

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
ПОЛТАВСЬКА ДЕРЖАВНА АГРАРНА АКАДЕМІЯ
Кафедра іноземних мов і українознавства

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ENGLISH

FOR SPECIFIC PURPOSES

Навчальний посібник

**з дисципліни «Іноземна мова за професійним спрямуванням(англійська)»
для здобувачів вищої освіти спеціальності
«Технологія виробництва та переробки продукції тваринництва»**

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INTRODUCTION

У зв'язку з інтеграцією України в європейський простір виникла необхідність підготовки висококваліфікованих фахівців аграрного сектору, зокрема, спеціалістів-технологів з виробництва і переробки продукції тваринництва.

Навчальний посібник призначений для здобувачів вищої освіти спеціальності «Технологія виробництва і переробки продукції тваринництва» з метою їх подальшої роботи у цій галузі.

Навчальний посібник складається з таких структурних частин: вступ, перша частина (6 розділів: «Standard English grammar», «Ukraine and the United Kingdom», «English speaking countries», «The Livestock», «Actual issues of livestock», «Business correspondence»), друга частина (граматичний довідник), глосарій аграрних термінів, словник та список використаної літератури.

Кожне заняття містить текстовий матеріал, лексичні та граматичні вправи. Матеріали, які запропоновано для вивчення, сприятимуть удосконаленню умінь та навичок монологічного й діалогічного мовлення, оволодінню необхідною професійною лексикою, основами країнознавства та граматичним мінімумом англійської мови.

Післятекстові завдання дають змогу не лише перевірити розуміння здобувачами вищої освіти вивченого матеріалу та закріпити необхідні лексичні одиниці, але й дати їм можливість розвивати зв'язне мовлення. Увесь комплекс вправ сприяє засвоєнню основного матеріалу, необхідного для здобувачів вищої освіти спеціальності «Технологія виробництва і переробки продукції тваринництва».

Посібник розроблено на основі сучасних принципів навчання іноземній мові з урахуванням пізнавальних і комунікативних потреб майбутнього фахівця аграрного сектору.

Навчальним посібником можуть користуватися як здобувачі вищої освіти спеціальності «Технологія виробництва і переробки продукції тваринництва», так і всі, хто працює у цій галузі.

UNIT 1. STANDARD ENGLISH GRAMMAR

1.1. I AM A STUDENT (GRAMMAR: VERB “TO BE”)

1. Read the text about Rob and answer the questions.

Hello! My name's Rob Fellows. I come from Dundee, a town on the east coast of Scotland, but I'm a student at Durham University, in the North of England. I'm studying French and German, and I can speak the languages quite well. I also know a little Spanish, so I can speak four languages. I'm enjoying the course a lot, but it's very hard work! I live in Durham Castle, because the Castle is part of the University, with about thirty other students. The course started two years ago, and I'm in my third year. After the course I'm going to work in France, but I don't know where yet.

1. What's his surname?
2. Where does he come from?
3. What is he studying?
4. How many languages does he speak?
5. Is he enjoying studying?
6. Where does he live?
7. Who does he live with?
8. When did the course start?

2. Match the questions and the answers.

Questions

1. Where were you born?	2. What is your name?
3. How old is he?	4. What nationality are you?
5. Where are you from?	6. Where does she come from?
7. Is he married?	8. What do you do?
9. What is her job?	10. What sort of music do you like?
11. Why are you learning English?	12. Where is Lviv?
13. When is your birthday?	14. What is his surname?

Answers

1. I'm English.	2. My name is Paul.
3. I was born in Poltava.	4. She is a secretary.
5. I like classical music.	6. She is nine.
7. My birthday is on the fifth of April.	8. His surname is Petrenko.
9. I'm from Ukraine.	10. I go to school.
11. He is single.	12. She comes from London.
13. It is in the west of Ukraine.	14. Because I need it in my job.

3. Put a suitable word into each gap.

My ... is Laura Batistini. I'm 19 ... old and I'm from Buenos Aires ...Argentina. I've ... two brothers and ... sister. I'm ... youngest. One of my brothers ...married. He and ... wife live I Australia. My mother is a teacher. ... teaches mathematics. My father is ... doctor. ...works in a hospital ... Buenos Aires. My ... comes from Spain. She met my father when ... were students together in Madrid. They got married and went ... live in Argentina. My father ... born in Argentina, but ... grandparents came from Italy. That's why I've got ... Italian name. I like fashion, listening ... pop music, reading novels and singing. I learnt English ... school in Argentina. Now I want ... go to University to ... medicine, ... I want to be a doctor. Most of all I'd ... to travel to other countries. That's why ... want to learn English.

4. Read and discuss the text.

A family is a little world created by love

A family is a little world. It has its own territory which is a house or a flat. It has its own population. These are the family members. They speak their own language. If people are kind to each other, they have good relationships, and the family is friendly. All the families have their own rules. The most important rule is to respect each other. Family members must share their household chores, and then they will have more free time to spend together. Our aunts, uncles, nieces, nephews and cousins are our relatives. We meet at the weekends and for holiday celebrations. This helps us to keep the family traditions with great honour. We love each other and never argue. We help and support each other. This helps our family to be a unit, a little world created by love. Everyone in our family is unique. We look alike in appearance, but we are different in our characters, hobbies and interests.

5. Complete the sentences.

1. A friendly family is a family where
2. There are many ways to please your parents. You can
3. I usually help my parents willingly. I ... every day. I ... once (twice, three times etc.) a week.
4. My grandmother and grandfather like it, when

6. Answer the questions.

1. When is the family friendly?
2. What is the most important rule in the family?
3. Why do family members have to share their household chores?
4. How often do the relatives meet?
5. Why is it important to keep family traditions?

7. How well do you know your friend? Discuss your answers with your best friend to see how accurate they are.

My best friend's
name is _____
nickname is _____
age is _____
birthday is _____
birthplace is _____
My best friend's favourite
food is _____
hobby or interest is _____
sport or game is _____
type of book is _____
kind of music is _____
movie is _____
subject at school is _____
television program is _____

8. Complete each sentence that tells us what you're feeling about friends is.

1. Friends are important to me because...
2. I need a friend when...
3. Friends think that I am...
4. Friends like me because...
5. I feel happy when a friend...
6. I feel unhappy when a friend...
7. My friends make me angry when...
8. When a friend teases me, I usually...
9. I like being with people who...
10. I would rather not waste time with people who...
11. I enjoy talking with my friends about...
12. Some things I enjoy doing with my friends are...
13. A special quality that I admire in friends is...
14. Something I could do to become a better friend is...
15. Someone I would like to know better is...

VERB "TO BE"

1. Answer the following questions.

1. What is your name?
2. How old are you?
3. What is the weather like today?
4. Where are you from?
5. What is your favourite occupation?
6. How many are you in

the family? 7. What are your parents? 8. Where are they now? 9. What day of the week is it? 10. What's the date?

2. Give short answers in the affirmative or negative.

Pattern: *Are you ready? – Yes, I am/No, I am not.*

1. Are you a student? 2. Are you a second-year student? 3. Is your friend a good student? 4. Is your name Taras? 5. Are you eighteen? 6. Are you from Kyiv? 7. Is your friend from Lviv? 8. Are your parents managers? 9. Are they at home now? 10. Is it Sunday today? 11. Is it cold today? 12. Are you happy?

3. Make the following sentences interrogative and negative.

Pattern: *My friend is here. Is my friend here? My friend isn't/is not/ here.*

1. I am right. 2. They are second-year students. 3. They are very busy at that time. 4. Their favourite subject is English. 5. Our teacher is from Kharkiv. 6. Mathematics is one of the most difficult subjects. 7. The weather is very rainy in May. 8. They are in the classroom now. 9. It is the end of the term. 10. They are teachers. 11. This exercise is easy. 12. The days are fine in August. 13. Her parents are in London now.

4. Fill in the blanks with *am, is or are*.

1. Taras ____ a student. Who ____ a student? Taras ____ . 2. ____ you a student? Yes, I ____ . 3. ____ Nina a student? No, she ____ not. What ____ she? She ____ an economist. 4. ____ they managers? Yes, they ____ . 5. ____ you a financier? No, I ____ not. What ____ you? I ____ a student. 6. ____ they teachers? No, they ____ not. What ____ they? They ____ businessmen. 7. ____ Peter a businessman? No, he ____ not. What he? He ____ an engineer. 8. Where ____ your friend? He ____ in the library. 9. Where ____ the students? They ____ in the classroom.

5. Complete the disjunctive questions.

Pattern: *It is far from Lviv, ... ? – It is far from Lviv, isn't it?*

a) 1. You are a student, ... ? 2. You are tired, ... ? 3. They are on holiday, ... ? 4. She is in her office today, ... ? 5. He is angry, ... ? 6. Those are your gloves, ... ? 7. It's very expensive, ... ? 8. These are Susan's glasses, ... ? 9. That is Mike's dictionary, ... ? 10. Mary is intelligent, ... ?

b) 1. Ann isn't at home, ... ? 2. You aren't afraid of snakes, ... ? 3. She is never late for class, ... ? 4. The children aren't surprised, ... ? 5. Your sister isn't married, ... ? 6. That isn't Tom, ... ? 7. I am not fat, ... ? 8. English Grammar isn't easy, ... ? 9. These books aren't yours, ... ? 10. Nothing is wrong, ... ?

6. Project Work.

Talk with your relatives and find the family photos, letters, diaries, etc. Draw your family tree. Tell your group mates about your family story and the things that have helped you to gather the information.

1.2. MY WORKING DAY (GRAMMAR: PRESENT SIMPLE)

1. In pairs, ask and answer the following questions.

1. What do you do in the morning on Wednesdays?
2. What do you do in the morning at the weekends?
3. What do you do in the afternoon on Mondays?
4. What do you do at night at the weekends?
5. What do you do at Christmas night?

2. Carry out a survey. Choose one of these subjects and find out how long each student spends doing it.

Watching TV, eating, surfing the internet, learning English, helping others, cooking, drinking coffee, sitting on public transport , speaking on the phone, walking

3. Read the text and discuss it.

Life would be very boring without hobbies; we would appear like robots, without feelings, like colour blind creatures, like aliens on our own planet. Hobbies give sense to our existence. Since early childhood we have a daily routine, since our first nursery school day. Therefore, in order to keep a balance between busy moments and free time we take up hobbies.

We could talk about a long list of hobbies or about a list of hobbies and interests. These lists are different, depending on factors like age, sex, region, family background, education or personality.

For example, let's start a list of hobbies according to age. When we are small children, our hobbies may be:

1. Playing computer games: there are kids who don't do to the kitchen for eating, they ask for their food to be taken in front of the computer, and they are terribly angry if somebody disturbs them when they play a game.
2. Watching cartoons: a lot of kids watch cartoons so that they learn their replicas by heart. Cartoons which lead to hobbies are Disney ones and recently ScoobyDoo.
3. Taking up different sports: football, handball, basketball, gymnastics, and volleyball.
4. Playing a musical instrument: piano, guitar.

