. Translate into English using *the Complex Subject*.

1. Ніяк не чекали, що холодна погода наступить так рано.
2. Виявилося, що ми вже колись зустрічалися.
3. Ви, здається, втомилися.
4. Умови роботи виявилися більш важкими, чим передбачалося.
5. Ви випадково не знаєте цієї людини?
6. Книга, яку ви мені дали, виявилася нудною.
7. Нові автобуси виявилися жуже зручними.
8. З трьох сестер Бронте Шарлота вважається найталановитішою.
9. Ваш приятель, здається, дуже цікавиться стародавньою історією.
10. Вальтер Скотт вважається творцем історичного роману.
11. Я випадково знаю номер його телефону.
12. Він виявився хорошим спортсменом.
13. Я випадково зустрів його в Москві.
14. Відомо, що марсіанські канали були відкриті в 1877 році.
15. Припускають, що засідання закінчиться о десятій годині.
16. Джим виявився хоробрим хлопчиком.

LESSON 5

Pre-text exercise 1.

Read and remember the following words and their meaning:

Word	Meaning
Stratospheric ozone *noun*	A region of the atmosphere lying mostly in the stratosphere, between about 15 and 30 kilometers (10 and 20 miles) in altitude, containing a relatively high concentration of ozone that absorbs solar ultraviolet

	radiation in a wavelength range not screened by other atmospheric components.
atmosphere *noun*	the gaseous envelope surrounding the earth; the air.
wavelength *noun*	the distance, measured in the direction of propagation of a wave, between two successive points in the wave that are characterized by the same phase of oscillation.
nanometers *noun*	a unit of spatial measurement that is 10-9 meter, or one billionth of a meter.
ray *noun*	a narrow beam of light.
malfunctioning	failure to function properly.
to destroy	to ruin the structure, organic existence, or condition
sunspot activity	any of the dark cool patches, with a diameter of up to several thousand kilometres, that appear on the surface of the sun and last about a week. They occur in approximately 11-year cycles and possess a strong magnetic field.
stratosphere	the region of the upper atmosphere extending upward from the tropopause to about 30 miles (50 km) above the earth, characterized by little vertical change in temperature.
global scale	in relation to the entire world; worldwide

Text A

Exercise I. Read, translate and retell Text A:

STRATOSPHERIC OZONE

The global average level of stratospheric ozone fell by about 5 per cent during the eight years from 1979 to 1986. In the tropics the trend is nearly independent of the season, between —0,5 and —1.0 per cent per year. Outside them the losses vary seasonally and increase with the latitude, becoming greatest at the poles. Since 1969 ozone levels have fallen by about 2 per cent in temperate latitudes in summer, and around 5 to 6 per cent in winter. There have been especially sharp seasonal drops in Antarctica and recently over the Arctic.

Stratospheric ozone is a form of oxygen that acts as a filter for harmful ultraviolet radiation (UV-B) emitted by the sun. It also is one of the minor

greenhouse gases, but its effect on ultraviolet radiation is far more important. Several manufactured chemicals, especially some of the chlorofluorocarbons (CFCs) and halons, accelerate the breakdown of stratospheric ozone. The consequent increased exposure of people to UV-B will lead to increased incidence of skin cancer, sunburns, eye damage, and the ageing and wrinkling of skin. In addition there will be harmful effects on other species, including some important agricultural crops. Increased UV-B also has a tendency to suppress the efficiency of the body's immune system and to increase the incidence of skin infections. UV-B can also damage plant hormones and chlorophyll and reduce the rate of photosynthesis. Plant species sensitive to UV-B, such as cotton, peas, beans, melons, and cabbage, would grow more slowly, and in some cases pollen would fail to germinate. Increased t_TV-B levels would also damage algae and aquatic ecosystems, perhaps leading to declines in fish stocks.

Measures have already been taken in some countries to reduce or ban the use of the controlled CFCs in all or some products, non-essential aerosols, for example. In May 1989 in the Helsinki Declaration on the Protection of the Ozone Layer, ministers and senior officials of 81 countries and the European Community agreed to a total phase-out of ozone-depleting CFCs by the year 2000 or sooner if possible. They also agreed both to phase out halons and to control and reduce other ozone-depleting substances that contribute significantly to ozone depletion as soon as feasible. In addition., they agreed to facilitate the access of developing countries to relevant scientific information, research results and training and to seek to develop appropriate funding mechanisms to facilitate the transfer of technology and replacement at minimum cost to developing countries.

The debate over the existence of an ozone problem breeds media coverage. However, the real story is not whether stratospheric ozone levels are decreasing, but what those decreases may mean for life on earth. As the percentage of ozone in the atmosphere decreases, the amount of UV-B radiation reaching the surface increases. It's the UV-B radiation, not the ozone itself that concerns scientists, because the invisible wavelengths are linked to skin cancers and other biological damage.

Measuring UV-B is tricky. Levels are affected by time of day, day of the year, latitude, weather conditions, and the amount of ozone aloft. UV is the part of the electromagnetic spectrum made up of wavelengths between 280 and 400 nanometers (billionths of a meter). Most of this is UV-A light, only mildly associated with sunburn and DNA damage and relatively benign to most plant life. But the ill effects increase more than a thousandfold in the shorter wavelengths referred to as UV-B. Below 300 nanometers, the rays are sparse but very damaging; near 315 nanometers they're more numerous but much less destructive. Close to 310 nanometers lies the middle ground, where the number and impact of rays combine to cause the greatest harm to humans

and plants. Engineers face enormous challenges when designing instruments that can measure individual wavelengths, yet such precision is necessary to determine the amount of dangerous light entering the atmosphere.

Although often referred to as the ozone 'hole', it is really not a hole but rather a thinning of the ozone layer in the stratosphere. We will use the term 'hole' in reference to the seasonal thinning of the ozone layer.

The appearance of a hole in the earth's ozone layer over Antarctica, first detected in 1976, was so unexpected that scientists didn't pay attention to what their instruments were telling them; they thought their instruments were malfunctioning. When that explanation proved to be erroneous, they decided they were simply recording natural variations in the amount of ozone. It wasn't until 1985 that scientists were certain they were seeing a major problem.

Why did it take scientists so long to solve this mystery? To begin with, observations that challenge preconceived ideas don't always get taken seriously, even in science. Two decades ago scientists did not suspect the importance of the chemical processes that rapidly destroy ozone in the Antarctic stratosphere. When they saw dramatic fluctuations in ozone levels, they assumed their instruments were in error, or that whatever was happening was due to natural processes like sunspot activity or volcanic eruptions.

They didn't realize that chlorine was the main culprit and that most of the chlorine in the stratosphere comes from human activity. The largest source is a class of chemical compounds known as chlorofluorocarbons (CFCs).

Since 1974 scientists have known that chlorine can destroy ozone, but no one thought the destruction would be very rapid. Events over the Antarctic region proved them wrong. The ozone hole story began at Halley Bay in Antarctica, where British scientists had been measuring ozone in the atmosphere since 1957. In 1976 they detected a 10% drop in ozone levels during September, October, and November—the Antarctic spring. Since ozone concentrations over this region often vary from season to season, the researchers weren't concerned, even as the springtime declines occurred repeatedly. It wasn't until their instruments registered record low levels of ozone in 1983 that they realized something important was happening. By then, record springtime ozone declines had occurred during seven of the previous eight years.

While the stratospheric ozone issue is a serious one, in many ways it can be thought of as an environmental success story. Scientists detected the developing problem, and collected the evidence that convinced governments around the world to take regulatory action. Although the global elimination of ozone-depleting chemicals from the atmosphere will take decades yet, we have made a strong and positive beginning. For the first time in our species' history, we have tackled a global environmental issue on a global scale.

Sunlight is so-called electro-magnetic radiation energy of many different wavelengths emitted by the sun; it travels through space at the enormous speed of 186,000 miles per second. Such energy provides us with the heat and light we need to live, as well as delivering damaging ultraviolet (UV) rays. The way in which this radiation affects us depends on its wavelength, which determines how it is absorbed by molecules in different tissues. These tissues include those in the eye that are responsible for vision and those in the skin, which are both susceptible to UV injury. In addition, there are a host of other solar rays, such as cosmic rays, gamma rays, X-rays and radio-frequency radiation, but these are present in too small quantities at the surface of the Earth or of too low an energy to affect the health of our skin.

The solar radiation is an integral corpuscular flow (consisting of protons, alfa-elements, electrons, neutrons, neutrinos) and electromagnetic (photon) radiation. The solar ultraviolet radiation wave lenght less then 290 nm is completely absorbed by oxygen and ozone of the upper atmosphere. Atmospheric pollution by factory waste helps the ozone layer destruction resulting in appearance of “ozone holes”. The shortest and the most harmful UV waves reach the earth surface through these “ozone holes”.

The energy from sunlight has been essential for the evolution of life on Earth. It has provided visible light for photosynthesis, the process by which plants use such energy to grow and eventually provide food for other creatures via the food chain. In addition, its infrared rays have given us the warmth we need to live, while visible light is the part of the spectrum that our eyes need to see, and the part that drives our biological, so-called circadian, rhythms. Our mood and sense of well-being may also be affected by visible light; deprivation of bright light can cause a type of winter depression known as seasonal affective disorder (SAD).

Very small amounts of UV radiation also promote the synthesis of vitamin D in the skin, which strengthens bones and thereby prevents rickets. However, vitamin D also comes in our diet - for example, from fish oils, some meats, eggs and dairy products which usually provide all we need. Overall, it therefore seems that the UV radiation part of the spectrum may not be of any value to us at all, but instead is just responsible for most of the harmful effects associated with sun exposure, such as skin sunburn, photoageing and cancer. However, UV radiation is also sometimes used by doctors to treat skin conditions if nothing else is effective, although some damage to the normal skin still occurs during that therapy.

By far the most important source of UV radiation on Earth is the sun, although the radiation is also emitted artificially by many fluorescent and other lamps, and also by arc welding equipment, and may be an important

source of exposure for people who work with them. Special UV radiation lamps are also designed for careful use under medical supervision in skin conditions such as psoriasis and eczema. Many people are further exposed in their workplace or at home to very-low-intensity UV radiation from fluorescent lights. As a result of the minimal UV output involved, however, these are not generally believed to cause measurable skin damage. However, tungsten halogen spot lamps are potentially dangerous if used continually, as they can cause sunburn after minutes to an hour or so of exposure and probably have the potential also to cause skin photoageing and perhaps cancer after many years of constant use.

Exercise 2. Answer the following questions:

1. What is stratospheric ozone?
2. What can you say about the global average level of stratospheric ozone?
3. What does stratospheric ozone act as?
4. What accelerates the breakdown of stratospheric ozone?
5. Why is ultraviolet radiation so harmful?
6. What measures should be taken to stop the losses of stratospheric ozone?
7. Why are environmental problems difficult to deal with?
8. How are UV-B levels measured?
9. What does UV consist of?
10. What is an ozone hole?
11. When was a hole in the earth's ozone layer over Antarctica found?
12. The stratospheric ozone issue is a glogal environmental problem, isn’t it? Why?
13. What did scientists discovered in 1976?
14. How do you understand the term “ozone levels”?
15. Do you know any ways to solve the ozone problem?
16. Does ozone have influence on human’s health?
17. Two decades ago scientists did not suspect the importance of the chemical processes that rapidly destroy ozone in the Antarctic stratosphere, did they?
18. What is sunlight?
19. Does this energy effects humans? How?
20. What kinds of the solar rays do you know?
21. What doest the solar radiation consist of?
22. What contributes to the formation of ozone holes?
23. Synthesis of vitamin D in the skin is very important for our health, isn’t it? Why?
24. What are the sources of UV radiation?

25. What were special UV radiation lamps designed for?
26. How can we protect our skin from UV radiation?
27. Can tungsten halogen spot lamps be harmful?

Exercise 3. Translate the following word-combinations:

strong and positive beginning, low levels of ozone, human activity, two decades ago, thinning of the ozone layer, UV-B radiation, due to natural processes, compounds known as chlorofluorocarbons, sunspot activity, volcanic eruptions, to vary from season to season, Antarctic spring, the appearance of a hole, instruments were in error, much less destructive, shorter wavelengths.

Exercise 4. Pick out the synonyms from the words given below, remember them:

Eruption, synthetic, problem, center, light, enigma, evidence, researcher, global, rapid, volume, hole, destruction, atmosphere, outbreak, sky, complication, damage, middle, mystery, international, investigator, amount, chemical, ray, speedy, crater, documentation.

Exercise 5. Translate the following sentences:

1. Найбільша концентрація озону в стратосфері між висотами 10 і 40 км.
2. Озон, як у промисловості, так і в лабораторії, виробляють з кисню за допомогою електричного розряду, в спеціальних приладах.
3. Під впливом озону гинуть не лише бактерії, а й грибки та віруси.
4. Хімічні властивості озону визначаються його великою здатністю до окислення.
5. Саме озон є причиною блакитного кольору неба.
6. Уперше думка про небезпеку руйнування озонового шару була висловлена ще наприкінці 1960-х років.
7. В Україні спостереження за станом озонового шару проводяться на п'яти озонометричних станціях (у Києві, Борисполі, Одесі, Львові й на Карадагу в Криму).
8. Озон вбирає в себе сонячні ультрафіолетові промені.
9. Науковий департамент атмосфери й океанів факультету природничих наук Університету м. Буенос-Айреса оприлюднив дослідження про поведінку озонової дірки в 2000 році.
10. Антарктида не є єдиним місцем на планеті, де з озоновим шаром негаразд.

Text B

Exercise I. Read, translate and retell Text B:

Genetically Engineered Food is a Form of Pollution

Genetic engineering refers to a technology where scientists transfer genes from one species to another. This practice goes far beyond selective breeding or hybridization. For example, scientists have spliced genes from viruses, bacteria and animals into food crops. Presently, two thirds of processed foods are made with a genetically engineered organism. Our laws do not require long-term testing for safety, so long-term effects are still unknown. Although U.S. companies now promote and sell genetically engineered foods, many other nations worldwide believe the known or potential dangers of this technology, requires legal safe guards. Many countries have enacted laws or policies (or are in the process of doing so) to restrict use of genetically engineered products in their foods.

These nations have practical and ethical objections to putting genetically engineered organisms (GEOs) into the environment. Ecological concerns include the irreversible affects on the environment if these genes spread to other plants:

- Cross pollination between GEOs and a wild relative could establish the engineered gene in nature, where it could cause irreparable damage to natural habitats, forever.
- Genes that add resistance to weed killers or pests can spread to nearby weeds, creating a new invasive plant that could replace native plants.
- The Bt toxin gene, a common gene spliced into plants, gives plants resistance to insect infestation. However, the toxin of the altered plant also kills beneficial insects like monarchs, lace wings and lady bugs. The plant exudes the toxin into the soil. This changes soil biology that that can affect nutrient cycle processes and soil fertility.
- Bt is a natural insecticide organic farmers use. It is not known if extensive planting of crops with the added Bt gene cause the toxin itself to loose its effectiveness.

The reasons companies give for gene splicing is that the added gene offers resistance to insect pests or weed killers. Some modifications increase the size or speed of plant growth. In practice gene modification allows a company to hold a patent on the altered seeds. A farmer cannot legally gather seeds from this year’s crop to share or to plant the next year.

