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Заклад вищої освіти
«Подільський державний університет»
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Англійська мова
Практикум

(для здобувачів вищої освіти першого (бакалаврського) рівня
спеціальностей агрономічного спрямування денної форми навчання)

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Англійська мова: Практикум (для здобувачів вищої освіти першого (бакалаврського) рівня, спеціальностей агрономічного спрямування, денної форми навчання) / Ангеліна Роляк. Кам'янець-Подільський: Заклад вищої освіти «Подільський державний університет», 2022. – 113 с.

Практикум з англійської мови для здобувачів першого бакалаврського рівня вищої освіти створено з метою розвитку та удосконалення у здобувачів навичок читання, говоріння та письма. Практикум містить аутентичні тексти, вправи та тестові завдання, які повністю відповідають навчальній програмі.

Вступ

Відповідно до навчальних програм, дисципліна «Англійська мова» є обов'язковою у підготовці здобувачів вищої освіти першого (бакалаврського) рівня спеціальностей агрономічного профілю. Зміст навчальної програми «Англійська мова» передбачає систематичне оволодіння студентами базовими мовленнєвими навичками, що включають читання, письмо, активне спілкування та аудіювання. Крім того, основними завданнями вивчення дисципліни «Англійська мова» є набуття навичок практичного використання іноземної мови в різних видах мовленнєвої діяльності в обсязі тем, обумовлених повсякденними розмовними, міжкультурними та професійними потребами. Для досягнення вищезгаданих цілей та розширення базових професійних компетентностей пропонується представлений практикум.

Структура практикуму чітко визначається за розділами. У змісті й обсязі обов'язкових лексичних одиниць окреслено логіку й послідовність їх засвоєння студентами відповідно до вимог навчальної програми. Робота структурована на тематичні блоки з базовим текстом, лексикою для засвоєння та вправами. Посібник має також додатки для самостійного опрацювання, практичний курс граматики, а також англо-український словник агрономічних термінів, що використовуються в курсі. Належний рівень англомовного фахового матеріалу вдало поєднується з його доступністю. У практикумі застосовано функціональний підхід до вивчення англомовних явищ. Вони подаються у їх функціонуванні в зв'язному науково-фаховому тексті економічної спрямованості у зв'язках і взаємодії з усіма елементами системи англійської мови. Таке групування різнорівневих мовних явищ забезпечує студентам можливість простежити функціональні зв'язки між мовними одиницями різних рівнів, збагнути їх взаємозалежність, взаємодію і саме так підвести магістрантів економічних спеціальностей до розуміння закономірностей ділової англійської мови та сприйняття або самостійного формулювання правил ділового спілкування.

Пропонований автором практикум базується на найновіших здобутках мовознавчої, педагогічної, методичної та психологічної наук, враховує положення компаративної лінгвістики, забезпечує додержання принципів особистісно-орієнтованого навчання, комунікативного підходу з урахуванням індивідуальних особливостей здобувачів вищої освіти першого (бакалаврського) рівня агрономічних спеціальностей.

Topic 1

Introduction

Practical classes 1, 2, 3

1. Read and translate the words:

foreign, language, easy, long, slow, to take, to effort, to learn, to need, to travel, abroad, hobby, to speak, country, to read, to make, outlook, wide, polyglot, to become, politics, science, trade, culture, relation, mother tongue, to live, official, half, technology, necessary, wonderful, to want, successful, advantage, to begin, to communicate, furthermore, skill, to improve, memory, to waste, pronunciation, difficult, grammar, vocabulary, to express, to care, mistake, to mispronounce, different, to understand, to mix up, to sum up

2. Read and translate the word combinations:

Phrases : foreign language, long and slow process, to take a lot of time and efforts, to travel abroad, people from other countries, foreign writers in the original, to make your outlook wider, intellectuals and well-educated people, the world's most important language, science, trade and cultural relations, a mother tongue, the official languages, scientific literature, necessary for every educated person, a hobby for millions of people, many advantages, to travel around the world, to communicate with people from different nations, to get a higher-paid job, foreign language skills, to improve one's memory, to broaden mind, on the other hand, to waste time and money, grammar is not very complicated, English pronunciation, exception, to look up words in the dictionary, to check up pronunciation, to rely on rules, to say exactly, vocabulary, to be able to express your idea, to know lots of grammar rules, to communicate, to care, to mispronounce, the meaning can be different, to be able to understand, to omit something at the end of the verb, to misunderstand you, to be important for successful communication, to prefer reading, an enjoyable activity, English-speaking countries, to be easy for students, to concentrate and recollect the necessary words, to learn lots of new words, to have an opportunity, plenty of interesting English websites, to improve our English, to practice a lot, to enlarge your vocabulary, to improve grammar and pronunciation, to train speaking and listening skills, a competence.

3. Read and translate:

1) It is a long and slow process.

2) It takes a lot of time and effort.

3) It is especially important to know foreign languages.

4) My brother learns English because he needs it.

5) My friends travel abroad and they learn English for communication.

6) My teacher knows a foreign language and can speak to people from other countries.

7) English has become the world's most important language in politics, science, trade and cultural relations.

8) Over 300 million people speak English as a mother tongue.

9) English is the language of computer technology.

10) To know English today is absolutely necessary for every educated person.

11) Learning languages has many advantages.

12) The English language helps to travel around the world and communicate with people from different nations.

13) Ann speaks 3 languages and gets a higher-paid job than Peter who hasn't foreign language skills.

14) Learning languages improves our memory and broadens the mind.

15) Playing computer games is wasting of time and money.

16) English is easier to learn than many other foreign languages.

17) English grammar is not very complicated.

18) English pronunciation is very difficult.

19) There are more exceptions than rules.

20) You have to look up words in the dictionary to check up their pronunciation.

21) Nobody can say exactly which is most important in learning a language: grammar, vocabulary or pronunciation.

22) If you don't know the words, you won't be able to express your idea.

23) Some students do not care that they make many mistakes in speaking.

24) Grammar and pronunciation are of great importance.

25) All aspects of language are very important for successful communication.

26) Reading is a very enjoyable activity.

27) You can learn a lot of new things.

28) You can learn some information about English-speaking countries.

29) They don't have to concentrate and recollect the necessary words.

30) When you read English books, you learn lots of new words and enlarge your vocabulary.

Text A

Foreign Languages in Our Life

Learning a foreign language is not an easy thing. It is a long and slow process that takes a lot of time and effort. Nowadays it is especially important to know foreign languages. Some people learn languages because they need them for their work, others travel abroad, for the third studying languages is a hobby. Everyone, who knows foreign languages can speak to people from other countries, read foreign writers in the original making the outlook wider. It is not surprising that many intellectuals and well-educated people are polyglots. I study English. Nowadays English has become the world's most important language in politics, science, trade, and cultural relations. Over 300 million people speak it as a mother tongue. The native speakers of English live in Great Britain, the United States of America, Australia and New Zealand. English is one of the official languages in the Irish Republic, Canada, South Africa Republic. English is one of the official languages of the United Nations Organization and other political organizations. Half of the world's scientific literature is in English. It is the language of computer technology. To know English today is absolutely necessary for every educated person, for every good specialist. The English language is a wonderful language. It is the language of great literature. It is the language of William Shakespeare, Jonathan Swift, Walter Scott, Charles Dickens. The great German poet Goethe once said, "He, who knows no foreign language, does not know his own one." That is why in order to understand oneself and the environment one has to study foreign languages.

Nowadays learning foreign languages is very popular. It is a hobby for millions of people who want to be successful and happy. However, is learning languages worth spending so much time and effort on?

Learning languages has many advantages. To begin with, it helps to travel around the world and communicate with people from different nations. Furthermore, people who speak more than one language are likely to get a higher-paid job than

those who do not have foreign language skills. Finally, learning languages improves one's memory and broadens the mind. On the other hand, some people think that learning foreign languages is wasting time and money. In their mind, foreign language skills are not necessary either in traveling abroad or in getting a good job.

Some people think that English is easier to learn than many other foreign languages because its grammar is not very complicated. Still, it is a tricky language to learn because English pronunciation is very difficult. There are more exceptions than rules and you have to look up words in the dictionary to check up their pronunciation because you can't rely on rules.

Nobody can say exactly which is most important in learning a language: grammar, vocabulary or pronunciation. Of course, the main thing in a language is its vocabulary. If you don't know the words, you won't be able to express your idea even if you know lots of grammar rules. Some students think that being able to communicate is the most important thing in learning a language and they do not care that they make many mistakes in speaking. However, grammar and pronunciation are of great importance, too. If you mispronounce some words, the meaning can be different and people won't be able to understand you. The same thing is to grammar. Of course, if you omit 's' at the end of the verb, this won't make much difference, but if you mix up verb tenses, people will misunderstand you. So we should be concerned with both communicating and accuracy. To sum up, all these aspects are very important for successful communication.

As for the most European students, they enjoy learning English because it is a very beautiful language. They like all activities but most of all they prefer reading. It's a very enjoyable activity because while reading you can learn a lot of new things, for example, you can learn some information about English-speaking countries. Besides, reading is easier for students than speaking or listening because they don't have to concentrate and recollect the necessary words. If you don't know any word in the book, you can always look it up in the dictionary. What is more, when you read English books, you learn lots of new words and enlarge your vocabulary. Today we have an opportunity to find plenty of interesting English websites and to enjoy this language.

There are a lot of useful learning strategies that can help us improve our English such as reading English books, using an Internet resources or watching English films. But the best way of learning a language is to practice a lot. Today we have an opportunity to go to English-speaking countries and to talk to native speakers. By the way, it's the best way to enlarge your vocabulary, to improve grammar and pronunciation and to train speaking and listening skills and competences.

4. Translate into English:

іноземна мова, довгий і повільний процес, займати багато часу і зусиль, виїхати за кордон, люди з інших країн, інтелектуал і добре освічена людина, поліглот, найважливіша мова у світі, рідна мова, офіційна мова, наукова література, хобі для мільйонів людей, багато переваг, подорожувати по всьому світу, спілкуватися з людьми із різних країн, отримати більш оплачувану роботу, з метою поліпшити свою пам'ять і розширити свідомість, з іншого боку, витрачати час і гроші, граматика не дуже складна, шукати слова в словнику, перевірити вимову, словниковий запас, мати можливість висловити свою думку, неправильно вимовляти деякі слова, зміст може бути різним, англомовна країна, зосередитися і пригадати потрібні слова, дізнатися багато нових слів, багато цікавих англійських веб сайтів, поліпшити нашу англійський мову, збільшити свій словниковий запас, поліпшити граматику та вимову.

1) Вивчення іноземної мови це складний і тривалий процес.

2) Знання іноземної мови допомагає вам вільно подорожувати і спілкуватися за кордоном.

3) Англійська уже давно стала найважливішою мовою у світі.

4) Багато наукових праць написано саме англійською мовою.

5) Вивчення іноземної мови уже стало популярним хобі для багатьох людей у світі.

6) Знання іноземної мови дає вам можливість отримати більш оплачувану роботу.

7) Вивчення іноземної мови може розширити ваші знання в різних галузях та покращити вашу пам’ять.

8) Багато студентів погоджуються з тим, що граматика англійської мови не дуже складна, чого не можна сказати про вимову.

9) Я знаю багато англомовних країн.

10) Знання іноземної мови розширяє ваш кругозір та дає можливість вільно висловлювати свою думку у будь-якому суспільстві.

Topic 2

English speaking countries: economics and agriculture

Practical classes 4, 5, 6

1. Read and translate the words:

Although, sensible, percent, essentially, suitable true, equally, southern, survival, the country, however, typical, acre, range, specializing, crops, livestock, normally, pigs, include, totally, barley, oats, silage, hay, degree, percentage, sufficient, import.

2. Read and translate the word combinations:

great variations in climate, topography, the countryside, generally flat, undulating, thousands of lakes, extensive forests, total land surface, to be suitable for cultivation, furnish nearly all food required, dual purpose dairy, beef cattle, common crops, winter and spring varieties of wheat canola seed, seed crops, sugar beets, various forage crops, green feed, protein supplements

3. Before you read the Text A talk about these questions.

1. How does international trade affect what farmers plant?
2. Does your country import or export more agricultural products?

Text A

Agriculture in Great Britain and Nordic countries

UK has great variations in climate and topography. The countryside is generally flat or undulating, but quite beautiful with thousands of lakes and extensive forests. Although less than 8 percent of Britain's total land surface is suitable for cultivation (and most of this is found in the southern third of the country), its farms furnish nearly all food required. The typical farm is in the 110- to 500-acre range, specializing in three to five crops and one to two types of livestock, normally dual purpose dairy and beef cattle or pigs. Common crops include winter and spring varieties of wheat or barley, oats, canola seed, seed crops, sugar beets, and various forage crops for green feed, silage, or hay. Most protein supplements are imported. Farm mechanization is based on 50- to 120-horsepower tractors, many of which are made in Great Britain, and a high percentage of implements and combine harvesters imported from Denmark or Finland The climate there is fairly uniform. Summers are relatively cool and rainy, and winters are reasonably mild with snow falling three to four months of the year. Some winter work includes clearing snow from roads and farmyards.

Britain and Sweden are nearly self-sufficient in most food products and have a small surplus in some. The government protects domestic production and subsidizes consumer prices to assure farmers have an income comparable to that of other groups of society.

4. Rewrite the sentences. Define parts of speech of the words with ending –s and what function they perform:

a) the Possessive Case

b) the Plural Noun

c)the Singular of the verb in the 3-rd form

1) Cabbage varieties differ in appearance, size, hardiness and the time required for their development.

2) The yield of the crop depends very large on the number of beets that can be grown on the acre.

3) Rye is a drought resistant plant which thrives under a great variety of conditions.

4) St. Sophia' s Cathedral is one of the ancient places in Kiev.

5) The principal parts of the plants are the roots systems, stems, leaves, flowers, fruits, seeds.

5. Translate the sentences paying attention to indefinite and negative pronouns.

1) No natural recourses on our planet has so many uses as water.

2) Some bourgeois theories try to justify hunger by gar between food production growth and population growth.

3) In Britain every agricultural college cooperates with some leading farms in student practical training.

4) Any plant will grow here well.

5) Are there any foreign students in your group?

6. Underline the predicate in each sentence, define their tense form. Translate the sentences.

1) The last representative of wild cattle died at the beginning of the 17 th century.

2) Maize grows best on warm, fertile loams.

3) Sunlight provides energy by plants in photosynthesis.

4) The students of our institute planted many trees in the new park last year.

5) Man will not be able to live without growing plants for himself and for feeding farm animals.

7. Fill in the gaps using proper modal verbs.

1) Next year he (зможе) to read English articles.

2) The lecture (повинна була) to begin at 7 o' clock.

3) (Потрібно) we do it?

4) The students (буде дозволено) to use different methods of work.

5) (Можна) I take this book?

1. Was 2. Will be able 3. Must 4. Will be allowed 5. May

8. Use the adjectives in the brackets in the proper degree of comparison. Translate the sentences.

1) Increasing mechanization both in animal raising and in plant growing is one of the (important) tasks at present.

2) The air (near) the equator gets (much) heat than the air (near) the poles.

3) Plants are capable to store (much) energy then they are using.

4) Some animals die and the plants grow (good) than usual.

5) One of the (great) scientists M.V. Lomonosov discovered the Law of Conservation of Energy.

Topic 3

Social Life

Practical classes 7, 8, 9

1. Read and translate the words:

different arable grow potatoes fruits vegetables mixed to be used to be plowed to be planted to be harvested tendency compete industrial scientists agriculture cause to appear decline non- hierarchical society to develop the minority the majority increase	

2. Translate phrases from the text

different crops
grain crops
soil and climatic areas
the Eastern
Most of them
less than
the Western part
dairy farms are predominant
agricultural development

gradually disappearing
keep some farm animals
done by hand
with the help of
highly mechanized
useful machines
picking wild fruits and vegetables
species of plants
hunter-gatherer people
more complicated behavior
to do a wide variety of other things.
plenty of food available
social relationships
the remarkable side of humans
are able to adapt to changes
prosper under very different conditions.

Text A

The influence of agricultural development on the social life

There are about 53500 farms in England. Most of them are farms less that 50 acres each. These small farms are family farms. All the work on the farm is done by the farm and his family.

The types of the farm in England are different in different soil and climatic areas. In the Eastern part of England most farms are arable. The farmers grow different crops here. They grow grain crops and potatoes, fruits and vegetables and other crops. In the Western part of the country dairy farms are predominant.

Most small farms in England are mixed farms on which farmers grow some crops and keep some farm animals. In old days most of the work on farms was done by hand or with the help of horses. Now the work is highly mechanized. Many useful machines are used by farmers. The soil is plowed with a tractor, crops are planted with different planting machines, grain crops are harvested with combines.

Now the main tendency in agricultural development of this country is that small traditional farms are gradually disappearing because they cannot complete with modern big industrial farms.