5. Looking after a pet: cat, dog, hamster, fish, and parrot.
6. Bird watching.
7. Horse riding.
8. Collecting things: stamps, badges, postcards, pens.

There are a lot of hobby ideas; you may even make a list of hobby ideas:

1. Body painting.
2. Underwater photography.
3. Rice sculpture.
4. Exploring extra sensorial capacities, through different methods like hypnosis.
5. Aerobics in the water.
6. Animal communication.
7. Making stunts.
8. Cooking zany food.
9. Making robots.
10. Stars watching.
11. Taming wild animals.
12. Exploring volcanoes and underwater caves.
13. Hobbies related to the religions of the world.
14. Travelling and exploring exotic countries.

An unusual hobby is to make garden decorations from stone and cement, with glass patterns. They are easy to be made and they are not very expensive, as when we take up a hobby, we must also take into account whether it is expensive or affordable. There can be different shapes, which can be found in shops, or you may use food containers. You can create models from glass, ceramics, metal or any other material which may look good in your garden.

These hobbies can be taken up by both boys and girls.

Teenagers change their hobbies or add new hobbies to the list. Now we can talk about a list of hobbies and interests. They are mainly having following interests:

1. Music, dancing, disco: they have usually a model in life from the showbiz and they collect everything about them.
2. Sport, even extreme sports. Those can be divided into indoor sports and outdoor sports.
3. Fitness, especially those girls or women who are afraid of putting on weight.
4. Cars and scooters – not just the driving but gaining detailed knowledge about their parts, different specifications of different models, their functions etc.
5. Computers, not necessarily games: they are interested in chatting with friends, sometimes with friends from other countries made on the internet.
6. Movies, actors and actresses.

The most courageous ones may take up extreme sports like:

1. Bungee jumping.
2. Hang gliding.
3. Parachuting.
4. Windsurfing.
5. Hot air ballooning.

If you live in a mountain area, you may have hobbies like mountain climbing, you may be interested in different species of plants, animals, birds or insects which have the habitat in your area, or you may have as hobby painting landscapes, or taking photos. If you have a nice voice, you may start singing and even making a band.

According to sex, I can say that girls and later women are interested in:

1. Fashion.
2. Cosmetics.
3. Astrology, yoga, magic.
4. Cooking.
5. Child care.
6. Diets.
7. Natural remedies.
8. Knitting.
9. Sewing.

Special hobbies taken up by men, in general are:

1. Football or any other sport.
2. Computers – today everything of yesteryears has been changed by computer revolution. There is much more than just games... It in fact opens a great large window of knowledge for everyone.
3. Movies.
4. Travelling.
5. Driving.
6. Riding motorbikes.
7. Mountain climbing.
8. Photography – there is much more than just clicking. There are various types like still photography, digital photography and various techniques like adjusting range, light and shadow, printing techniques.
9. Reading – Book are treasure of knowledge and this hobby will certainly come helping a long way in life.
10. Playing cards (which may even lead to gambling and addiction).
11. Fishing, especially in the case of extremely calm people.
12. Playing chess or backgammon, or GO.

Family background is also important in taking up a hobby. For example, in a family where one of the members is an artist, it is very probable that their children or

sportsperson have the same hobbies or interests. Hobbies depend on personality. A choleric person could never take up a hobby like making models, as he or she would not have the patience necessary. Actually, life is great and you can make a hobby out of the most insignificant thing, with a little imagination, and it will help you have a positive thinking, and you even might consider you a happy person, even if from philosophical point of view happiness can be reached very rarely and only by a few people.

4. Carry out a survey. Find out who has:

- the most dangerous hobby;
- the most expensive hobby;
- the most interesting hobby;
- the most boring hobby.

The Present Indefinite Tense

1. Put the following sentences into the singular.

Pattern: *They wish to speak to you. – He wishes to speak to you.*

1. They help their father. 2. Buses pass my house every hour. 3. His sons go to the local school. 4. They usually catch the 8.10 bus. 5. The rivers freeze in winter. 6. They fish in the lake. 7. The children like sweets. 8. My friends study English. 9. Do they like boiled eggs? – Yes, they do. 10. These figures astonish me. 11. They wash the floor every week. 12. They dress well. 13. They sometimes miss English lessons. 14. The taxes rise every year. 15. What do they do on their days off? – They do nothing. They lie in bed all day.

2. Give short and full answers.

1. Do you remember your first teacher? 2. Do you speak English with your friends? 3. Do you always look very well? 4. Does your friend live in the hostel? 5. Does your father smoke? 6. Does it often rain here in July? 7. Don't you go shopping every day? 8. Do the students like all the subjects they study? 9. Do you often miss English lessons?

3. Make the following sentences interrogative and negative.

Pattern: *His parents live in Kyiv. Do his parents live in Kyiv? His parents don't /do not/ live in Kyiv.*

1. The students make a lot of mistakes in their dictations. 2. My brother lives in Odessa. 3. My cousin wants to become a manager. 4. His parents work at a machine-building plant. 5. Our family go to the South in July. 6. We listen to the radio in the morning. 7. It often snows in November. 8. You meet him every day. 9. You know the

answer. 10. They realize the danger. 11. He has breakfast at 8 o'clock. 12. She agrees with you.

4. Use *always, usually, often, sometimes, seldom, rarely* and *never* to talk about your daily activities.

1. get up at 7 o'clock 2. do my morning exercises 3. have breakfast 4. feel very terrible 5. drink coffee in the morning 6. drink more than two cups of coffee 7. come to class on time 8. come to class late 9. speak English in the classroom 10. study in the library 11. do my homework 12. go to bed early 13. go to bed after midnight 14. sleep well.

5. Ask questions about the time of the action.

1. My classes begin at a quarter past eight. 2. I usually have lunch at half-past twelve. 3. It snows in winter. 4. My parents come home late. 5. Alice works in the laboratory on Wednesdays. 6. I get up early on weekdays. 7. After classes the students study in the library. 8. Snow melts in spring. 9. He finishes work at 6 o'clock. 10. They spend their holidays in the Crimea.

6. Ask questions about the place of the action.

1. My aunt and uncle live in Canada. 2. My parents spend their holidays in the country. 3. Many birds fly to the South in autumn. 4. He wants to go there very much. 5. The Browns always go to the seaside in summer. 6. The sun rises in the East. 7. The teacher corrects our exercises in class. 8. She teaches English at the University. 9. He spends much time in the garden. 10. I buy my clothes at a department store.

7. Put questions to the italicized words.

1. *My friend* is an economist. 2. *He* knows English well. 3. *The students of our group* usually get good marks. 4. *Ann* helps *her mother* about the house. 5. *We* go to the park at the weekend. 6. At the lessons we *read and speak* English. 7. *They* don't know *his address*. 8. *My father* goes to *his work* five days a week.

8. Complete the disjunctive questions.

1. You don't know French, ... ? 2. She doesn't believe you, ... ? 3. He puts the money in the bank, ... ? 4. You don't agree with Bill, ... ? 5. He never takes advice, ... ? 6. They don't want to sell the house, ... ? 7. You put sugar in tea, ... ? 8. But you don't put it in coffee, ... ? 9. The rivers freeze in winter, ... ? 10. He loves her, ... ? 11. It doesn't hurt, ... ?

9. Explain the use of the Present Indefinite Tense.

1. She lives in Kyiv with her mother and two brothers. 2. He speaks both French and English fluently. 3. The Dnipro runs into the Black Sea. 4. He likes reading Ukrainian newspapers. 5. I don't understand this grammar rule. 6. If he comes, I shall ask him about it. 7. I always get up at 7 o'clock. 8. The steamer sails tomorrow. 9. Tom looks very well. 10. I don't recognize that man. 11. He relaxes at weekends. 12. The Earth moves round the Sun.

10. Tell your friend what you usually do.

a) at the English lessons:

to read the texts, to ask and answer questions, to translate the sentences from Ukrainian into English, to write dictations, to learn new English words, to listen to the tape, to repeat after the speaker, to listen to the teacher, to write tests;

b) at the lectures or seminars:

to listen to the lecturer, to make notes, to ask and answer questions, to make a report, to take part in the discussion, to clear up, to write tests.

11. Memorize the following proverbs.

1. The dogs *bark*, but the caravan *goes on*. 2. Barking dogs seldom *bite*. 3. All *is* well that *ends* well. 4. Health *is* above wealth. 5. Great ship *asks* deep water. 6. Tastes *differ*. 7. Even Homer sometimes *nods*. 8. A new broom *sweeps* clean.

1.3. OUR ACADEMY

(GRAMMAR: THERE IS / ARE. PRESENT PERFECT. NOUN. PRONOUN. NUMERAL)

1. Tell each other about the school you went to as a child.

Where it was, a teacher you admired, a good friend, favourite subjects, the best/
the worst subjects

2. Read, translate and retell the text.

Poltava State Agrarian Academy (PSAA) is a higher educational establishment of 4th level of accreditation, a heart of science, education and culture in Poltava region with a long ancient history and dateless pedagogical traditions. Over a century our educational institution has been training highly-skilled professionals for all branches of agriculture and economy of our state, creative and intelligent people, scientists well-known in Ukraine and abroad who have made a great contribution in development of agriculture, education and science as well as formation of social and political ideas.

Nowadays PSAA is a multispectral research and educational complex which includes all elements of grade and postgraduate courses. All of these elements are

components of European educational system and amenably to the standards of Bologna declaration. PSAA includes 6 institutes, 7 departments, 7 colleges and technical secondary schools and the center of pre-enter training.

Our academy is an advanced educational, research and educational, cultural and youth center of Poltava region that corresponds to modern level of high education, actively reacts to requirements of market economy, ensures development of national agrarian sector, culture, formation of elite of Ukrainian society.

3. Write down your university timetable. Use the following timetable as an example.

Monday: History Agronomy Philosophy Ukrainian English	Tuesday: Biology Sport Chemistry Art Chemistry	Wednesday: Art Philosophy English Mechanization Selection	Thursday: English Computing History Agronomy Maths	Friday: Computing Maths Biology Ukrainian Sport
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4. Make a list for:

- the most / the least popular subjects;
- the most / the least useful subjects.

The Noun: Singular and Plural

1. Give the plural of the following nouns.

Student, economist, field, day, mark, month, faculty, facility, branch, ox, box, potato, photo, zero, loaf, wife, wolf, life, kerchief, man, child, foot, goose, deer, crisis, basis, text-book, daughter-in-law, woman-teacher.

2. Give the singular of the following nouns.

Managers, classrooms, specialists, banks, paths, classes, keys, libraries, activities, cargoes, heroes, pianos, halves, leaves, calves, chiefs, safes, beliefs, women, teeth, phenomena, sheep, boy-friends, sons-in-law.