Petrochemical Industry

The petrochemical industry is the biggest polluter—every Superfund site in the US is petrochemical- related. A Superfund site is any land in the United States that the Environmental Protection Agency (EPA) has identified as contaminated by hazardous waste and therefore a candidate for cleanup because it poses a risk to human health and/or to the environment.

We need new laws that use what ecologists call the precautionary principle. As described by John Cavanagh and Jerry Mander, in Alternatives to Economic Globalization, "proponents of a practice or product should bear the burden of proving that it is safe," because it can take years to find scientific proof of harm.

Germany and Sweden have this law, and other countries are considering doing so. Currently, we use the policy of "risk assessment," which requires governments to provide absolute proof of harm of new technologies and techniques before they can stop their use. Any preventative measures used to stop a product or practice, the WTO names as illegal barriers to trade and orders them stopped. Without the adoption of a precautionary principle, citizens lose the right to decide what risks they or the natural environment should be exposed to.

Environmental Defense Fund Scorecard. EDF has set up a huge interactive site that enables anyone in the US to learn about what pollutants are being released into the air, water and soil of any community, and by whom--all by entering a ZIP code, or clicking on their maps.

Exercise 2. Make up 15 questions to Text B.

Exercise 3. Give a brief summry of Text B.

Exercise 4. Translate the following word-combinations:

solar rays, harmful effects associated with, dairy products, photoageing and cancer, tungsten halogen spot lamps, part of the spectrum, seasonal affective disorder, an integral corpuscular flow, alfa-elements and electrons, to be essential for, molecules in different tissues, may not be of any value, different wavelengths, heat and light, to cause measurable skin damage, welding equipment, many years of constant use, minimal UV output.

Exercise 5. Pick out the synonyms from the words given below, remember them:

Important, particle, susceptible, sheet, remedy, regular, stream, radiation, to avoid, periodic, significant, sun, relevant, warmth, redness, size, molecule,

measurable, to prevent, heat, flow, constant, impressionable, emission, daylight, layer, sunburn, therapy, quantity, seasonal.

Exercise 6. Translate the following sentences:

a)

1. Suntan, freckling and sunburn are familiar effects of over-exposure, along with higher risk of skin cancer.
2. Ultraviolet rays are invisible to most humans: the lens in a human eye ordinarily filters out UVB frequencies or higher, and humans lack color receptor adaptations for ultraviolet rays.
3. A variety of solid-state and vacuum devices have been explored for use in different parts of the UV spectrum.
4. Ultraviolet absorbers are molecules used in organic materials to absorb UV radiation to reduce the UV degradation of a material.
5. Suspended nanoparticles in stained glass prevent UV rays from causing chemical reactions that change image colors.
6. The nitrogen gas laser uses electronic excitation of nitrogen molecules to emit a beam that is mostly UV.
7. The human body needs some UV radiation in order for one to maintain adequate vitamin D levels.
8. People with higher levels of vitamin D tend to have lower rates of diabetes, heart disease, and stroke and tend to have lower blood pressure.
9. The amount of the brown pigment melanin in the skin increases after exposure to UV radiation at moderate levels depending on skin type.
10. Medical organizations recommend that patients protect themselves from UV radiation by using sunscreen.

b)

1. Генерація ультрафіолетового випромінювання починається при температурі тіла понад 1200 °C, а його інтенсивність зростає з підвищенням температури.
2. Інтенсивність випромінювання та його електричний спектральний склад залежить від температури поверхні, що є джерелом УФВ, наявності пилу та загазованості повітря.
3. Тривала дія значних доз УФВ може призвести до ураження очей та шкіри.
4. Природне короткохвильове ультрафіолетове випромінювання (виходить від сонця) не потрапляє на Землю, а поглинається озоновим шаром.

5. До заходів захисту від УФВ належать конструкторські та технологічні рішення, які або усувають генерацію УФВ, або знижують його рівень.
6. Більш широкого застосування в промисловості, науці і медицині знаходять оптичні квантові генератори (ОКГ) - лазери.
7. Лазери використовують при дефектоскопії матеріалів, в радіоелектронній промисловості, в будівництві, при обробці твердих і надтвердих матеріалів.
8. Головною особливістю лазерного випромінювання є його чітка спрямованість.
9. За характером генерації електромагнітних хвиль лазери поділяються на імпульсні і лазери безперервної дії.
10. Термічна дія випромінювання лазерів безперервної дії має багато спільного із звичайним нагріванням.

Grammar exercises

Exercise 1. Choose correct variant in brackets:

1. I'm sure he is here - I can see his car in front of the building. He (must / may) be here. I can see his car in front of the building.
2. They're coming this week but I don't know which day. They (may / have to) be coming tomorrow.
3. I'm not sure I'm going to pass the exam. I don't feel very confident. I (might not / could not) pass the exam. I don't feel very confident.
4. I've bought a lottery ticket. There's a chance I'll become a millionaire! I (may / have to) become a millionaire!
5. I'm sure she doesn't speak French very well - she's only lived in Paris for a few weeks. She (can't / might not) speak French very well. She's only lived in Paris for a few weeks.
6. My key's not in my pocket or on my desk so I'm sure it's in the drawer. My key's not in my pocket or on my desk so it (might / must) be in the drawer.
7. Someone told me that Mark was in Mexico but I saw him yesterday so I'm sure he's not abroad. Mark (can't / couldn't) be abroad.
8. You got the job? That's great. I'm sure you're delighted. You got the job? That's great. You (may / must) be delighted.
9. They told me to prepare the project by tomorrow but it's alomost impossible to have it done so fast. I (could / must) finish it by tomorrow if I stay at work all night, but I'm not sure.
10. I asked them to send the goods as soon as possible; we (must / might) receive them by the end of the week if the post is fast.

Exercise 2. Complete the sentences using the words: can, could, have to, must, might, should. Translate the sentences.

1. Ted's flight from Amsterdam took more than 11 hours. He … be exhausted after such a long flight. He … prefer to stay in tonight and get some rest.
2. If you want to get a better feeling for how the city is laid out, you … walk downtown and explore the waterfront.
3. Hiking the trail to the peak … be dangerous if you are not well prepared for dramatic weather changes. You … research the route a little more before you attempt the ascent.
4. When you have a small child in the house, you … leave small objects lying around. Such objects … be swallowed, causing serious injury or even death.
5. Dave: … you hold your breath for more than a minute?
   Nathan: No, I can't.
6. Jenny's engagement ring is enormous! It … have cost a fortune.
7. Please make sure to water my plants while I am gone. If they don't get enough water, they … die.
8. I … speak Arabic fluently when I was a child and we lived in Egypt. But after we moved back to Canada, I had very little exposure to the language and forgot almost everything I knew as a child. Now, I … just say a few things in the language.
9. The book is optional. My professor said we … read it if we needed extra credit. But we … read it if we don't want to.
10. Leo: Where is the spatula? It … be in this drawer but it's not here. Nancy: I just did a load of dishes last night and they're still in the dish washer. It … be in there. That's the only other place it … be.
11. You … take your umbrella along with you today. The weatherman on the news said there's a storm north of here and it … rain later on this afternoon.
12. ……. we pull over at the next rest stop? I really …. use the bathroom and I don't know if I …… hold it until we get to Chicago.
13. Oh no! Frank's wallet is lying on the coffee table. He … have left it here last night.
14. Ned: … I borrow your lighter for a minute?
    Stephen: Sure, no problem. Actually, you … keep it if you want to. I've given up smoking.
15. I … believe she said that to Megan! She … insult her cooking in front of everyone at the party last night. She …have just said she was full or had some salad if she didn't like the meal.

16. Do you … chew with your mouth open like that? It's making me sick watching you eat that piece of pizza.
17. Mrs. Scarlett's body was found in the lounge just moments ago, and it's still warm! Nobody has left the mansion this evening, so the killer … be someone in this room. It … be any one of us!
18. Ted: I don't know why Denise starting crying when I mentioned the wedding.
    Pamela: It … have been what you said about her brother. Or, perhaps she is just nervous. After all, the big day is tomorrow.
19. … you always say the first thing that pops into your head? … you think once in awhile before you speak?
20. I was reading the book last night before I went to bed. I never took it out of this room. It … be lying around here somewhere. Where … it be?

Exercise 3. Put the correct form of either "can" or "be able to" for each sentence:

1. I haven't … concentrate recently at work. I don't know what it is.
2. My brother … cook very well. He is a chef in a French restaurant.
3. When he was only 2, my friend Lee … speak quite well.
4. I have to go to a business dinner tomorrow night so I … (not) come to the party. I'm very sorry.
5. Kevin lived in Italy for six years, so he must … speak Italian quite well. He will help you with your homework.
6. This telephone is terrible. I … (not) hear you at all.
7. When the car drove into the lake, one of the passengers … (not) open the door and had to be rescued.
8. Despite the arrival of the storm, they … finish the football match.
9. When I was very young, I used to … touch my toes, but I can't now!
10. The house was totally empty all day yesterday and I … finish that book I was reading.
11. My mother tells me that her grandfather was one of the best musicians of his time in the city and … play the piano like a professional.
12. I hope to … speak English very well after this course finishes.

Exercise 4. Complete the sentences with affirmative or negative forms of *must, have to* or *has to*.

1. It's raining outside. Tim ... take his umbrella.
2. I can give you my car, so you … buy a new one.
3. They … be in a hurry, because they have got more than enough time.

4. You … stop at the red light.
5. Tomorrow is Sunday. You … get up very early.
6. Mrs. Parks can't see very well. She … wear glasses.
7. You … return them. They are too small for you.
8. I am broke, I … borrow some money to buy a car.
9. You … stop smoking. It is very harmful.
10. Mr. Dickson is travelling abroad this summer, so he … get his passport soon.
11. All the students … obey the school rules.
12. It's freezing outside, so we … take a cab and not walk.
13. Students … look at their notes during the test.
14. I have a terrible headache, so I … leave early.
15. Snow has blocked the roads. We … stay here until it's cleared.

Exercise 5. Translate the following sentences:

1. Я обов'язково повинен відправити листа одразу ж.
2. Автобуси такі дорогі зараз, ми могли б з таким же успіхом поїхати на таксі.
3. Можливо, що у п'ятницю не буде зборів, тому що директор захворів.
4. Чи можу я скористатись вашим телефоном?
5. Ти бачиш мене?
6. Не може бути, щоб він це сказав.
7. Я мушу / повинна одягати окуляри для читання.
8. Вона дуже наполегливо готувалась до екзамену, отже, вона мала б його скласти (вона певне, його складе).
9. Я зробив таке, що мені не слід було робити.
10. Ти повинен тримати це у таємниці.

Exercise 6. Think of some things that you *can* and *can't* do in the following places. Write down the sentences:

Example: a church - *You aren't allowed to ride a bike in a church.*
You can light a candle and say a prayer.

1. a hospital
2. a museum
3. a swimming pool
4. a park
5. a theatre

Exercise 7. Use *should* to give an advice or to give an opinion:

Example: You look tired. You should go to bed.

1. There are a lot of homeless people. The government should … .
2. The problem is very serious. It should … .
3. If you are interested in politics you should … .
4. The sea is rough and it might be dangerous. They shouldn't … .
5. If you want to take photos while going around the museum, you should … .
6. If people don't have time to care for pets properly they shouldn't … .
7. Before you leave home you should … .
8. He looks ill. He should … .
9. If you are going to travel abroad you should … .
10. It is raining. They shouldn't … .

Exercise 8. Read, translate and learn the following dialogues. Note the use of modal verbs:

1. A: What do you think I ought to see in London first?
   B: Well, historical places, I think. You should go to Westminster Abbey, and if you can, go to the Houses of Parliament and the National Gallery.
   A: And what about the British Museum? I was told one ought to see it.
   B: I suppose you must go there. There you can find masterpieces of the world's best artists.
   A: How can I get to the centre?
   B: I think you can go by steamer down the Thames from Westminster to Tower Bridge. That's a very pleasant way to travel, and you can see London bridges and quite a number of buildings on the way.

2. A: Excuse me, please. Could you tell me how to get to the town centre?
B: First right, second left. You can't miss it.
A: Thank you.
B: That's OK.

3. A: Is this the right bus for the Town Hall?
   B: No, you should have caught a 12. Get off at the bridge and get one there.
   A: Could you tell me when we get there?
   B: It's the next stop but one.

4. A: Where are you going?
   B: I must do some shopping.
   A: What will you buy?

B: I must buy some food. We've got nothing for dinner.

5. A: Another piece of cherry pie?
B: No, thanks. I'm on a diet.
A: Please, do. You've hardly eaten anything.
B: It's delicious, but I don't think I ought to.

6. A: You look tired. What's the matter?
B: It's been a very hard week.
A: You should have a good rest during the weekend.

7. A: Can you skate?
B: Yes, I can, a little. Can you?
A: No, I'm afraid, I can't, but I can ski rather well.

Test 1. Choose the correct variant:

1. I didn't feel very well yesterday. I ... eat anything.
a) cannot b) couldn't c) mustn't

2. You ... look at me when I am talking to you.
a) could b) should c) would

3. I was using my pencil a minute ago. It ... be here somewhere!
a) can b) could c) must d) would

4. You really ... be late again.
a) must not b) don't have to be

5. If you don't start working harder, you ... repeat the course next year.
a) have to b) must c) will have to

6. His parents spoil him. He's always ... to do whatever he wants.
a) been able b) been allowed

7. Phone her now. She ... home by now.
a) has to be b) must be c) would be

8. You ... forget your sun cream. It's going to be very hot!
a) don't have to b) mustn't c) needn't

9. I ... be able to help you, but I’m not sure yet.
a) might b) would c) can
10. Entrance to the museum was free. We ... pay to get in.
a) needn’t b) didn’t need to

Test 2. Choose the correct variant:

1. Already as a child Mozart ... play the piano beautifully.
a) could b) should c) would

2. Which sign are you more likely to see at an airport: Bags ... not be left unattended.
a) can b) must c) may

3. I really ... try to get fit.
a) may b) must c) would

4.... take a photograph of you?
a) Am I allowed to b) May I c) Should I

5. Students ... borrow up to 6 books at any time.
a) are allowed to b) could

6. Whose is this bag? - I don’t know, but it ... belong to Alex.
a) could b) may c) should d) would

7. ... I go to the bathroom, please?
a) May b) Must c) Would

8. His excuse ... be true, but I don’t believe.
a) can b) may c) might

9. It’s very important to ... speak more than one language.
a) can b) be able to c) could

10. I don’t like ... get up early on a Sunday.
a) being able to b) being allowed to c) having to

Test 3. Choose the correct variant:

1. ... you speak French? - Only a few words, but my Russian is pretty good.
a) Can b) Could c) Might

2. ... you help me move this table? (Both answers are possible. Choose the more polite request.)
a) Can b) Could

3. I ... talk already before I was two years old.
a) could b) should c) would

4. I ... help you, but I don't want to.
a) can b) could c) would

5. ... you open the window, please.
a) Can b) May c) Might d) Could

6. I ... move the table. It was too heavy.
a) couldn't b) mustn't c) shouldn't d) wouldn't

7. You ... not put your feet on the cafeteria tables.
a) must not b) do not have to

8. If you continue to practise so hard, you ... beat me before too long!
a) can b) could c) will be able to

9. ... you swim? (Both are possible. Which is better?)
a) Are you able to b) Can

10. You ... eat so much chocolate. It's not good for you.
a) don't have to b) mustn't c) shouldn't

Test 4. Choose the correct variant:

1. I'm afraid I ... play tennis tomorrow. I've got a dentist appointment.
a) can't b) couldn't c) would not be able to

2. You can come to the meeting if you want but you ... .
a) have to b) don't have to c) mustn't

3. What do you want to do? - Well, we ... have a picnic, but it looks like rain.
a) can b) could c) should d) would

4. I’m so hungry I ... eat a horse!
a) can b) could c) must d) should

5. The test starts at 10.30. You ... be late.
a) don’t have to b) mustn’t

6. Why didn’t you tell me? I ... you!
a) could help b) could have helped c) was able to help d) would help

7. How did you do in the test? - Ok. It ... worse!
a) could be b) could have been c) might be d) would have been

8. He ... broken the classroom window. He wasn’t even in school today.
a) couldn’t have b) mustn’t c) shouldn’t have

9. You ... tired. You’ve only just got out of bed!
a) don’t have to be b) can’t be c) mustn’t be

10. She ... be very pleased with herself. She got the best grades.
a) has to b) must c) cannot

Test 5. Choose the correct variant:

1. … you hear the fireworks from your house last night?
a) Can't b) Could c) Can

2. Do you think you … write that report by Tuesday? I know you’re very busy.
a) have been able to b) couldn't c) will be able to

3. I … touch my toes. See!
a) can b) will be able to c) could

4. I … spend another moment in that restaurant. It was too noisy.
a) couldn't b) can't c) have not been able to

5. I … never seem to get the temperature right.
a) can b) can't c) to be able to

6. … play professional tennis, you must be extremely fit.
a) Will you be able to b) To be able to c) Couldn't

7. … you play an instrument?
a) Couldn't b) Can c) Able to

8. I'm afraid I … attend the meeting, I'm on business in Japan.
a) won't be able to b) can c) will be able to

9. … you have brought it to me at work?
a) Couldn't b) Will be able to c) Cannot

10. They … save the men from the sinking ship.
a) could to b) was able to c) were able to

LESSON 6

Pre-text exercise 1.