Perhaps the most important event in human evolution was the start of farming. About 10, 000 years ago, modern humans stopped picking wild fruits and vegetables and began to grow their own food.

Some scientists think that agriculture began when the world' s climate changed about 10,000 to 15,000 years ago. The climatic change caused a great change in certain species of plants. New forms of plants began to appear and people realized that they could be grown.

Whatever caused it, agriculture changed hunter-gatherer people into farmers. People developed more complicated behavior and learned to do a wide variety of other things.
But agriculture did cause some problems. The new farmers soon lost the variety of their diet. Before farming started people lived on a diet of around 150 species of seed food. About 1000 years later, they were using only seven or eight species. People' s health declined, but as there was plenty of food available, the population increased. This made the problem worse.
Farming also had a big effect on people' s social relationships.
Hunter-gatherer societies were non- hierarchical. They did not have leaders. Farming caused strong hierarchical societies to develop. The minority could exploit the majority and live off them as parasites. From this changeover from hunter-gatherer to farmer we can see the remarkable side of humans – we are able to adapt to changes and prosper under very different conditions.

3. Answer the following questions:

1. What do you think was the most important event in human evolution?
2. When did the period of farming begin?
3. Why was hunting dying out?
4. What caused the development of farming?
5. When did the world' s climate change?
6. How did the climatic change cause the development of agriculture?
7. How did agriculture change people?
8. What problems did agriculture cause?

4. Find in the text English equivalents to the following

Еволюція людства, найважливіша подія, розводити власну худобу, генетичні предки, тримати за огорожею, види рослин, складна поведінка, багато доступної їжі, різноманітність у харчуванні, змінюватися та процвітати.

5. Match the words in the left column with their definitions in the right one:

1)livestock 2) trap 3) species 4) hunting 5) farming 6) agriculture	a) using (Land) for growing crops, raising animals b) group of animals or plants having similar characteristics c) farm animals kept for use or profit d) the art or practice of farming e) device for catching animals f) going after (wild animals) for food or for sport

6. Put questions using the question words in brackets:

The last representative of the wild cattle died at the beginning of the century. (When).
Domesticated cattle belong to the family of Bovid. (What family).
Man domesticated the horse in Central Asia. (Where).
Draft animals practically disappeared. (Why).
Man domesticated animals for three main purposes. (How many).
Man uses cattle mostly for food now.(What … for).
Man gained great experience in improving farm animals.(What experience).

7. Guess the meaning of the international words:

Human, control, bison, yak, zebu, practically, form, method, to absorb, to accumulate, analysis, association, calculator, to coordinate, detail, final, individual, popular, reserve, systematically, automatically, zone, ideal, systematize, regular, stable, to function, recommendation, to compensate, balance.

8. Translate into English:

1. Більшість типів ферм виробляють їжу.
2. Молочні ферми отримують молоко, масло, сир від корів, що пасуться на пасовиськах.
3. Молочні ферми зазвичай розташовані недалеко від великих міст, щоб молоко вчасно потрапляло на кухні до людей.
4. Розвиток сільського господарства залежить від цілеспрямованості молодих спеціалістів.

Topic 4

Agrarian education

Practical classes 10, 11, 12

1. Read and translate the words:

field
career in
aspiring
early
journey
relevant
course
options
available
consider
environmental
science
biology
Additional
experience
position
offer
a range of
based on
framework
seeking
vibrant
emphasize
horticulture
sustainable
outdoor labs
focus on
cell
explore
permaculture
greenhouse

2. Translate phrases from the text

soil fertility
pest management
education requirements
high school
taking courses

advanced university classes
supportive culture
consider the following
math classes
high educational institutions
before entering
bachelor's degree

Text A

Agronomist Education Requirements

There are agronomist education requirements that must be met before entering into the field. A career in agronomy requires a bachelor's degree – at a minimum. Though **a four-year degree or higher is required**, education for aspiring agronomists can truly begin as early as high school.

Agronomist High School Recommendations

The journey of becoming an agronomist can begin in high school. Taking courses in high school will help prepare students for more advanced university classes that will be required for their college major.

There are many relevant course options available to high schoolers. Students should consider taking science classes such as **environmental science** and **biology** and math classes like **trigonometry** and **calculus**.

What degree do you need to become an agronomist? At a minimum, agronomists require a Bachelor's degree, which usually takes four years.

Additional two-years experience in the field is needed to climb the career ladder; years which can be **entry-level positions** or agronomist **apprenticeships**. A master's degree and/or further certifications can be required for some higher-level positions.

Colleges as high educational institutions offer a range of environmental degrees based on a framework of sustainability science. Aspiring agronomists seeking a high-quality education and a vibrant, supportive culture should consider the following degree programs.

- **B.S. in Sustainable Agriculture** This program emphasizes horticulture, sustainable agriculture systems, sustainable pest management, livestock and pasture management, and soil fertility. Through classroom work and outdoor labs, this program prepares students for a career in agronomy.

- **B.S. in Environmental Studies:** A degree in environmental studies can open up the door for many careers in agronomy. Agronomists with a degree in this field of study often focus on sustainable development.

- **B.S. in Conservation Biology:** Studies focus on ecology, genetics, and cell biology and then focus on how to manage ecosystems sustainably. Through coursework, labs, and fieldwork this program prepares students for a career in agronomy.
- **B.S. in SBM: Sustainable Food and Farming:** This program explores food production systems and sustainable farm management, as well as production systems like permaculture and greenhouses. Agronomists with this degree often go into food production and science.

3. Match the words in the left column with their definitions in the right one:

1. Apprenticeships **2. calculus** **3. environment** **4. greenhouse** **5. horticulture** **6. permaculture** **7. science** **8. soil fertility** **9. trigonometry**	a) a program or position in which someone learns a trade by working under a certified expert b) the branch of mathematics that deals with the relations between the sides and angles of plane or spherical triangles, and the calculations based on them c) a method of calculation, especially one of several highly systematic methods of treating problems by a special system of algebraic notations d) the cultivation of a garden, orchard, or nursery; the cultivation of flowers, fruits, vegetables, or ornamental plants e) a system of cultivation intended to maintain permanent agriculture or horticulture by relying on renewable resources and a self-sustaining ecosystem f) a building, room, or area, usually chiefly of glass, in which the temperature is maintained within a desired range, used for cultivating tender plants or growing plants out of season g) a branch of knowledge or study dealing with a body of facts or truths systematically arranged and showing the operation of general laws h) the aggregate of surrounding things, conditions, or influences; surroundings; milieu i) the capacity to supply nutrients in proper amounts for plant growth when other factors are favorable

4. Match the phrases in the left column with their translation in the right one:

1. explore food production systems more advanced university classes	якісна освіта
2. offer a range of environmental degrees	наука про стійкість
3. education for aspiring agronomists high-quality education	піднятися по кар'єрних сходах
4. sustainability science	управління худобою та пасовищами
5. master's degree	посади початкового рівня
6. further certifications	диплом магістра
7. many relevant course options available	подальші сертифікації
8. additional two-years experience	доступно багато відповідних
9. in the field	варіантів курсів додатковий
10. sustainable agriculture systems	дворічний досвід роботи
11. to climb the career ladder	в цій галузі
12. livestock and pasture management	пропонують цілий ряд екологічних
13. entry-level positions	ступенів стійкі системи землеробства
	дослідити системи виробництва
	продуктів харчування
	університетські курси вищого рівня
	освіта для агрономів-початківців

5. Ask two types of questions:

1. A career in agronomy requires a bachelor's degree – at a minimum.
2. Taking courses in high school will help prepare students for more advanced university classes
3. Bachelor's degree usually takes four years
4. Colleges as high educational institutions offer a range of environmental degrees
5. A master's degree can be required for some higher-level positions
6. These programs emphasize horticulture and sustainable agriculture systems

Topic 5

Profession in agrarian field

Practical classes 13, 14, 15

1. Read and translate the words:

mean
field
create
exist
since
invention
mouth
feed
lush
healthy
recognize
ban
controversial
investigative
enterprising
independent
daily
sales
related to
environmental
allow
require
include
government
supervise

2. Translate phrases from the text

crop scientist
to benefit society
to carry out experiment
agriculture production
as the population has sky-rocketed
in recent years
continually increasing number of
DDT
curious-mind for learning
hands-on projects

soil conservation
plant breeding
to keep in mind
mean the same thing
take samples
horticultural knowledge
to have a well-rounded science education
pursue other career paths
improve the performance of plants and crops
do research in food science
soil conservationist
monitor the condition
to increase sustainability
battle erosion
maintenance systems

Text A

What is agronomy? An agronomist, or crop scientist, studies plants and how they can be grown, modified, and used to benefit society. They use science to carry out experiments that create new techniques for agriculture production.

Agronomy has existed and been important for humans since the invention of farming. However, as the population has sky-rocketed in recent years, agronomy has never been more important. The continually increasing number of mouths to feed means that optimizing crops to be as lush and healthy as possible has become a top priority.

Famous Agronomists

Agronomy has contributed a lot to society – from *what* we eat, to *how* we eat, to how it's *grown*, and so much more. Although you may not recognize the names of these famous agronomists you might recognize their contributions to the field.

- **Henry Wallace (1888 – 1965)** : Wallace, the Vice President under President Teddy Roosevelt, is most famous for the development of the food stamp and school lunch programs that we still use today.

- **Rachel Carson (1907-1964)** : Carson's book *Silent Spring* is the most influential book in agriculture when it comes to pesticide use; it resulted in DDT being banned. It's read in college courses across the country.

- **Robert Fraley (1953-present)** : Fraley is a controversial man. His research led to the commercialization of genetically modified organisms (GMOs) from Monsanto.

Key Traits

Personality characteristics are also important in agronomy. Having a curious-mind for learning the ins and outs of how things work, paying close attention to detail, and enjoying hands-on projects are a must.

- *Investigative*
- *Enterprising*
- *Leader*
- *Detail-oriented*
- *Independent*

Agronomist Job Descriptions

What does an agronomist do daily? This depends on what area they specialize in. They may focus on soil conservation, plant breeding, field or lab research, education, or seed/fertilizer/chemical sales.

With that in mind, what do typical agronomist job descriptions look like? Let's take a look at a few of the most common job titles.

Agrologist vs Agronomist

One thing to keep in mind when browsing jobs in agronomy is that in some places, including Canada, agronomy is called **agrology**. It's a simple variation that means the same thing, but it can make all the difference during the job search if you look outside the United States for a career as a 'professional agrologist.'

An agronomist will spend time working both indoors and outdoors. When creating plans or updating reports, you'll find them in an office. If working in education, these professionals may travel to classrooms or college campuses to give lectures and presentations.

Outdoors, agronomists may take samples or inspect equipment and structures. Some travel is required for these roles, particularly when working outdoors.

There are many careers related to agronomy. The environmental, agricultural, biological, and horticultural knowledge required to become an agronomist allows a person to have a well-rounded science education and pursue other career paths.

Some examples include:

- **Plant Breeder:** Plant breeders apply biotechnology and molecular breeding strategies to improve the performance of plants and crops. They may do research in food science, at a university, or for the government.

- **Soil Conservationist:** A soil conservationist monitors the condition of the land and creates ways to increase sustainability, conserve water, and battle erosion.

- **Greenhouse Manager:** A greenhouse manager cultivates all types of plants in a controlled environment to be used for research or sale. They supervise plant-breeding, plant growth, plant nutrition, disease control, and maintenance systems in a greenhouse.

3. Find the definitions

1. mouth 2. humans 3. controversial 4. agrology 5. plant 6. breeding 7. nutrition 8. disease 9. equipment 10. sample	• any individual of the genus Homo, especially a member of the species Homo sapiens • the branch of soil science dealing especially with the production of crops • any member of the kingdom Plantae, comprising multicellular organisms that typically produce their own food from inorganic matter by the process of photosynthesis and that have more or less rigid cell walls containing cellulose • anything kept, furnished, or provided for a specific purpose • any abnormal condition in a plant that interferes with its vital physiological processes, caused by pathogenic microorganisms, parasites, unfavorable environmental, genetic, or nutritional factors, etc • the process by which organisms take in and utilize food material • a small part of anything or one of a number, intended to show the quality, style, or nature of the whole • relating to, or characteristic of prolonged public dispute, debate, or polemical • the opening through which an animal or human takes in food • the production of new forms by selection, crossing, and hybridizing

4. Match the phrases in the left column with their translation in the right one

1. curious-mind **2. disease control** **3. do research in** **4. for research or sale** **5. inspect equipment and structures** **6. maintenance systems** **7. mean the same thing** **8. soil conservation** **9. to battle erosion** **10. to create ways to increase sustainability** **11. to cultivate all types of plants in a controlled environment** **12. to improve the performance of plants and crops** **13. to monitor the condition of the land** **14. to supervise plant nutrition,** **15. updating reports** **16. with that in mind** **17. plant breeding** **18. enjoying hands-on projects**	• допитливий розум • насолоджуючись практичними проектами • селекція рослин • маючи це на увазі • означають те саме • оновлення звітів • оглянути обладнання та конструкції • для підвищення продуктивності рослин та посівів • робити дослідження • захист ґрунту • стежити за станом землі • створити шляхи підвищення стійкості • боротися з ерозією • вирощувати всі види рослин у контрольованому середовищі • для дослідження або продажу • контролювати живлення рослин • боротьба із захворюваннями • системи технічного обслуговування

5. Learn the vocabulary minimum

Вчений, який займається вирощуванням культур, вивчати рослини, використовується на користь суспільству, створити нові технології сільськогосподарського виробництва, населення за останні роки різко зросло, оптимізація посівів, стати головним пріоритетом, генетично модифіковані організми, для вивчення тонкощів, приділяючи пильну увагу деталям, орієнтований на деталі, зосередитися на збереженні ґрунту, польові або лабораторні дослідження, знання садівництва, всебічна наукова освіта, йти іншими кар'єрними шляхами, селекціонер, застосовувати стратегії молекулярного розведення

6. Ask two types of questions:

1. An agronomist, or crop scientist, studies plants.

2. Agronomy has existed and been important for humans since the invention of farming.

3. Personality characteristics are also important in agronomy.
4. An agronomist will spend time working both indoors and outdoors.
5. Agronomists may take samples or inspect equipment and structures.
6. There are many careers related to agronomy.
7. Plant breeders apply biotechnology and molecular breeding strategies to improve the performance of plants and crops.
8. A greenhouse manager cultivates all types of plants in a controlled environment.
9. A soil conservationist monitors the condition of the land.
10. The environmental, agricultural, biological, and horticultural knowledge are required to become an agronomist.

Text B

Ecologists

Ecologists help to protect and restore the natural environment by providing important information about how human activity affects individual species and ecosystems

As an ecologist, you'll be concerned with ecosystems - the abundance and distribution of organisms (people, plants, animals), and the relationships between organisms and their environment. In this role, you'll usually specialise in a particular area, such as freshwater, marine, terrestrial, fauna or flora, and carry out a range of tasks relating to that area.

When starting out, you'll conduct surveys to identify, record, and monitor species and their habitats. With career progression, your work will become more wide-ranging, and in a senior role you may get involved in policy and management work.

As an ecologist, you'll need to:

- conduct field surveys to collect biological information about the numbers and distribution of organisms - this may be for a database such as the National Biodiversity Network (NBN)
- carry out taxonomy - the classification of organisms
- apply sampling strategies and employ a range of habitat survey techniques, such as Geographic Information Systems (GIS), Global Positioning Systems (GPS), aerial photography, records and maps
- carry out environmental impact assessments
- analyse and interpret data, using specialist software programs
- work on habitat management and creation
- write reports and issue recommendations

- liaise with, and advise, site managers, engineers, planners and others associated with a survey
- build relationships with stakeholders, including members of the public
- carry out research
- undertake teaching in schools or in field centres
- keep up to date with new environmental policies and legislation
- contribute ideas about changes to policy and legislation, based on ecological findings.

A degree in a biological science or environmental subject is generally required. In particular, the following degree subjects may increase your chances:

- applied life sciences
- biology (specialising in ecology)
- botany/plant science
- conservation biology
- ecology
- environmental biology
- environmental management
- geography
- marine biology
- zoology.

Some employers look for candidates with postgraduate qualifications (an MSc or PhD), particularly for work requiring specialist knowledge, e.g. consultancy work or academic research/teaching

Pre-entry experience is essential and helps you to develop vital field survey skills. There are many ways to gain relevant and quality experience. Some degree courses include a period of field-based work experience - if yours doesn't, try to take as many practical modules as possible.

Joining relevant societies will provide you with opportunities to get involved in ecological projects and you can find volunteering opportunities through job websites and the websites of conservation organisations. There are also many opportunities to volunteer overseas and you'll usually find adverts for these on environmental websites and in your careers service and university department.