The Construction “there + to be”

1. Make the following interrogative and negative.

There are several bookshops in this street.

Are there several bookshops in this street?

There aren't /are not/ several bookshops in this street.

1. There is a telephone in this room. 2. There are fifteen students in our group. 3. There are some interesting articles in this newspaper. 4. There is somebody in the

room. 5. There is something on the table. 6. There is a lot of fish in this river. 7. There is too much snow on the roof of the house. 8. There is too much water in the lake in spring.

2. Memorize the following proverbs.

1. *There are spots even on the sun.* 2. *There are more ways to the wood than one.* 3. *Where there is a will, there is a way.* 4. *There is no rose without a thorn.* 5. *There is a place for everything, and everything in its place.* 6. *There is more than one way to kill a cat.* 7. *There is no fire without smoke.* 8. *There is no place like home.* 9. *When a friend asks, there is no tomorrow.* 10. *There is no royal road to learning.*

The Pronoun: Personal and Possessive

1. Choose the correct pronouns in italics.

1. Nick had dinner with *I, me*. 2. *I, me* had dinner with Nick last night. 3. He waited *we, us* in the car. *We, Us* hurried. 4. Please take these food scraps and give *it, them* to the dog. 5. Ted invited *I, me* to go to the game with *he, him*. 6. Alex bought a ticket to the soccer game. He put *it, them* in his pocket and forgot about *it, them*.

2. Use the absolute form of possessive pronouns.

Pattern: *her advice – advice of hers; my friend – a friend of mine;*

Your cousin; her sister; our children; my daughter; my family; her niece; their relatives; your son; their grandson; my parents; my sister-in-law.

3. Choose the correct pronouns in italics.

1. Children should obey *his, their* parents. 2. Excuse me. Is this *my, mine* dictionary or *your, yours*? – This one is *my, mine*. *Your, yours* is on *your, yours* desk. 3. Fruit should be a part of *your, yours* daily diet. *It, they*, is good for *you, them*. 4. Julie fell off her bicycle and broke *hers, her* arm. 5. Mary had to drive *my, mine* car to work. *Hers, her* had a flat tire. 6. Those seats are not *your, yours*, they are *our, ours*. 7. I have a wonderful family. *I, me* love *it, him, them* very much, and *he, they*, love *I, me*.

The Present Perfect Tense

1. Make the sentences interrogative and negative.

1. The students have passed all their exams. 2. They have answered all the questions. 3. You have solved the problem. 4. Something has happened to your friend. 5. She has changed much. 6. Jane has made a lot of mistakes in her dictation. 7. We have met him before. 8. The rain has stopped. 9. Our teacher has just returned from London. 10. I have been there very often.

2. Give short and full answers.

1. Have you ever been to London? 2. Have you ever travelled by air? 3. Have you had any dictations this month? 4. Has Kate revised the grammar rules yet? 5. Have they passed their exams? 6. Have they read much about Great Britain? 7. Have you kept your promise? 8. Has the post come? 9. Have you ever driven the car? 10. Has the lecture begun?

3. Answer the questions.

1. How many classes have you had so far today? 2. How many classes have you missed since the beginning of the term? 3. How many questions have you asked so far? 4. How many tests have you taken since the beginning of the term? 5. How many cups of coffee have you had since you got up this morning? 6. How many cigarettes have you smoked today? 7. Where do you live? How long have you lived there? 8. How long have your parents been married?

4. Ask and answer questions according to the pattern.

Pattern: *be to Europe – Have you ever been to Europe? Yes, I have. I've been to Europe many times.*

1. be to Great Britain 2. eat Chinese food 3. ride a horse 4. be to Lviv 5. catch a butterfly. 6. use a computer 7. smoke a cigar 8. fall asleep during class 9. lose anything valuable 10. drink Turkish coffee 11. win something in the lottery 12. sleep in a tent in 1996. 7. I saw him last on his wedding day. 8. It's two years since I was last in Lviv.

5. Put the verbs in brackets into the Present Perfect.

1. He (*be*) in hospital for ten days. 2. We (*know*) each other for a long time. 3. She (*buy*) this book in London. 4. You (*get*) the wrong number. 5. He (*not smoke*) for two weeks. He is trying to give it up. 6. The play just (*begin*). You are a little late. 7. The manager (*sign*) the letter. 8. I can't go out because I (*not finish*) my work. 9. The students (*work*) very well this term. 10. Is Father at home? No, he (*not come*) yet. 11. I (*not see*) him since January. I wonder where he is. 12. George (*read*) the newspaper already. 13. The newspaper (*come*)? – Yes, Ann is reading it. 14. My brother (*write*) several plays. He just (*finish*) his second tragedy. 15. I (*write*) the letter but I can't find a stamp. 16. We (*miss*) the bus. Now we'll have to walk.

NUMERALS

Cardinal Numerals (how many?)		Ordinal Numerals (Which?)
1	one	first
2	two	second
3	three	third
4	four	fourth
5	five	fifth
6	six	sixth
7	seven	seventh
8	eight	eighth
9	nine	ninth
10	ten	tenth
11	eleven	eleventh
12	twelve	twelfth
13	thirteen	thirteenth
14	fourteen	fourteenth
15	fifteen	fifteenth
16	sixteen	sixteenth
17	seventeen	seventeenth
18	eighteen	eighteenth
19	nineteen	nineteenth
20	twenty	twentieth
21	twenty-one	twenty-first
22	twenty-two	twenty-second
23	twenty-three	twenty-third
24	twenty-four	twenty-fourth
25	twenty-five	twenty-fifth
26	twenty-six	twenty-sixth
27	twenty-seven	twenty-seventh
28	twenty-eight	twenty-eighth
29	twenty-nine	twenty-ninth
30	thirty	thirtieth
40	forty	fortieth
50	fifty	fiftieth
60	sixty	sixtieth
70	seventy	seventieth
80	eighty	eightieth
90	ninety	ninetieth

100	a hundred	hundredth
1,000	a thousand	thousandth
1,000,000	a million	millionth
140	a/one hundred and forty	
400	four hundred	
1,006	a/one thousand and six	
5,000	five thousand	
260,127	two hundred and sixty thousand, one hundred and twenty-seven	
Dates	March 10, 1998 – the tenth of March nineteen ninety-eight <i>or</i> March the tenth nineteen ninety-eight	
Fractional Numerals	<p>Common Fractions: $\frac{1}{2}$ – a half; $\frac{1}{4}$ – a quarter;</p> <p>$\frac{1}{5}$ – a/one fifth;</p> <p>$\frac{3}{5}$ – three fifths;</p> <p>$1\frac{1}{2}$ – one and a half;</p> <p>$3\frac{4}{5}$ – three and four fifths;</p> <p>Decimal Fractions: 0.1 – nought point one;</p> <p>10.92 – ten point nine two;</p> <p>8.04 – eight point nought four;</p>	
Percentage	a kind of decimal fraction, denominator of which is always 100: 2 % – 2 per cent — 2 p.c. – two per cent.	

1. Write in words and read the following.

a) cardinal numerals.

2; 12; 20; 9; 19; 90; 100; 999; 21; 205; 705; 1,000; 4,568; 6,008; 15,500; 75,137; 321,103; 1,306,527; 257,382,761;

b) ordinal numerals.

1; 11; 3; 13; 30; 4; 14; 40; 5; 15; 50; 8; 18; 80; 100; 103; 230; 300; 425; 563; 705; 892; 1,015;

c) fractional numerals.

$\frac{1}{2}$; $\frac{1}{4}$; $\frac{1}{5}$; $\frac{1}{7}$; $\frac{1}{25}$; $\frac{2}{5}$; $\frac{3}{8}$; $\frac{9}{23}$; $1\frac{1}{2}$; $1\frac{3}{5}$; $2\frac{5}{7}$; $4\frac{1}{6}$; 0.1; 0.25; 3.5; 2.34; 5.37; 12.3; 52.51;
132.054;

d) dates.

2.01.46; 1.09.98; 22.10.28; 5.04.61; 29.05.40; 12.08.30; 30.11.82.

TEST 1

1. *I am a ... student.*

a) worker; b) businessman; c) first-year.

2. *I ... at Poltava State Agrarian Academy.*

a) learn; b) study; c) have.

3. *I ... to tell you about my family.*

a) would like; b) like to; c) want to.

4. *I ... 18.*

a) have; b) has; c) am.

5. *My ... is Olena.*

a) mother name; b) mother's name; c) mothers name.

6. *My ... are retired.*

a) friends; b) grandparents; c) departments.

7. *I like ... very much.*

a) playing football; b) to play in football; c) to play football.

8. *Poltava State Agrarian Academy is one of the biggest*

a) form of education; b) educational establishment; c) branch of agriculture.

9. *There are 6 ... at our academy.*

a) extra-mural forms of education; b) preparatory departments; c) departments.

10. *The teaching ... numbers more than 400.*

a) staff; b) devices; c) lectures.

11. *Each year of study consists of two*

a) exams; b) semesters; c) tutorials.

12. *The course of studies ... for five years.*

a) consists; of b) includes; c) lasts.

13. *The students of our academy ... in research.*

a) are engaged; b) has; c) take.

14. *Those students who pass the exams successfully are eligible for*

a) scholarship; b) diploma; c) equipment.

15. *The academy ... in five buildings.*

- a) placed on; b) have; c) is housed.
16. The students ... exams and tests.
a) has; b) take; c) are.
17. Our students have all modern ... at their disposal.
a) library; b) magazine; c) facilities.
18. During the semester students ... lectures and seminars.
a) attend; b) visit; c) miss.
19. Students can ... in many different types of sports.
a) participate; b) have; c) are.
20. ... the students receive diplomas.
a) When finish; b) Upon graduation; c) After dormitories.
21. Vegetables are grown in the
a) kitchen-garden; b) garden; c) orchard.
22. Fruits are grown in the
a) kitchen-garden; b) garden; c) orchard.
23. Fruit trees can be found in the
a) field; b) garden; c) orchard.
24. ... is a building for hens, geese, turkeys and etc.
a) poultry house; b) workshop; c) hen house.
25. Animals .. on the farm.
a) are kept; b) have; c) dig.
26. We ... strawberry.
a) harvest; b) gather; c) pick up.
27. A sow usually produces from 6 to 12
a) kids; b) piglets; c) calves.
28. Vegetable seeds are sown in the
a) buildings; b) gardens; c) greenhouses.
29. We ... potatoes in August.
a) dig; b) plant; c) harrow.
30. We take water from a
a) well; b) sow; c) crops.