Read and remember the following words and their meaning:

Word	Meaning
Sun	the star that is the central body of the solar system, around which the planets revolve and from which they receive light and heat.
global warming	an increase in the earth's average atmospheric temperature that causes corresponding changes in climate and that may result from the greenhouse effect.
Earth	the planet third in order from the sun, having an equatorial diameter of 7926 miles (12,755 km) and a polar diameter of 7900 miles (12,714 km), a mean distance from the sun of 92.9 million miles (149.6 million km)
space	the region beyond the earth's atmosphere or beyond the solar system.
Venus	the planet second in order from the sun, having an

	equatorial diameter of 7521 miles (12,104 km), a mean distance from the sun of 67.2 million miles (108.2 million km)
Moon	the earth's natural satellite, orbiting the earth at a mean distance of 238,857 miles (384,393 km) and having a diameter of 2160 miles (3476 km).
Solar system	the sun together with all the planets and other bodies that revolve around it.

Text A

Exercise I. Read, translate and retell Text A:

THE GREENHOUSE EFFECT

While other planets in Earth's solar system are either scorching hot or bitterly cold, Earth's surface has relatively mild, stable temperatures. Earth enjoys these temperatures because of its atmosphere, which is the thin layer of gases that cloak and protect the planet. However, 97 percent of climate scientists agree that humans have changed Earth's atmosphere in dramatic ways over the past two centuries, resulting in global warming. To understand global warming, it's first necessary to become familiar with the greenhouse effect.

There's a delicate balancing act occurring every day all across the Earth, involving the radiation the planet receives from space and the radiation that's reflected back out to space. Earth is constantly bombarded with enormous amounts of radiation, primarily from the sun. This solar radiation strikes the Earth's atmosphere in the form of visible light, plus ultraviolet (UV), infrared (IR) and other types of radiation that are invisible to the human eye.

UV radiation has a shorter wavelength and a higher energy level than visible light, while IR radiation has a longer wavelength and a weaker energy level. About 30 percent of the radiation striking Earth's atmosphere is immediately reflected back out to space by clouds, ice, snow, sand and other reflective surfaces, according to NASA. The remaining 70 percent of incoming solar radiation is absorbed by the oceans, the land and the atmosphere. As they heat up, the oceans, land and atmosphere release heat in the form of IR thermal radiation, which passes out of the atmosphere and into space.

It's this equilibrium of incoming and outgoing radiation that makes the Earth habitable, with an average temperature of about 59 degrees Fahrenheit (15 degrees Celsius), according to NASA. Without this atmospheric

equilibrium, Earth would be as cold and lifeless as its moon, or as blazing hot as Venus. The moon, which has almost no atmosphere, is about minus 243 F (minus 153 C) on its dark side. Venus, on the other hand, has a very dense atmosphere that traps solar radiation; the average temperature on Venus is about 864 F (462 C).

The greenhouse effect

The exchange of incoming and outgoing radiation that warms the Earth is often referred to as the greenhouse effect because a greenhouse works in much the same way.

Incoming UV radiation easily passes through the glass walls of a greenhouse and is absorbed by the plants and hard surfaces inside. Weaker IR radiation, however, has difficulty passing through the glass walls and is trapped inside, thus warming the greenhouse. This effect lets tropical plants thrive inside a greenhouse, even during a cold winter.

A similar phenomenon takes place in a car parked outside on a cold, sunny day. Incoming solar radiation warms the car's interior, but outgoing thermal radiation is trapped inside the car's closed windows.

The greenhouse effect, combined with increasing levels of greenhouse gases and the resulting global warming, is expected to have profound implications, according to the near-universal consensus of scientists.

If global warming continues unchecked, it will cause significant climate change, a rise in sea levels, increasing ocean acidification, extreme weather events and other severe natural and societal impacts, according to NASA, the EPA and other scientific and governmental bodies.

Increasing concentrations of carbon dioxide and other trace gases in the atmosphere, largely as a result of human activities, are expected to cause a significant increase in the earth's temperature over the next several decades. The increase would entail major ecological, economic, and social consequences. The likelihood of such global warming is high, and its causes seem to be fairly well understood. The emission of these gases into the atmosphere, therefore, should be monitored carefully and probably should be reduced considerably in order to prevent serious harm to human welfare. While the harmful effects would not be great in the short run, it would be extremely unwise to postpone serious efforts to limit the build-up of most of these gases.

The concentration of carbon dioxide in the atmosphere by 1985 had increased by about 25 per cent since pre-industrial times. It is likely to increase by a further 40 per cent by the year 2050 if present trends in energy use continue; by 80 per cent if energy use accelerates. The additional warming affect of other trace gases, especially methane, nitrous oxide, and so-called chlorofluorocarbons, is expected to be about equal to that caused by carbon dioxide. The expected climatic change would exacerbate the problems

of drought, desertification, deforestation, and soil erosion and worsen the prospects for sustainable agriculture. Another consequence of global warming would be a higher sea level, which would profoundly influence habitation patterns, agriculture, and industry, particularly in river deltas, flood plains, and other low-lying coastal areas.

Although the forces driving, global warming are now broadly understood, its precise regional distribution and environmental impacts are not. Concerted efforts by the international scientific community will be necessary to clarify the prospects. If things are allowed to go on as at present, the world might in a few decades have to adapt very rapidly in the face of catastrophic change. But immediate measures to slow down the buildup of greenhouse gases would reduce the warming and its undesirable consequences.

Carbon dioxide is responsible for about 50 per cent of the greenhouse effect, so major attention should be given to strategies that would limit or even reduce its emission. The strategies include increased energy efficiency and modification of technologies in ways that lead to reduction in the use of fossil fuels. The preservation of forests, especially the tropical forests, is also essential.

About two thirds of the global carbon dioxide released by human activities arises from the combustion of fossil fuels. In addition, deforestation, land exploitation, and burning of other components of the world's biomass currently release 2 to 3 billion tons of carbon annually, nearly 80 per cent due to deforestation. Annual emissions of carbon dioxide from fossil fuel are projected to contain about 7 billion tons of carbon in the year 2000, between 10 or 14 billion tons in 2030, and between 13 and 23 billion tons in 2050, depending on the rate of growth in the demand and supply of fossil fuel energy.

The developed market economies of North America, Western Europe, and Japan produce 49 per cent of global carbon dioxide emissions, the economies of Eastern Europe 15 per cent, and the developing countries 26 per cent. In addition to the enormous use of fossil fuels in the industrialized countries, virtually all production of chlorofluorocarbons takes place in these countries. They have the major responsibility, therefore, for devising ways to limit the output of the greenhouse gases. Although they have reached initial agreements to reduce the production of chlorofluorocarbons in order to preserve stratospheric ozone, very little has been done to reduce or even to slow the growth of CO2 emissions.

Vigorous application of the economical policies to reduce carbon dioxide emissions could limit global warming to rate that would make the necessary adaptation of global economic activity relatively manageable:

a) Reduce fossil fuel use through increases in end-use energy efficiency;

b) Shift the fossil fuel toward natural gas;

c) Replace fossil fuel combustion with alternative energy technologies;
d) Eliminate net forest loss by more careful management of development in forest areas and large scale reforestation;
e) Remove carbon dioxide from the fuel gas of thermal power plants for disposal in deep ocean. They account for 15 per cent of carbon dioxide emissions.

The first four of these measures can serve more than one environmental and economic purpose. Even if the worst scenario does not come about, the world would benefit in other respects by taking these measures now. Other Greenhouse gases that could be controlled to varying degrees, based on present technical knowledge, are methane, nitrous oxides, and tropospheric ozone. Priority should be given to detailed studies of the sources of these gases, their interactions in the atmosphere, and technologies that would reduce their emissions.

Exercise 2. Answer the following questions:

1. Where does radiation form?
2. What is the average temperature on Earth?
3. Why cannot people live on the moon?
4. What is the greenhouse effect?
5. Does all types of radiation pass through the glass walls?
6. Will the global warming have scale consequences according to scientists?
7. What will happen If global warming continues?
8 . What is the main cause of a significant increase in the earth's temperature?
9. What should be done to prevent serious harm of gasses emissions to human welfare?
10. What are the rates of carbon dioxide concentration in the atmosphere?
11. What trace gasses contribute to the global warming?
12. What can be said about the additional warming effect of the trace gasses?
13. What are the expected consequences of global warming?

Exercise 3. Translate and study the following words and expressions:

Decade; to entail; largely; therefore; consequences; in the short run; the build-up; further, profoundly; broadly; precise fossil fuel; to arise from; annual; enormous; vigorous; to benefit.

Exercise 4. Give the Ukrainian equivalents of the following:

Human welfare; to postpone serious efforts; a significant increase; in order to prevent; environmental impact; fairly well understood; since the pre-industrial times; likely to increase; the expected climatic changes; sustainable agriculture; habitationpatterns; trends in energy use; to adapt to clarify the prospects; it would be unwise.

Exercise 5. Translate the following word-combinations:

significant climate change, the greenhouse effect, incoming UV radiation, higher energy level, visible light, cold and lifeless, into space, the average temperature, oceans and land, on Venus, invisible to the human eye, reflected back out to, enormous amounts of, thin layer of gases, to protect the planet, according to scientists and governmental bodies.

Exercise 6. Pick out the synonyms from the words given below, remember them:

Space, to care for, political, cause, solar, unsteady, thoughtful, territory, cosmic, uninhabited, weak, to protect, difficulty, complication, profound, lifeless, governmental, purpose.

Exercise 7. Pick out the antonyms from the words given below, remember them:

Easy, universal, inside, seen, cool, thin, complicated, drop, extraordinary, unimportant, limited, outside, invisible, familiar, warm, significant, dense, increase.

Exercise 8. Translate the following sentences:

1. На сьогодні переважна більшість вчених вважає, що причиною глобального потепління є діяльність людини.
2. За останню сотню років середня температура повітря над суходолом зросла, як стверджується, більш, ніж на півградуси.
3. Крім підвищення рівня Світового океану підвищення глобальної температури також призведе до змін в кількості і розподілі атмосферних опадів.
4. Потепління, що зафіксоване за допомогою інструментальнних температурних вимірювань, має стійку тенденцію, що підтверджується численними спостереженнями задокументованими багатьма незалежними групами вчених.

5. Парниковий ефект - процес, при якому поглинання і випромінювання інфрачервоних променів газами викликає нагрівання нижніх шарів атмосфери та поверхні планети.
6. Без атмосфери Землі температура майже по всій поверхні планети була б нижче точки замерзання.
7. З часів Промислової революції внаслідок діяльності людини в атмосфері збільшилась кількість парникових газів, що призвело до посилення радіаційного впливу.
8. Починаючи з 1978 року за допомогою супутників можна було точно вимірювати викиди сонячної радіації.
9. Кліматична модель являє собою комп'ютерну реконструкцію п'яти складових кліматичної системи: атмосфери, гідросфери, кріосфери, суші та біосфери.
10. Зміна клімату у майбутньому, як очікується, зокрема вплине на певні екосистеми, такі як: тундра, мангрові зарости і коралові рифи.

Exercise 9.

a) Read the dialogue and translate it:

Mike: Hello Anna! How are you?
Anna: I am fine. What about you?
Mike: I am fine too. What are you doing?
Anna: I am reading an article on greenhouse effect.
Mike: Do you know that the world's temperature is undergoing a significant change?
Anna: Yes, I have come to learn it from the discussion of a TV channel.
Mike: Oh! It is alarming that the world's temperature is increasing day by day.
Anna: You are right. This increase of temperature is called global warming.
Mike: But still now I do not know the cause of global warming. Do you know the cause of it?
Anna: Yes, global warming is caused by the increased amounts of carbondioxide around the earth. And the greenhouse effect is the most likely cause of global warming.
Mike: What may be the effect of global warming?
Anna: It may reduce mankind's ability to grow food, damage or destroy wildlife, raise sea levels, and thereby flood coastal areas.
Mike: I see it has many negative effects on mankind and animals.
Anna: Exactly! So, all of us including the government should come forward to take immediate measures to get rid of these disasters.
Mike: You are right. We must save the world to save ourselves. Thank you.
Anna: You are most welcome.

b) Write your own dialogue between two friends on greenhouse effect or global warming.

Text B

Exercise I. Read, translate and retell Text B:

GLOBAL WARMING

Global warming is sometimes referred to as the greenhouse effect. The greenhouse effect is the absorption of energy radiated from the Earth's surface by carbon dioxide and other gases in the atmosphere, causing the atmosphere to become warmer.

Each time we burn gasoline, oil, coal, or even natural gas, more carbon dioxide is added to the atmosphere. The greenhouse effect is what is causing the temperature on the Earth to rise, and creating many problems that will begin to take place in the coming decades.

Today, however, major changes are taking place. People are conducting an unplanned global experiment by changing the face of the entire planet. We are destroying the ozone layer, which allows life to exist on the Earth's surface.

All of these activities are unfavourably changing the composition of the biosphere and the Earth's heat balance. If we do not slow down our use of fossil fuels and stop destroying the forests, the world could become hotter than it has been in the past million years.