Topic 6

Agriculture

Practical classes 17, 18, 19, 20

1. Read and translate the words:

Agriculture
use
to produce
food
clothing
word
mean
field
thousand
soil
basis
enough
sufficient
production
experience
to reclaim
knowledge of
collection
in such a way
to disturb
equilibrium
fibers

2. Translate phrases from the text

highly developed
cultivation of fields
growing crops
old meaning
to breed animals
branches of agriculture
crop growing
animal breeding
necessary materials
areas of land
human activity
high – yielding varieties
application of fertilizers
used for cropping

good soil
to produce high yields
the increase in area
arable land
raw materials
food surpluses

Text A

Agriculture is a human activity in which people use areas of land to produce food, clothing and other necessary materials. The word — ”ager” is a Latin word. It means a field. The word — “agriculture” means the cultivation of fields and growing crops. But this is the old meaning of this word. Now it also means the use of land to breed animals.

According to Wikipedia Agriculture is the science and art of cultivating plants and livestock.
Agriculture was the key development in the rise of human civilization, whereby farming of domesticated species created food surpluses that enabled people to live in cities. The history of agriculture began thousands of years ago. After gathering wild grains beginning at least 105,000 years ago, nascent farmers began to plant them around 11,500 years ago. Pigs, sheep and cattle were domesticated over 10,000 years ago. Plants were independently cultivated in at least 11 regions of the world. Industrial agriculture based on large-scale monoculture in the twentieth century came to dominate agricultural output, though about 2 billion people still depended on subsistence agriculture into the twenty-first.

At present there are two main branches of agriculture. They are crop growing and animal breeding. Now crop growing is a highly developed branch of agriculture.

The soil is the basis of agriculture. Enough food for all the people can be grown if there is sufficient good soil for crops to produce high yields.

There are two ways to grow enough food. They are the increase in area of arable land and the intensification of agricultural production in the areas already used for cropping. At present the second way is more important because there is not enough experience to reclaim tropical and subtropical lands.
The intensification of production in the traditional agricultural areas is based on the knowledge of climate, soils and their use, and on a large collection of high – yielding varieties and hybrids of agricultural crops.
Modern agronomy, plant breeding, agrochemicals such as pesticides and fertilizers, and technological developments have sharply increased yields, while causing widespread ecological and environmental damage. Environmental issues include contributions to global warming, depletion of aquifers, deforestation, antibiotic

resistance, and growth hormones in industrial meat production. Genetically modified organisms are widely used, although some are banned in certain countries.

So all intensification factors, such as full mechanization, high application of fertilizers and extensive use of herbicides must be used in such a way as not to disturb the biological equilibrium of the soil.

The major agricultural products can be broadly grouped into foods, fibers, fuels and raw materials (such as rubber). Food classes include cereals (grains), vegetables, fruits, oils, meat, milk, fungi and eggs. Over one-third of the world's workers are employed in agriculture, second only to the service sector, although the number of agricultural workers in developed countries has decreased significantly over the centuries

3. Find the definitions

1. Field 2. Cultivation 3. Grow 4. Breed 5. Increase 6. Area 7. Fertilizers 8. Equilibrium 9. Soil 10. Crop 11. Agriculture	• is a human activity in which people use areas of land to produce food; • improvement of land for or by agriculture • a broad, level, open expanse of land; • cultivated plants or agricultural produce, such as grain, vegetables, or fruit, considered as a group; • to develop and reach maturity; • a group of animals that has a specific characteristic or trait; • to become greater or larger; • a surface, especially an open, unoccupied piece of ground; • any of a large number of natural and synthetic materials, including manure and nitrogen, phosphorus, and potassium compounds, spread on or worked into soil to increase its capacity to support plant growth; • a state of balance or a stable situation where opposing forces cancel each other out and where no changes are occurring; • top layer of the earth's surface in which plants can grow

4. Learn the vocabulary minimum

Людська діяльність, виробляти необхідні матеріали, обробіток поля, рослинництво, тваринництво, високорозвинена галузь сільського

господарства, достатньо родючої землі, вирощувати високі врожаї, орна земля, засновуватись на знаннях, високоврожайні сорти, застосування добрив, біологічний баланс ґрунту, фермери, що зароджуються, натуральне землеробство

5. Ask all possible questions

1. Agriculture is a human activity in which people use areas of land to produce food

2. This is the old meaning of this word

3. Enough food for all the people can be grown

4. This farm uses herbicides in such a way as not to disturb the biological equilibrium of the soil.

5. Farmers in Great Britain produce sufficient food for all the county's needs.

6. Translate

1. Люди використовують ділянки землі для виробництва їжі, одягу та інших необхідних матеріалів.

2. Сільське господарство означає обробіток полів та вирощування сільськогосподарських культур. 3. В даний час існує дві основні галузі сільського господарства.

4. Люди почали вирощувати сільськогосподарські культури багато тисяч років тому.

5. Зараз рослинництво є високорозвиненою галуззю сільського господарства.

6. Грунт це основа сільського господарства.

7. Є два способи виростити достатню кількість їжі.

8. Інтенсифікація виробництва в традиційних сільськогосподарських районах базується на знанні ґрунтів та їх використання

9. Біологічна рівновага ґрунту є основною цінність любого господарства.

Topic 7

Environment

Practical classes 21, 22, 23, 24

1. Read and translate the words:

1. abruptly
2. apparent
3. available
4. batter
5. capture
6. chain
7. climax
8. consumer
9. convert
10. cycling
11. decompose
12. efficiency
13. flow
14. fraction
15. grasshopper
16. hawk
17. however
18. hurricane
19. nitrogen
20. nutrients
21. occur

22. oxygen
23. pound
24. provide
25. reach
26. reflect
27. require
28. skunk
29. stable
30. store
31. substance
32. subtle
33. sulphur
34. support
35. sweep
36. web
37. weight

2. Translate phrases from the text

the most complex level of organization; to consist of ; to be made up of all living things; nonliving environment; interact within; control population growth; to link together; the flow of energy; the cycling of materials; to predict future development, based on; primary producers; abiotic substances; break down; into simple nutrients; go back into the soil; food chain; uneaten remains of; to form an overlapping network; food requirements; to be stored in; body cells; to be captured by the plants; to be burned up during growth; at each step of the food chain; reflect the fact that; to exceed the total weight of ; to take up compounds; occur daily; short-term studies; to alter some of their ideas

TEXT A: ECOSYSTEMS

An ecosystem is the most complex level of organization in nature. It consists of the biological and physical environments of an area. The biological environment is made up of all living things in the community. The nonliving or physical environment includes climate, air, soil, water, nutrients, energy and weather. All these biological and physical factors interact within an ecosystem. They compose a network of complex relationships that control population growth. Ecologists try to link together the many different physical and biological activities in an environment. They study the flow of energy and the cycling of materials through an ecosystem. They generally use powerful computers to help understand the data obtained from field research and to predict future development.

Energy flow. Ecologists categorize the elements that make up or affect an ecosystem into six main parts, based on the flow of energy and nutrients through the system: (1) the sun, (2) abiotic (nonliving or physical) substances, (3) primary producers, (4) primary consumers, (5) secondary consumers, and (6) decomposers. A simplified ecosystem is illustrated in this article.

The sun provides the energy that nearly all primary producers need to make food. Primary producers consist mainly of green plants, such as grass and trees, which make food by the process of photosynthesis. Plants also need abiotic substances, such as phosphorus and water, to grow. Primary consumers include mice, rabbits, grasshoppers, and other plant-eating animals. Foxes, skunks, and other secondary consumers—or predators—eat animals. Decomposers, such as bacteria and fungi, break down dead plants and animals into simple nutrients. The nutrients go back into the soil and are used again by plants.

The series of stages energy goes through in the form of food is called a food chain. In one simple food chain, grass is the primary producer. A primary consumer, such as a rabbit, eats the grass. The rabbit, in turn, may be eaten by a secondary consumer, such as a fox or a hawk. Decomposing bacteria break down the uneaten remains of dead grass, rabbits, foxes, and hawks, as well as animal body wastes.

Most ecosystems have a variety of producers, consumers, and decomposers, which form an overlapping network of food chains called a food web. Food webs seem especially complex in many tropical and oceanic ecosystems. Some species eat many things, but others have very specific food requirements. Such primary consumers as koalas and pandas eat chiefly one type of plant. Koalas eat primarily eucalyptus and pandas eat primarily bamboo. If these plants died off, so would the animals. Energy moves through an ecosystem in a series of transformations.

First, primary producers change the light energy of the sun into chemical energy that is stored in plant protoplasm(cell material). Next, primary consumers eat the plants, changing the energy to a different kind of chemical energy that is stored in

body cells. This energy changes again when the secondary consumer eats the primary consumer. Most organisms have a low ecological efficiency. This means they are able to convert only a small fraction of the energy available to them into stored chemical energy. For example, green plants can change only about 0.1 to 1 percent of the solar energy that reaches them into plant protoplasm.

Most of the energy captured by the plants is burned up during plant growth and escapes into the environment as heat. Similarly, herbivores (plant eating animals) and carnivores(meat-eating animals) convert into their own body cells only about 10 to 20 percent of the energy produced by their food.

Because so much energy escapes as heat at each step of the food chain, all ecosystems develop a pyramid of energy. Plants (primary producers) form the base of this pyramid. Herbivores (primary consumers) make up the next step, and carnivores (secondary consumers) form the top. The pyramid reflects the fact that more energy passes through the plants than through the herbivores and more through the herbivores than through the carnivores. In many land ecosystems, the pyramid of energy results in a pyramid of biomass. This means that the total biomass(weight) of the plants is greater than the total weight of the herbivores, which in turn exceeds the total weight of the carnivores. In the oceans, however, the biomass of plants and animals is about the same. Small plants grow so rapidly in the oceans that they can support proportionately more animals than can the plants on land.

Ecologists have collected information on a pyramid of biomass on Isle Royale. They studied the relationship in the pyramid among plants, moose, and wolves. In one study, ecologists found that it takes 762 pounds (346 kilograms) of plant food to support 59 pounds (27 kilograms) of moose. This is the amount of moose needed to support 1 pound (0.45 kilogram) of wolf.

Cycling of materials. All living things are composed of certain chemical elements and compounds. Chief among these are water, carbon, hydrogen, nitrogen, oxygen, phosphorus, and sulphur. All of these materials cycle through ecosystems again and again. The cycling of phosphorus provides an example of this process. All organisms require phosphorus. Plants take up phosphorus compounds from the soil, and animals get phosphorus from the plants or other animals they eat. Decomposers return phosphorus to the soil after plants and animals die. Changes in ecosystems occur daily, seasonally, and, as in the case of ecological succession, over periods of many years. Sometimes changes take place abruptly, as when a fire sweeps through a forest or a hurricane batters a seashore. But most of the day-to-day changes, especially in the nutrient cycles, are so subtle that ecosystems tend to appear stable. This apparent stability among plants and animals and their environment has been called the "balance of nature." In the past, this concept of balanced, largely unchanging ecosystems was thought to be especially descriptive of climax communities. But these earlier views were based on short-term studies.

Now that ecologists have had an opportunity to study ecosystems over longer periods, they have had to alter some of their ideas. Biologists refer to the relative stability of each population within a community as the balance of nature.

3. Form the phrases

simplified	***substances***
abiotic	***of energy***
food	***ecosystem***
decomposing	***compounds***
climax	***stability***
phosphorus	***chain***
primary	***of nature***
relative	***bacteria***
balance	***communities***
a pyramid	***consumers***

4. Form the sentences

1. Biological, all, physical, and, factors, interact, an, ecosystem, within.

2. Moves, energy, an, ecosystem, in, a, through, of, transformations, series.

3. Organisms, have, a, low, most, efficiency, ecological.

4. Things, are, of, certain, all, living, composed, chemical, elements, and, compounds.

5. Return, to, phosphorus, the, soil, plants, and, animals, die, decomposers.

5. Find the definitions

1. An ecosystem is	a) a variety of producers, consumers, and decomposers, which form an overlapping network of food chains
2. A food chain is	
3. A food web is	b) relative stability of each population within a community

4. “Balance of nature” is 5. Herbivores 6. Carnivores	c) a series of stages that energy goes through in the form of food. d) the most complex level of organization in nature which consists of the biological and physical environments of an area. e) are meat-eating animals f) are plant-eating animals

6. Answer the questions:

1. What does ecosystem consist of?

2. What things is the biological environment made up?

3. What does the physical environment include?

4. How do ecologists classify the elements that make up an ecosystem? (What are these six main parts?)

5. What is a food web?

6. Describe a series of transformations of energy moves.

7. What forms the base of a pyramid of energy?

8. Do carnivores form the top of this pyramid?

9. What does a pyramid of biomass mean?

10. What do scientists call the “balance of nature”?

Topic 8

Protection of the environment

Practical classes 25, 26, 27

1. Read and translate the words:

primary duty –

concern –

common goal –

to preserve –

unrestricted industrialization –

harmful substance –

pollution –

consequence –

burning –

dust –

influence –

compound –

substance –

pure chemaical elements –

means –

chemical fertilizers –

drastic measures –

to set up –

to combat –

elaboration –

forecasting –

to make comprehensive analysis –

2. Translate phrases

Protection of nature -

Future generations -

Unrestricted industrialization -

To be washed up -

Grave marine pollution –

General Assembly –

Combating air pollution –

Technological systems producing little or more waste –

Fertility of the soil –

Bringing up –

Ecologically educated individual –

TEXT A: PROTECTION OF NATURE

Protection of nature in Ukraine has become the primary duty of every citizen and concern of the whole population. Our common goal is to preserve generous land for the present and future generations in all its beauty.

Because of unrestricted industrialization, the biological balance has been broken. Hundreds tones of harmful substances are discharged every year into the air. The pollution is a consequence of poor technology used, atmospheric pollutants such as carbon monoxide (CO) emitted by automobiles, sikphuric oxides arise from coal and oil burning, from electric power plants and chemical plants' by products, dust. With the present-day scientific and technological progress, man's influence is changing the biosphere and it is passing into a new state.

Man creates new compounds, new substances, pure chemical elements which are unknown to the biosphere. That's why the first concern of science is to find effective means of protecting the biosphere from pollutants.

About half of the chemical fertilizers, herbicides, and pesticides, applied in the fields are washed off into rivers and result in grave marine pollution. After the accident of the Chornobyl the most urgent problem is removal from service of the Chornobyl nuclear power plant, it must be dismantled as soon as possible. Drastic measures have to be undertaken to neutralize its dangerous effect. It also necessary to take urgent measures for reduction of harmful dascharges of enterprises up to closing down those plants which can't operate according to the norms set to protect environment.

A special organ for dealing with these problems – the UN Environmental Program was set up by a decision of the UN General Assembly. And the main trends of this organization are:

- Combating air and water pollution, averting the pollution of the world ocean;

- Development of technological systems producing little or no waste;

- Protecting and increasing the fertility of the soil recultivation of land;

- Elaboration of sanitary-hygienic criteria to determine environmental pollution;

- Making the environment healthier;

- Forecasting the effect of human activities on the ecological systems of various climatic and natural zones.

Much has to be done in Ukraine for bringing up man as ecologically educated individual, a true friend of nature.

The Ministry of Environment was founded in Ukraine. Its task is to control the state of environment, to make comprehensive analyses of the environment, to prevent the pollution of fresh water, the air and the facilitate educational development and the exchange of information on these problems decisions. Now it is time to be not only environment conscious but environment educated as well.

Selection also helps in environmental problems. For a long time plant-breeders have been breeding new varieties of drought-resistant grain crops and other agricultural plants which are resistant to the unfavorable climatic and weather conditions. At the same time they are characterized by a high yield productivity. The agricultural biotechnology is of the greatest importance. It should create the new highly productive varieties and hybrids of the agricultural plants, biological means of the plant protection, different preparations and the ways of the waste recovery.

Thanks to the cell engineering the researchers have bred an unvirus substance for different potatoes varieties. They have been breeding new varieties and hybrids of grain crops, fruits and vegetables.

They breed seeds of sugar beets in the form of seedlings. Later they are ready for the further sowing in the granule form. The biotechnology is based on the fact that a celled organism is fully preserved by a gene of the previous type.

The gene engineering is based on the molecular biology. It gives the possibility of inserting changes into the molecular interaction of the principal molecules inside the cell and outside it.

Recombinant DNA are used and will be used in the work with microorganism for the production of different valuable substances in medicine, biochemical industry and agriculture. Besides their use is connected with two important discoveries. New techniques developed a rapid analysis of complicated biological molecules. After analysis came synthesis. The first gene was synthesized. Then it became possible to synthesize necessary genes.The construction technology of recombinant DNA is the most important achievement of the biotechnology.

The agricultural, possibilities of such techniques are almost as exciting. For example, it may become possible to transfer the nitrogen-fixing genes of certain bacteria to plants such as cereals which are unable to fix nitrogen. Should this prove possible, the savings in terms of fertilizer and improved soil fertility will be enormous. Similarly of there is the prospect of transferring to a number of different crops civic genes responsible for improved yield or pest resistance.

3. Fill in the gaps using words and words combinations from the text:

1. _____ of nature in Ukraine has become the _____ of every citizen.