UNIT 2. UKRAINE AND THE UNITED KINGDOM

2.1. UKRAINE. AGRICULTURE OF UKRAINE

Active Vocabulary:

government – уряд

anthem – гімн

to border on – межувати з

total area – загальна площа

mountain – гора

tributary – притока

moderate – помірний

fertile – родючий

black soil – чорнозем

agricultural – аграрний

to be rich in – бути багатим

equipment – устаткування

instrument – прилад

consumer goods – споживчі товари

legislative – законодавчий

executive – виконавчий

judicial – судовий

to be elected – бути обраним

1. Read the text.

Ukraine is situated in the south-eastern part of Central Europe and has its own territory, government, national emblem, flag and anthem. It borders on Russia, Byelorussia, Moldova, Slovakia, Romania, Hungary and Poland on land and Russia, Georgia, Bulgaria, Romania and Turkey on sea. The population of Ukraine is over 47 million. The total area of the country is 603,700 km² (45th country in size). The capital of Ukraine is Kiev.

The territory of Ukraine is mostly a level, treeless plain, called “steppe”. There are the Crimean Mountains in the Crimean peninsula and the Carpathians in the west, but they are not very high. The territory of our country has an astonishing variety of landscapes. We have high mountains, vast steppes, endless forests, beautiful rivers and lakes. The largest lake of Ukraine is Swytyaz, its total area is 24.2 square kilometres and the depth is 58.5 metres. Ukraine has 131 rivers; among them is the Dnieper with its tributaries such as the Desna, the Prypyat, the Dniester, the Bug, and the Donets.

The flora and fauna of our country are extremely rich. The climate of the country is moderate. Winter is rather mild, with no severe frosts but with regular snowfalls everywhere except the south. The rivers and lakes freeze in winter. The average winter

temperature varies from –20 Centigrade in the north to –5 in the south. Summer is quite hot and dry, with occasional showers and thunderstorms. The fertile black soil is well watered in spring and autumn and gets plenty of sunshine in summer.

The country is rich in natural resources, such as iron ore, coal, colour metals, oil, gas, mineral salts, clay and potential water power. It has developed industry, concentrated mostly in and around such big cities as Kyiv, Zaporizhiiia, Dnipro, Odessa, Kharkiv, Lviv and others. It produces planes and ships, lorries and busses, motorcars and locomotives, computer and electronic equipment, precision instruments and agricultural machines, TV and radio sets, chemicals and textiles and various consumer goods. Odessa, Sevastopol, Kherson and Kerch are main Ukrainian ports.

Due to the favorable climatic conditions, Ukraine is traditionally an agricultural area. It grows wheat, maize, buckwheat and other corn, red and green vegetables, all kinds of fruit, melons and berries. Ukraine is one of the world's main centers of sugar production. It produces sugar both for its own needs and for export.

Ukraine is a parliamentary-presidential democracy with separate legislative, executive, and judicial branches. The Declaration of Ukrainian Independence was proclaimed on August 24, 1991 by the Ukrainian Parliament. The President of Ukraine is elected by countrywide popular vote and is the head of the executive branch. The Prime Minister is appointed by the 450-seat parliament, the Verkhovna Rada. The parliament also approves the Cabinet of Ministers, offered by the Prime Minister and the President. The heads of all central agencies and regional and district administrations are appointed by the President.

Ukraine is subdivided into twenty-four oblasts (provinces) and one autonomous republic, the Crimea. Additionally, two cities, Kyiv and Sevastopol, have a special legal status.

Ukraine has its own original culture and art. Ukraine has many professional theatres and Philharmonic societies. The National Symphony Orchestra of Ukraine, the Gryhory Veryovka Ukrainian People's Choir, and the Dance Company of Ukraine are known not only in the country but all over the world.

Over the last years people of Ukraine display a keen interest in the Ukrainian history and artistic heritage. There is a new approach to the development of culture, arts and languages.

2. Complete the sentences.

U. is situated in ____; U. ____ is washed by ____; U. ____ borders on ____; the total area of U. is ____; the population of U. is ____; the capital of U. is ____; the main rivers are ____; the climate is mostly ____; U. is rich in ____; the main industrial centres are ____; U. produces ____; as an agricultural country U. grows ____; as for political system U. is a ____; the head of the state is ____; U. is subdivided into ____; U. is also famous for its ____.

3. Complete the table.

Location	
Total area	
Border countries	
Capital	
Population	
Mountains	
Main rivers	
Climate	
Natural resources	
Main industries	
Main industrial centres	
Agricultural products	
Political system	
The Declaration of Independence	
Head of the state	
Main legislative body	
Administrative divisions	

4. Imagine that one of you is a foreigner who wants to visit Ukraine. Tell the foreigner as much interesting information about Ukraine as you can.

AGRICULTURE IN UKRAINE

Active Vocabulary:

comfortable – зручний

favourable – сприятливий

temperate – помірний

soil – ґрунт

wealth – багатство

arable – орний
crop – с/г культура
branch – галузь
fertile – родючий
suitable – підходящий
to grow – вирощувати
successfully – успішно
sugar beet – цукровий буряк
grains – зернові
buckwheat – гречка
wheat – пшениця
rye – жито
barley – ячмінь
oats – овес
maize – кукурудза
millet – просо
sunflower – соняшник
flax – льон
carrot – морква
cabbage – капуста
cucumbers – огірок
onion – цибуля
garlic – часник
irrigation – зрошення
rice – рис
pepper – перець
water-melon – кавун
berry – ягода
to need – потребувати
moisture – волога
apricot – абрикос
peach – персик
goat – коза
poultry – с/г птиця
hen – курка
turkey – індичка
ostrich – страус

5. Read the text and answer the following questions.

1. Why is Ukraine an agricultural country?
2. What is the main wealth of the country?
3. What are the most important branches of Ukrainian agriculture?
4. What grain crops are grown in Ukraine?
5. What are the most important industrial crops?
6. What vegetable crops are grown in our country?
7. What fruit are grown in the orchards?
8. What farm animals are raised in Ukraine?
9. What favors the development of animal husbandry in Ukraine?
10. Are fish-farming and bee-keeping practised in Ukraine?

Due to comfortable geographical position, favourable temperate climate, adequate rainfall and rich soils Ukraine is traditionally an agricultural country. Ukraine's crop production is highly developed.

Land is the main wealth of Ukraine. Arable land makes 42 million hectares. There are two main branches of agriculture. They are crop growing and animal husbandry. Now crop growing is a highly developed branch of agriculture. The soil is the basis of agriculture. The fertile soil and warm climate of Ukraine are suitable for growing different crops.

That's why Ukraine is the most important producer of sugar beets, grains, industrial and fodder plants, buckwheat, vegetables, fruit, grapes. It is the centre of sugar production.

The main grain crops are: wheat, rye, barley, oats, maize, millet. The most important industrial crops are: sugar beet, sunflower, and flax.

About 40 types of vegetable crops are grown in Ukraine: potatoes, beet, carrot, cabbage, tomatoes, cucumbers, onion, garlic and others.

Irrigation is used in the southern regions. Due to large-scale irrigation systems such crops as rice, pepper, water-melons, fruit, berries and grapes are successfully grown there. Rice needs a lot of moisture. Such fruit as apples, pears, plums, cherries, apricots, peaches, small fruits and berries are grown in the orchards in our country.

Animal husbandry is a large component of agriculture. The most productive pedigree and dairy cattle, sheep, pigs, goats and poultry (hens, geese, ducks, turkeys and even ostriches) are raised throughout the country.

There are many especially around all big cities. The abundance of fodder plants favours the development of animal husbandry in Ukraine. Fish farming is growing in importance. Bee-keeping is practised too. Ukraine has a well-developed industry processing agricultural raw materials.

2.2. THE UNITED KINGDOM. AGRICULTURE OF THE UNITED KINGDOM

1. Read and translate the following text.

GREAT BRITAIN

The United Kingdom of G.B. and Northern Ireland is situated on the British Isles. The British Isles consists of two large islands, G.B. and Ireland, and about five thousand small islands. Their total area is over 244,000 square kilometers.

The UK is made up of four countries: England, Wales, Scotland and Northern Ireland. GB consists of England, Scotland and Wales and doesn't include Northern Ireland. The capital of the UK is London.

The British Isles are separated from European continent by the North Sea and the English Channel. The western coast of GB is washed by the Atlantic Ocean and the Irish Sea.

The surface of the British Isles varies very much. The north of Scotland is mountainous and is called the Highlands, while the south, which has beautiful valleys and plains, is called the Lowlands.

There are a lot of rivers in GB, but they are not very long. The Severn is the longest river, while the Thames is the deepest and the most important one.

The mountains, the Atlantic Ocean and the warm waters of Gulf Stream influence the climate of the British Isles. The weather in GB is very changeable. A fine morning can change into a wet afternoon and evening and the wrong side out. The English people say: "Other countries have a climate; in England we have weather". The English also say that they have three variants of weather: when it rains in the morning, when it rains in the afternoon or when it rains all day long.

The weather is the favorite conversational topic in GB. After they greet each other they start talking the weather.

The best time of the year in GB is spring (of course, it rains in spring too). The two worst months in Britain are January and February. They are cold, damp and unpleasant. The best place in the world then is at home by the big fire. Summer months are rather cold and there can be a lot of rainy days. The most unpleasant aspect of English weather is fog and smog. This is extremely bad in big cities especially in London. The fog spreads everywhere so cars move along slowly and people can't see each other. They try not to be run over by a car but still accidents are frequent in the fog.

2. Decide whether the statements are true or false according to the text.

1. The UK is made up of four countries.
2. The Thames is the longest river.
3. The best time of the year in GB is summer.
4. The weather is the favorite conversational topic in GB.

3. Answer the questions.

1. What is the population of GB?
2. What ocean is GB washed by?
3. What is the deepest river in GB?
4. Name four main parts of GB?
5. How many countries are there in GB?
6. What are the biggest cities in GB?
7. What is the largest part of GB?
8. What is administrative structure of GB?
9. What are two main political parties in GB?
10. What are main branches of British industry?

4. Fill in the gaps with suitable words (size, full-time, responsible, modern, pastoral, fertilizers, hectares, arable farming).

AGRICULTURE IN GREAT BRITAIN

The climate and topography of the UK lends itself to two distinct types of farming. _____ farming (the use of grass pasture for livestock rearing) is found in areas of higher rainfall and among the hills, predominantly to the north and west of the UK. _____ (land that can be ploughed to grow crops) is concentrated in the south and east of the UK where the climate is drier and soils are deeper. In the UK there are three main approaches adopted by farmers in their farming system. These are defined as organic, conventional and integrated.

Organic farming represents around 4% of the farmed area and is based upon the concept of sustainability utilizing the farm's own resources. Conventional farming adopts _____ technology and utilizes other inputs such as pesticides and artificial _____ while integrated farming makes the conventional approach sustainable.

Most conventional farmers practice integrated farming. Media characterization of the UK's farming systems has widely depicted organic farming as good with conventional as bad. This simplification misses the point as in practice a crossover of approaches exists on most farms.