Average global temperatures have risen 1 degree over the last century. If carbon dioxide and other greenhouse gases continue to spill into the atmosphere, global temperatures could rise five to 10 degrees by the middle of the next century. Some areas, particularly in the Northern Hemisphere, will dry out and a greater occurrence of forest fires will take place.

At the present rate of destruction, most of the rain forests will be gone by the middle of the century. This will allow man-made deserts to invade on once lush areas. Evaporation rates will also increase and water circulation patterns will change.

Decreased rainfall in some areas will result in increased rainfall in others. In some regions, river flow will be reduced or stopped all together completely. Other areas will experience sudden downpours that create massive floods.

If the present arctic ice melting continues, the sea could rise as much as 2 meters by the middle of the next century. Large areas of coastal land would disappear.

Plants and other wildlife habitats might not have enough time to adjust to the rapidly changing climate. The warming will rearrange entire biological communities and cause many species to become died out.

The greenhouse effect and global warming both correspond with each other. The greenhouse effect is recalled as incoming solar radiation that passes through the Earth's atmosphere but prevents much of the outgoing infrared radiation from escaping into outer space. It causes the overheat of the air and as a result, we have the global warming effect. As you see, greenhouse effect and global warming correspond with each other, because without one, the other doesn't exist.

Global warming may have a number of effects.

More active weather systems. More energy in the atmosphere will lead to more active weather systems, with more frequent and more violent storms. More severe weather events such as storms, floods, heatwaves and hurricanes will be the result.

Disturbed rainfall patterns. Rainfall patterns will be significantly disrupted with floods in some places and droughts in others.

Acidification of the oceans. The ocean has a limited capacity to dissolve carbon dioxide before it ceases to absorb any more thus leading to further warming. This would also cause great damage to fish stocks.

Tipping points/feedback loops. There are many possible tipping points and feedback loops. For instance, if global warming causes the northern permafrost to melt, this will release vast amounts of methane which will make the problem much worse.

A rise in sea level. The most modest prediction of sea level rise presently predicted is 9-88 cm (3.5–34.6 inches). This small rise would cause significant disruption to coastal communities. There is a possibility, however, that the whole Greenland ice sheet would melt leading to a global rise of 7 m (23 ft). There is even a possibility that the West Antarctic ice sheet could melt, raising sea levels by a further six metres (20 feet). Although the rest of the Antarctic ice sheet is considered to be stable, if the entire Antarctic were to melt, this would raise sea levels by 62 metres (203 feet).

Spread of tropical diseases. As northern latitudes become warmer, previously rare tropical diseases will gain a foothold in more northern latitudes.

Disruption of ocean currents. The disruption of ocean currents could shut down the Gulf Stream with unpredictable consequences.

Habitat loss or change faster than animals can adapt. Temperature zones will move north and south too quickly for animals to follow or adapt to new habitats. The most extreme case is that of Arctic habitats which will leave animals such as polar bears with no place to go.

Loss of mountain glaciers exacerbating summer droughts. Mountain glaciers act as natural reservoirs, releasing winter snow as meltwater during the summer. Global warming will disrupt this system in two ways: (1) More rain will fall instead of snow which will prevent the reformation of the glaciers. (2) The result of this will be more floods when it rains and droughts when it does not.

Exercise 2. Answer the following questions:

1. What is global warming?
2. What is greenhouse effect?
3. What activities are unfavorable and change the composition of the biosphere and the Earth's heat balance?
4. What can prevent the developing of greenhouse effect?
5. Why are water circulation patterns changing?
6. What might cause disappearing of large areas of coastal land?
7. Does the warming affect biological communities?
8. Is there a correspondence between greenhouse effect and global warming?

Exercise 3. Translate Text B in writing.

Exercise 4. Translate the following words and word-combinations:

global warming, to refer, greenhouse effect, absorption, surface, carbon dioxide, to burn, gasoline, oil, coal, ozone layer, to slow down, fossil fuel, average, to spill into, the Northern Hemisphere, destruction, evaporation rate, to increase, water circulation pattern, rainfall, river flow, downpour, massive flood, to melt coastal land, to adjust, entire, biological communities, to die out, outer space, overheat, to correspond

Exercise 5. Read the effects of global warming and grade them as: Exceptionally serious, serious, or unimportant.

Exercise 6. These are some things we could do as individuals to help reduce global warming. Order them from most to least important:

- Recycle everything you can.
- Use less heating and air conditioning
- Use energy efficient light bulbs.

- Drive less and use more public transport.
- Plant a tree.
- Use less hot water.
- Switch off lights/appliances when they are not in use.

Grammar exercises

Exercise 1. Translate the sentences.

1. If you want I will dictate the adress to you.
2. If the intire ice cap of Guenland melts, the sea level will rise 7 m. Many researchers claim that if the temperature increases more than 3 C, such large sea level rises will be experienced .
3. If precipitation increases over land at high altitudes in the northern hemisphere, especially during the cold season, such exreme weather events will be expected to occur more freguently than previously.
4. If climate change causes loss of sea ice habitats, it will threaten the existence of polar bears and other ice-associated animals.
5. If the ice melting continues, the Barents Sea will probably be ice-free year round by 2050 with the detrimental consequences for the productive marginal ice flore and fauna.
6. This dam is old and crumbliny and if it overflows, the industrial deposits it contains will poison drinking water for millions of people in Ukraine and Moldova.
7. If the environment is not protected from pollution, its damage will extract its cost from those living in the vicinity or others living at a distance or even from those coming generations.

Exercise 2. Put the word in the brackets into the correct form.

1. Before you (to cross) the park, you will come to a supermarket.
2. When you (to cross) the park, you will see the hospital.
3. If you (to translate) this article into Russian, I shall use it in my report.
4. If she (to be) in St. Petersburg now, she will meet you at the railway station.
5. If you (not to hurry), you will miss the train.
6. If it (to train), we shan't go to the country.
7. When my friend (to come) to St. Petersburg, we shall go to the Russian Museum.
8. What will you be doing when he (to come) to your place?

9. Don't forget to play for your dinner before you (to leave) the canteen.
10. I shall be able to translate this article if you (to give) me a dictionary.
11. You will have to work hard at home if you (to miss) the lesson.
12. Where will you go when you (to come) to London?
13. The child won't be healthy if you (not to give) him much fruit.
14. I shan' t have dinner before mother (to come) home.
15. What will you do if you (not to finish) your homework tonight?
16. What will he do if his TV set (to break)?

Exercise 3. Put the word in the brackets into the correct form.

1. If I (to stay) some more days in your town, I (to call) on you and we (to have) a good talk.
2. He (to go) to the Public Library very often when he (to be) a student.
3. As soon as I (to return) from school, I (to ring) you up.
4. You (to pass) many towns and villages on your way before you (to arrive) in Moscow.
5. I (to stay) at home till she (to come). Then we (to go) to the theatre if she (to bring) tickets.
6. After I (to finish**)** school, I (to enter) the University.
7. When he (to return) to St. Petersburg, he (to call) on us.
8. If I (to see) him, I (to tell) him about their letter.
9. We (to gather) at our place when my brother (to come) back from Africa.
10. I (to sing) this song with you if you (to tell) me the words.
11. I hope you (to join) us when we (to gather) in our country house the next time.
12. What you (to do) when you (to come) home?
13. When they (to cross) the road, they (to see) the hotel.
14. Before she (to get) to the theatre, she (to go) past the shopping centre.
15. What we (to do) if it (to rain) tonight?
16. What she (to do) if she (to see) her best friend again?
17. If the bus (to be) very crowded, you (to be) exhausted by the time you (to get) to work.
18. If it (to be) very cold tonight, our car (not to start) in the morning.

Exercise 4. Complete the Conditional Sentences (Type I) by putting the verbs into the correct form.

1. If you (send) … this letter now, she (receive) … it tomorrow.
2. If I (do) … this test, I (improve) … my English.
3. If I (find) … your ring, I (give) … it back to you.
4. Peggy (go) … shopping if she (have) … time in the afternoon.

5. Simon (go) … to London next week if he (get) … a cheap flight.
6. If her boyfriend (phone / not) … today, she (leave) … him.
7. If they (study / not) … harder, they (pass / not) … the exam.
8. If it (rain) … tomorrow, I (have to / not) … water the plants.
9. You (be able/ not) … to sleep if you (watch) … this scary film.
10. Susan (can / move / not) … into the new house if it (be / not) … ready on time.
11. If you (eat) … an ice-cream, I (have) … a hot chocolate.
12. If she (need) … a computer, her brother (give) … her his computer.
13. If we (have / not) … time this afternoon, we (meet) … tomorrow.
14. He (talk) … to her if you (want / not) … to do it.
15. You (win / not) … the game if you (know / not) … the rules.

Exercise 5. Translate the following sentences.

1. If it snows, I will not go out. 2. If I find her address, I will send her an invitation. 3. If I don't see him this afternoon, I will phone him in the evening. 4. If John has the money, he will buy a new house. 5. If it rains, you will get wet. 6. You will get wet if it rains. 7. If Sally is late again I will be mad. 8. I will be mad if Sally is late again. 9. If you don't hurry, you will miss the bus. 10. You will miss the bus if you don't hurry. 11. If I have time, I'll finish that letter. 12. What will you do if you miss the plane? 13. Nobody will notice if you make a mistake. 14. If you drop that glass, it will break. 14. If you don't drop the gun, I'll shoot! 15. If you don't leave, I'll call the police. 16. If you drop that glass, it might break. 17. I may finish that letter if I have time. 18. If he calls you, you should go. 19. If I do my homework, I will be able to go to the park. 20. You will feel sick if you drink too much coffee.

Exercise 6. Translate the sentences.

1. Я подзвоню тобі, якщо буду мати час.
2. Якщо це плаття буде коштувати занадто дорого, я куплю інше.
3. Якщо у барі буде багато народу, ми підемо у інший.
4. Що ти будеш робити, якщо таксі не приїде?
5. Якщо він не зможе прийняти мене, я приїду іншим разом.
6. Вона запитає їх, чи побачить вона їх завтра.
7. Ти подзвонишь мені, якщо будуть якісь проблеми?
8. Мама буде хвилюватись, якщо ти не прийдеш вчасно.
9. Якщо зима буде холодною, вони будуть кататися на ковзанах.
10. Він розлютується, якщо побачить вас тут.

Exercise 7. Complete the Conditional Sentences (Type I) by putting the verbs into the correct form.

1. If I (go) … out tonight, I (go) … to the cinema.
2. If you (get) … back late, I (be) … angry.
3. If we (not/see) … each other tomorrow, we (see) … each other next week.
4. If he (come) … , I (be) … surprised.
5. If we (wait) … here, we (be) … late.
6. If we (go) … on holiday this summer, we (go) …… to Spain.
7. If the weather (not/improve) … , we (not/have) … a picnic.
8. They (go) … to the party if they (be) … invited.
9. If I (not/go) … to bed early, I (be) … tired tomorrow.
10. If we (eat) … all this cake, we (feel) … sick .
11. She (stay) … in London if she (get) … a job.
12. If you (not/want) … to go out, I (cook) … dinner at home.
13. I (come) … early, if you … (want).
14. He (not/get) … a better job if he (not/pass) … that exam.
15. I (buy) … a new dress if I (have) … enough money.
16. She (cook) … dinner if you (go) … to the supermarket.
17. They (go) … on holiday if they (have) … time.
18) We (be) … late if we (not/hurry) … .
19. She (take) … a taxi if it (rain) … .
20. I (not/go) … if you (not/come) … with me.

Exercise 8. Translate the following sentences.

1. Якщо піде дощ, я залишуся у будинку мого друга.
2. Якщо я побачу Тома, я запитаю в нього про Джона.
3. Якшо ти поцілуєш мене, я буду щасливим.
4. Якщо почую якісь новини про неї, подзвоню тобі.
5. Якщо ти загубиш гроші, я тобі допоможу.
6. Якщо погода гарна, я піду в парк.
7. Якщо перестане йти дощ, ми підемо прогулятися.
8. Якщо завтра буде дощ. ми не підемо в ліс.
9. Вона запізниться на автобус, якщо не вийде зараз.
10. Якщо я її зустріну, то розповім їй правду.

Exercise 9. Suppose you are going on holiday to a foreign country. Make sentences according to the example.

Example: What will you do if you get food poisoning?

I'll take medicine.

1. lose your passport; go to embassy.
2. get sunburns; use a body lotion.
3. run out of money; go to the bank.
4. are homesick; phone my parents.
5. are mugged; go to the police station.
6. don't like the food; go for a meal to some different restaurant.
7. don't understand a language; use a dictionary.
8. don't get on with your friends; spend time by myself.
9. get lost; buy a map of the city.
10. miss the train; buy a ticket for the next one.

Exercise 10. Translate the sentences into English.

1. Він зробить вправу з англійської мови, якщо в нього не буде інших справ.
2. Якщо я не допоможу йому, він не напише контрольну роботу.
3. Він не піде до бібліотеки сьогодні ввечері.
4. Якщо він не піде до бібліотеки, він буде вдома.
5. Ми будемо вдома завтра.
6. Її не буде вдома завтра.
7. Якщо її не буде завтра вдома, залиште їй записку.
8. Коли вона прийде до школи, вона зніме пальто.
9. Я прийду додому о шостій годині.
10. Коли я прийду додому, я зателефоную вам.
11. Вона зателефонує нам ввечері.
12. Я побачу Тома завтра.
13. Як тільки я побачу Тома, я розповім йому про це.
14. Завтра погода буде добра.

LESSON 7

Pre-text exercise 1.

Read and remember the following words and their meaning:

Word	Meaning

settlement	a place, typically one which has previously been uninhabited, where people establish a community.
accident	something bad that happens that is not expected or intended and that often damages something or injures someone.
reactor	a large machine in which atoms are either divided or joined in order to produce power.
capable	able to do things effectively and skilfully, and to achieve results; having the ability, power, or qualities to be able to do something.
attention	the act or state of applying the mind to something.
dangerous	a dangerous person, animal, thing, or activity could harm you.
incompetence	lack of ability to do something successfully or as it should be done.
catastrophic	involving or causing sudden great damage or suffering.
awareness	knowledge that something exists, or understanding of a situation or subject at the present time based on information or experience.
evacuation	the process of moving people from a dangerous place to somewhere safe.
explosion	a large-scale, rapid, or spectacular expansion or bursting out or forth.

Text A

Exercise I. Read, translate and retell Text A:

THE CHERNOBYL ACCIDENT

The Chernobyl station is situated at the settlement of Pripyat, Ukraine, 18 km northwest of the city of Chernobyl, 16 km from the border of Ukraine and Belarus, and about 110 km north of Kiev, the capital of Ukraine.

The station consisted of four reactors, each capable of producing 1 GW of electric power. Construction of the plant began in the 1970s, with reactor number 1 commissioned in 1977, followed by number 2 in 1978, number 3 in 1981, and number 4 in 1983. Two more reactors number 5 and number 6, also capable of producing 1 Gigawatt each were under construction at the time of the accident.

The Chernobyl accident riveted international attention. Around the world, people read the story and were profoundly affected. As a result, «Chernobyl» has entered the public consciousness in a number of different ways and received worldwide media attention.

The Chernobyl accident was clearly a major disaster in human history. Public awareness of the risks of nuclear power increased significantly. Organizations, both pro- and anti-nuclear, have made great efforts to sway public opinion.