2. Hundreds tones of _____ are discharged every year into the air.

3. Man's _____ is cganging the biosphere and it is passing into a new state.

4. The most _____ is removal from service of the Chernobyl' nuclear power plant.

5. The Ministry of _____ was founded in Ukraine.

6. Our _____ is to preserve generous land for the present and future _____ in all its beauty.

7. The _____ is a consequence of _____ technology used, atmospheric pollutants.

8. The first _____ of science is to find _____ means of protecting the biosphere from pollutants.

9. It is also necessary to take _____ measures for reduction of _____ discharges of enterprises.

4. Put the infinitives in brackets in Present Perfect Continuous:

1. Plant-breeders (to breed) new varieties and hybrids of grain crops.

2. They (to create) new highly productive varieties of agricultural plants.

3. The researchers (to breed) an unvirus substance for different potatoes varieties.

4. The scientists (to transfer) the nitrogen-fixing genes of certain bacteria to cereals for twenty years.

5. Fill in the blanks with the necessary verbs:

to synthesize, to create, to use, to sow, to insert

1. The agricultural biotechnology ... new plant varieties with a high productivity and good heredity.

2. The farmers ... new varieties of feed crops.

3. The researchers ... special utensils to keep the cell sterility.

4. The gene engineering ... changes into the molecular interaction of the principal biological molecules inside the cell and outside it.

5. The researchers ... necessary genes with a high productivity and useful heredity.

6. Answer the following questions:

1. What does “protection nature” mean for you?

2. How do you think what is the most harmful for our nature?

3. What do you do or not do to save the nature?

4. Does environment contamination originate from man’s activity?

5. What are major sources of atmosphere and water pollution?

6. What is the first concern of science?

7. What is the most urgent problem after the nuclear accident at the Chernobyl atomic power plant?

8. What has stimulated man’s interest in ecology?

9. What international organ for dealing with environmental protection was set up?

10. What are the main trends of this organization?

11. What is its task?

12. What is the selection purpose?

7. Put the words in the correct order to form a question:

1. varieties, How, characterized, new, are, plant?

2. agricultural, should, biotechnology, create, What, the?

3. gene, the, engineering, What, is, on, based?

4. When, recombinant, are, DNA, used, the?

5. discoveries, gene, in, the, two, engineering, What, are, important?

6. What, are, transferred, for, substances, cereals?

Topic 9

Agricultural and ecological problems

Practical classes 28, 29, 30

1. Read and translate the words:

1. alfalfa
2. alternating
3. ant
4. approach
5. avoid
6. break up
7. clover
8. cockroach
9. composition
10. crab grass
11. dandelion
12. deep-rooted
13. deny
14. dry rot
15. eliminate
16. exceed
17. favour
18. fungus (fungi pl)
19. germ
20. gradually
21. harm

22. infestation
23. instead of
24. integrated
25. intend for
26. involve
27. ladybug
28. mammal
29. mitigate
30. pathogen
31. plough
32. poisonous
33. prevent
34. profitable
35. proper
36. property
37. rabies
38. reliance
39. repel
40. resistant to
41. restore
42. rid of
43. rodenticide
44. rot
45. rotation

46. schedule

47. shallow

48. stunt

49. suit

50. techniques

51. track

52. typhus

2. Translate phrases from the text

TEXT A: CROPPING SYSTEM-PROBLEMS AND PERSPECTIVES

Cropping system is a method of growing crops and producing high yields without weakening the soil. It involves the combination of different production techniques to provide for the best possible use of the land. In determining the crops and production methods best suited for their land, farmers must consider the composition of their soil; the slope, drainage, and erosionproblems of their land; and the land's past cropping history.

Such production techniques as different cultivation methods, rotation of crops, and the proper use of fertilizers and pesticides are used in different combinations to aid the farmer.

One of the oldest and most widely used ways of preserving the soil is through the rotation of crops(alternating the crops grown in a field from one year to the next). A single crop will use up vital minerals and organic matter in the soil if it is grown in the same field year after year. But different kinds of crops planted in the field on a regular schedule will replace lost minerals and organic matter and help break up plant disease and insect cycles. For example, corn takes nitrogen out of the soil, but such crops as alfalfa and clover put nitrogen into the soil. If corn is planted in a field one year, alfalfa or clover may be planted the next year to replace the nitrogen used by the corn crop. The nitrogen-producing crop can also be ploughed into the soil. When it rots, it replaces lost organic matter and enriches the soil. On sloping land, grasses and deep-rooted crops are often alternated with other crops to hold the soil in place and prevent erosion.

Crop rotation can also improve soil structure and fertility by alternating deep-rooted and shallow-rooted plants. The use of fertilizers (substances that are added to soil to help plants grow) is gradually replacing the crop rotation system as a means of producing the most profitable crops year after year while still keeping soil fertile. Farmers use various kinds of fertilizers to help produce abundant crops.

Nitrogen fertilizers and other fertilizers can restore lost minerals to soil. When these fertilizers are added, and the proper cultivation and pest control methods are used, the same crop can be planted year after year without harming the soil. Other developments that aid the farmer include chemical pesticides that kill harmful insects, weeds, and micro-organisms.

The Environmental Protection Agency(EPA or USEPA) defines a pesticide as "any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest". A pesticide may be a chemical substance or biological agent (such as a

virus or bacteria) used against pests including insects, plant pathogens , weeds, molluscs, birds, mammals, fish, nematodes (roundworms) and microbes that compete with humans for food, destroy property and spread diseases. Pesticides are usually, but not always, poisonous to humans.

Pest control is a term that identifies various methods used to reduce or eliminate pests. Any living thing that kills plants or stunts their growth, carries disease, or is harmful in other ways may be considered a pest. Pests include insects, weeds, mammals, pathogens (disease-causing microorganisms), and nematodes (microscopic roundworms). The two major pest control methods are (1) pesticides, chemicals used to kill pests, and (2) natural pest control, which uses various preventive measures instead of chemicals. Many pest control experts favour a diverse approach called integrated pest management, which combines pesticides and natural control methods.

Pesticides are classified according to the pests they control. The four main types of pesticides are (1) herbicides, (2) fungicides, (3) rodenticides, and (4) insecticides.

Herbicides eliminate plants that grow where they are not wanted.

Farmers use them to reduce weeds among their crops. Herbicides also control weeds in such public areas as parks and ponds. People use herbicides in their yards to get rid of crab grass, dandelions, and other weeds.

Fungicides. Certain fungi cause disease and may infect both plants and animals, including human beings. Fungicides control plant diseases that infect food crops. Wood used for building houses is often treated with fungicides to prevent dry rot.

Rodenticides are used to control rats and other rodents that destroy stored food. Rats also carry bacteria that cause such diseases as rabies and typhus.

Insecticides. Farmers use insecticides to protect their crops from insect damage. In urban areas, public health officials use them to fight mosquitoes and other insects that carry germs. People use insecticides indoors to control such pests as ants and cockroaches.

Effects of pesticide use. Pests may develop resistance to pesticides so that higher dosages need to be used over time. Eventually pesticides can become ineffective, so there is a constant need to create new pesticides.

More than 600 species of plant and animal pests have been found to be resistant to at least one type of pesticide. Pesticides are poisons that can have unintended effects on people and on the environment. Wind or rain can carry herbicides from weeds to desirable plant species, such as trees and flowers. Insecticides kill beneficial insects, such as honey bees and ladybugs.

People used chemical pesticides for many years without realizing their harmful effects on humans and the environment. In 1962, American marine biologist Rachel Carson wrote the book Silent Springto call public attention to pesticide dangers. The book helped to reduce pesticide use throughout the world. Natural pest control helps avoid pest attacks without the use of chemical pesticides. Pest managers often use biological control methods, such as encouraging a pest's natural enemies. Integrated pest management, also known as IPM, has largely replaced reliance on pesticides as an approach to pest control. IPM combines a limited use of chemical pesticides with natural control methods.

Pest managers track levels of pest infestation and apply pesticides only when they will produce the greatest benefits. They use natural control measures until the cost of not controlling a pest exceeds the cost of applying a pesticide.

3. Find out the antonyms:

1) natural pest control methods	a) growing of the same kind of crops
2) deep- rooted plants	b) poor soil
3) rotation of crops	c) useful effects on
4) to use up vital minerals in the soil	d) pest insects
5) fertile soil	e) chemicals used to kill pests
6) harmful effects on	f) to restore lost minerals to soil
7) beneficial insects	g) shallow-rooted plants

4. Match with definitions:

1. Cropping system 2. Rotation of crops 3. Pesticide 4. Pest control 5. Pathogens 6. Integrated pest management	a) is any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest. b) is a diverse approach which combines pesticides and natural control methods. c) is a method of growing crops and producing high yields without weakening the soil. d) are disease-causing micro-organisms e) is one of the most widely used ways of preserving the soil by alternating the crops grown in a field from one year to the next. f) is a term that identifies various methods used to reduce or eliminate pests.

5. Form the sentences using prepositions and articles:

1. Cropping system is … method … growing crops and producing high yields … weakening … soil.

2. It involves … combination … different production techniques to provide … … best possible use … the land.

3. One of …oldest and most widely used ways … preserving … soil is … the rotation of crops.

6. Answer the following questions:

1. What is a cropping system method concerned with?
2. What must farmers consider before growing crops?
3. What the main cultivation methods do you know?
4. What is the oldest and most widely used way of preserving the soil?
5. Can crop rotation improve soil fertility by alternating deep-rooted and shallow-rooted plants?
6. Is a pesticide a chemical substance or biological agent?
7. Are pesticides very poisonous to humans?
8. What are two main pest control methods?
9. What four main types of pesticides do you know?
10. Which of them reduces weeds?
11. Which kind of pesticides controls fungi diseases?
12. What natural pest control methods do farmers often use?

Topic 10

Agriculture: the problem of utilization

Practical classes 31, 32, 33, 34

1. Read and translate the words:

accumulation
achieve
agrolandscapes
allocation
application
apply to
arable land
bioproductivity
continue
cycle
deteriorate
development
ensure
exceed
farmlands
high degree
improvement
livestock farming
overall loss
permit
predict
preserve soil
production facilities
quality
reduce
shortage
sustainable
utilization

2. Translate phrases

1. to deal with the efficiency of the use of land –
2. to depend on land –
3. to keep up the productivity of soil –
4. to vary from one region to another –
5. to destroy to some extent –
6. to remove the essential food elements –
7. to expose soil to the effects of erosion –

8. to lower productive value –
9. to include measures –
10. to apply proper tillage methods –
11. to affect yields –
12. to be affected by many factors –
13. to be adapted to the climatic conditions –
14. to increase yields –
15. to improve the soil –

3. Match

adverse effect	переважно багатий
chemical compounds	родючі ґрунти
ecological losses from the pollution	сприятливі умови
ecologically required yield	запаси вільної землі
ensure stable profits	захист від забруднення
exhausting use of lands	виснажливе використання земель
favorable conditions	масштабне застосування
fertile soils	сільськогосподарська техніка високої
high-power agricultural machinery	потужності
land reclamation works	несприятливий ефект
large-scale application	меліоративні роботи
permit the redistribution of the subsides	особливе занепокоєння
predominantly reach	хімічні сполуки
protection from contamination	екологічні втрати від забруднення
reserves of vacant land	дозволяти перерозподіл субсидій
special concern	забезпечити стабільний прибуток
	екологічно необхідний урожай

TEXT A: Land Economy

The land area of Ukraine is 60.4 million hectares. Predominantly reach fertile soils and favorable climatic conditions have ensured a very high degree of economic development in 92% of the territory. The area of agriculturally developed lands exceeds 70% and this index is one of the highest in the world. The same applies to

the arable land area (56%). Due to a shortage in reserves of vacant land, the allocation of agricultural lands for production facilities continue. For this reason the overall loss of farmlands in the last 30 years has exceeded two million hectares.

The problems of rational utilization, protection from contamination, increasing productivity and the improvement of physic-chemical properties in soils is becoming more and more acute in Ukraine. The exhausting use of lands and the large-scale application of high-power agricultural machinery have had an adverse effect on the mechanical structure of soil, reducing humus content and soil fertility.

The condition of agricultural land has deteriorated due to the low quality of land reclamation works. On special concern is the contamination of agricultural lands with chemical compounds, technogenous materials, etc. This is the reason for the accumulation in soils of great amounts of toxic substances, which have a negative effect on the quality of plant growth and livestock farming.

The sustainable development of agriculture can only be achieved on the basis of the theory of ecologically optimal bioproductivity, and on the basis of its practical application.
Firstly, the optimization of crop cultures is based on the criteria that predicted ecological losses from the pollution of the environmental permit the redistribution of the subsides which ensure stable profits in agricultural regions.
Secondly, the natural biochemical cycles of various elements permit the selection of the most optimal regions for growing a particular type of crop.
Thirdly, agricultural production on the basis of the parameters of ecologically optimal bioproductivity, which combines ecologically required yield with a minimization of negative ecological effects, preserves soil as the main natural resource of agrolandscapes.

4. Fill the gaps in the sentences:

1. The system brings both financial and environmental benefits, _____ being especially welcome.
2. _____ of this policy was even worse inflation.
3. Make sure the soil is _____ before planting the seeds.
4. How will the tax _____ people on low incomes?
5. Inflation is having a disastrous _____ on the economy.
6. The _____ development of agriculture can be achieved on the basis of the theory of ecologically optimal bioproductivity.

5. Match the words with their definitions:

a) essential, b) value, c) fertilizer, d) efficiency, e) crop rotation

1. importance, usefulness - _____
2. a substance that is put on the land to make crops grow -

_____
3. the quality of doing something well and effectively -
_____
4. extremely important and necessary - _____
5. the practice of regularly changing the crops grown on a piece of land -
_____

5. Give the Ukrainian for:

the latter –

moist –

to affect –

effect –

net effect –

sustainable –

sustainable economic growth –

sustainable sericulture –

sustainable use of natural resources –

6. Put all possible questions

1. The land area of Ukraine is 60.4 million hectares.

2. Favorable climatic conditions ensure a very high degree of economic development.

3. The overall loss of farmlands in the last 30 years has exceeded two million hectares.
4. The condition of agricultural land deteriorated.
5. The sustainable development of agriculture can only be achieved on the basis of the theory of ecologically optimal bioproductivity.
6. The biochemical cycles of various elements permit the selection of the most optimal regions for growing a particular type of crop.
7. Ecologically optimal bioproductivity preserves soil as the main natural resource of agrolandscapes.

Topic 11

Agriculturally clean and fertile areas

Practical classes 35, 36, 37

1. Read and translate the words:

1. acreage
2. ash
3. beech
4. circuit
5. cod
6. coniferous
7. consumption
8. efficiency
9. elm
10. expansion
11. feature
12. fit
13. flatfishes
14. flounder
15. graze
16. heath
17. hence
18. herring
19. income
20. lobster
21. mackerel

22. marsh
23. moor
24. mutton
25. oak
26. permanent
27. pioneer
28. pork
29. predominance
30. predominate
31. remain
32. rural
33. salmon
34. tend
35. therefore
36. thus

2. Translate phrases

To remain among the most progressive in the world, unfit for cultivation, grazing land, to have drought, the most suitable crop, grain crops, outstanding features predominance of permanent pasture, the raising of cattle and dairying, arable production, urban centers, dairy cattle, sheep, orchards, within a circuit of, former marshland areas, to have a great variety of produce to sell, home consumption, private owners, significant differences in, to be covered with meadows and heaths, within a few miles, soil is so sandy and stony, area available for, to be devoted to the specialties, market-garden produce, to be under glass or plastic for growing

TEXT A: CLEN AGRICULTURE IN GREAT BRITAIN

British agriculture has long had a reputation for its pioneering of new techniques and high efficiency, and remains among the most progressive in the world. In a

small country, with a considerable proportion of mountain, moorland, and other land unfit for cultivation, the area available for agriculture is now about 46.45 million acres (18.98 million hectares), representing 49% of the total area of the United Kingdom. Of this agricultural land more than 15 million acres (6 million hectares) consist of grazing land and only 30 million acres (12 million hectares) are under crops and grass.

Due to geographic location of Great Britain (on the British Isles) the climate is oceanic in type. The winters are mild and the summers are cool, but long enough to produce crops. The warmth comes from the Gulf Stream. In January the average temperature is +3, +7C, in July +16, +17 C. The winds from the ocean to the south-west bring rainfall throughout the year. The rainfall is heaviest on the west coasts. The winds coming from the east are drier. So the west side of England, with more rain and snow, has a different sort of farming from the east side, which has far less rain and even sometimes has drought.

Soil, also, varies from one part of England to another. In the county of Norfolk, on the drier eastern side of England, some of the soil is so sandy and stony that the most suitable crop is trees, yet within a few miles there is deep rich soil which, together with the dry climate, produces wonderful grain crops.

The rivers of Great Britain are short but abundant, and they never freeze. The main rivers are the Thames, the Tyne, the Humber, the Severn, the Mersey.