In the UK there are approximately 300,000 active farms with an average _____ of around 57 hectares, much larger than the European average size of approximately 20 hectares. Despite the relatively large number of farms in the UK, the majority of the agricultural area is farmed by a much smaller number of farmers. Some 41,000 farms (~14% of the total) are larger than 100 _____ and account for over 65% of the agricultural area.

In 2006 the UK farming employed workforce (_____, part-time and casual employees) amounted to 184,000 persons. There were 152,000 full time farmers with a further 198,000 part-timer owners engaged in some capacity in the farm business. The

total farming labour force of 534,000 in 2006 had been broadly stable over the previous five years but was down 80,000 on a decade earlier. Farmers are _____ for managing around 75% of the UK's surface area.

5. Write a report: what common and different features are there between farming in the UK and farming in Ukraine?

The Present Continuous Tense

1. Make the following sentences interrogative and negative.

Pattern: *The students **are writing** a test. **Are the students writing** a test? The students **aren't /are not/ writing** a test.*

1. The teacher is explaining a grammar rule. 2. He is always leaving his dirty dishes on the table. 3. The boys are skating. 4. I am waiting for them. 5. It is raining heavily. 6. The students are discussing a serious problem. 7. We are writing a dictation now. 8. She is doing her shopping. 9. My friend is smoking now. 10. Tom and Jane are hurrying along the street. 11. He is teaching his boy to ride. 12. The secretary is speaking over the telephone.

2. Give short and full answers.

1. Are you having a seminar? 2. Is he speaking to the dean? 3. Are you preparing for your examinations? 4. Are you consulting the dictionary? 5. Are they working at this problem now? 6. Is Ann wearing her new dress? 7. Are you telling the truth? 8. Is your father always losing his car keys? 9. Is he talking to a friend of his? 10. Are you feeling well today? 11. Is Petrenko coming tonight? 12. Am I answering your questions well? 13. Is it snowing heavily? 14. Is your father looking through the morning newspapers?

3. Do as you are told and say what you are doing.

Pattern: *Go to the door. I **am going** to the door.*

Go to the blackboard. 2. Write a sentence on the blackboard. 3. Clean the blackboard. 4. Hold the duster in your left hand. 5. Take your seat. 6. Open your text-books at page 42. 7. Read and translate the text A. 8. Find the verbs in the Present Continuous Tense. 9. Close your text-books. 10. Retell the text.

4. Answer the following questions.

1. What are you doing now? 2. Why aren't you writing? 3. How are you feeling? 4. What are you thinking about? 5. Who is waiting for you? 6. Where is your friend waiting for you? 7. What is your friend wearing? 8. Who is making that noise? 9. Where are you going on holiday this year? 10. Is the sun shining? 11. Why are you learning English? 12. Are you doing anything this evening? 13. What are you reading now?

TEST 2

1. *Ukraine covers an ... of about 604,000 km².*

a) current; b) area; c) soil.

2. *Ukraine ... iron ore, natural gas, coal, oil, salt and other mineral resources.*

a) includes; b) have; c) is rich in.

3. *The United Kingdom ... on two large islands and ... small islands.*

a) is located ... a number of ; b) contain ... have ; c) appoints ... located.

4. *The deepest river of Great Britain is*

a) Thames; b) the Thames; c) Nile.

5. *The two main islands ... by the Irish Sea.*

a) continent; b) is situated; c) are separated.

6. *Great Britain is a highly developed ... country.*

a) agricultural; b) arable; c) industrial.

7. *The capital of the UK is*

a) Washington; b) Liverpool; c) London.

8. *The UK is a*

a) federal state; b) democratic republic; c) constitutional monarchy.

9. *The head official of the state in Great Britain is*

a) Prime minister; b) Parliament; c) Queen of England.

10. *Ukraine is ... country.*

a) agricultural; b) industrial; c) tropical.

UNIT 3. ENGLISH SPEAKING COUNTRIES

3.1. THE USA. AGRICULTURE OF THE UNITED STATES

THE USA

Key facts:

The Union: 50 states.

Location: the North America.

Total area: 9.364. 000 square kilometers.

Oceans: the Atlantic Ocean, the Pacific Ocean.

Rivers: the Mississippi, the Missouri.

Mountains: the Great Rocky Mountains.

Separate parts: major part – the Hawaiian Islands, Alaska.

Borders: the Canadian territory, Mexico, the Gulf of Mexico.

Big cities: New York, San Francisco, Washington, Chicago, Los Angeles.

Eight Climatic regions.

Three branches of the Government: executive, legislative, judicial.

The White House. The Capitol. The Senate. The House of Representatives. The Congress.

Active Vocabulary:

located – розташований

consist of – складатися з...

separated – відокремлений

on the north – на півночі

on the south – на півдні

kind of climate – різновид клімату

range – коливання

condition – умова

desert – пустеля

rainfall – кількість опадів

vary – змінюватися, відрізнятися

humid – вологий

meridian – меридіан

modify – видозмінювати, пом'якшувати

moderate – помірний

marine – морський

mediterranean – віддалений від берегів моря, внутрішній

inch – дюйм

spiritual – духовний, релігійний

by ear – на слух

beat – такт, відбивання такту, ритм
honky tonk – гучний звук
bugle – сурма, горн
executive – виконавчий
legislative – законодавчий
judicial – судовий
to carry out – виконувати
to make sure – переконатись
relief – втіха
feeling – почуття
lonesomeness – самотність
longing – сильне бажання
resentment – образа
sorrow – смуток
consolation – втіха
sentiment – сентиментальність
debut – дебют
plunge – поринати
turbulent – бурхливий
fame – слава

1. Read and translate the text.

THE USA

The United States of America is one of the largest countries of the world. The Union has 50 states. It is located in the North America which lies between the two oceans: the Atlantic Ocean in the east and the Pacific Ocean in the west. The country is bordered on the north by Canada, on the south by Mexico and by the Gulf of Mexico.

The total area of the United States is 9.364.000 square kilometers. The USA consists of three separate parts. They are the Hawaiian Islands, situated in central part of the Pacific Ocean, Alaska separated by the Canadian territory and the rest major part of the USA.

The Great Rocky Mountains run north and south. The Mississippi and the Missouri are two of the world's longest rivers. New York, San Francisco, Washington, Chicago, Los Angeles are the biggest cities in the USA.

The United States has many kinds of climates. The weather ranges from the warm, wet conditions of the Appalachian Highland to the desert conditions of some of the western states. It varies from almost winterless climates in southern Arizona and southern Florida to long, very cold winters in the Dakotas and Montana.

The country's rainfall also varies greatly from place to place. The northern western coast and the Gulf Coast receive large amounts of rain and have a humid climate. Most of the area between the Sierra Nevada and the southern coast of California on the west, and the 100th meridian, on the east, receives less than 20 inches of rainfall annually. It is possible to divide the United States into eight climatic regions.

The USA is a federal republic. The Government of the USA is composed of three branches – executive, legislative and judicial. The executive branch sees that laws are carried out. The legislative branch makes new laws. The judicial branch makes sure that the laws and actions of the other branches agree with the Constitution.

In the White House the president carries out his many duties as head of the executive branch of the government.

Not far from the White House stands the Capitol. Here the Congress, the legislative branch of the government, meets to make laws to govern the country. The Senate and the House of Representatives form the Congress.

2. Answer the questions.

1. What other names of the USA do you know?
2. What oceans are surrounding the USA?
3. What countries are neighbouring with the USA?
4. What three separate parts are there in the USA?
5. What are the biggest cities in the USA?
6. What is administrative structure of the USA?
7. What are two main political parties in the USA?
8. For which term is president elected?
9. Which month is the election hold on?
10. What is the highest court in the country?

AGRICULTURE IN THE USA

Active Vocabulary:

almond – мигдаль

beef – яловичина

cantaloupe – канталупа (сорт дині)

carry out – виконувати

cash crop – прибуткова культура

cattle-farming – розведення рогатої худоби

celery – селера

consume – споживати

corn – кукурудза; зерно

cotton – бавовна

grain – зерно; зернові
hog – свиня
in terms of – виходячи з, на підставі
including – включно
lamb – ягня
leading – провідний
lettuce – салат (рослина)
nursery – розсадник
peanuts – арахіс
pepper – перець
permanent – постійний
pig production – вирощування свиней
pineapple – ананас
production – виробництво
prune – чорнослив
remain – залишатися
sheep farming – вівчарство
soybeans – соя
sugarcane – цукрова тростина
tobacco – тютюн
value – цінність, вартість, значення
walnut – грецький горіх
widespread – широко розповсюджений

3. Read and translate the following text.

Agriculture is one of the largest and most important branches of national economy in the United States. 47% of the land area of the USA is farmland, of which 152 million hectares are harvested cropland and 560 million hectares are permanent pasture land. The USA leads the world in many aspects of agricultural production. The country exports more farm products per year than any other nation in the world.

Leading agricultural crops are corn, soybeans, wheat, vegetables, fruits and nuts, greenhouse and nursery products, cotton and tobacco. The USA has been occupying the leading position in the production of corn and wheat for many years. Corn is a major crop in many parts of the United States, but most is produced in the Midwest, where it is the main feed for the cattle and hogs raised there. Iowa, Illinois, Nebraska, Minnesota, and Indiana together produce about two-thirds of the annual U.S. corn crop.

Soybeans are grown primarily in the Midwest, especially in Iowa and Illinois, as well as in the lower Mississippi Valley and other parts of the South. The Midwest is the most important agricultural region in the United States (though California is the number

one state in terms of the value of its agricultural products) and alone produces almost twice as much as the American people can consume.

Wheat is another important U.S. crop. Kansas usually leads all states in early wheat production. Cotton growing is now concentrated in the lower Mississippi Valley, the plains of Texas, and the valleys of California and Arizona. Tobacco remains an important cash crop.

Other leading crops include peanuts, sugarcane, rice, ; such vegetables as tomatoes, potatoes, broccoli, cabbage, beans, carrots, celery, cucumbers, lettuce, onions, green peppers, cantaloupes, and watermelon. California grows nearly one-half of the nation's fresh vegetables; about two-thirds of the potatoes are grown in Idaho and Washington.

Valuable fruit crops grown in the USA are apples, pears, cherries, plums and prunes, grapes, oranges, peaches, pineapples and strawberries. Major nut crops include almonds, peanuts, and walnuts.

Livestock-farming is also carried out on a large scale. Beef cattle are the most valuable product of the nation's farms. Many of the cattle are raised on large ranches in southwestern states. Texas produces more beef cattle than any other state, and states such as Nebraska, Kansas, Oklahoma, Colorado, and Iowa also raise many cattle.

Dairy products are the second most valuable item coming from American farms. California, Pennsylvania, and Minnesota are leading dairy states. Hogs and broiler chickens are other major livestock raised on U.S. farms. In terms of market value, 68 percent of the hogs are produced in Iowa, North Carolina, Illinois, Minnesota, Nebraska and India. Poultry farming is widespread in the country-side near all big cities.