The Chernobyl accident also came to symbolize the crumbling state of the USSR in public perception, in particular a dangerous culture of incompetence and cover-up.

On Saturday, April 26, 1986, at 1:23:58 a.m. local time, the fourth reactor of the Chernobyl power plant known as Chernobyl-4 suffered a catastrophic steam explosion that resulted in a fire, a series of additional explosions, and a nuclear meltdown.

It is regarded as the worst nuclear accident in the history of nuclear power ever happened. It produced a plume of radioactive debris that drifted over parts of the western Soviet Union, Eastern Europe, Scandinavia, UK, and even eastern USA.

Large areas of Ukraine, Belarus, and Russia were badly contaminated, resulting in the evacuation and resettlement of more than 300,000 people. About 60% of the radioactive fallout landed in the neighbour republic Belarus.

Even now it is difficult to accurately tally the number of deaths caused by the event at Chernobyl, as most of the expected deaths are from cancer, have not yet actually occurred, and are difficult to attribute specifically to the accident.

The Chernobyl accident was not a unique event. Long before, in 1957 near Chelaybinsk-40, a small top-secret town, the first nuclear accident occurred involved the first serious nuclear contamination of vast territories. It was a nuclear explosion happened in a tank with nuclear wastes. In 30 years such tragedy repeated at Chernobyl.

People hope that it was the last time because the third time might be the last one.

AFTER THE CHERNOBYL ACCIDENT

The Chernobyl accident occurred on April 26, 1986, at the Chernobyl nuclear power plant in the Ukraine which used to be the part of the Soviet Union that time.

The Chernobyl accident was clearly a major disaster for the whole humanity. Public awareness of the risks of nuclear power increased significantly.

The workers involved in the recovery and cleanup after the accident received high doses of radiation. In most cases, these workers were not equipped with individual dosimeters to measure the amount of radiation received, so experts can only estimate their doses.

According to Soviet estimates, up to 600,000 people were involved in the cleanup of the 30 km evacuation zone around the reactor. In the first year after the accident, the number of cleanup workers in the zone was estimated to be 211,000, and these workers received an estimated average dose of 16.5 rem. In reality the number of people involved in cleanup processes can be higher.

Besides liquidators there were many people who lived in that area. The accident produced a huge plume of radioactive debris that drifted over parts of the western Soviet Union, Eastern and Northern Europe, the UK, and even eastern USA. Large areas of Ukraine, Belarus, and Russia were badly contaminated. More than 300,000 people were evacuated and resettled. But many people remained to live on the contaminated grounds, some people who were evacuated returned and still live in the 30 km zone.

Some children in the contaminated areas were exposed to high radiation doses because of an intake of radioactive iodine, a relatively short-lived isotope, from contaminated local milk. Several studies have found that the incidence of thyroid cancer among children in Belarus, Ukraine and Russia ha&risen sharply.

Late in 1995, the World Health Organization linked nearly 700 cases of thyroid cancer among children and adolescents to the Chernobyl accident. In reality the number of cases of thyroid cancer and leukemia is much higher.

As to the short and longer-term effects of radiation after the accident, the main health concern involved radioactive iodine, with a half-life of eight days. Today, there is not the less concern about contamination of the soil with strontium-90 and caesium-137, which have half-lives of about 30 years. The highest levels of caesium-137 are found in the surface layers of the soil where they are absorbed by plants, insects and mushrooms, entering the local food supply. Recent tests have shown that caesium-137 levels in trees of the area are continuing to rise. There is some evidence that contamination is migrating into underground and closed bodies of water such as lakes and ponds.

The main source of their elimination from the environment is predicted to be natural decay of caesium-137 to stable barium-137, since runoff by rain and groundwater has been demonstrated to be negligible.

The trouble at the Chernobyl plant itself did not end with the disaster in Reactor No. 4 and creation of the sarcophagus., The damaged reactor was sealed off and 200 metres of concrete placed between the disaster and the operational buildings. The Ukrainian government continued to let the three remaining reactors operate because of an energy shortage in the country. A fire broke out in Reactor No. 2 in 1991; the authorities subsequently declared

the reactor damaged beyond repair and had it taken offline. Reactor No. 1 was decommissioned in November 1996 as part of a deal between the Ukrainian government and international organizations such as the IAEA to end operations at the plant. In November 2000, Ukrainian President Leonid Kuchma personally turned off the switch to Reactor No. 3 in an official ceremony, finally shutting down the entire plant.

The IAEA notes that, the Chernobyl accident released as much as 400 times the radioactive contamination of the Hiroshima bomb. That is why the so-called «Red Forest» of pine trees within the 10 km zone, immediately behind the reactor complex, can be observed. The forest is so named because in the days following the accident the trees appeared a deep red hue as they died due to extremely heavy radioactive fallout. In the post-disaster cleanup operations, a majority of the 4 km forest was bulldozed and buried. The site of the Red Forest remains one of the most contaminated areas in the world. However, it has proved to be an astonishingly fertile habitat for many endangered species.

Exercise 2. Answer the following questions:

1. Where is the Chernobyl station located?
2. When did construction of the plant begin?
3. What happened on Saturday, April 26, 1986, at 1:23:58 a.m. local-time?
4. How many people were resettled due to the accident?
5. Where did most radioactive fallouts land?
6. Why is it difficult to accurately tally the number of deaths caused by the event at Chernobyl?
7. What does the Chernobyl accident symbolize?
8. What happened at Chelaybinsk-40 in 1957?
9. When did the Chernobyl accident occur?
10. What short-term effects of radiation on the human being do you know?
11. What longer-term effects on the humanity do you know?
12. Did anything happen at the Chernobyl plant after the disaster of 1986?
13. How much contamination did the Chernobyl accident release?
14. How many people were involved in the cleanup of the 30 km evacuation zone around the reactor?
15. Why were the levels of radioactive contamination in trees of the area continuing to rise?
16. How many people were evacuated and resettled after the Chernobyl accident?
17. What countries were-hit by the Chernobyl accident?

Exercise 3. Translate the following words and word-combinations:

a) to be situated, settlement, northwest, border across, to consist of, capable, plant, to commission, to follow, to be under construction, to rivet, attention, profoundly, to affect, consciousness, to receive, worldwide, clearly, disaster, awareness, significantly, effort, to sway, to symbolize, crumbling state, perception, incompetence.

b) to occur, Chernobyl, powerplant, disaster, awareness, to increase from, significantly, recovery, cleanup, to equip with, dosimeter, to measure, amount, to estimate, to involve, evacuation zone, average dose, huge part of, plume, debris, to drift, contaminated, to resettle, to remain, to expose, intake, radioactive iodine, short-lived isotope, incidence, thyroid cancer, to link, adolescent, leukemia, half-life of, strontium-90, caesium-137, surface, to absorb, insect, mushroom, food supply, evidence, pond, elimination, environment.

Exercise 4. Give English equivalents:

a) Отримувати, зусилля, стан розвалу, випар, розплавлення активної зони реактора, зрушуватися за вітром, радіоактивні осади, приземлятися, сусід, перераховувати, пояснювати, особливо, ядерні відходи, надсекретне місто, ліквідація наслідків аварії, уважність, бути в процесі будівництва.

b) Види тварин які знаходяться на межі вимирання, батьківщина, звільняти від, згодом, що не враховується, довкілля, піддавати дії радіації, відновлення, короткоживучий ізотоп.

Exercise 5. Translate the following sentences:

a)

1. The Chernobyl accident dominates the Energy accidents sub-category, of most disastrous nuclear power plant accident in history, both in terms of cost and casualties.
2. During the accident, blast effects caused 2 deaths within the facility and later 29 firemen and employees died in the days-to-months afterward from acute radiation syndrome, with the potential for long-term cancers still being investigated.
3. As the plumes and subsequent fallout continued to be generated, the evacuation zone was increased from 10 to 30 km about one week after the

accident, resulting in a further 68,000 evacuated, including from the town of Chernobyl itself.

4. The accident raised the already heightened concerns about fission reactors worldwide, and while most concern was focused on those of the same unusual design, hundreds of disparate electric-power reactor proposals, including those under construction at Chernobyl, reactor No.5 and 6, were eventually cancelled.
5. The accident also raised concerns about the cavalier safety culture in the Soviet nuclear power industry, slowing industry growth and forcing the Soviet government to become less secretive about its procedures.

b)

1. Кількість людей, що брали участь в гасінні пожежі на ЧАЕС, становила 240 тис.
2. Всі вони отримали високі дози радіації. Однак саме пожежникам вдалось врятувати нас від справді серйозної катастрофи – сильного водневого вибуху, який міг стати наступним етапом трагедії.
3. Перше офіційне повідомлення в СРСР зробили аж 28 квітня під тиском міжнародної спільноти, але і в ньому майже не повідомлялось про масштаби проблеми.
4. Після аварії розпочався судовий процес, на якому директора станції В. Брюханова було звинувачено в тому, що він не вжив відповідних заходів для захисту населення і працівників станції після виникнення аварійної ситуації.
5. Як виявилось, помилки персоналу АЕС неодноразово призводили до небезпечних ситуацій, але ці випадки ретельно приховувались.

Exercise 5. Translate the following words and make your own sentence with each of them:

Evidence	Groundwater
Concrete	Astonishing
Incidence	Average

Text B

Exercise I. Read, translate and retell Text B:

Our Planet and its Life, Origin and Futures.

James J.McCarthy
(www.sciencenews. org/view/feature /id/40789/title/First_wave)
Our Planet and its Life, Origin and Futures.

Continuity in these data sets for land and ocean properties and processes has now become essential in weather forecasting, hurricane warning, management of agriculture, and forestry. These data sets are, in addition, absolutely essential for documenting global climate change such as land surface and ocean surface temperatures, deforestation and other land-use changes, Arctic ice extent, sea-level rise, etc., and for anticipating the impacts of these changes on natural and socioeconomic systems. The precision with which sea-level rise has been measured since the early 1990s with satellite altimeters is vastly superior to earlier data from tide gauges. A downward trend in summer sea ice for the entire Arctic can be documented from the 1950s, but these observations have become far more precise with satellite data. Furthermore, the precision with which cloud cover and winds over the Arctic Ocean and the thickness of sea ice can now be determined with satellite data makes it possible to interpret causes of interannual variation in sea ice extent and volume.

Ironically, as assessments of climate change science and climate impacts have increasingly called attention to changes in climate and documented impacts that were not evident even a half decade earlier, the Earth-observing systems on which advances in this science depend are woefully underfunded. Budgets to develop, deploy, and operate these systems and to support the scientific use of the data have not grown in proportion to the widely recognized need for these capabilities. Worse, domestic funding to sustain them has actually declined over the past decade, even though the United States pioneered many of these systems.

Several organizations have been rising to the challenge of prioritization and support for the deployment of new satellite sensors and renewal of those essential time-series observations of atmospheric, oceanic, and terrestrial properties and processes. For example, in 2007 a committee of the National Research Council (NRC) prioritized 17 new Earth-observation missions for the 2010-2020 time period out of more than 100 that were proposed. A few months later, the AAAS Board issued a Board Statement on the "Crisis in Earth Observation from Space."

Capacity to leap beyond the rudimentary calculations of Arrhenius and to use the vast outpouring of data from satellites and other monitoring technologies originated with the development of code to run computer-based climate models. Manabe, Bryan, and Wetherald were pioneers in the application of this approach to climate scenarios with three-dimensional coupled atmosphere-ocean models. Manabe and Wetherald provided the first

model results run with twice the preindustrial concentration of atmospheric $C0_2$, which yielded an increased average global temperature of 2°C. Though primitive by today's standards, with, for example, a non-interactive ocean, even early models pointed to enhanced high-latitude warming and an intensified hydrological cycle in a warmer world. Many widely used assessments of future climate change and climate impacts have been based on the IPCC Special Report on Emission Scenarios (SRES) to generate plausible future climate conditions using several climate models. They portray collective choices that societies make with respect to economic growth, population growth, and options for energy-generating technologies, in addition to their relative emphases on global versus local solutions to economic, social, and environmental sustainability. Thirty-five of these were developed, representing a wide range of demographic, economic, and technological forces that can influence future greenhouse gas and sulfur emissions, and each clustered around one of four storylines for societal development. They explicitly did not include any assumptions regarding implementation of the United Nations Framework Convention on Climate Change or acceptance of the Kyoto Protocol emissions targets and timetables.

The Northeast Climate Impacts Assessment used high and low SRES emission scenarios, as did the recently released State of Knowledge Report of the U.S. Global Change Research Program. In these instances, it is clear that projected impacts across a wide swath of natural and socioeconomic sectors unfold very differently under low- and high-emission scenarios. Because of the relatively long average atmospheric residence time of these incremental greenhouse gases, the outcomes for high- and low-emission scenarios are similar for the first few decades, but beyond that they diverge distinctly.

Arrhenius envisioned the prospect of globally warmer conditions having positive local benefits, such as longer growing seasons at high latitudes.

In the 1983 National Academy of Sciences Carbon Dioxide Assessment Committee report, the authors considered the potential for wide-ranging impacts of human-induced climate change, including water availability, agricultural productivity, coastal conditions with sea-level rise, etc..

Several recent scientific papers and reports have addressed tipping points. Lenton et al. broaden this concept by defining tipping elements as subsystems of the Earth system that are at least subcontinental in scale and can be switched, under certain circumstances, into a qualitatively different state by small perturbations. The authors take into consideration equilibrium properties, threshold behavior, and critical rates of forcing, and suggest how this analysis can be of policy relevance in decision-making. A range of adverse impacts of abrupt climate change can be compared to develop cautionary strategies via a forewarning system.

A recent National Science Foundation (NSF) report, Transitions and Tipping Points in Complex Environmental Systems, addresses these issues

across the domains of research, education, and decisionmaking processes. It argues that NSF should give high priority to interdisciplinary research that focuses on complex environmental systems in order to provide a stronger foundation for informing policy decisions relating to global environmental issues.

Over the past two decades, many of the future climate projections from the IPCC and other groups have been proven to be conservative. This is in part because an IPCC assessment is by its very nature highly conservative. The content of an IPCC assessment is based on peer-reviewed publications in scientific journals. Thus, the most recent findings, perhaps already widely known among experts, may not be included in an assessment report if the work has not been published. Furthermore, recently published findings that have yet to be corroborated by other investigators may receive less emphasis than well-established work from an earlier period. At times the IPCC assessments have been mischaracterized as extreme exaggerations.

Unfortunately, when data confirm that projections for future climate have been overly conservative, this implies more serious negative impacts. Some aspect of the projected rates for greenhouse gas emissions or for the modeled climate response to these emissions has been underestimated. Greenhouse gas emission data summarized and recently updated indicate that since 2005, the global annual CO_2 emission rate has been at or above the highest rates projected only 5 years earlier with the set of IPCC SRES marker scenarios.