A considerable area of land is covered with meadows and heaths. Thus, two outstanding features of agriculture in the United Kingdom are the wide variations in soils and the significant differences in climate.

The wetter and milder west of England, Wales and Northern Ireland have always had a predominance of permanent pasture and hence the raising of cattle and dairying, while the drier and colder east of England and Scotland has been specialized in arable production.

In some areas, especially near large urban centers, the agricultural scene is extremely varied, and it is possible to see grain crops, dairy cattle, sheep, orchards and soft fruits, potatoes and vegetables, poultry, market gardens, all within a circuit of 10 miles (16 km) or less.

Agriculture in Great Britain is intensive and highly mechanized. In the western part of the country, most farms are dairy. Income from livestock and dairy products is about three times that from crops. Farmers raise cattle, sheep, pigs and poultry. British livestock breeders have developed many of the cattle, sheep and pig breeds with worldwide reputation. There are over 60 principal breeds of sheep in Britain.

Crop production is concentrated on the eastern side. On the arable land wheat and barley are supreme, accounting between them for well over half the acreage. Such

other crops as potatoes, sugar beets, oats, maize (corn), rape for oilseed are also significant. About 5,400 acres (2,200 hectares) are under glass or plastic for growing early tomatoes and other market-garden produce.

Bulbs and flower growing are established in former marshland areas in Kent, with over 13,000 acres (5,300 hectares) devoted to these specialties. Crop production is the main enterprise, but there are still many mixed farms on which farmers both grow crops and raise livestock. The mixed farm produces many different types of food: milk, butter and cheese, beef, pork, bacon, wheat, barley, sugar beet, mutton and, of course, all sorts of poultry, since hens, ducks and turkeys can always be fitted in somewhere. The farmer of a mixed farm therefore has a great variety of produce to sell. Fish farming is a small but highly productive sector of Scotland's rural industry. Marine fishes harvested include Atlantic mackerel, Atlantic herring, cod, and various flatfishes, including flounder, Atlantic salmon and Norway lobster. The principal freshwater fish is rainbow trout. Domestic fish production provides about three-quarters of Great Britain's needs.

Of the approximately 2.2 million hectares (about 5.4 million acres) of woodlands in Great Britain, about 40 percent are in England, 49 percent in Scotland, and 11 percent in Wales. However they provide only 15 percent of home consumption of wood products. Private owners hold more than 60 percent of the total forestlands. About 70 percent of productive forest is coniferous. The most common broadleaved trees are oak, beech, ash, and elm. Pine and birch predominate in Scotland.

3. Fill the gaps in the sentences

1. Of this agricultural land more than 15 million acres consist of … and only 30 million acres are under … and grass.

2. … geographic location of Great Britain (on the British Isles) the climate is … in type. The winters are … and the summers are cool, but ... to produce crops.

3. Thus, two … of agriculture in the United Kingdom are the wide … in soils and the … in climate.

4. In some areas, … near large … centres, the agricultural scene is … varied, and it is possible to see grain crops, dairy cattle, sheep, … and soft fruits, potatoes and vegetables, poultry, … , all within a circuit of 10 miles (16km) or less.

5. Crop production is concentrated on the … side. On the … land wheat and barley are… , accounting between them for well over half the … . (crops, market gardens, acreage, due to, mild, long enough, variations, extremely, occur, grazing land, significant differences, especially, urban, oceanic, orchards, eastern, arable, supreme, outstanding features).

4. Form the sentences combining two parts

1. British agriculture has long had a reputation for its pioneering of new techniques and high efficiency, 2. The winters are mild and the summers are cool, 3. The wetter and milder west of England, Wales and Northern Ireland have always had a predominance of permanent pasture and hence the raising of cattle and dairying, 4. Crop production is the main enterprise, but there are still many mixed farms 5. Marine fishes harvested include	-while the drier and colder east of England and Scotland has been the home of districts of specialized arable production. -with a balance of both livestock and arable interests. -Atlantic mackerel, Atlantic herring, cod, various flatfishes, including flounder, Atlantic salmon and Norway lobster. -and remains among the most progressive in the world. -but long enough to produce crops.

4. Change the words with synonyms

important, deciduous, accessible, different, unsuitable, meets … the requirements, large, obtainable, predominate

1. In a small country, with a considerable proportion of mountain, moorland, and other land ***unfit*** for cultivation, the area ***available*** for agriculture is now about 46.45 million acres.

2. A ***considerable*** area of land is covered with meadows and heaths.

3. On the arable land wheat and barley are ***supreme***, accounting between them for well over half the acreage.

4. Such other crops as potatoes, sugar beets, oats, maize (corn), rape for oilseed are also ***significant***.

5. All sorts of poultry, since hens, ducks and turkeys can always be ***fitted*** in somewhere.

6. Marine fishes harvested include Atlantic mackerel, Atlantic herring, cod, ***various*** flatfishes.

7. Domestic fish production ***provides*** about three-quarters of Great Britain's ***needs***.

8. The most common ***broadleaved*** trees are oak, beech, ash, and elm.

5. Answer the following questions:

1. Why does British agriculture remain one of the most progressive in the world?

2. What is its area available for agriculture?

3. Is the climate of Great Britain favourable to the development of agriculture?

4. What are two outstanding features of agriculture in the United Kingdom?

5. Why is the agricultural scene extremely varied near large urban centres?

6. What types of farms are distinguished in Great Britain?

7. Where is arable production concentrated in the country?

8. What are the main grain crops in Great Britain?

9. What are the main livestock products?

10. What does the mixed farm produce?

11. What part of Great Britain is highly productive in fish farming?

12. Do forests of Great Britain completely provide home consumption of wood products?

13. What are the most common broadleaved and coniferous trees of Great Britain?

Topic 12

Technological progress and agricultural development

Practical classes 38, 39, 40

1. Read and translate the words:

apply –

cost –

crops –

deal with –

demands –

drill –

drying –

enhance –

exemption –

exploitation –

grading –

handling –

harness –

harvesting –

horticulture –

hull –

implement –

implements –

improve –

in scale –

increase –

kernel –

labor –

livestock –

mature –

measures –

multiple –

pathways –

plate –

quality –

scope –

steadily –

transplant –

2. Translate phrases

Production efficiency, domestic animals, product quality, reducing coast, labor demands, measures land preparation, simple devices, horticultural crops, sophisticated equipment, data management, manufacturer, fiscal year, purchase price, grading machine, open up whole new fields of, gainfully employed population, scientific advances, current national trends, direct pathway, to increase the product quality, non-destructive and high-precision manner, self-propelled orchard drill, maintenance training courses, meet the projected goals, rapid acceleration.

TEXT A: Agricultural Mechanization and Automation

Mechanization of agriculture is a progressive development of steadily increasing scope and importance. It began, centuries ago, with simple devices for harnessing the power of man himself; developed with the construction of implements and machines designed to make use of the greater power of domestic animals, notably

horses and continue with exploitation of mechanical and electrical power for almost every farming task. Since 1930's progress has been revolutionary. A rapid acceleration in the use of tractors and other engine-driven field machines has been followed by the development of a wide range of sophisticated equipment for carrying out essential operation better and more cheaply. The scope for future development is limited only by the necessity for mechanization to be economic. Already much of the new equipment includes automatic control devices, and these are certain to play an ever increasing part in agricultural mechanization in the future. They open up whole new fields of development, such as automatic control of environment for both crops and livestock. Let's take Great Britain, for example. Mechanization, allied to other scientific advances, has transformed the place of agriculture in national economy. In the middle of the nineteenth century about a quarter of the working population of Britain were engaged in agriculture, and farming produced about one fifth of the country's wealth. Today, about 5.5 per cent of the gross national product is produced by less than 3 per cent of the gainfully employed population – a labour use lower than that of any other country. Current national trends are reflected in statistics dealing with the use of mechanical equipment on farms.

The mechanization and automation of agriculture are direct pathway to increase the production efficiency and product quality, by reducing cost and labor demands while improving working environment. Since 1990's, the government strategically introduced measures such as land preparation, transplanting, harvesting and drying for rise and other crops, with a result of achieving mechanization up to 98%.

Automation-assisted techniques have also been develop and applied to production of horticultural and special crops to enhance a better environment in farm management as well as production and harvesting systems. The inspection of grading can also be conducted in a non-destructive and high-precision manner. Mature technology in automation processing and handling, data management, and biological applications are then extended to farmers, farmers' organizations and manufacturers. This integrated agricultural system of mechanization, automation and information, may be applied effectively and competitively in scale in the future.

In the fiscal year of 2005, the farmers purchased 1,283 sets of machine, selected from 30 types (41 models) of newly developed machines, with government subsidies of 30-40% of the purchase price.

Among these are multiple cultivation bottle cleaning machine, tea-leaf moisture removing machine, coconut-hull pulverizing machine, self-propelled orchard drill, rice kernel grading machine and pig-manure collecting device. There were 22 demonstration drills and 11 maintenance training courses held within the year, teaching farmers to operate the equipments properly. Loans of up to $1.6 billions were implemented to assist farmers in purchasing 896 sets of automated systems.

Special measures such as issuing ‘Certification on Farm Machinery Use’, ‘Tax Exemption Coupon for Farms Fuels’ and ‘Farm Vehicle License Plate’ were all met the projected goals of the year.

3. Match the adequate translation

Скорочування	**-a) reduce** **b) reduced** **c) reducing**
Покращення	**-a) improve** **b) improving** **c) improved**
Пересадка	**-a) transporting** **b) transplant** **c) transplanted**
Управління	**-a) handle** **b) handling** **c) handled**

4. Put questions to the sentences

1. Mechanization began, centuries ago, with simple devices for harnessing the power of man himself. 2. Since 1930’s progress has been revolutionary. 3. Much of the new equipment includes automatic control devices. 4. They open up whole new fields of development. 5. In the fiscal year of 2005 the farmers purchased 1,283 sets of machine.

5. Answer the following questions:

1. What kind of process is mechanization of agriculture?

2. With what devices did mechanization of agriculture begin and continue?

3. What are the latest achievements in the field of mechanization?

4. What limits the scope for future development of mechanization?

5. Who produces 5.5 per cent of gross national product in Great Britain?

6. Where are current national trends reflected?

Types of tasks in the tests

Завдання на встановлення відповідності

У завданнях з іноземних мов на встановлення відповідності учасникам буде запропоновано підібрати заголовки до текстів/частин текстів із поданих варіантів; твердження/ситуації до оголошень/текстів; запитання до відповідей або відповіді до запитань. Завдання вважається виконаним, якщо учасник встановив правильну відповідність і позначив правильний варіант відповіді у бланку відповідей.

Завдання на встановлення відповідності у тестах з іноземних мов оцінюються в 0 або 1 тестовий бал. 1 бал - за правильно встановлену відповідність; 0 балів, якщо правильної відповідності не встановлено або відповіді не надано.

Завдання на заповнення пропусків у тексті (іноземні мови)

У завданнях на заповнення пропусків у тексті пропонується доповнити абзаци/речення в тексті реченнями/частинами речень, словосполученнями/словами із поданих варіантів. Завдання вважається виконаним, якщо учасник тестування обрав і позначив правильний варіант відповіді у бланку відповідей.

Завдання на заповнення пропусків у тексті оцінюються в 0 або 1 тестовий бал. 1 бал, якщо вказано правильну відповідь; 0 балів, якщо вказано неправильну відповідь або вказано більше однієї відповіді, або відповіді не надано.

Завдання з вибором однієї правильної відповіді

До кожного завдання з вибором однієї правильної відповіді подано чотири або п’ять варіантів відповіді, з яких лише один є правильний. Завдання вважається виконаним, якщо учасник зовнішнього незалежного оцінювання вибрав і позначив правильну відповідь у бланку відповідей.

Завдання зовнішнього незалежного оцінювання з вибором однієї правильної відповіді оцінюються в 0 або 1 тестовий бал. 1 бал - якщо вказано правильну відповідь; 0 балів, якщо вказано неправильну відповідь, або вказано більше однієї відповіді, або відповіді не надано.

Tests Samples

What Does Being British Mean to Me?

Recently, I have attended a workshop **(17)** _____. It got me thinking about what it meant for me to be part of Britain.

To me, being British isn't about (18) _____. Being British is about being accepting and open to new ideas, new prospects and new experiences. It's about exploring new cultures and traditions and (19) _____ into our personal lives.

As a very multinational society, we have been influenced (20) _____ which have inspired us to take strands of different traditions and weave them into our own culture. We have (21) _____, which undoubtedly gives us an advantage. We have learnt to be tolerant as we have welcomed millions of people of different races and religions into our country. And as a result, we get the best of both worlds. We get the *fish and chips* but also the *chicken tikka masala*. What would we do (22) _____?

Our multinational community has moulded and shaped Britain into what it is today.

A) to make mistakes in foreign policy
B) without Italian pizza or Chinese noodles
C) having labels or categorising people
D) by many cultures around us
E) adapting and integrating them
F) discussed and analysed at the workshop
G) based on *nationality* and *identity*
H) to learn from other societies

Embarrassing Situation

There was this newbie refugee lady who **(38)** _____ her visit to the doctor in Australia and as she was leaving the doctor's room, the nurse said (39) _____: "See you later then, love." So, the woman sat and waited in the clinic to see when she (40) _____ later. When it came to closing time the staff asked her (41) _____ she had a problem and she said: "But I thought you needed to see me later, so I'm waiting."

"Oh no, dear," smiled the nurse, "That's just the Australian way of saying goodbye!" The poor lady was terribly (42) _____.

38	A	was completed	B	had completed	C	has completed	D	would complete
39	A	cheery	B	cheeriness	C	cheers	D	cheerily
40	A	would be needed	B	will be needed	C	is needed	D	was needed
41	A	unless	B	while	C	whether	D	until
42	A	embarrass	B	embarrassed	C	embarrassing	D	to embarrass

Laurentian University

Laurentian University will be (23) _____ to approximately 300 International Physics Olympiad competitors, and will also be the (24) _____ of both theoretical and practical exams. Located on 750 rocky, wooded acres (25) _____ five lakes, Laurentian is a bilingual university (26) _____ programmes in both English and French to some 5,000 full-time students. Over one quarter of Laurentian's students are from French-speaking (27) _____. With four faculties, Laurentian also has six research centres specialising in issues of importance for Northern Ontario, (28) _____ its French culture and history, health care and hard-rock mining. The University is especially known for its leading role in the rehabilitation of the industrially **(29)** _____ lands around Sudbury.

The Department of Physics and Astronomy at Laurentian University (30) _____ a small but active group of physicists engaged in research, teaching and community activities. They are very pleased to play a role in hosting the International Physics Olympiad, and will also (31) _____ part in the International Neutrino conference being (32) _____ in Sudbury.

23	A	home	B	house	C	area	D	place
24	A	sight	B	site	C	side	D	sign
25	A	observing	B	looking	C	seeing	D	facing
26	A	suggesting	B	offering	C	serving	D	studying
27	A	dwellings	B	origins	C	backgrounds	D	relationships
28	A	including	B	collecting	C	composing	D	bringing
29	A	recycled	B	damaged	C	endangered	D	injured
30	A	creates	B	comprises	C	constructs	D	consists
31	A	receive	B	put	C	take	D	get
32	A	spent	B	held	C	given	D	carried

Encouragement

When you **(33)** _____ a college freshman, you trade a known way of life for a new one. Such transitions are one of the trying periods a person has to face. The novelty of (34) _____ — from college classes to dorm life, to freedom

from parental authority — (35) _____ you in situations you may never have handled (36) _____. So, it's natural to expect a certain amount of (37) _____ and anxiety while you learn what to expect from the new people in your life — professors, roommates, and friends.

33	A	become	B	becomes	C	will become	D	became
34	A	something	B	everything	C	nothing	D	anything
35	A	put	B	are putting	C	have put	D	puts
36	A	ago	B	later	C	before	D	after
37	A	confusingly	B	confuse	C	confusing	D	confusion

Tips for Choosing a Career

Choosing a career is one of those momentous decisions that can change the course of your life. Here are some tips to help you choose a satisfying career that you will enjoy for years to come.

1)_____One of your tasks should be to choose a career where you can earn enough money to meet your objectives. If you want to own a vacation home on every continent and fly to these homes on your private jet, a career as a retail clerk will probably not help you achieve your ambitions. You may have to make some compromises along the way, but generally speaking, the career you choose should allow you to earn a living.

2)_____Before you pay — or, worse, borrow money — for college or graduate school, make sure the career you choose is worth the expense. According to the National Centre for Education Statistics, the cost of an undergraduate college education rose 25 to 37 percent between 2010 and 2020. If you need additional education to qualify for your dream job, look into programmes that repay your student loans if you work in a public service position for a few years after graduation.

3)_____You'll spend one-third of your life with the people you work with, so choose a career that's a good community fit. If you're a loner who doesn't enjoy public interaction, you may be well-suited to a career where you work independently or work from home. If you love to meet new people, you may find a career in sales, where you work with the public.