Other major livestock and livestock products include chicken eggs, turkey; sheep farming is highly developed in the western regions of the country and in the prairies.

4. Put ten questions to the text.

3.2. CANADA. AGRICULTURE OF CANADA.

Key Facts:

Area: 9,976,190 sq. km.

Population: 25,100,100.

Capital city: Ottawa (760 thousand inhabitants).

Major cities: Montreal, Toronto, Vancouver, Winnipeg, Edmonton, Calgary.

Main sea ports: Vancouver, Montreal.

Official languages: English and French.

Highest point: Logan (Cordillera) (6, 050 m).

Longest rivers: the St. Lawrence River, the Mackenzie, the Yukon.

Largest lakes: Great Lakes, Lake Winnipeg, Great Slave Lake, Great Bear Lake.

Active Vocabulary:

slightly – незначно

rocky shore – скелястий берег

shield – щит

Interior Plains and Lowlands – Внутрішні рівнини і низини

extend into – продовжувати

huge – величезний

valley – долина

mighty – могутній

empty – вилити

scatter – розкидати

severe – суворий, жорстокий

dairy farms – молочні ферми

truck gardens – городньо-садові ферми

lumber – пиломатеріали

1. Read the text.

Canada is the second largest country in the world. Only Russia has a greater land area. Canada is situated on the North of Northern America. Canada is slightly larger than the United States.

It is washed by the Atlantic Ocean in the east, the Pacific Ocean in the west, and the Arctic Ocean in the north. In the south and in the north Canada borders on the USA.

The total area is about 10 million sq. km. It stretches for over 3,000 miles between the Pacific Ocean to the west and the rocky shores of the Atlantic to the east. There are five natural regions of Canada:

- 1) Appalachian Region;
- 2) Canadian Shield;
- 3) Interior Plains and Lowlands;
- 4) Cordellian Region;
- 5) Innuitian Region.

The first four regions run north and south and extend into the United States. The fifth region includes the uninhabited northern islands in the Arctic Ocean. Within this huge land between the oceans there are very high mountains and hills. There are fertile valleys and broad plains. Mighty rivers empty into three oceans and thousands of lakes are scattered over the land. Forests cover the mountain sides. There are summers when the sun is hot, and winters when the cold is severe. The two largest provinces of Canada are Ontario and Quebec. Along Lake Ontario and the St. Lawrence River, large dairy farms and truck gardens are seen.

Canada is the land of ten thousand lakes. Great Lakes were formed in the Ice Age. They are five in number: Lake Superior, Lake Michigan, Lake Huron, Lake Erie and Lake Ontario. Waters from all the lakes reach the mighty St. Lawrence River.

The beauty and wonder of Canada is the Niagara Falls. The leading cities of Canada are Toronto, Montreal, Vancouver, Ottawa, Winnipeg, Edmonton, Quebec City, Hamilton, Calgary, London, and Halifax.

Ottawa is the capital city of Canada. It is situated on the Ottawa River. The population of Ottawa is about 760,000 people.

In 1613 the site was reached by S. Champlain (1567-1635), a French explorer and first Governor of French Canada. It was originally named Bytown. Ottawa was established as a city under its present name in 1854. It was elected by Queen Victoria as the capital in 1858.

Today Ottawa is an industrial and commercial centre of Canada. Chief among its manufactures are lumber, cement, furniture and paper. Many notable public organizations, the national government and cultural organizations are situated in Ottawa. There are two universities in the city. The National Arts Centre is a complex of concert halls and theatres. The National Museum of Canada contains exhibits of geology, anthropology and natural history.

2. Summarize the contents of the text using the following key questions as an outline.

1. What country is Canada? (size, location, compare with Russia and the United States).
2. What are the nearest neighbours of Canada? (oceans, country).
3. How large is Canada? (total area, length).
4. How many natural regions are there in Canada? (number, names, natural conditions).
5. Describe Canadian nature. (mountains, valleys, plains, rivers, lakes, forests).
6. What is the climate of Canada? (winters, summers).
7. What are the most favourable provinces in Canada? (dairy farms, truck gardens).
8. How many lakes are there in Canada? (age, number, names).
9. What have you learned about Niagara Falls?
10. What are the leading cities of Canada?
11. What is the capital city of Canada? (name, location, population, explorer, original name, establishment year).
12. What is Ottawa today? (manufactures; state, public, cultural, educational organizations).

3. Answer the questions.

1. What is the total area of Canada?
2. What is the place of Canada in the world according to the total area?
3. What is the climate in Canada?
4. How long does the winter last?
5. What is the population of Canada?
6. What are official languages in Canada?
7. What is administrative structure of Canada?
8. In which spheres is Canada a world leader?
9. What grain crops does Canada export?
10. What territory has different law?

4. Read and translate the text.

AGRICULTURE IN CANADA

Canada is the second largest country in the world and covers more than 50 percent of the North American continent. Most of the population lives less than 450 miles from the United States border, and most farm land is found there as well. Only 17 percent of Canada's land is utilized for farming and of that only about one third can be classified as good farm land. Most of the other two thirds are used for permanent grazing.

The climate is mainly continental with long, cold winters and relatively short but fairly warm summers. Winter grain crop varieties are not common, and the spring crops are often of 90-day varieties suitable for the short frost-free growing season. Crop yields in the prairie regions are low by world standards due to limited rainfall that also limits fertilizer application.

Field mechanization in these regions is based on U.S. or Canadian made tractors, many of which are in the 200-to 350-horsepower range with four-wheel drive and capable of pulling large implements. Most farms have self-propelled combine harvesters and trucks for grain transport. Many farms have well-equipped workshops capable of handling common farm repairs.

5. Answer the questions by the text.

- 1) Where is most farm land of Canada found?
- 2) What part of Canada's land is utilized?
- 3) Why are crop yields in the prairie regions low?

3.3. AUSTRALIA. NEW ZEALAND. AGRICULTURE OF AUSTRALIA AND NZ.

AUSTRALIA

Key Facts:

Area: 7.700.000 sq.km.

Population: 20.000.000 people.

Capital city: Canberra (264 thousand inhabitants).

Major cities and main sea ports: Sydney, Melbourne, Brisbane, Adelaide.

Main language: English.

Highest point: Mount Kosciusko (the Great Dividing Range) (2.228 m).

Longest rivers: the Murray, the Darling, the Multumbidgee.

Largest lake: Lake Eyre.

The World's leading producer of wool.

Mineral resources: bauxite, coal, gold, silver, iron ore, nickel, oil.

The leading agricultural producer of oats, barley, rye, sugar, rice, hay and fodder crops.

Fruit: pine apples, bananas, papayas, citrus fruit, grapes for wine and raisins.

The country produces beef and dairy cattle.

Australians have high standard of living.

The most important trading partners of Australia are Japan and the USA.

Two chambers of Parliament: the House of Representatives and the Senate.

Education age from 6 to 15 (Tasmania 16).

Australia has 19 universities.

Active Vocabulary:

commonwealth – співдружність, союз

Tropic of Capricorn – тропік Козерога

sea level – рівень моря

seldom – рідко

fresh water – прісна вода

monsoon – мусон, сезон дощів

south hemisphere – південна півкуля

vice versa – навпаки

eucalyptus oil – евкаліптова олія

duck-bill – качкодзьоб

emu – Ему

parrot – папуга

cockatoo – какаду

1. Read and translate the text.

The area of the commonwealth is 7.686.848 sq. km and the area of the continent alone is 7.636.233 sq. km, making Australia the smallest continent in the world. The federal capital of the country is Canberra. 20 million people live in Australia.

Australia is completely surrounded by water – the Indian Ocean to the west and south, the Pacific Ocean to the east, and the Gulf of Carpentaria to the north. It is crossed by the Tropic of Capricorn. A third of the country is located in the tropics.

Australia's closest neighbours are Papua New Guinea, which is 100 miles north, New Zealand, 1.000 miles south-east. Antarctica is 1.700 miles to the south. Geologically, Australia is the oldest of the continents. It is believed to have existed for more than one billion years.

The highest mountain is the Mount Kosciusko (7.310 feet above the sea level). The main rivers in eastern Australia are the Murray, the Darling and the Multumbidgee. The largest Lake Eyre seldom holds fresh water. The climate ranges from tropical (monsoonal) in the north to temperate in the south. In central and northern Australia average summer temperature range between +27 C and +29 C. The deserts of central and western Australia making up more than two-thirds of the area. January and February are the hottest month: +18 C and +21C. June and July are the coldest month: +10 C. As Australia is situated in the south hemisphere, it has winter when we have summer and vice versa.

Sydney is the best known place in New South Wales. In facts, it's the best known place in Australia. But New South Wales has more than cities. There are, for example, the Blue Mountains. They are covered with forests of blue coloured eucalyptus trees. The air above the forest contains millions of microscopic drops of eucalyptus oil. When the sun shines, the air of the Blue Mountains is a real, beautiful blue colour.

The best known peculiar animals and birds are kangaroo, duck-bill, dingo or wild dog, emu, parrots and cockatoos. The emu and kangaroo are represented on the national emblem of Australia.

Australia is one of the world's developed countries. Australia has modern factories, highly productive mines and farms, and busy cities. It is the world's leading producer of wool. Australia is rich in coal, gold, silver, iron ore, nickel and oil too.

Australia has the Parliament. It has two chambers: the House of Representatives (the Lower House) and the Senate (the Upper House). The House of Representatives is the more important Chamber of the Australian Parliament. The Prime Minister is drawn from among its membership. The Government of the country is headed by the Prime Minister.

Education is compulsory beginning at the age of 6 and continuing to 15 in all the states except Tasmania, where the upper age limit is 16.

Secondary schools (high schools – age of 12), and junior technical schools, provide five- or six-year courses and enable students in their final year to prepare for the state examination for university entrance.

Australia has 19 universities. Among the leading universities are the Australian National University (founded in 1946 in Canberra); the University of Queensland (1910); the University of Adelaide (1874), in South Australia and many others.

2. Answer the questions.

1. What is the area of the commonwealth?
2. What is the area of the continent alone?
3. What oceans is Australia surrounded by?
4. Where is a third of the country located?
5. What are Australia's closest neighbours?
6. How old is Australia geologically?
7. What is the highest mountain in Australia?
8. What are the main rivers in Australia?
9. What climate is in Australia?
10. What is average summer temperature in the country?
11. What month are the hottest?
12. What month are the coldest?
13. What hemisphere is Australia situated in?
14. What have you learned about the Blue Mountains?
15. How many chambers does the Australian Parliament consist of?
16. Who is the head of the Government?
17. What is the age of compulsory education in Australia?
18. What education provides secondary school?
19. How many universities are there in Australia?
20. What are the leading universities in Australia?