In 2001, the IPCC could not identify any body of science that pointed to a likelihood of a large reduction in Greenland ice during the present century. Since then, several major outlet glaciers for the Greenland ice cap have shown changes. The termini of many are retreating and thinning at unusual rates, and the increasing frequency of "icequake" seismic events that are spatially coincident with exit glaciers indicates that an acceleration of ice loss is now under way. Laser altimetry studies demonstrate that extensive dynamic thinning is occurring for glaciers at all latitudes on Greenland, with the most profound changes at the ocean margins. An abnormally cold 2007-2008 winter across the southern half of Greenland was more than offset by a record-setting summer with an intense melt season, and thus the mass of Greenland ice proceeds along its recent downward trajectory. Records of numbers of summer melting days continue to be broken. The trend in the total area of melt during 1979-2008 is approximately +15,900 km^2 $year^{-1}$ and is significant at the 95% confidence interval ($P<0.01$).

Changes are also evident in the rate of sea-level rise. In 2001, the IPCC reported that "[within present uncertainties, observations and models are both consistent with a lack of significant acceleration of sea level rise during the 20th century" (35). But Rahmstorf et al. (36) have now demonstrated that sea-level rise has accelerated since 1990. The linear IPCC model projections in 1990 gave a best estimate of rise at 2 mm/year. Satellite altimeter data,

however, yield an increase of 3.3 ± 0.4 mm/year over the 1993-2006 period. This observed rate of increase is at the upper end of what was projected from the early IPCC scenarios (Fig. 8).

The 2007 IPCC report projected 0.28 to 0.59 m of sea-level rise by 2100. These estimates do not preclude higher rates of rise due to increased rates of ice loss on Greenland and Antarctica. Although the IPCC authors were aware of publications relating to recent changes in Greenland and Antarctic ice balance, they lacked confidence that they could extrapolate meaningfully from these data to future sea-level rise. Rahmstorf used a semi-empirical relationship from 20th-century temperature and sea-level changes to project future sea-level rise from the IPCC scenarios for warming and derived an estimate of sea-level rise of 0.5 to 1.4 m for 2100 realative to the 1990 level.

Exercise 2. Make up 15 questions to Text B.

Exercise 3. Give a brief summry of Text B.

Grammar exercises

Exercise 1. Translate the following sentences.

1. If I lived in England, I wouldn't have any problems with my English.
2. If people trusted and respected each other, it would male life easier.
3. If I could read people's thoughts, it would be interesting to know all beforehand.
4. If you met her, you would fall in love with her at first sight.
5. If I were ill, I wouldn't eat anything.
6. If you went earlie, you would see her sister's husband.
7. If I had enough time, I would fly to San Francisco to visit my relatives.
8. If I were you I would study English much better.
9. What would you do if you won million pounds?
10. I don't really want to go to their party, but probably will go. They would be offended if I didn't do.
11. Kate has decided to aplly for the job. She isn't really qualified for it, so she probably wouldn't get it if she applied.
12. I would be very frightened, if somebody pointed a gun at me.
13. If you took more exercises, you would probably feel healthier.
14. It's a pity you can't use computer. It would be useful if you could.

15. If Michael were here he would help you to find her adress.

Exercise 2. Put the word in the brackets into the correct form.

1. If I was offered the job, I think I (to take) it.
2. I'm sure Amy will lend you the money. I'd be very surprised if she (to refuse).
3. If I sold my car, I (not to get) much money for it.
4. A lot of people would be out of work if the factory (to close down).
5. What would happen if I (to press) that red button?
6. Would Tim mind if I (to use) his computer without asking him?
7. I'm sure Sue (to understand) if you explained the situation to her.
8. I (to help) you if I could, but I'm afraid I can't.
9. We would need a car if we (to live) in the country.
10. I would't mind living in England if the weather (to be) better.
11. If he (to be) here now, ho could give you a good advice.
12. If I (to work) at this firm, I'd earn more.
13. If they (can) have some more lessons, they could improve their pronunciation.
14. If Emma (to know) the clue, our team would solve it.
15. If I offered them money, they (to stay) here?

Exercise 3. Put the verb in the brackets into the correct form.

1. If she (to find out) the truth, she (to be) very happy.
2. I (to visit) him in hospital, if I (to know) about his illness.
3. If we (to like) his suggestion, we (to tell) him about it.
4. If John (to want) the advice, he (to ask) you.
5. If his sister (to have) better qualification, she (to be able to) apply for better job.
6. They (to find) the solution, if they (to understand) the problem.
7. If Beth (to go) to her native town, she (to be) happier,
8. If you (not to agree) with me, I (to go) to the director.
9. What you (to do), if he (to tell) you to leave?
10. If I (to be) you, I (to learn) English better.
11. If someone (to give) you a million, what you (to do)?
12. If she (to be) here now, she (to help) you.
13. If Sally (to have) spare time, she could pay you more attention.

14. If the train (to be) less crowded, we would be more comfortable.
15. If students (to be) attentive, they wouldn't make so much mistakes in their dictations.

Exercise 4. Translate the sentences.

1. I wish you were here.
2. I wish you had been here last week.
3. I wish you would be with me next summer.
4. I wish I had told you the truth.
5. Tom wishes Sue always had time for him.
6. Tom wishes Sue had had more time last week.
7. Tom wishes Sue would have more time in future.
8. I wish I could do it myself.
9. I wish I could have done it then.
10. I wish I would be able to do it soon.

Exercise 5. Translate the sentences.

1. Kate wished her boyfriend were more attentive to her.
2. Now she wishes she had agreed to marry him.
3. We wish it would rain. It's too hot.
4. I wish you wouldn't talk about that, Dad.
5. She wishes she were in love again.
6. I wish you would stop contradicting me!
7. We wished the police were more efficient and hadn't just turned everything upside down in the house.
8. Oh! I am so miserable! I wish I were dead!
9. I wish I could make him change his mind! I wish he would give up that silly idea.
10. Sometimes I wish I were thousands of miles away from civilization.
11. How I wish it were so for ages and nothing would ever change!
12. Many people wish life were not so hectic.
13. They wish you were less bossy and were not ordering people again.
14. How I wish I could fly in the blue sky, over the roofs, over this town!
15. What is love? – I wish I knew the answer.
16. I just wish I had your kind of spirit, Maggie.

Exercise 6. Put the verb in the brackets into the correct form.

1. I wish I (to know) French.
2. She fell and broke her leg. I wish she (to be) more careful.
3. I wish you (to read) more English books in future.
4. I feel sick, I wish I (not to eat) all the ice cream.
5. They need a singer for the choir. I wish I (can) sing.
6. My parrot has died. I wish I (to look after) it better.
7. I can't remember her telephone number. I wish I (can).
8. I wish I (not to lend) him my car: he has broken it.
9. My watch has stopped. I wish I (to have) a better watch.
10. I feel so tired. I wish I (not to stay up) so late last night.
11. My apartment is rather small. I wish I (to have) a bigger one.
12. I wish I (not to spend) all my money yeaterday.
13. I wish I (to know) the answer to this question.
14. I wish you (to phone) me an hour ago.
15. I wish I (to know) then what I know now.

Exercise 7. Translate the sentences using "I wish".

1. Якби в мене зараз був вільний час!
2. Шкода, що я запізнився на зустріч.
3. Якби я вмів малювати!
4. Шкода, що вона не знала відповіді на те запитання.
5. Було б добре, якби у мене зараз була відпустка.
6. Шкода, що я не послухався їх поради.
7. Шкода, що вони не змінили свою думку.
8. Було би добре, якби ти знав правду.
9. Якби ти сказав мені про це рішення!
10. Шкода, що він не припинив робити такі помилки.
11. Шкода, що вона хворіє.
12. Шкода, що вже піздно йти на збори.
13. Вона шкодувала, що припинила там працювати.
14. Якби він вмів плавати!
15. Було би добре, якби ви взяли участь в обговоренні цього проекту.
16. Шкода, що ти не завстав мене вдома.
17. Шкода, що дитина не цікавиться історією.
18. Шкода, що ви провели літо в селі.
19. Шкода, що він не в Москві.
20. Я би хотів згадати її адресу.
21. Шкода, що вона не любить класичну музику.
22. Мені шкода, що не відвідав цю виставку.

b) Work in pairs. Discuss what would happen if the situations were different:

Example: I don't live on the Bahamas. - ***I wish*** *I lived on the Bahamas.*
I didn't live on the Bahamas then. - ***I wish*** *I had lived on the Bahamas then*

1. I didn't have enough time to learn English well.
2. He hated having music classes when a child
3. Eve failed to find a better job.
4. Helen didn't learn English well so she is doing it now.
5. Ann watches TV too much. Her mother wants to stop it.
6. Kate can't stop having too much coffee.
7. Linda does not have a lot of money.
8. Mike is too old to start a new business.
9. David does not understand his parents.
10. Jack did not make much money last year.

LESSON 8

Pre-text exercise 1.

Read and remember the following words and their meaning:

Word	Meaning
nuclear	Of, relating to, producing, or using energy that is created when the nuclei of atoms are split apart or joined together.
weapon	any instrument or device for use in attack or defense in combat, fighting, or war, as a sword, rifle, or cannon.
explosion	An act or instance of exploding; a violent expansion or bursting with noise, as of gunpowder or a boiler.
to devastate	To bring to ruin or desolation by violent action.
destruction	the state or fact of being destroyed.
thermal radiation	electromagnetic radiation emitted by all matter above a temperature of absolute zero because of the thermal motion of atomic particles.
residue	something that remains after a part is removed,

	disposed of, or used; remainder; rest; remnant.
to emit	Produce and discharge (something, especially gas or radiation).
rapidly	occurring within a short time; happening speedily; moving or acting with great speed.
x-ray	a type of radiation that can go through many solid substances, allowing hidden objects such as bones and organs in the body to be photographed.
significant	having an important effect or influence, especially on what will happen in the future

Text A

Exercise I. Read, translate and retell Text A:

NUCLEAR BOMB EXPLOSION

At present nuclear detonations are the most devastating of the weapons of mass destruction. Depending upon the environment in which the nuclear device is detonated, blast effects are manifested as ground shock, water shock, cratering, and large amounts of dust and radioactive fallout.

The energy of a nuclear explosion is transferred to the surrounding medium in three distinct forms: blast; thermal radiation; and nuclear radiation. Because of the tremendous amounts of energy liberated per unit mass in a nuclear detonation, temperatures of several tens of million degrees centigrade develop in the immediate area of the detonation. This is in marked contrast to the few thousand degrees of a conventional explosion. At these very high temperatures the non-fissioned parts of the nuclear weapon are vaporized. The atoms do-not release the energy as kinetic energy but release it in the form of large amounts of electromagnetic radiation.

In an atmospheric detonation, this electromagnetic radiation, consisting chiefly of soft x-ray, is absorbed within a few meters of the point of detonation by the surrounding atmosphere, heating it to extremely high temperatures and forming a brilliantly hot sphere of air and gaseous weapon residues, the so-called fireball. Immediately upon formation, the fireball begins to grow rapidly and rise like a hot air balloon.

Within a millisecond after detonation, the diameter of the fireball from one megaton (Mt) air burst is 150m. This increases to a maximum of 2200 m within 10 seconds, at which time the fireball is also rising at the rate of 100 m/sec. The initial rapid expansion of the fireball severely compresses the surrounding atmosphere, producing a powerful blast wave.

As it expands toward its maximum diameter, the fireball cools, and after about a minute its temperature has decreased to such an extent that it no longer emits significant amounts of thermal radiation. The combination of the upward movement and the cooling of the fireball gives rise to the formation of the characteristic mushroom-shaped cloud. As the fireball cools, the vaporized materials in it condense to form a cloud of solid particles. Following an air burst, condensed droplets of water give it a typical white cloudlike appearance.

In the case of a surface burst, this cloud will also contain large quantities of dirt and other debris which are vaporized when the fireball touches the earth's surface or are sucked up by the strong updrafts afterwards, giving the cloud a dirty brown appearance. The dirt and debris become contaminated with the radioisotopes generated by the explosion or activated by neutron radiation and fall to earth as fallout.

The relative effects of blast, heat, and nuclear radiation will largely be determined by the altitude at which the weapon is detonated. Nuclear explosions are generally classified as air bursts, surface bursts, subsurface bursts, underwater bursts and high altitude bursts. The most dangerous are underwater and high altitude bursts, although other bursts are pretty dangerous too.

THE HISTORY OF NUCLEAR BOMB CREATION

The first nuclear weapons were created by the United States, with assistance from the United Kingdom and Canada, during World War II as part of the top-secret Manhattan Project. While the first nuclear weapons were developed primarily out of fear that Nazi Germany would first develop them, they eventually used against the Japanese cities of Hiroshima and Nagasaki in August 1945.

The Soviet Union developed and tested their first nuclear weapon in 1949, based partially on information obtained from Soviet espionage in the United States. Both the USA and USSR would go on to develop weapons powered by nuclear fusion (hydrogen bombs) by the mid-1950s.

With the invention of reliable rocketry during the 1960s, it became possible for nuclear weapons to be delivered anywhere in the world on a very short notice, and the two Cold War superpowers adopted a strategy of deterrence to maintain a shaky peace.

Nuclear weapons were symbols of military and national power, and nuclear testing was often used both to test new designs as well as to send political messages. Other nations also developed nuclear weapons during this time, including the United Kingdom, France, and China. These five members of the «nuclear club» agreed to attempt to limit the spread of nuclear

proliferation to other nations, though at least four other countries (India, South Africa, Pakistan, and most likely Israel) developed nuclear arms during this time.

At the end of the Cold War in the early 1990s, the Russian Federation inherited the weapons of the former USSR, and along with the USA pledged to reduce their stockpile for increased international safety. Nuclear proliferation has continued, though, with Pakistan testing their first weapons in 1998, and the state of North Korea claiming to have developed nuclear weapons in 2004. Nuclear weapons have been at the heart of many national and international political disputes, and have usually symbolized the ultimate ability of mankind to utilize the strength of nature for destruction.

There have been at least four major false alarms, the most recent in 1995, that almost resulted in the US or Russia launching its weapons in retaliation for a supposed attack. Additionally, during the Cold War the US and the the USSR came close to nuclear warfare a number of times, most notably during the Cuban Missile Crisis in 1962.

As of 2005, there are estimated to be about 30,000 nuclear weapons held by eight countries, though 96% of these are in the possession of just two — the United States and the Russian Federation.

Exercise 2. Answer the following questions.

1. What kind of weapons is the most devastating nowadays?
2. What kind of nuclear blasts do you know?
3. What is the most dangerous kind of nuclear blast?
4. Why do temperatures of several tens of million degrees centigrade develop in the immediate area of the detonation?
5. What determines the relative effects of nuclear blast?
6. What gives the nuclear explosion cloud a white appearance?
7. What gives the nuclear explosion cloud a dirty brown appearance?
8. What country was the first to create nuclear weapons?
9. What countries helped the USA to create nuclear weapons?
10. When did nuclear proliferation start?
11. What countries agreed to conduct nuclear proliferation?
12. What do nuclear weapons symbolize?
13. When did the two Cold War superpowers adopt a strategy of deterrence to maintain a shaky peace?
14. What were the technological achievements that permitted for nuclear weapons to be delivered anywhere in the world on a very short notice?
15. How many warheads are there in the world at the moment?
16. What is the Cuban Missile Crisis? When did it happen?
17. When did the Soviet Union develop and test their first nuclear weapon?

Exercise 3. Translate the following words and word-combinations.