4)_____Use do-it-yourself resources to help you narrow your career choices. Take quizzes to help you understand certain types of work. Review online job descriptions and career information from the Bureau of Labour Statistics to help you learn what the education and training requirements are for different kinds of jobs. Many books and workbooks are also available to guide you through this process.

5)_____Follow the example of companies that use interns and temps to evaluate an individual before they extend a job offer. Staying in the environment where you think you want to work can help you make up your mind for certain. Job shadows, internships and temporary assignments give you a down-to-earth view of a day in the life of a profession.

A) Consider your personality type
B) Invest in your education reasonably
C) Register with an employment agency
D) Get real-life experience
E) Set your personal financial goals
F) Hire a career coach
G) Use self-assessment tools
H) Sign up with an advice website

Use of English

Why Do Onions Make You Cry?

Onions, like other plants, are made of cells. The cells are divided into two sections (23) _____ by a membrane. One side of the membrane contains an enzyme which helps chemical processes (24) _____ in your body. The other side of the membrane contains molecules that contain sulfur. When you cut an onion, the (25) _____ on each side of the membrane mix and cause a chemical (26) _____. This chemical process (27) _____ molecules such as ethylsufine which make your eyes water.

To (28) _____ crying when you cut an onion, cut it under a running tap of cold water. The sulfur compounds (29) _____ in water and are rinsed down the sink before they (30) _____ your eyes. You can also put the onion in the freezer for ten minutes before you cut it. Cold temperatures slow down the reaction (31) _____ the enzymes and the sulfur compounds, so fewer of the (32) _____ molecules will affect your eyes.

23	A	circulated	B	separated	C	sorted	D	shared
24	A	occur	B	hold	C	carry	D	take
25	A	properties	B	abilities	C	contents	D	flavours
26	A	reaction	B	formula	C	pollution	D	poisoning
27	A	does	B	opens	C	discovers	D	produces
28	A	remove	B	prevent	C	protect	D	except
29	A	dissolve	B	lose	C	miss	D	steam
30	A	come	B	achieve	C	reach	D	take
31	A	among	B	through	C	between	D	along
32	A	sparkling	B	flaming	C	shining	D	burning

Plastic-Eating Waxworms

The global plastic bag pollution crisis could be solved by a waxworm capable of eating through the material at high speeds. Researchers have described the tiny worm's ability to break down even the toughest plastics as "extremely exciting" and said the discovery could be engineered into an environmentally-friendly solution on an industrial scale.

Commonly found living in bee hives, the waxworm proved it could eat its way through polyethylene, which is extremely hard to break down, more than 1,400 times faster than other organisms. Scientists believe the creature has powerful enzymes which attack plastic's chemical bonds, in the same way they eat the complex wax found in hives.

The waxworm's potential was discovered by accident when biologist and amateur beekeeper Federica Bertocchini cleaned out her hives and temporarily placed the parasites in a plastic shopping bag. She soon noticed it was full of holes.

In tests at Cambridge, 100 waxworms were let loose on a plastic bag from a British supermarket, with holes appearing after just 40 minutes. Over a period of 12 hours, 92 mg of plastic had been consumed. By contrast, previous trials using bacteria had found the microbes could only work through 0.13 mg of plastic in 24 hours.

The creatures transformed the polyethylene into an "un-bonded" substance called ethylene glycol. Dr. Bertocchini, who led the research, said: "The challenge for us will be to try and identify the molecular processes in this reaction and see if we can isolate the enzyme responsible for it. We are planning to implement this finding to get rid of plastic waste, working towards a solution to save our oceans, rivers, and the entire environment from the unavoidable consequences of plastic accumulation."

Quite aside from how and where to farm all waxworms, there's something about them that news reports have failed to mention. Specifically, these worms love to eat the wax from which bees make their honeycombs — and so they can destroy bee colonies. Waxworms are thought to cause more than $4 million's worth of damage annually in the United States alone. With bee populations already under severe stress from pesticides, habitat loss and predators, researchers should think twice about breeding one of their worst enemies in huge numbers.

One way or another, these days around a trillion plastic bags are used around the world each year, of which a huge number find their way into the oceans or landfills. With the waxworm discovery being still far from the solution to the world's piles of garbage, everybody can do a lot to reduce plastic waste by bringing their own shopping bags, giving up bottled water, rethinking their food storage etc.

1)

What do waxworms do, according to the text?

A) They steal honey from bees.
B) They grow faster eating plastic.
C) They are the easiest animals to breed.
D) They are the quickest plastic eaters.

2)

What is **TRUE** of Federica Bertocchini?

A) She has discovered a new ability of worms.

B) She gathers honey from the hive for a living.
C) She raised waxworms in shopping bags.
D) She has invented a new remedy for bee parasites.

3)

What steps are the scientists going to take?

A) to study the plastic-breaking mechanism
B) to speed up waxworms' reproduction
C) to research waxworms' other abilities
D) to experiment with different plastics

4)

What are the disadvantages of putting the discovery into practice?

A) It is too expensive.
B) It threatens nature.
C) It is time-consuming.
D) It lacks professionals.

5)

How can people contribute to solving a plastic waste problem, according to the text?

A) clean ocean shores
B) raise money for research
C) change their habits
D) sort out their garbage

Drinking Water: Bottled or from the Tap?

If your family is like many in the United States, unloading the week's groceries includes (17) _____. On your way to a soccer game or activity, it's easy to grab a cold one right out of the fridge, right?

But all those plastic bottles use a lot of fossil fuels and pollute the environment. In fact, Americans buy more bottled water than any other nation in the world, **(18)** _____. In order to make all these bottles, manufacturers use 17 million barrels of crude oil. That's enough oil to keep a million cars (19) _____.

People love the convenience of bottled water. But maybe if they realised the problems it causes, they would try drinking from a glass at home or (20) _____ instead of plastic.

Used plastic water bottles are sent to landfills, or even worse, they end up as trash on the land and in rivers, lakes, and the ocean. Plastic bottles take many hundreds of years to disintegrate.

Plastic bottle recycling can help (21) _____, plastic bottles can be turned into items like carpeting or cosy fleece clothing.

Water is good for you, so keep drinking it. But think about how often you use water bottles, and see if you can make a change. And yes, you can make a difference. Remember this: (22) _____ can save enough energy to power a 60-watt light bulb for six hours.

A) going for twelve months
B) recycling one plastic bottle
C) cope with a rising amount of trash
D) carrying water in a refillable steel container
E) drink tap water instead of bottled water
F) recycling actually saves real resources
G) adding 29 billion water bottles a year to the problem
H) carrying a case or two of bottled water into your home

Topical Tests Samples

Countries

The Netherlands is one of the Low Countries, so named because much of its (1) _____ is below sea (2) _____ or is comprised of wetlands. (They say the Netherlands is so flat, that if you stand on a chair, you can see clear across the (3) _____ country!) The Netherlanders have reclaimed much land from the sea through the (4) _____ of dikes and windmills. Their famous windmills have been (5) _____ since the early sixteenth century to pump water out of the wet areas into canals and (6) _____ more land for agriculture. Dikes were built to (7) _____ the sea at bay and prevent flooding. Since much of the Netherlands' coastal land was soggy, special shoes were (8) _____ to work the fields. Rubber boots weren't (9) _____ , so the Dutch took to wearing "sabots" or wooden shoes. Such shoes, (10) _____ from beech or chestnut wood, are water resistant and perfect for walking in the wetlands.

(11) _____ wooden shoes and windmills are not used much anymore, they will always be a (12) _____ of the Netherlands' battle with the sea and are great tourist attractions.

1. •a) district • b) land • c) earth • d) soil	7. • a) preserve • b) support • c) keep • d) protect
2. • a) height • b) level • c) horizon • d) altitude	8. • a) lacked • b) called • c) missed • d) needed
3. • a) all • b) full • c) whole • d) total	9. • a) ready • b) done • c) convenient • d) available
4. • a) construction • b) composition • c) fabrication • d) constitution	10 • a) done • b) fulfilled • c) made • d) executed

5. •a) treated •b) consumed • c) used • d) exercised 6. • a) discover • b) create • c) invent • d) make	11. • a) While • b) For • c) If • d) Until 12. •a) sign • b) logo • c) symbol • d) character

People

Alice is 18. She studies at the London School of Music and Dance. Alice is talking to her best friend about her groupmates.
"I don't like Chris. Though he is very popular with our girls, I think he is conceited and (1) _____. His suits are very expensive, and he loves looking at himself in the mirror. He is also (2) _____. One minute life is wonderful and the next minute he gets angry. When he starts (3) _____ somebody, all students in the school know about this. Moreover, he is (4) _____: he is always trying to grab more than he needs.
My favourite character is Debbie. She is very (5) _____ . She often stays at school after classes. She likes helping people, she is very kind and (6) _____.
Kate is a daughter of my mother's sister. She is my (7) _____. Kate is in her early twenties. She is 1.50 m. tall and weigts 47 kg. She is (8) _____ and (9) _____. Kate is married. Her daughter, Deborah, is 18 months. Deborah is a (10) _____. Kate doesn't like when her husband speaks to other girls. She is (11) _____. I was really (12) _____ when Kate said they would split up if her husband didn't stop getting on her nerves. I think she is not right."

(1) • jealous • bored • confused • quilty (2) • cruel • kind • amuzing • moody	(7) • vain • shy • crazy • friendly (8) • high • short • low • tall

(3) • meeting • ○ flirting • ○ dating • ○ gathering (4) • jealous • ○ greedy • ○ ambitious • ○ patient (5) • ○ hard working • ○ quiet • ○ inactive • ○ lazy (6) • careless • ○ cruel • ○ proud • ○ gentle	(9) • plump • ○ stocky • ○ slim • ○ little (10) • baby • ○ child • ○ toddler • ○ teenager 11 • sister-in-law • ○ niece • ○ cousin • ○ aunt (12) • ○ shocked • ○ amazed • ○ tired • ○ happy

Houses

When I was a student, I decided to (1) _____ a house with a couple of good friends. We didn't have any stuff of our own, so we tried to find a nice (2) _____ house. We found an advertisement and decided to speak to the landlord.

The house was half a mile from the city center. It was in a (3) _____ area and was quite (4) _____. We had to pay 300$ per month. But as it turned out the whole place needed repairing. The bathroom taps were (5) _____, radiators were (6) _____, the sink was (7) _____, and the bathroom ceiling needed fixing. Upstairs there were three bedrooms and a study. All the carpets were (8) _____. The landlord said he couldn't get off a horrible brown color. Downstairs there was a kitchen, a dining room and a spacious living-room. The kitchen was in a terrible mess, it looked like a bomb hit it. But the landlord said that he would (9) _____ the cooker and (10) _____ all the empty bottles. When we wanted to switch on the light, we couldn't, because the light bulb had (11) _____. The garden was in a bit of a state too. The grass needed

(12) _____. Though it wasn't the house of our dream we decided to move in the next day. The landlord was happy!

1. • A borrow • B rent • C loan • D hire	7. • a loaded • b stuck • c blocked • d set
2. • a equipped • b decorated • c furnished • d fitted	8. • a stained • b destroyed • c broken • d smashed
3. • a pleasant • b attractive • c attracting • d pleasing	9. • a do • b make • c clean • d clear
4. A poor B priceless C worthless D cheap	10. • a give up • b pick out • c throw out • d tidy up
5. • a dripping • b flowing • c pouring • d running	11 • a burnt • b heated • c fired • d gone
6. • a watering • b releasing • c leaking • d fleeting	12. • a scrubbing • b cutting • c fixing • d sweeping

Hobbies

Traditional indoor hobbies or pastimes (1) _____ collecting things, e.g. shells, model cars, dolls, comic books, stamps, coins or postcards. Children (2) _____ collect sets of picture cards from packets of tea and small toys or models from packets of breakfast cereal. Many collect stickers of football or baseball players or pop stars. They buy packets of these and trade them with their friends, (3) _____ those they (4) _____ have for the ones they need to complete the set. Many people continue to collect things as they get older. Formerly picture cards were given away in packets of cigarettes and many of these old cards are now (5) _____. Now people collect things like beer mats, concert programs, decorated plates, and antiques.
Many people like to do something (6) _____, such as painting or drawing, playing music, knitting or sewing, cooking, or (7) _____crossword puzzles.
In 1996, 84% of US households contained one or more people with a hobby or craft (= an activity in which something is made) and over $10 million was (8) _____ on such activities.
Some people have hobbies which take them away from home. Bird watching is (9) _____popular.
So too is flying model aircraft. Other people go to public record offices and churches to (10) _____their family history. One very British hobby is train-spotting, which involves visiting railway stations and recording the names or numbers of trains. The (11) _____of hobbies now popular is (12) _____in the number of specialist magazines available in both Britain and the US.

1. • a consist of • b cover • c include • d contain	7. • a reading • b doing • c solving • d making
2. • a also • b yet • c already • d too	8. • a lost • b sent • c missed • d spent
3. • a giving • b exchanging • c changing • d selling	9. • a normally • b principally • c unusually • d especially

4. • a ○ although • b ○ yet • c ○ still • d ○ already	10. • a ○ look • b ○ research • c ○ analyze • d ○ open
5. • a ○ useful • b ○ important • c ○ valuable • d ○ worthless	11. • a ○ name • b ○ range • c ○ file • d ○ series
6. • a ○ talented • b ○ creative • c ○ inspired • d ○ cheerful	12. • a ○ taught • b ○ instructed • c ○ copied • d ○ reflected

Context Vocabulary

A	
a range of	діапазон
abroad	за кордоном
abruptly	раптово
abundance n.	надлишок
accumulation	накопичення
achieve	досягти
achievement n.	досягнення
acre	акр
acreage	площа
additional	додаткові
adherent a.	близький
advantage	перевага
agriculture	сільське господарство
agrolandscapes	агроландшафти
alfalfa	люцерна
allocation	виділення
allow	дозволити
alternating	чергуються
although	хоча
aminoacid n.	амінокислота
ant	мураха
appear	з'явитися
apparent	очевидний
application n.	внесення, застосування
apply to	використовувати, вноситu
approach	підхід
arable	орний
arable land	орна земля
artificially adv.	штучно
ash	зола
aspiring	що прагне
attach v.	прикріпити, приєднати
available	доступні
average n.	середина
avoid	уникати
B	
ban	заборона
barley	ячмінь
barn n.	конюшня, корівник
based on	на основі

basis	основа
bear v.	переносити
become	стати
bee-hife (Pl. -hives) n.	вулик
bee-keeper n.	пасічник
begin	почати
biology	біологія
branch n.	галузь
bread	хліб
break up	розкладати (сь)
breathe v.	дихати
breed n.	порода
bulk n.	основна маса, об'єм
bulky a.	об'ємистий (корм)
burning	горіння
C	
capable a.	здатний
care	догляд
career in	кар'єра в
cattle n.	велика рогата худоба
cause	причина/викликати
cell	клітина
chamber n.	камера
cheesy a.	сирний
chemical fertilizers	хімічні добрива
circuit	ланцюг
climax	кульмінація
clothing	одяг/покриття
clover	конюшина
cockroach	тарган
cod	тріска
collection	колекція
combat	боротися
compete	конкурувати
composition	композиція
compound	з'єднання
comprehensive analysis	комплексний аналіз
concern	турбота
coniferous	хвойні
consequence	наслідок
communicate	спілкуватися
concentrate n.	концентрат
consider	розглядати/вважати

consume v.	споживати
consumption n.	споживання
controversial	суперечливий
convert v.	перетворювати
corn n.	кукурудза
correspond v.	відповідати
cost	вартість / коштувати
coulter n.	ніж плуга, сохи
country	країна
create	створити
crops	с/г культури
culture	культура
cycle	цикл
cycling	проходити цикл
D	
daily	щодня
dandelion	кульбаба
deal with	мати справу з
decrease v.	зменшувати
decline	занепад
decompose	розкладаються
deep-rooted	глибоко вкорінені
define v.	визначати
degree	ступінь
demands	вимоги
deny	заперечувати
deteriorate	погіршуються
develop	розробляти
development	розвиток
deposit n.	вклад
different	інший /різний
difficult	важко
digestive a.	травний
disturb	турбувати
drastic measures	радикальні заходи
dressing g.	внесення
drill n./v.	сівалка, рядкова сівалка/ сіяти
double helix n.	подвійна спіраль
drive n. v.	керувати, приводити в дію
drought n.	посуха
drought-resistant a.	стійкий до посухи
dry rot	суха гниль
drying	сушіння