3. Read and translate the text.

AGRICULTURE IN AUSTRALIA

Australia is mainly a flat, dry, and thinly populated land. Only a few regions along the coast receive enough rain to support agriculture and large populations.

Only three percent of Australia's total surface is cultivated, but another 62 percent is used for rough grazing for the very large sheep and cattle stations where up to 45 acres per cow is required.

Wheat is the dominate grain crop in Australia, and on nearly all livestock farms, hay is produced from grass or oats. Sheep are the dominating type of livestock. Farm mechanization is generally based on 100-to 200-horsepower four-wheel drive tractors

pulling large implements. Large combine harvesters and other self-propelled equipment used are mostly made in North America, or under license in Australia. Most farms also have their own trucks for grain hauling and other transport tasks.

Due to the normally stable weather pattern, both seeding and harvesting seasons are longer than elsewhere. Being a southern hemisphere country, Australia's seasons are opposite to Europe and North America. Nearly all grain crops are based on the winter varieties. This means that the bed preparation and seeding takes place mainly during April to June, with harvest November to January.

Word list.

To be cultivated – обробляти

Sheep – вівця (вівці)

Cattle – велика рогата худоба

Cow – корова

Grain crop – зернова культура

4. Answer the questions by the text.

1. What part of Australia's surface is cultivated?
2. What is the main grain crop in Australia?
3. Why do bed preparations and seeding take place during April to June?

NEW ZEALAND

Key Facts:

New Zealand – island country.

Polynesia – a large island group.

Two main islands – the North Island and the South Island.

Total area – 268,680 sq. km.

Mount Cook – the highest point (3, 764 meters).

Population: 3,910,000.

Official state languages: English, Maori.

Climate: mild.

80% of the population lives in cities.

Minerals: natural gas, iron ore, sand, coal, timber, gold, limestone.

Heavy industry: a still mill, an oil refinery, a copper rolling mill, the pulp and paper and rubber industries.

Main industries: mining, food processing, textiles, machinery, transportation equipment.

Agriculture and animal husbandry – 2/3 of the total area.

Auckland, Christchurch, Wellington – the biggest cities.

New Zealand is a constitutional monarchy.

The Parliament – the House of Representatives.

Active Vocabulary:

Maori – маорі

hazard – небезпека

earthquake – землетрус

common – загальний, спільний

volcanic activity – вулканічна активність

bubbling mud – булькаючий бруд

falls – водоспад

drop – падати

height – висота, пагорб, височина

provide – забезпечувати, надавати

health care – охорона здоров'я

high standard of living – високий рівень життя

sand – пісок

timber – лісоматеріал

limestone – вапняк

significant feature – важлива риса

recent – недавній

establishment – заснування

in operation – у дії

steel mill – сталеварний завод

oil refinery – нафтопереробний

copper rolling mill – мідний прокат

pulp – деревообробний

rubber – каучуковий, гумовий

mining – добування корисних копалин

animal husbandry – скотарство

self-sufficient – самодостатній

currency – валюта

empire – імперія

5. Read and translate the text.

NEW ZEALAND

New Zealand is an island country in the Southwest Pacific Ocean. It lies about 1600 km southeast of Australia and about 10500 km southwest of California. New Zealand belongs to a large island group called Polynesia. The country is situated on two main islands – the North Island and the South Island – and several dozen smaller islands.

The total territory of New Zealand is 268, 680 square kilometers. The landscape of the country is mountainous. The highest point is Mount Cook – 3,764 meters. The chief rivers are the Waikato, the Wairu, the Rangitata, and the Rangitikei.

The population of New Zealand is about 3,910,000. English, Maori are both official state languages of the country. Talking about natural hazards, earthquakes are common. There is a volcanic activity in New Zealand. Here you can find big volcanoes like Egmont and Tongariro, geysers and lakes of bubbling mud.

The climate is mild at all seasons. The South Island is very beautiful with the Sunderland Falls, where water drops from the height of six hundred meters, making these falls one of the highest waterfalls in the world.

New Zealand has a high standard of living. New Zealanders eat more butter and meat per person than do the people of any other country. About 70% of New Zealand people own their houses. The government's medical program provides excellent health care. Almost every family has a car.

New Zealand is an independent state and a member of the Commonwealth of Nations. About 80% of the population lives in cities.

New Zealand is rich in such minerals as natural gas, iron ore, sand, coal, timber, gold, limestone. The most significant feature of New Zealand industry in recent years is the establishment of heavy industry. Plants already in operation or being designed include a steel mill, an oil refinery, an aluminum plant, a copper rolling mill, etc. The pulp and paper and rubber industries are developed. The main industries are mining, food processing, textiles, machinery, and transportation equipment.

Two-thirds of the total area of New Zealand is devoted to agriculture and animal husbandry. New Zealand is mainly self-sufficient in horticultural products, and exports some of these, such as apples and honey. New Zealand's currency is New Zealand dollar. New Zealand's economy depends on trade with many countries – Australia, Britain, Japan and the United States.

The biggest cities of New Zealand are Auckland, Christchurch and Wellington. The country once belonged to the British Empire. New Zealand is a constitutional monarchy. The British Monarch, Queen Elizabeth II of the United Kingdom, is the monarch of New Zealand. She appoints a Governor-General for a five-year term to represent her, but the Governor-General has little power. Britain gave New Zealand a constitution in 1852, when it was a British colony. Today, the nation has no written constitution.

The Parliament consists of one House only, the House of Representatives. The Prime Minister is the head of the government.

6. Summarize the contents of the text using the following key questions as an outline.

1. Where is New Zealand situated? (its neighbours, name of island group, two main islands).

2. What is the total territory of New Zealand? (landscape, the highest point).
3. What is the population of New Zealand? (official state languages).
4. Natural hazards. What are they? (earthquakes, volcanoes, geysers, bubbling mud).
5. Describe the South Island. Is it beautiful? (the highest waterfalls).
6. What standard of living has New Zealand? (food, housing, health care).

7. Answer the questions.

1. What state is New Zealand?
2. How many people do live in cities?
3. What minerals is New Zealand rich in?
4. What is the most significant feature of New Zealand industry in recent years?
5. What industries are developed in New Zealand?
6. What information have you learned about agriculture and animal husbandry of New Zealand?
7. How is New Zealand's currency called?
8. What are the biggest cities of New Zealand?
9. What is political system of New Zealand?
10. What is the Parliament of New Zealand?

8. Read and translate the text.

AGRICULTURE IN NEW ZEALAND

Over 13% of the total land area of New Zealand is devoted to agriculture. Agriculture contributes about 50% to GDP and 11% of exports.

New Zealand is largely self-sufficient in horticultural products and exports some of these, such as apples and honey. The kiwi – a fruit that has become popular in the United States, Japan, and elsewhere – represented 90% of horticultural exports. The Department of Agriculture and the Department of Scientific and Industrial Research provide farmers and horticulturalists with advice and encouragement on new farming methods, elimination of plant diseases, and improvement of unproductive land.

Relatively warm temperatures combined with rainfall make New Zealand one of the world's richest pastoral areas. Dairying and beef production are concentrated in the North Island, and sheep farming is more evenly distributed between the North and South islands.

Products of animal origin account for more than half the total value of New Zealand's exports, with meat industry products accounting for about 18% of exports. New Zealand is the world's largest exporter of mutton and lamb, second-largest exporter of wool, and a leading exporter of cheese. With many more cows than people to milk them, New Zealand pioneered and relies on mechanical milking.

9. Write a composition about what you will miss the most if you emigrate from Ukraine.

TEST 3

1. The USA is located on ... continent.

a) American; b) South American; c) North American.

2. The US is comprised of ... states.

a) thirty-five ; b) fifteen; c) fifty.

3. The legislative power in the United States belongs to

a) the British parliament; b) the Parliament; c) the Congress.

4. The head of the state in the US is

a) the Monarch; b) the Queen; c) the President.

5. The capital of Canada is

a) Vancouver; b) Toronto; c) Ottawa.

6. Canada has ten largely self-governing and three territories administered by the central government.

a) states; b) regions; c) provinces.

7. The Queen of England is represented in Canada by the

a) governor-general; b) president of state; c) parliament.

8. The capital of Australia is

a) Sydney; b) Tasmania; c) Canberra.

9. Australia is an important producer and exporter of

a) primary products; b) waste products; c) electricity.

10. Australia is a member of the

a) United Nations; b) Labour party ; c) Commonwealth of Nations.

11. New Zealand has cloth links with

a) Ukraine; b) Europe; c) Great Britain.

12. The capital of the country is

a) Dunedin; b) Sydney; c) Wellington.

13. The main branch of agriculture in New Zealand is

a) agriculture; b) beef industry; c) industry.

14. New Zealand is mainly ... in horticultural products.

a) self-sufficient; b) self-governing; c) produce.

15. New Zealand is one of the world's largest producers of

a) lamb and mutton; b) beetroot; c) tomatoes.

UNIT 4. THE LIVESTOCK

4.1. CLASSIFICATION OF ANIMALS

1. Discuss the following questions.

1. What is your favourite animal? Why?
2. Have you ever had a pet?
3. Do you prefer cats or dogs?

2. Agree on an animal to fit each of these descriptions.

The biggest, the smallest, the most dangerous, the friendliest, the fastest, the slowest, the most unusual
--

3. Explain these idiomatic expressions.

The black sheep of our family
The wolf in the sheep's clothing
I feel like fish out of water
Let the cat out of the bag
An early bird catches the worm
Monkeys see – monkeys do
When the cat is away – the mice will play

4. Write animals which you know according to these categories.

Animals that: lay eggs, are very strong, dig holes, are poisonous, live in a people's houses, are noisy, hibernate
--

5. Imagine that you are an animal but don't tell which one. Continue these sentences and see if other students can guess what you are.

I live in...
I am afraid of...
During the day I...
During the night I...
I can...
I eat...

6. Complete the text with these words: 1) herbivorous, 2) additional salt, 3) classified, 4) omnivorous, 5) produce.

Classes of Animals

The ordinary farm animals belong to the large group known as Vertebrata, or animals with a backbone.

Fish, amphibians, reptiles, birds, and mammals all have a backbone. All of these animals do not suckle their young, but the ordinary farm animals do, and hence they are **a)** ... as Mammalia. (Mamma is the Latin word for breast).

The capability to **b)** ... milk is one of the distinctive features of this group.

All domestic animals are divided into the three main classes: herbivorous, carnivorous and omnivorous.

c) ... animals are those that live chiefly on plants. These are: cattle, deer, horses, sheep and rabbits. As they consume coarse foods, e.g. leaves and stems of plants, they need considerably larger amount of common salt than is supplied by their usual feeds.

The cow, the ox, the sheep and the goat belong to the ruminants (animals that chew the cud). Unlike the pig they are capable of digesting a large quantity of coarse fibrous material due to their compound stomachs.