Nuclear detonation, to devastate, destruction, to depend, environment, nuclear device, blast effects, cratering, dust, fallout, to transfer, surrounding medium, distinct, blast, tremendous, to liberate, conventional, explosion, non-fissioned, to vaporize, to release, kinetic energy, soft x-ray, to absorb, gaseous, residue, fireball, immediately, to rise, megaton, burst, increase, initial, rapid, expansion, blast wave, to expand, to decrease, extent, to emit, significant, upward, movement, droplet, to contain, updraft, afterwards, radioisotope, neutron radiation, fallout, altitude, nuclear weapons, to create, assistance, the United Kingdom, top-secret, Manhattan Project, to develop, fear, Nazi Germany, eventually, partially, to obtain, espionage, invention, reliable rocketry, superpower, to adopt, deterrence, shaky, designs, to agree, to attempt, to limit, spread, proliferation, to pledge, to reduce, stockpile, to increase, dispute, to symbolize, ultimate, ability.

Exercise 4. Give English equivalents:

Ядерні вибухи, досить небезпечні, навколишня атмосфера, потужний вибух, нейтронне випромінювання, вибухова хвиля, основна зброя, значні суми, швидке зростання, площа детонації, Здатність, володіння, поширення зброї, намагатися зробити, запускати супутник, зв'язувати обіцянкою, одна з найбільш потужних великих держав, людство, передбачувана атака, шпигунство, сприяння.

Exercise 5. Translate the following words and make your own sentence with each of them:

notably	to attempt
strength	to limit
possession	to symbolize

Exercise 6. Fill in the blanks and translate:

1. The ..... nuclear explosion occurred on July 16, 1945 at 5:50 am on the Trinity Test Site near Alamogordo, New Mexico in the United States.
2. The event involved the full-scale testing of an implosion-type fission atomic ..... .

3. Following this test, a uranium-gun type nuclear bomb ..... on the Japanese city of Hiroshima on August 6, 1945, with a blast yield of 15 kilotons; and a plutonium implosion-type bomb on Nagasaki on August 9, 1945, with a blast yield of 21 kilotons.
4. In the years following World War II, eight ..... have conducted nuclear tests with 2475 devices fired in 2120 tests.
5. In 1963, the United States, Soviet Union, and United Kingdom signed the Limited Test Ban Treaty, pledging to refrain from testing nuclear weapons in the ....., underwater, or in outer space.
6. Nuclear tests are experiments carried out to determine the effectiveness, yield and explosive capability of nuclear..... .
7. Nuclear weapons are quite different from conventional weapons because of the ..... of explosive energy they can put out and the different kinds of effects they make, like high temperatures and nuclear radiation.
8. The devastating impact of the explosion does not ..... after the initial blast, as with conventional explosives.
9. A cloud of ..... travels from the epicenter of the explosion, causing an impact to life forms even after the heat waves have ceased.
10. Any nuclear explosion (or nuclear war) would have wide-ranging, long-term, catastrophic ....., that could threaten the survival of humankind.

(*effects, huge amount, atmosphere, countries, nuclear radiation, stop, weapons, first, bomb, was dropped*).

Text B

Exercise I. Read, translate and retell Text B:

NUCLEAR WAR AND ITS OUTCOMES

Nuclear war, or atomic war, is war in which nuclear weapons are used in a wide attack aimed at an entire country, both military and civilian targets. The United States is the only nation to have actually used nuclear weapons in war, having in 1945 dropped two of them on cities in Japan — one on Hiroshima and another on Nagasaki.

That time the possibility of an actual nuclear attack on the US was considered somewhat remote because no other nation had nuclear weapons. But on August 29,1949 the USSR tested its first bomb at Semipalatinsk in Kazakhstan. Britain tested its first atomic bomb in 1952, and France in 1960. Notably the Western European arsenals have always been nearly insignificant

compared to those of the superpowers - Russia and the United States.

So, in the end of the Second World War the nuclear weapons race between two superpowers started. The nuclear war between these two superpowers was more likely till the end of the 20 the century» when the Soviet Union collapsed. With the end of the Cold War and the collapse of the Soviet Union nuclear conflict between the United States and Russia appears much less likely. Stockpiles of nuclear warheads are being reduced on both sides and tensions between the two countries have greatly reduced.

Today current fears of nuclear war are mainly centred around India, first nuclear bomb test and Pakistan, first nuclear bomb test May 1998, because of their territorial dispute in Kashmir and mutual possession of substantial, though probably numbered in dozens rather than thousands. Therefore their nuclear arsenals make many extremely nervous. Moreover both have waged several wars over the conflict in Kashmir.

Nuclear terrorism by non-state organisations could well be more likely, as states possessing nuclear weapons are susceptible to retaliation in kind. Geographically-dispersed and mobile terrorist organizations are not so easy to discourage by the threat of retaliation. Furthermore, while the collapse of the Soviet Union ended the Cold War, it greatly increased the risk that former Soviet nuclear weapons might become available on the black market. Using such a weapon as a foundation, a terrorist might even create a salted bomb capable of dispersing radioactive contamination over a large area, killing a greater number of people than the explosion itself.

According to the recent scientific estimates any large-scale military conflict with the use of nuclear weapons can result in nuclear winter or summer and global climate change killing the majority of living beings.

Nuclear winter is a hypothetical global climate condition that was predicted to be a possible outcome of a large-scale nuclear war. It is thought that severely cold weather would be caused by detonating large numbers of nuclear weapons, especially over flammable targets such as cities, where large amounts of smoke and soot would be injected into the Earth's stratosphere.

This layer of particles would significantly reduce the amount of sunlight that reached the surface. Smoke and soot arising from the burning petroleum fuels and plastics would absorb sunlight very effectively. The ash would be carried by the midlatitude west-to-east winds, forming a uniform belt of particles encircling the northern hemisphere from 30° to 60° latitude. These thick black clouds could block out much of the sun's light for a period as long as several weeks, causing surface temperatures to drop by as much as 20C.

The combination of darkness and killing frosts, combined with high doses of radiation from nuclear fallout, would severely damage plant life in the region.

The extreme cold, high radiation levels, and the widespread destruction of industrial, medical, and transportation infrastructures along with food

supplies would trigger a massive death toll from starvation, exposure, and diseases. It is also thought that nitrogen oxides generated by the blasts would degrade the ozone layer. Secondary effects from ozone depletion and concomitant increases in ultraviolet radiation would be significant, with impacts on the viability of most human staple agricultural crops as well as disruption of ocean food chains by killing off phytoplankton. After that a so-called nuclear summer can happen which would worsen the situation.

A Nuclear summer is a hypothetical scenario resulting from a nuclear war that would follow a nuclear winter. In this scenario, after the nuclear winter the amount of water in the stratosphere would" increase, causing greenhouse warming of the surface. It would happen because thick clouds of soot and smoke over burning cities would reflect the major amount of sunlight that would be generated in the stratosphere, accumulating water.

Also the nuclear detonations would also produce a great amount of oxides of nitrogen that would then deplete the ozone layer around the Earth. It is a common knowledge that this layer screens out sun ultraviolet radiation, which causes genetic damage to life forms on the surface. The absorption of ozone also results in a heating of the stratosphere, which results in a further contribution to greenhouse heating.

One of the most serious and persistent problems of nuclear power is what to do with radioactive waste. Supporters argue that radioactive waste is actually not a major problem since the quantities are small. Whilst this may be true in relation to coal-fired power plants, there are still huge amounts of waste created during the nuclear process. In fact the production of 1,000 tons of uranium fuel typically generates 100,000 tons of tailings and 3.5 million litres of liquid waste.

The amount of sludge produced is nearly the same as that of the ore milled. At a grade of 0.1% uranium, 99.9% of the material is left over. As long-lived decay products such as thorium-230 and radium-226 are not removed, the sludge contains 85% of the initial radioactivity of the ore. In addition, the sludge contains heavy metals and other contaminants such as arsenic, as well as chemical reagents used during the milling process.

Still, the volume of waste is not the main problem associated with nuclear waste. The main problem is that high-level waste remains dangerously radioactive for up to 240,000 years. After half a century of research there are still no satisfactory solutions to this problem. The most commonly suggested solution is to build underground waste repositories for long-term storage. In 1987, the U.S. Department of Energy announced plans to build such a repository at Yucca Mountain in Nevada. According to the plan, high-level radioactive waste will be buried deep in the ground where it will hopefully remain unexposed to groundwater and unaffected by earthquakes. On a timescale of hundreds of thousands of years, however, it is impossible to predict whether an area will remain dry or geologically stable.

Moreover the costs of monitoring and maintenance over such a timescale are unimaginable and generations for hundreds of thousands of years to come would still have to pay the cost for a few years electricity for our generation. The Yucca Mountain scheme has generated huge public outcry and it is likely that the project will never go ahead. Similar problems elsewhere in the world mean that there are currently no final repositories in operation.

In the last decades researchers have been working on the technology to reduce radioactivity and the decay time of nuclear waste, the so-called transmutation process. This has often been optimistically heralded as the future solution to the waste problem, however, there is no guarantee that this research will be successful, and if it is the financial costs will be enormous. Nuclear waste contains many different types of radioactive isotopes, which must all be partitioned separately and then transmutated separately. The aim is to decrease the decay time of the radioactivity of these isotopes. This will not be possible for all isotopes and not all isotopes can be partitioned. It will require new processing technologies and plants. At this moment only plutonium and uranium are separated in reprocessing. The application of these new techniques will require a large-scale introduction of fast breeder reactors or other new advanced reactor types, which will take billions of dollars and many decades. And it is obvious that these techniques can only be applied for future spent fuel and not for the present amount of nuclear waste. Every attempt to present it as a solution for already present waste is misleading.

Other so-called solutions that have been proposed include: disposing waste in deep ocean trenches, blasting waste into space, and leaving waste by nuclear power plants until a use for it is possibly identified in the future. This last method is now applied on a large scale.

Exercise 2. Answer the following questions:

1. What is atomic war?
2. What is the only nation to have actually used nuclear weapons in war?
3. When did the USA drop nuclear bombs on Japanese cities?
4. When did the USSR test its first nuclear bomb?
5. What is the most possible result of any large-scale military conflict with the use of nuclear weapons?
6. What is a nuclear winter?
7. What is a nuclear summer?
8. Why might the ozone layer be depleted after a large-scale nuclear war?
9. What countries causing current fears of nuclear war do you know?
10. When did Pakistan test its first nuclear bomb?

Exercise 3. Translate the following words and word-combinations.

to aim, target, to drop, remote, insignificant, to compare, race, collapse, to appear, stockpile, nuclear warhead, to reduce, tension, mutual, dozen, arsenal, to wage, susceptible, retaliation, dispersed, to discourage, threat, former, to create, capable, contamination, hypothetical, global climate, outcome, to cause, flammable, soot, to inject, stratosphere, amount, sunlight, surface, petroleum, to absorb, ash, midlatitude, to encircle, hemisphere, latitude, frost, fallout.

Exercise 4. Give English equivalents:

Ушкоджувати, широко поширений, постачання їжі, рівень смертності, приходити в занепад, озоновий шар, виснаження запасів, фітопланктон, відбуватися в результаті.

Exercise 5. Translate the following words and make your own sentence with each of them.

to deplete	to screen
absorption	damage
radiation	threat

Exercise 6. Make up 15 questions to Text C.

Exercise 7. Express the main idea of the text in a few sentences.

Grammar exercises

Exercise 1. Translate the following sentences:

1. They would have been surprised if I had made such a mistake.
2. If you had put on your glasses you would have seen better.
3. Would you have been angry if we hadn't come?
4. If I had met you yesterday I would have helped you.

5. If they had gone to the library they would have prepared for the seminar.
6. If she had heard about it yesterday she would have been pleased.
7. He would have found all about this discovery if he had translated the article yesterday.
8. If we had seen them earlier we would have asked them to come to our place.
9. If you had rung him up yesterday you would have known about his illness.
10. I would have caught a lot of fish if I had joined you in fishing.

Exercise 2. Put the words in the brackets into the correct form.

1. He would't have been so upset if Susan (to write) to him earlier.
2. If he (to know) that Chinese was going to be so difficult, he would never have started to learn it.
3. If father (to manage) to repair his car, he could have driven us to Kiev.
4. If they (not to reach) the land, the sailors would have died.
5. We would have taken her for barbecue if she (to ask) us.
6. If he (to ask) politely, they might have helped him.
7. If she (not to hear) the news, she would't have gone there.
8. If the factory (not to cut back) production, many people would have lost their work.
9. What would they have done if we (not to help) then?
10. He might have heard about it, if he (not to turn on) the radio.
11. If you (to ask) her for tickets, she could have given you some.
12. If they (not to come) home, they wouldn't have noticed the fire.
13. If I (not to be) in a shower, I would answer the call.
14. We wouldn't have gone to this party if we (to know) the truth.

Exercise 3. Put the words in the brackets into the correct form.

1. If the weather (to be) fine, we (to play) outside.
2. If you (to ring) me up, I (to tell) you something.
3. If my friend (to come) to see me, I (to be) very glad.
4. If mother (to buy) a cake, we (to have) a very nice tea party.
5. If we (to receive) a telegram from him, we (not to worry).
6. If you (not to work) systematically, you (to fail) the examination.
7. If I (to get) a ticket, I (to go) to the theatre.
8. If my husband (to return) earlier, we (to watch) TV together.
9. If she (to know) English, she (to try) to enter the university.
10. If you (to be) busy, we (to meet).

11. The London Fire never (to start) if the baker (to put) his oven out properly.

Exercise 4. Translate the following sentences.

1. If it had rained, you would have gotten wet.
2. You would have passed your exam if you had worked harder.
3. I would have believed you if you hadn't lied to me before.
4. If you hadn't lied to me before, I would have believed you.
5. If I had worked harder I would have passed the exam.
6. If I had known you were coming I would have baked a cake.
7. I would have been happy if you had called me on my birthday.
8. If you'd given me your e-mail, I'd have written to you.
9. I would have bought you a present if I had known it was your birthday.
10. If I had found her address, I would have sent her an invitation.

Exercise 5. Complete the Conditional Sentences (Type III) by putting the verbs into the correct form.

1. If the weather (to be) … nice, they (to play) … football.
2. If we (to go) … to a good restaurant, we (to have) … a better dinner.
3. If John (to learn) … more words, he (to write) … a good report.
4. If the boys (to take) … the bus to school, they (to arrive) … on time.
5. If the teacher (to explain) …. the homework, I (to do) … it.
6. If they (to wait) … for another 10 minutes, they (to see) … the pop star.
7. If the police (to come) …. earlier, they (to arrest) … the burglar.
8. If you (to buy) … fresh green vegetable, your salad (to taste) … better.
9. If Alex (to ask) … me, I (to email) … the documents.
10. If he (to speak) … more slowly, Peggy (to understand) … him.

Exercise 6. Complete the Conditional Sentences (*First, Second* та *Third Conditionals*) by putting the verbs into the correct form. Translate the sentences.

1. If she (to find out) the truth, she (to be) very happy.
2. I (to visit) him in the hospital, if I (to know) about his illness.
3. If we (not to like) his suggestion, we (to tell) him about it.
4. If John (to want) the advice, he (to ask) you.
5. If his sister (to have) better qualification, she (to be able to) apply for better job.
6. They (to find) the solution, if they (to understand) the problem.

7. If Beth (to go) to her native town, she (to be) happier.
8. If you (not to agree) with me, I (to go) to the director.
9. What you (to do), if he (to tell) you to leave?