dust	пил
E	
early	рано
easy	легко
efficiency	ефективність
effort	зусилля
eliminate	видалити
elm	в'яз
enhance	посилити
enough	достатньо
ensure	забезпечити
emphasize	підкреслити
endurance n.	витривалість
engine n.	двигун
engineering n.	техніка, машинобудування
enterprising	заповзятливий
environment n.	середовище
environmental	екологічний
equally	однаково
equilibrium	рівновага
essentially	по суті
exist	існувати
experience	досвід
explore	досліджувати
express	виражати
F	
farm n. / v.	господарство/вести справи
farmlands	сільськогосподарські угіддя
favour	користь
feature	риса/функція
feed	годувати
fertilize v.	удобрення
fibers	волокна
field	поле
film n.	плівка
firm a.	твердий
fit v.	точно підходити
flatfishes	плоскі рибки
flounder	камбала
flesh n.	сире м'ясо, м'язева тканина
flock n.	зграя птахів
focus on	зосередитися на

fodder n.	корм для худоби
food	їжа
foodstaffs n.	продукти харчування
forbear n.	попередник
foreign	іноземний
framework	рамки
fraction	частина
fruits	фрукти
fungus (fungi pl)	грибок
furnish v,	постачати
furthermore	крім того
G	
germ	зародок
germination n.	проростання
get rid of	позбутися
government	уряд
grain n.	зерно
grading	сортування
gradually	поступово
grasshopper	коник
grammar	граматика
graze v.	пасти, пастися
greenhouse	теплиця
grind v.	молотити
grip n.	зчеплення, захват
grow v.	рости
growth n.	ріст
H	
Half	половина
handling	поводження/управління
harmful a.	шкідливий, згубний
harrowing n.	боронування
harvest n. / v.	врожай/збирати врожай
hay	сіно
hawk	яструб
healthy	здоровий
heat v.	нагрівати / тепло
hemp n.	конопля
hence	отже
herring	оселедець
high degree	високий ступінь
hobby	хобі

horticulture	садівництво
however	однак
hull n.	лушпайка
hydrochloric acid n.	соляна кислота
hurricane	ураган
I	
implement n.	знаряддя
import	імпорт
improve	вдосконалити
improvement	поліпшення
in scale	в масштабі
in such a way	таким чином
include	включати
income	доход
increase	збільшувати
independent	незалежний
industrial	промислові
infestation	зараження
influence –	вплив
inflammation n.	запалювання
instead of	замість
integrated	інтегрований
intend for	мають намір
invention	винахід
investigative	досліднтцький
involve	залучати
J	
journey	подорож
judge	оцінювати/судити
jug n.	банка
juice n.	сік
K	
kernel	ядро
kind n.	рід, сорт, розряд, клас
knowledge of	знання з
L	
lack of	недостача
language	мова
labor	праця
ladybug	сонечко

learn	вчитися
legume n.	бобові культури
lettuce n.	салат
linear a.	лінійний
livestock	скотарство/худоба, поголів'я худоби
load n.	вантаж
long	довгий
lush	пишний
M	
make	робити
maize	кукурудза
majority	більшість
mammal n.	ссавець
manure n.	добрива (природні)
marsh	болотний
maturity n.	стиглість
mature v.	дозрівати
mean	мати на увазі
means –	засоби
measures	заходи
memory	пам'ять
mild a.	м'який
minority	меншість
mispronounce	неправильно вимовляти
mistake	помилка
mix up	змішувати
moist a.	вогкий, вологий
moisture	вологість
moor	болото
mother tongue	рідна мова
mouth	рот
muscle n.	мускул
multiple	множити
mutton	баранина
N	
necessary	необхідний
need	потрібно
nitrogen n.	азот
non- hierarchical	неієрархічний
normally	звичайно
nourishing a.	поживний
nourishment n.	споживання, їжа

nutrients n.	поживні речовини
nutritive n.	поживний
O	
oak	дуб
oats	овес
offer	пропозиція
options	варіанти
outdoor labs	відкриті лабораторії
outlook	світогляд
overall loss	загальна втрата
oxygen	кисень
P	
palatability n.	харчова цінність
pathogen	збудник
pathways	шляхи
percent	відсотки
percentage	процент
permaculture	пермакультура
permanent	постійний
permit	дозволяти
pests n.	шкідники
pigs	свині
pioneer	відкривати
plant n.	рослина
plough layer	орний шар
plough	плуг / орати
poisonous	отруйний
politics	політика
pollution	забруднення
polyglot	поліглот
pork	свинина
potatoes	картопля
pound	фунт
position	положення
predict	передбачити
predominance	переважання
predominate	переважати
preserve soil	зберегти грунт
prevent	запобігти
primary duty	основний обов'язок
produce	виробляти
production	виробництво

production facilities	виробничі потужності
profitable	прибутковий
pronunciation	вимова
proper	належний
property	майно/власність
provide	забезпечити
protein	білок
pure chemaical elements	чисті хімічні елементи
Q	
quality n.	якість
quantity n.	кількість
R	
rabies	сказ
range	діапазон
reach	охопити
read	читати
reclaim	повернути
recognize	впізнати
reduce	зменшити
reflect	відображати
related to	пов'язані з
relation	відношення
relevant	відповідні
reliance	опора
remain	залишаться
repel	відштовхувати
require	вимагати
residues n. pl.	залишки, відходи
resistant to	стійкий до
restore	відновлення
retarded a.	уповільнений
rigid a.	короткий, жорсткий
rot	гнити
rotation	обертання
rural	сільський
S	
safety n.	безпека
sales	продаж
salmon	лосось
schedule	розклад
sand	пісок

science	наука
scientists	вчені
scope	сфера застосування
scuffling n.	лущення
seed n.	насіння
seeding rate	норми висівання
seeking	шукати
sensible	розумний
set up	налаштовувати
shallow	неглибокий
shortage	дефіцит
share n.	леміш/доля
silage	силос
since	оскільки
skill	майстерність
slow	повільний
soil	грунт
soil management n.	ґрунтознавство
solution n.	вирішення, розв'язання, розчин
southern	південний
speak	говорити
specializing	спеціалізується
species n. pl.	вид
speed n.	швидкість
spring n.	пружина, джерело
starch n.	крохмаль
stable	стабільний
steadily	постійно
store	магазин
stunt	трюк
stiff a.	негнучкий
stock n.	запаси, порода, поголів'я
straw n.	солома
stubble n.	стерня
substance	речовина
subtle	тонкий
successful	успішний
sufficient	достатньо
suitable	підходить
sulphur	сірка
sum up	підсумовувати
sunflower n.	соняшник
supervise	контролювати
support	підтримка

surface n.	поверхня
survival	виживання
sustainable	стійкий
swath n.	смуга прокошеної трави, валок
sweep	підмітати
sweeper n.	культиватор, розпушувач
synthesis n.	синтез
T	
take	приймати
tankage n.	відброси боєнь, що йдуть на добрива
tasty a.	смачний
technology	технологія
techniques	техніки
tend	мати тенденцію до
tendency	тенденція
therefore	тому
tenure n.	володіння
the country	сільська місцевість
thousand	тисяча
thrive v.	швидко рости
tillage crop n.	просапна культура
tillage n.	обробіток землі
tilth n.	обробіток / глибина оранки
timothy hay n.	тимофіївка лучна
tine n.	зуб
tissue n.	тканина
totally	цілком
trade	торгівля
travel	подорожі
treatment n.	обробка
true	правда
typical	типовий
typhus	висипний тиф
U	
understand	розуміти
unrestricted industrialization	необмежена індустріалізація
use	використання
useful adj.	корисний
utility v.	родючість/корисність
utilization	утилізація

V	
vibrant	живий
vocabulary	словниковий запас
valuable a.	цінний
value n.	цінність, важливість
valve n.	клапан
variety n.	сорт
vegetables n.	овочі
vegetation n.	рослинність
W	
want	хотіти
waste	відходи
waxworm	восковий черв'як
web	павутиння
weight	вага
wide	широкий
wonderful	чудовий
world	світ

GRAMMAR
ГРАМАТИЧНИЙ ДОВІДНИК

ІМЕННИК

Іменник (the noun) в англійській мові, як і українській, означає назви предметів, живих істот, явищ, понять і речовин: a table, a man, a snow, friendship, water.

До найхарактерніших суфіксів іменників належать:

-er: worker, reader, writer, speaker
-ment: development, statement
-ness: kindness, happiness, business
-ion: station, cooperation, connection
-dom: wisdom, freedom, kingdom
-hood: childhood, neighbourhood
-ship: friendship, leadership
-ist: chemist, artist
-or: tailor, actor
-ance: assistance, maintenance
-ence: correspondence, dependence
-ing: teaching, reading
-ity: activity, reality

Рід

В англійській мові іменники чоловічого, жіночого та середнього роду є категорією не граматичною, а чисто смисловою: іменники, які означають живі істоти, залежно від статі, належать до чоловічого або жіночого роду: a man, a woman та ін. Іменники, що означають неживі предмети, як правило, – до середнього роду, наприклад, a book, a table, a town та ін. В англійській мові немає ні особливих родових суфіксів, ні узгодження прикметника з іменником у роді: a good boy, a goodgirl, a good coat.

Винятками з цього правила є іменники, що означають, головним чином, засоби водного транспорту, які належать до жіночого роду, наприклад: a ship, a boat та ін., а також назви країн, які англійці часто відносять до жіночого роду.

Іменники бувають власні та загальні.

Число

Іменники поділяться на обчислвальні (countable nouns):
a book – books, a girl – two girls, a car – many cars і необчислювані (uncountable nouns): freedom, air, love, peace.

Обчислювані іменники вживаються в однині (singular) і множині (plural). Необчислювані іменники не мають множини (plural).

Множина іменників утворюється шляхом додавання до форми в однині закінчення s або -es (після -ch, -x, -sh, -ss, -o).

Але: a photo – photos, a piano – pianos, a radio – radios.
Це закінчення вимовляється як:
[s] – після глухих приголосних: a book – books, a cup – cups, a set – sets.
[z] – після голосних і дзвінких приголосних: a day – days, a name – names, a flag – flags.
[iz] – a glass – glasses, a prize – prizes, a bush – bushes, a class – classes, a match – matches, a page – pages.
У деяких іменниках, що в однині закінчуються на -f -fe, у множині ці закінчення змінюються на -v й додається закінчення -es, наприклад: a knife [naif] – knives [naivz], a wife [waif] – wives [waivz], a wolf – wolves [wulvz], a life [laif] – lives [laivz].
Але: a chief – chiefs [tji:fs], a roof – roofs [ru:fs].
Іменники в однині із закінченням -y з попередньою приголосною змінюють у множині букву y на i з додаванням закінчення -es, наприклад, a factory–factories, a city – cities, a story – stories.
Але іменники із закінченням y з попередньою голосною утворюють множину додаванням закінчення -s: a play – plays, aday – days, a key – keys.
Деякі іменники утворюють множину шляхом зміни кореневої голосної без додавання закінчень, наприклад:
a man –men, a woman – women, a tooth – teeth, afoot – feet, a mouse – mice.
Два іменники зберегли стародавнє закінчення множини:
a child – children [' tjildren], an ox – oxen.
Деякі іменники в англійській мові вживаються лише в однині: advice, information, news, knowledge, furniture, money, weather та ін.
Деякі іменники вживаються лише у множині: goods (речі), trousers (штани), scissors [' sizas] (ножиці), clothes (одяг) тощо.
Ряд збірних іменників мають лише форму однини (маючи значення множини): police (поліція), cattle (рогата худоба), people(люди).
Але, якщо слово people означає народ, нація, то воно вживається в однині та множині.
Прізвища у формі множини вживаються з означеним артиклем й означають дану сім'ю, всіх членів даної сім'ї, наприклад: the Browns (сім'я Браунів, Брауни), the Kovalenkos (сім'я Коваленків, Коваленки).

Відмінок
Іменники в англійській мові мають лише два відмінки:
загальний (the Common Case): Victor, father і присвійний, або
родовий (the Possessive Case): Victor' s school, father' s work.
Присвійний відмінок виражає належність і таким чином
відповідає в українській мові родовому відмінку (це значення можна передавати й прийменником of).
Присвійний відмінок іменників у однині утворюється додаванням апострофа та букви s (~' s) до форми однини іменника в загальному відмінку та апострофа (-') до форми множини іменника, а інколи і до

форми однини з закінченням -s або -x (крім іменника child – children, child' s – children' s).
Закінчення -' s вимовляється за тими ж правилами, що й закінчення -s у множині іменників.

Функції іменників у реченні
Іменник може виконувати функції:
1) підмета: My parents live in Kyiv.
2) іменної частини складеного присудка: My brother is a doctor.
3) додатка: I bought a book.
4) означення: This is a stone house.
5) обставини: Andrew came from England.

АРТИКЛЬ
В англійській мові є два артиклі (articles):
неозначений a (an)
означений the.

Неозначений артикль
Неозначений артикль (the indefinite article) a [ə] вживається перед словами, що починаються з приголосної, тоді як його графічний варіант an [ən] перед словами, що починаються з голосної.
Вимовляються обидві форми неозначеного артикля разом з наступним словом: a book , an. English book .
Форма неозначеного артикля an вживається також перед словами, які починаються з приголосної, що не читається: an hour , an honest man.
Вживання неозначеного артикля
Неозначений артикль утворився від числівника one (один) і тому вживається тільки перед тими іменниками в однині, які мають форму множини і їх можна перерахувати: a pencil, a ruler, an apple, an animal, і передає лише вказівку на належність предмета до якогось класу однорідних предметів.
Перед абстрактними і конкретними іменниками, які не мають форми множини, артикль не вживається.

Неозначений артикль вживається:
1. З іменником – іменною частиною складеного присудка:
my brother is a doctor;
2. З іменником – підметом після зворотів there is (there was, there will be)
There is a table in the middle of the room;
3. З додатком після дієслова have: I have a brother;
4. Перед іменниками в однині після слів such, rather, quite і т. д.:
She is such a good pupil;
5. Після слова what в окличних реченнях: What a good idea!
Але: What beautiful music!;

6. З деякими словами: a lot, a few (кілька), a little (трохи), a bit (трохи)
He speaks English a little;
7. У значенні числівника one (один) перед числівниками hundred, thousand, million, dozen:
The library has a hundred books.
They have three meals a day.

Означений артикль

Означений артикль (the definite article) має одну форму the,
але вимовляється перед словами, які починаються з приголосної, як [ðə]: the book, а перед словами, які починаються з голосної, – як [ðJ]: the apple.
Означений артикль походить від вказівного займенника that. Цей артикль вживається перед іменниками в однині і множині.
Означений артикль the вживається у тих випадках, коли йдеться про певний, вже відомий чи згадуваний раніше предмет або поняття, а також тоді, коли предмет чи явище уточнюється контекстом чи ситуацією.
Означений артикль вживається:
1. Коли перед іменником стоїть:
а) порядковий числівник: He was the first to come.
б) прикметник у вищому ступені: This is the. most beautiful flower.
в) один з прикметників: last, next, same, following: Answer the following questions.
Але: next door, next week (month, summer, year, Sunday), last week (month, year, Saturday) та ін.
2. Перед іменником, за яким йде означення, виражене іменниковим сполученням, означувальним підрядним реченням, дієприкметником, дієприкметниковим, інфінітивним чи герундіальним означувальним зворотом:
This is the man I told you about.
3. З іменниками, що означають предмети, єдині у своєму роді: the earth, the sun, the moon, the world. the. sky та ін.
4. У виразах: in the afternoon, in the evening, in the morning, on the left, on the right, the other day та ін.
5. У виразах типу the more . . . the better. . . , наприклад:
The more we learn, the more we know (Чим більше ми вчимось, тим більше ми знаємо).
6. Перед прізвищами, коли мається на увазі вся сім'я, всі члени певної сім'ї. У цьому випадку прізвище ставиться у формі множини:
the Browns (сім'я Браунів, Брауни).
7. Перед назвою більшості газет і пароплавів: the Daily Mail, the News from Ukraine, the Guardian.
8. Перед назвою народів (іменник у формі множини):
the Ukrainians, the Americans.

9. Перед прикметниками і дієприкметниками, які вживаються як іменники, у значенні множини: the English, the French. the_poor, the unemployed.
10. Перед назвою деяких країн: the US, the, Netherlands, the United Kingdom.
11. Перед назвою річок, гірських хребтів, півостровів, морів, океанів, архіпелагів: the. Dnieper, the. Thames, the Crimea, the Black Sea, the Atlantic Ocean.
12. Перед не обчислюваними іменниками у тих випадках, коли мається на увазі обмежена, певна кількість речовини:
Give me the bread, please. Дайте мені, будь ласка, хліба (тобто
мається на увазі певна кількість чи дана кількість).
The water is frozen.
Але: Water is a liquid.
13. Перед іменниками в однині, коли останній означає цілий клас предметів: The rose is a beautiful flower.