Exercise 7. Translate the following sentences.

1. Ви би почували себе краще, якби ви лягли спати раніше.
2. Він би краще знав англійську, якби влітку прочитав англійські книги.
3. Якби вони прийшли раніше, вони б змогли зайняти найкращі місця.
4. Ми би не запізнилися на потяг, якщо б взяли таксі.
5. Якщо піде дождь, діти залишуться вдома.
6. Якби учора не було так холодно, ми б поїхали за місто.
7. Якщо ти добре попросиш брата, він відремонтує твій велосипед.
8. Якщо він вивчить німецьку мову, він поїде вчитися до Німеччини.
9. Якби ми отримали телеграму, ми б вас зустріли.
10. Якби не було так слизько, вона б не впала.
11. Він би давно вже добрався до міста, якби не заблудився.
12. Сад давав би гарний врожай, якби за ним доглядали.
13. Він би зараз не сидів за кермом, якби водій не взяв вихідний.
14. Шкода, що цей автор не вразив її.
15. На жаль, справи завадили йому взяти участь у експедиції.
16. Якби він з'явився тут, вона б одразу пішла геть.
17. Якби він не зробив зауваження, вона б ще й досі виступала.
18. Подорож була б гарною, якби не потрібно було робити пересадку.
19. Якби він не був занудою, то не набрид би усім.
20. Якби книжка була новою, вона б коштувала набагато більше.
21. Йому хотілося самому заробляти на життя.
22. Хотілося б, щоб уже розвиднилося.
23. Він би не вчився зараз керувати автомобілем, якби не купив його минулого тижня.
24. Якби він був підготовлений, то здав би іспит.
25. Він буде відрахований, якщо і далі пропускатиме заняття.
26. Він би не програв змагання, якби був у належній формі.
27. Якби він не складав іспити зараз, вони б могли бачитися частіше.
28. Якби вони не об'їхали всю Європу, їм би не заздрили так.
29. Шкода, що вони не мають мобільних телефонів.
30. На жаль, поїздка не принесла їм ніякої користі. 21. Він шкодує, що не буде на роботі кілька днів.
31. Якби вони не були друзями, то побилися б.
32. Якщо вони потраплять сюди, то будуть зачаровані природою.
33. Якщо його покарають, він дуже засмутиться.
34. Якщо вона поскаржиться, скажіть, що вона сама винна.

Exercise 8. Translate the sentences into Ukrainian. Mind that meaning is not past.

1. What would you do if you won a million pounds?
2. I don't really want to go to their party, but I probably will go. They will be offended if I don't go.
3. Kate has decided to apply for the job. She isn't really qualified for it, so she probably wouldn't get it if she applied.
4. I would be very frightened if somebody pointed a gun at me.
5. If you took more exercise, you would probably feel healthier.

Exercise 9. Translate the following sentences.

1. Він пошкодував, що прийшов без запрошення.
2. Якби вони не галасували, вона б не розгнівалася.
3. Якби вони зателефонували до поліції, над ними б лише посміялися.
4. Вона відчула б полегшення, якби все з'ясувалося.
5. Якщо словники не викуплять, вони будуть продані.
6. Шкода, що життя роз'єднало нас.
7. На жаль, вона йому не сестра.
8. Якби ви знали матеріал, то відразу б здали іспит.
9. Якщо їй не вдасться здати іспит, потрібно буде працювати додатково.
10. Якби він не був такий розумний, то не досяг би такого успіху.
11. Якщо ти знову загубиш ручку, бери мою.
12. Хотілося б гарно грати в теніс.
13. Шкода, що зараз не можна полювати.
14. Вони пожалкували, що залишили його вдома самого.
15. Якщо він не буде слухати записи, йому буде важко поставити вимову.
16. Якщо вона нікого не бажає бачити, то так і каже.
17. Якби ці операції робилися руками, це потребувало б набагато більше часу.
18. Він допоможе їй за умови, що вона більше не буде запізнюватися.
19. Якби її щось не влаштовувало, вона б одразу сказала про це.
20. Вона б не одужала так швидко, якби про неї так не піклувалися.
21. Якщо пливти вниз за течією, можна дістатися моря.
22. Якщо бажаєте одержувати більш високу зарплатню, слід краще працювати.
23. Вона пожалкувала, що не пообідала.
24. Хотілося б, аби йому було стільки ж років, як і їй.
25. Якби вона бачила, що вони були проти, то не наполягала б.

Exercise 10. Work in pairs. Discuss what would happen if the situations were different.

Example: Ken didn't earn enough money last year. He can't buy a motorcycle now.
If Ken had earned enough money last year, he would buy a motorcycle now.

1. John was not a student then. He doesn't have a degree now.
2. Diana failed to win lottery then. She can't buy a house now.
3. Eve refused to marry John then. She is not his wife now.
4. Helen didn't work enough at her English then. She can't get a good job now.
5. Ann used to ignore all young men then. She is not married now.
6. Kate did not to go to Paris then. She can't tell anything about the city now.
7. Linda did not leave her job then. She can't get a new job now.
8. Mike and Barbara were close friends then. They are married now.
9. Morris could not find out David Beckham's phone number them. He doesn't have his autograph now.
10. Jack was not very clever then. He has serious problems now.

Exercise 11. Translate the following sentences.

1. Було б краще, якби він купив щось приємніше.
2. Вона б допомогла, якби він попросив.
3. Якби вона не соромилася, то й сама б зателефонувала.
4. Вона зачекала б на нас, якби не була така заклопотана.
5. Якби вона мала більше часу, вона б вивчала французьку.
6. Він би зміг закінчити роботу, якби знав, що робити.
7. Якби він і прийшов, то нікого б не знайшов.
8. Якби його запитали, він би порадив залишитися вдома.
9. Якби вона була дорослою, то робила б усе, що забажає.
10. Якби він був поетом, то присвятив би їй поему.
11. Вона б також купила словника, якби знайшла його.
12. Вона б поїхала, якби не було так холодно.
13. Вона б купила мікрохвильову піч, якби мала гроші.
14. Він би поїхав на море, якби мав відпустку влітку.
15. На вашому місці, вона б поїхала туди.
16. Якби вона зустріла його, то не впізнала б.
17. Вона б не почала обговорювати це, якби їй не доручили.

18. Якби авто не було таким старим, вони б поїхали на ньому у відпустку.
19. На твоєму місці, вона б розповіла про все.
20. Якби він її запросив, вона б не відмовилася.
21. Якби вона мала гроші, то об'їхала б увесь світ.
22. Якби це трапилося з нею, вона б засмутилася.
23. Вона б зраділа, якби це було правдою.
24. Якби він звернувся за допомогою, вона б не змогла йому відмовити.
25. Якби він знав, що робити, то не звертався б за порадою.

Exercise 12. Work in pairs. Discuss what would happen if the situations were different.

Example: I didn't have a million dollars. I couldn't buy an island.
If I had had a million dollars then, I would have bought an island.

1. John's video was broken. He failed to record the Super Bowl game.
2. The play was good because Diana Hightower played the leading part.
3. Eve was there. That's why John did not leave.
4. Helen didn't marry David. That's why she did not emigrate.
5. Ann did not become an opera singer. That's why she was very unhappy then.
6. Kate was not a skilled dancer. That's why she was very shy.
7. Linda did not know about Andrew's problems. That's why she did not help him at once.
8. Mike managed to buy a house because his bank gave him a loan.
9. Morris met his wife-to-be at the New-Year party. He went there by chance.
10. Jack was a success because he invested his money well.

Exercise 13. Translate the following sentences into English.

1. Якби наш бухгалтер не помилився вчора, то закінчив би розрахунки сьогодні.
2. Якби він зателефонував учора, вона б зараз не турбувалася.
3. Якби вчора був вихідний день, вона б не була такою втомленою сьогодні.
4. Якби вчора пройшов дощ, зараз не треба було б поливати город.
5. Якби він повторив домашнє завдання перед заняттям, то тепер не чекав би підказки.

6. Якби він раніше пішов спати, у нього б не боліла зараз голова.
7. Якби він не почув про це по радіо учора, то сьогодні прочитав би про це в газеті.
8. Якби замок не зламався, вони б тепер пили чай.
9. Якби вона прийшла учора, ми могли б усі разом поїхати за місто сьогодні.
10. Якби ти послухав мою пораду, мені б не потрібно було зараз викликати слюсаря.
11. Якби він учора надягнув плаща, у нього б тепер не боліло горло.
12. Якби вона закінчила переклад учора, їй би зараз дозволили прогулятися.
13. Якби вона мала сумнів щодо його чесності, вона б тепер розмовляла з ним інакше.
14. Якби їх познайомили раніше, їм було б легше зараз знайти спільну мову.
15. Якби їй позичили учора трохи грошей, вона б сьогодні їх уже повернула.
16. Коли б вони з'їздили влітку на південь, то не говорили б про це так часто тепер.
17. Якби вона пояснила все вчора, він би не розпитував про це зараз.
18. Якби їм вдалося дістати квитки вчора, вони б тепер ніжилися на сонечку.
19. Якби йому в дитинстві читали казки, він би зараз вірив у дива.
20. Якби він не зламав ногу, вони б сьогодні пішли на прогулянку.
21. Якби вони написали диктант учора, сьогодні вона б його перевіряла.

Test 1. Choose the correct variant:

1. If I knew his address, I … him.
   a) visited b) would visit c) had visited

2. If Sue … anybody the news, it won't be a secret.
   a) tells b) had told c) told

3. If Tom … the bus, he would have come to the meeting on time.
   a) hasn't missed b) missed c) hadn't missed

4. If I see Jill, I … her to call you.
   a) would remind b) will remind c) has reminded

5. If I were you, I … the red dress.
a) had chosen b) would choose c) choose

6. If she had been taking care of her health, she … ill.
a) wouldn't have fell b) didn't fall c) wouldn't have fallen

7. We will stay at this hotel provided it … much.
a) doesn't cost b) didn't cost c) hadn't cost

8. If Mark … for the job, he would have got it.
a) applies b) will apply c) had applied

9. If it were not for the snow, we … a car to the cinema.
a) can drive b) could drive c) could drove

10. If he had phoned me, I … him the home task.
a) would have told b) would tell c) told

Test 2. Choose the correct variant:

1.They'll go to the restaurant if they … a table in advance.
a) would reserve b) reserve c) reserved

2. If I found a purse, I … it back to the owner.
a) would give b) had given c) will give

3. If Mark … so much, he would be fit.
a) didn't ate b) won't eat c) didn't eat

4. If he hadn't asked for the directions, we … lost.
a) might has got b) might have got c) may got

5. We'll miss you a lot in case you … to another house.
a) will move b) would move c) move

6. I wish I … in the countryside. (but I don't)
a) lived b) live c) would live

7. I won't believe you unless you … clear evidence.
a) give b) will give c)had given

8. We would have been injured in the crash if we … seatbelts.
a) hasn't been wearing b) hadn't been wearing c) wore

9. If you hadn't left your camera at home, we … lots of pictures.
a) could took b) took c) could have taken

10. If John … the local race, he will take part in the national championship.
a) won b) wins c) would win

Test 3. Choose the correct variant:

1. If the temperature falls below 0 °C, water ... into ice.
a) turned b) turns c) will turn d) turn

2. If he ... the fine, he will go to the prison.
a) hadn't paid b) won't pay c) doesn't pay d) wouldn't pay

3. If I ... time, I'd take up sport.
a) have b) had had c) had d) am having

4. If she had studied harder, she … the test.
a) would have passed b) would pass c) would passed d) passed

5. If you need help, ... to me.
a) will come b) would come c) comes d) come

6. If I hadn't been rude to her, she ... upset now.
a) would not have been b) wouldn't be c) will not be d) isn't

7. If I were you, I ... to your mother.
a) would listen b) had listened c) will listen d) listen

8. If you ... your work, we can have a rest.
a) will finish b) finished c) had finished d) have finished

9.If you add sugar to a cup of tea, it ... sweeter.
a) taste b) tasted c) tastes d) will taste

10. If he hadn't been acting so foolishly, he ... punished.
a) would be b) wouldn't have been c) would have not bee d) would be not

Test 4. Choose the correct variant:

1. If you … ever in our town, you should come and visit us.
a) will be b) were c) are d) be

2. If he had found a job, he ..., for money now.
a) won't ask b) would not have asked c) had not been asking d) wouldn't ask

3. If I … a lottery, I … a yacht.
a) win / would buy b) has won / would buy c) win / would have bought d) won / would buy

4. If the weather ... tomorrow, we'll go for a walk.
a) will be fine b) is fine c) was fine d) fine

5. If I … earlier, I wouldn't be late now.
a) got up b) had got up c) were got up d) did get up

6. If I … in a bigger house, I would invite a lot of friends to my party.
a) lived b) had lived c) live d) had been living

7. If I do my homework, the teacher … happy.
a) is b) will be c) were d) was

8. If you heat water up to 100 °C, it ... .
a) will boil b) boiled c) boils d) had boiled

9. If he had had money, he ... her a gift.
a) will buy b) would buy c) would have bought d) would not have bought

10. Emma ... a card if she had remembered it was their anniversary.
a) would have sent b) would sent c) sends d) sent

Test 5. Choose the correct variant:

1. If Naomi Campbell hadn't been so beautiful, she ... a supermodel.
a) will not become b) would not have become c) would not become d) would become

2. If I ... work late, I will call you.

a) have to b) would have to c) will have to d) had to

3. If I were you, I … to your sister.
a) had talked b) would talked c) would talk d) talked

4. If you … that plate, you'll burn your fingers.
a) will touch b) touch c) touched d) had touched

5. If I ... the bus, I wouldn't have been late for my job interview.
a) didn't miss b) would not missed c) would not have missed d) hadn't missed

6. They would have helped us if we … them.
a) had asked b) hadn't asked c) would asked d) asked

7. She will join us later unless she … a lot of work to do.
a) isn't have b) won't have c) doesn't have d) has

8. If nobody paid the bill, the electricity ... .
a) will cut off b) will be cut off c) would cut off d) would had been cut off

9. If he knew her, he … to her.
a) would spoke b) will speak c) spoke d) would have spoken

10. … you leave the home now, you'll miss the bus.
a) If b) Whether c) Unless d) Supposing

Список літератури

1. Bell Jan. Matters Intermediate – Longman: 2000. – 168 p.
2. Swan Michael. How English Works. Oxford University Press. 1997.- 358 p.
3. Oxford English – Russian Dictionary. – Cambridge: “Cambridge University Press”, 1999. – 623 p.
4. Martin Hewings. Advanced Grammar in Use. – Cambridge: “Cambridge University Press”, 2005 – 296 p.
5. Dixson English Series. Robert V. – Dixson: “Press”, 1986 – 527 p.
6. Frequently asked questions. IPCC, 2007: Climate Change 2007: The Physical Science Basis. Contribution of working group I to the Fourth Assestment Report of Intergovernmental Panel on Climate Change/Solomon S., Qin D. etc. – Cambridge: “Cambridge University Press”. 2007. – 113 p.
7. Murphy English Grammar in Use. – Cambridge: “Cambridge University Press”. 1991. – 325 p.
8. Голіцинський Ю.Б. Англійська мова. Граматика. Збірник вправ, 2011. – 544 с.
8. Internet Sources.