Означений артикль не вживається:
1. Перед званнями, якщо за ними йде прізвище: Professor Snow, Mr. Pollit.
2. Перед іменником-доповненням до присудка, що виражений дієсловом to elect, to appoint:
He was elected chairman.
3. Перед назвами міст, вулиць, площ: London, Trafalgar Square, Oxford Street (Але: the Hague, the Read Square).
4. Перед назвами місяців, днів, пори року: in April, on Wednesday, in summer.
5. Перед абстрактними і речовими іменниками, яких не можна перерахувати і які вживаються в загальному значенні:
freedom, metal.
6. Перед власними іменами: Victor, Andrew, Kovalenko, Webster.
7. Перед назвами країн, міст, географічних місцевостей: Canada, London, Africa та ін. (виняток див. п. 10 вживання означеного артикля).
8. Перед словами breakfast, lunch, dinner, supper, вжитих у загальному значенні. We have breakfast at 8 o ' clock.
9. У деяких виразах: at night, by tram (train, plane, ship), from morning till night, to go to bed, day after day, by heart, to go
to school, at home та ін.

ПРИКМЕТНИК

Прикметник (the adjective) – частина мови, що виражає ознаку, якість або властивість предметів і відповідає на питання what? (який?).
Прикметники в англійській мові не змінюються ні за відмінками, ні за числами, ні за родами.

Прикметники бувають прості (good, cold, young), похідні (important, international, beautiful), складні (well-organized, timeconsuming).
Основні суфікси прикметників
-able(ible) changeable, sensible
-ant(ent) pleasant, different
-ary(ory) revolutionary
-en wooden
-ic(al) historic(al)
-ish blackish
-ive progressive
-ful useful
-less useless
-ly friendly
-ous famous
-some tiresome
-y frosty
За значенням прикметники поділяються на дві групи:
відносні (a brick wall, a wooden table);
якісні (a cold morning, a beautiful flower).

Якісні прикметники характеризуються тим, що мають ступені порівняння і можуть визначатися прислівником (very, quite, so, too, rather).

Ступені порівняння прикметників
(Degrees of Comparison of Adjectives)
Є три способи утворення вищого і найвищого ступенів порівняння (degrees of comparison):
1) за допомогою суфіксів -er, -est;
2) за допомогою слів more, the most;
3) від іншого кореня.
1. Односкладові і ті двоскладові прикметники, що закінчуються на -er, -le, -y, -ow, утворюють ступені порівняння за допомогою суфіксів:

Звичайний ступінь	Вищий ступінь	Найвищий ступінь
Big	bigger	the biggest
hot	hotter	the hottest
wide	wider	the widest
young	younger	the youngest
clever	cleverer	the cleverest
simple	simpler	the simplest
busy	busier	the busiest
narrow	narrower	the narrowest

Зверніть увагу: а) якщо прикметник закінчується на -у з попереднім приголосним, -у змінюється на -і (приклад 7); б) якщо односкладовий прикметник закінчується на приголосний, перед яким стоїть короткий голосний, кінцевий приголосний на письмі подвоюється (приклади 1, 2, 3); в) німе -е опускається перед суфіксами (приклади 3, 6).

2. Багатоскладові і двоскладові прикметники, крім двоскладових, які закінчуються на -er, -le, -y, -ow, ступені порівняння утворюють за допомогою слів more, the most.

Звичайний ступінь	Вищий ступінь	Найвищий ступінь
important	more important	the most important
beautiful	more beautiful	the most beautiful
interesting	more interesting	the most interesting

Якщо вказується на зменшення ступеня, вживаються слова less, the least: difficult (важкий), less difficult (менш важкий), the least difficult (найменш важкий).

3. Деякі прикметники утворюють ступені порівняння від іншого кореня:

Звичайний ступінь	Вищий ступінь	Найвищий ступінь
good	better	the best
bad	worse	the worst
little	less	the least
many / much	more	the most
far	farther	farthest
	further	furthest

Зверніть увагу: прикметник little, що вживається у значенні ―маленький (a little girl), ступені порівняння утворюються так: a small girl, the smallest girl.

Прикметник old має ступені порівняння
elder, the eldest, коли йдеться про членів родини.

4. У порівнянні якостей двох предметів після прикметника у вищому ступені вживається сполучник than (ніж):
In winter the day is shorter than the night.

5. Щоб уникнути повторення назви одного й того ж предмета, вживається слово one: This room is larger than that one.

6. Для порівняння двох предметів однакової чи неоднакової якості вживається прикметник у звичайному ступені, який ставиться між подвійним сполучником
as... as,
not as/so... as:
This book is as interesting as that one.
This book is not as/so interesting as that one.

ЗАЙМЕННИК

Займенник (the pronoun) – це слово, яке не називає предмета, особи, явища, якості та числа, а лише вказує на них.

В англійській мові займенники поділяються на:

1) особові; 2) присвійні; 3) зворотні та підсилювальні;

4) вказівні; 5)питальні; 6) відносні (з'єднувальні); 7) неозначені.

1. Особові, присвійні, зворотні та підсилювальні займенники

називний відмінок	об' єктний відмінок (кому, чому)	присвійний відмінок		зворотній
I we	me us	my our	mine ours	myself ourselves
you	you	your	yours	yourself yourselves
he she it they	him her it them	his her its their	his her its theirs	himself herself itself themselves

2. Вказівні займенники.

Ці займенники мають однину і множину:

однина	множина
this that the same such	these those the same such

3. Питальні займенники.

До питальних займенників належать:

who? (хто?), what? (що? який?), whose? (чий? чия? чиє? чиї?) whom? (кого? кому?), which? (котрий? котра? котре? котрі?), наприклад:

Who came yesterday? What language do you speak? Whose book is this? Who (whom) did you meet last week? Which dress are you going to buy: the blue one or the yellow one?

4. Відносні (з' єднувальні) займенники.

До них належать:

who (хто), whom (кого), whose (чий), what (що, який), which (котрий, який), that (котрий), наприклад:

I know who wrote this novel. I know the man who wrote this novel. I know who (whom) you spoke to. I know whose book that is. I know what you mean. I know which book you are talking about. I know the book which you are talking about. I know that this book is on sale.

5. Неозначені займенники.

Вони діляться на прості і складні.

До простих належать: all, each, some, other, another, any, much, many, little, few, both, one.

Складні неозначені займенники утворюються від простих займенників some, any, no, every додаванням до них -body, -one, -thing (somebody, anybody, nobody, everybody, someone, anyone, everyone, something, anything, nothing, everything).

Займенник some вживається з не обчислюваними іменниками і не перекладається:

Give me some tea, please. – Дайте мені, будь ласка, чаю (мається на увазі якась певна кількість).

В англійському реченні може бути лише одне заперечення, тобто вживається один заперечний займенник.

Наприклад, речення—Ніхто ніколи його не бачив перекладається: "Nobody ever saw him "

ЧИСЛІВНИК

Числівник (the numeral) –частина мови, що виражає
кількість або порядок предметів.

Числівники поділяються на кількісні й порядкові.

Кількісні числівники (cardinal numerals)
означають кількість предметів і відповідають на питання how many? (скільки?)

Порядкові числівники (ordinal numerals) означають порядок при обчислюванні і відповідають на питання which? (котрий?)

ДІЄСЛОВО

Дієслово (the verb) – частина мови, яка означає дію або стан.

Основні форми дієслова

Основними формами англійського дієслова є:

1. Інфінітив (the infinitive);
2. Часові форми.

Дієслово to be

Дієслово to be має три особові форми в теперішньому часі (are, am, is) і дві форми у минулому (was, were).

Дієслово to be може мати:

1. Самостійне значення: The books are on the table.

2. Допоміжне значення для утворення тривалих часів (progressive tenses) і пасивного стану (passive voice):

He is writing a letter. The letter is written.

3. Модальне значення у сполученні з наступним інфінітивом для вираження необхідності виконати дію відповідно до попередньої домовленості чи за попереднім планом:

They are to meet at ten.

4. Значення дієслова-зв'язки: He is a doctor.

Найбільш уживані вирази з дієсловом to be:

to be glad (pleased) – бути радим (задоволеним)

to be happy (delighted) – бути щасливим

to be sad – бути сумним

to be hungry – бути голодним (хотіти їсти)

to be thirsty – хотіти пити, відчувати спрагу

to be healthy (ill) – бути здоровим (хворим)

to be sorry – жалкувати

to be ready for something – бути готовим до чогось

to be late for something – спізнюватися на щось

to be 10 minutes late – запізнитися на 10 хвилин

to be 10 minutes slow (fast) – відставати (спішити) на 10 хвилин (про годинник)

to be comfortable (uncomfortable) – почувати себе зручно (незручно)

to be sure (certain) of something – бути впевненим у чомусь

to be mistaken – помилятися

to be surprised at somebody – дивуватися комусь

to be angry with somebody – сердитися на когось

to be for (against) something (somebody) – бути за (проти) чогось (когось)

to be busy with something – бути занятим чимось.

Дієслово to have

Дієслово to have має дві форми – have і has у теперішньому часі (the simple present tense) і had у минулому (the simple past tense).

Заперечні форми: have not – haven' t, has not – hasn ' t, had not – hadn ' t.

Дієслово to have може використовуватися як:

1. Самостійне дієслово у значенні мати, володіти: We havea TV set.

2. Допоміжне дієслово для утворення перфектних часів (the perfect tenses): We have bought a TV set.

3. Модальне дієслово, що виражає необхідність за певних обставин: We have to buy a TV set.

Вирази з дієсловом to have:

to have breakfast (dinner, supper) – снідати (обідати, вечеряти);

to have a talk – розмовляти to have a swim – поплавати;

to have a good time – добре проводити час;

to have a look – поглянути;

to have something done – зробити щось (за чиєюсь ініціативою) he had his hair cut – він підстригся;

they had their photos taken – вони сфотографувалися (тобто їх сфотографували).

Модальні дієслова (Modal Verbs)

До основних модальних дієслів (modal verbs) належать can, must, may. Після цих дієслів вживаються смислові дієслова без частки to.

Модальні дієслова мають деякі особливості:

1. Не змінюються за особами і числами (тобто не мають закінчення (e)s у третій особі однини):

He can dance.

2. Не мають неособових форм: інфінітива, герундія і дієприкметників.

3. Питальну та заперечну форми утворюють самостійно, без допоміжного дієслова:

May I come in? He cannot.

4. Can і may мають форми теперішнього і минулого часу (could, might), дієслово must вживається лише в теперішньому часі.

Повні і короткі заперечні форми:

can – cannot – can' t

could – could not – couldn' t

may – may not – mayn' t

might – might not – mightn' t

must – must not – mustn' t

shall – shall not – shan' t

should – should not – shouldn' t

will – will not – won' t

would – would not – wouldn' t

must – must not – mustn' t

Can (could)

Дієслово can у сполученні з інфінітивом вживається для вираження можливості чи вміння виконати дію, перекладається українською мовою могти, уміти, бути спроможним і, як і в українській мові, може стосуватися теперішнього і майбутнього часу:

She can speak English. – Вона уміє (може) розмовляти англійською мовою. I can do this work tomorrow. – Я зможу вико-нати цю роботу завтра.

У значенні can (could) може вживатися також і словосполучення to be able to в минулому, теперішньому і майбутньому часі.

They were (are, will be) able to finish their work in time. – Вони змогли (можуть, зможуть) закінчити роботу вчасно.

May (might)

Дієслово may у сполученні з інфінітивом вживається для вираження дозволу і прохання, можливості, припущення, перекладається українською мовою могти, мати змогу, можливо, мабуть:

You may take my umbrella. – Можете скористуватися моєю парасолькою. May I come in? – Чи можна увійти? He may arrive any moment. – Він може прийти будь-якої миті.

Для вираження дозволу в значенні may (might) може вживатися словосполучення to be allowed у минулому, теперішньому і майбутньому часі.

We were (are, shall be) allowed to take part in the competitions. – Нам дозволили (дозволяють, дозволять) брати участь у змаганнях.

Дієслово may може виражати побажання, надію:

May all your dreams come true. – Нехай здійсняться всі ваші мрії.

Must

Дієслово must має лише єдину форму і виражає необхідність, обов'язок і перекладається українською мовою треба, необхідно, мушу, маю, повинен, зобов'язаний:

You must bring this dictionary. – Ви повинні принести цей словник.

У значенні must може вживатися словосполучення to haveto в минулому, теперішньому і майбутньому часі.

She had (has, will have) to read this article. – Вона мала (має) прочитати цю статтю.

У розмовній мові деякі модальні дієслова замінюються іншими модальними дієсловами або еквівалентними конструкціями. Так, необхідність дії можуть висловлювати такі дієслова:

I must go=I should go=I have to go=I've got to go (I gotta go)=I need to go

Замінники модальних дієслів у різних часах

МОДАЛЬНЕ ДІЄСЛОВО	ЗАМІННИКИ		
	PRESENT	PAST	FUTURE
MUST (бути повинним)	HAVE TO HAS TO доводиться	HAD TO довелось	SHALL HAVE TO WILL HAVE TO доведеться
	AM TO IS TO ARE TO повинен, має	WAS TO WERE TO повинен був, мав	—
CAN (могти) COULD (міг)	AM ABLE TO IS ABLE TO ARE ABLE TO може, уміє	WAS ABLE TO WERE ABLE TO міг, умів	SHALL BE ABLE TO WILL BE ABLE TO зможе, зуміє
MAY (могти) MIGHT (можливо)	AM ALLOWED TO IS ALLOWED TO ARE ALLOWED TO може, має змогу, дозволяється	WAS ALLOWED TO WERE ALLOWED TO міг, мав змогу, дозволялося	SHALL BE ALLOWED TO WILL BE ALLOWED TO зможе, буде мати змогу, дозволять

СИСТЕМА ЧАСІВ ДІЄСЛІВ

Groups of tenses			
Simple/Indefinite	**Continuous**	**Perfect**	**Perfect-Continuous**

ACTIVE VOICE - АКТИВНИЙ СТАН ДІЄСЛОВА

Simple/Indefinite Tenses - Проста (Неозначена) група часів

На прикладі дієслова *to ask - запитувати*

Present	**Past**	**Future**
I We ask You They	I We asked You They	I We shall ask/ 'll ask
He She asks It	He She asked It	You They He will ask/ 'll ask She It

Continuous Tenses – Тривала група часів

Present	Past	Future
I am asking	I was asking	I We shall be asking
He She is asking It	He She was asking It	He She will be asking It
We You are asking They	We You were asking They	You They will be asking

Perfect Tenses – Перфектна група часів

Present	Past	Future
I We You have asked They	I We You had asked They	I We shall have asked
He She has asked It	He She had asked It	You They He will have asked She It

Perfect-Continuous Tenses – Перфектно - Тривала група часів

Present	**Past**	**Future**
I We You have been asking They	I We You had been asking They	I We shall have been asking
He She has been asking It	He She had been asking It	You They He will have been asking She It

PASSIVE VOICE - ПАСИВНИЙ СТАН ДІЄСЛОВА

Simple/Indefinite Tenses - Проста (Неозначена) група часів

На прикладі дієслова *to ask - запитувати*

Present	**Past**	**Future**
I am asked We You are asked They	We You were asked They	I We shall be asked
He She is asked It	I He She was asked It	You They He will be asked She It

Continuous Tenses – Тривала група часів

Present	Past	Future
I am being asked	I was being asked	I We ----------
He She is being asked It	He She was being asked It	He She ---------- It
We You are being asked They	We You were being asked They	You They ----------

Perfect Tenses – Перфектна група часів

Present	Past	Future
I We You have been asked They	I We You had been asked They	I We shall have been asked
He She has been asked It	He She had been asked It	You They He will have been asked She It

НЕОСОБОВІ ФОРМИ ДІЄСЛОВА (Non-finite forms of the verb)

Неособові дієслова (non-finite forms of theverb) – не змінюються за особами і самостійно не можуть бути присудком речення і не виражають часу дії. До неособових дієслів належать:
інфінітив (the infinitive),
дієприкметник (the participle)
герундій (the gerund).

Інфінітив (the infinitive)
це незмінювана форма дієслова, яка називаючи дію, вказує на відносний час і відповідає на питання що робити? що зробити?:
to ask, to understand.

Дієприкметник (the participle)
це форма дієслова, що має властивості дієслова, прикметника і дієприслівника. В англійській мові є два прикметники –

- дієприкметник теперішнього часу (the present participle або participle I)
- дієприкметник минулого часу (the past participle або participle II).

The present participle вживається для вираження дії відносної дії, яка виражена дієсловом-присудком:
Watching TV hesat in the armchair.
Крім того, the present participle використовується для утворення часів групи progressive tenses: We are watching TV now.
Крім власне дієприкметникової функції (a written letter, the article translated today), the past participle вживається для утворення пасивного стану.

Герундій (the gerund) – це форма дієслова із закінченням -ing, що має властивості дієслова й іменника: asking, understanding.
В українській мові подібна форма відсутня. З чотирьох існуючих форм герундія ми розглядаємо лише просту:
Reading is my favorite occupation. He is fond of skating.
За формою герундій збігається з дієприкметником теперішнього часу (the present participle) і віддієслівним іменником (the verbal noun).
Герундій, віддієслівний іменник і дієприкметник теперішнього часу мають однакову форму і тому викликають певні труднощі при їх розпізнанні.

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ЗМІСТ