Carnivorous (flesh-eating animals) such as cats, dogs, sharks, etc. need no **d)** ... because they live on the bodies of other animals.

e) ... animals, such as pigs, bears, rats and others utilize both plant and animal food.

7. Decide whether the statements are true or false according to the text.

1. Animals that have backbone are called ruminants. – a) true b) false
2. Animals that produce milk are called mammals. – a) true b) false
3. Herbivorous animals do not require additional salt. – a) true b) false
4. Pigs have compound stomachs. – a) true b) false
5. Herbivorous animals cannot live without plants. – a) true b) false

8. Retell the text.

DOMESTIC ANIMALS

Domestic animals are kept for the production of human food. Besides, the skin, down and feathers of poultry, the wool of sheep, goats and camels are used as raw materials to produce leather, clothing, etc.

The most important group of domestic animals is formed by the cattle. Cattle can be roughly subdivided into draft cattle, dairy cattle, beef cattle and dual-purpose cattle. Draft cattle (oxen, as a rule) have almost everywhere been replaced by agricultural machinery. Dairy cattle (cows) provide dairy products (milk, butter, cream, cheese, etc). Beef cattle are the producer of beef. Dual-purpose cattle give us both milk and beef.

Important sources in producing human food are also sheep breeding, hog raising, rabbit breeding, apiculture, and some other minor branches.

Sheep provides not only mutton and dairy products (cheese, for example); the wool and skin of sheep are valuable raw materials for producing clothes. There are accordingly two main types of sheep breeding: for wool and for mutton. There is also a medium breed: the wool-mutton breed.

The production cycle of hogs (swine) is much shorter than that of cattle or sheep. Hog breeding gives a vast range of foodstuffs: ham, bacon, lard, sausage, etc. The skin of pigs and their bristles are also used in manufacturing goods.

To poultry belong hens, geese, ducks, turkeys and some other fowls. Poultry provide meat (flesh), eggs, down and feathers.

Rabbits are bred for meat, and their fells find an application in producing clothing. The bee is the only producer of honey and wax. Bee-keeping also plays an important role in agronomy and in medicine.

4.2. CATTLE BREEDING

Active Vocabulary:

Cattle – domesticated bovine animals as a group regardless of sex or age

Ox – an adult castrated bull of the genus *Bos*; especially *Bos taurus*

Steer – castrated bull

Bull – uncastrated adult male of domestic cattle

Cow – female of domestic cattle

Beef, beef cattle – cattle that are reared for their meat

Red poll – hornless short-haired breed of beef and dairy cattle

Dairy cattle, dairy cow –cattle that are reared for their milk

Bovine – any of various members of the genus *Bos*

Gestation – period of pregnancy in animals; time from conception to birth

Castration – removal of the testicles of a male animal

Calf – young baby

AI – Artificial Insemination

1. Read the text.

CATTLE

Cattle are domesticated bovine farm animals that are raised for their meat or milk, for their hides, or for draft purposes. The male is first a bull calf and if left intact becomes a *bull*; if castrated he becomes a *steer* and in about two or three years grows to an *ox*. The female is first a heifer calf, growing into a heifer and becoming a *cow*. Males retained for beef production are usually castrated. Castration is practiced to make them more tractable at work.

There are about 277 cattle breeds in the world, with 33 generally classified as beef breeds, 18 as draft breeds, 39 as meat-draft, 54 as meat-dairy, 21 as dairy-draft, 61 as meat-dairy-draft, and 51 as dairy breeds.

2. Answer the following questions.

1. What are cattle?

2. What purposes do cattle serve?
3. When does the male become a bull (a steer, an ox)?
4. When does the female become a cow?
5. Why is castration of males practiced?

3. Read and translate the text.

THE COW

The cow belongs to the class of ruminants. Its value as a domestic animal consists in her ability to consume and digest large quantities of roughage and to convert it into milk and meat for human food.

The cow's stomach, which is a compound one, has four compartments: rumen, reticulum, omasum, and abomasum. The stomachs of mature cows vary in capacity from 25 to 60 gallons depending on the size of the animal. To produce a large supply of rich milk, cows must be not only well fed but also be of good milking qualities.

The cows that are producing milk require a much larger quantity of water than is necessary for growing animals.

Period of gestation in cows is about 40 weeks.

The lactation period is the period of milking. The first milk called colostrum and its necessary laxative action on the calf's stomach.

In summer the consumption of water by cattle is greater on account of the greater evaporation from the skin.

4. Answer the following questions:

1. What class of animals does the cow belong to? 2. What farm animals chew the cud? 3. Why is the cow a valuable animal? 4. How many compartments are there in the cow's stomach? 5. Are enzymes secreted in the first compartment? 6. How long does a period of gestation in the cow last? 7. How long does the lactation period last? 8. In what season do the cattle consume more water?

5. Give the plural of the following words: capacity, quantity, ability, dairy, supply, quality.

6. Fill in the blanks with the prepositions:

1. It depends ... the size ... the animal. 2. A great quantity ... water is necessary ... growing animals. 3. The cow belongs ... the class ... ruminants. 4. The stomachs... mature animals vary ... capacity ... 25 ... 60 gallons. 5. The lactation period lasts...ten months.

7. Read and translate the text.

SELECTED BREEDS OF DAIRY AND BEEF CATTLE

Ayrshire is a breed of dairy cattle originating in Scotland in the latter part of the 18th century. It is considered to be the only special dairy breed to have originated in Great Britain. The body colour of the Ayrshire varies from almost pure white to nearly all cherry red or brown with any combination of these colours. The beef qualities of the breed are of secondary importance. It is most strongly represented in the United Kingdom, Canada and the United States.

Jersey is a breed of small short-horned dairy cattle originating on Jersey, one of the Channel Islands. The colour of the Jersey is usually a shade of cream, but darker shades are common. The Jersey is adaptable to a wide range of conditions, and its distribution is worldwide. Jersey's milk is remarkably rich in butterfat.

Angus is a breed of black, polled beef cattle, for many years known as Aberdeen Angus, originated in northeastern Scotland. The characteristic features of the breed are black colour, polled head, compact and low-set body, and fine quality of flesh.

The Angus is a beef breed of the highest rank, and for years purebred or crossbred Angus steers have held high places of honour at the leading fat-stock shows in Great Britain and the United States. This breed was introduced into the United States in 1873.

polled – комолий, безрогий

originate – походити, започатковувати

steer – кастрований бичок

purebred – чистокровний

crossbred – гібридний

slaughter – забій скоту

pronounced hump – виступаючий горб

fore quarter – передня частина туші

strain – порода.

8. Answer the following questions.

1. Name the most popular breeds of dairy cattle.
2. Where does the Ayrshire breed come from?
3. When did it originate?
4. What can you say about body colour of the Ayrshire breed?
5. In what countries is Ayrshire most strongly represented?
6. Which are the main characteristics of Jersey?
7. What is the origin of Jersey?
8. What colour is this breed?
9. Jersey is in great demand. Why?
10. Which are the characteristic features of Angus breed

9. Name parts of speech of the following words.

Noun	Adjective	Verb
------	-----------	------

Breed, originate, shape, exportation, indigenous, introduce, small, quality, colour, vary, shade, pure, adaptable, number, range, worldwide, milk, reason.

10. Match the words in the left and right columns.

1. breed	a. шкідник
2. variety	b. прибутковий
3. pests	c. чистокровний
4. cross	d. якість
5. purebred	e. суміш
6. polled cattle	f. м'ясо, плоть
7. quality	g. волога
8. mixture	h. показ, виставка
9. profitable	i. комола худоба
10. flesh	j. схрещування
11. humidity	k. порода
12. show	l. різновид

11. Find a definition for the following words.

1. horn	a. deformity on the back of the cattle
2. pests	b. hard, pointed, curved outgrowths
3. show	c. to keep animals by selection of parents
4. cross	d. domestic animals which serve people for various purposes
5. improve	e. vermin
6. steer	f. collection of things publicly displayed
7. crossbred	g. offspring of animals of different sorts of breeds
8. slaughter	h. make or become better
9. hump	i. castrated male of the ox family,
10. cattle	j. produced by crossing breeds
11. to breed	k. killing of animals for food

4.3. SHEEP BREEDING

Active Vocabulary:

Sheep – woolly usually horned ruminant mammal related to the goat

Ewe – female sheep

Ram – uncastrated adult male sheep

Black sheep – sheep with a black coat

Ovis Aries – domestic sheep any of various breeds raised for wool or edible meat or skin

Bellwether – sheep that leads the herd often wearing a bell

Broadtail – caracul, karakul hardy coarse-haired sheep of central Asia; lambs are valued for their soft curly black fur

Long wool – a domestic long-wool sheep

Merino – white sheep originating in Spain and producing a heavy fleece of exceptional quality

1. Read and translate the text.

THE SHEEP

Sheep belong to the Genus *Ovis*, and are generally grouped into: Longwools, Shortwools, and Mountain sheep horns. Inside each group there are many well-defined breeds, and an endless variety of crosses between the different pure breeds.

Sheep are kept for the production of mutton and wool. The stomach of the sheep is three times larger than that of the pig. As the sheep and goats have a cleft upper lip, they have to graze very close to the ground. A male sheep is called a ram on whose fertility largely depends the lamb crop of the year.

An in-lamb sheep is called a ewe and a new-born – a lamb. The period of gestation in sheep lasts 21 weeks. As a rule ewes should be healthy and vigorous, with deep, wide bodies, good teeth, healthy udders, and high-quality dense fleeces.

Pregnant ewes should always have access to clean water. Healthy lambs can withstand bad weather, provided the coat dries immediately after birth. If, because of very wet severe weather, the coat does not dry, losses even among the strong lambs may occur. The consumption of colostrum or first milk is as important to the lamb as it is to the calf.

2. Answer the following questions:

1. What genus do sheep belong to? 2. Are mountain sheep hornless? 3. What are sheep kept for? 4. Why do sheep and goats graze very close to the ground? 5. How many weeks does a period of gestation in sheep last? 6. In Ukraine is sheep breeding widely spread? 7. How are male, female and immature sheep called?

3. Read the text.

SELECTED BREEDS OF SHEEP

Hampshire. A breed of medium-wool, dark-faced, hornless sheep origins from Hampshire, England. It is large and blocky and, as a superior mutton breed, is noted for

its early maturity. The wool of Hampshire fleeces is strong, of medium fineness and length.

Karakul. Sheep breeds of central or west Asian origin, raised chiefly for the skins of very young lambs, which are covered with curled black coats and are called *Persian lambs* in the *fur* trade. The wool of mature Karakul sheep, classified as carpet wool, varying from black to various shades of brown and gray.

Merino. A breed of fine-wool sheep origins from Spain. Merinos vary considerably in size. The colour of their faces and legs is white. They have a considerable growth of wool on their faces.

4. Answer the following questions.

1. What are the main selected breeds of sheep in the world?
2. What does Hampshire sheep look like?
3. Where was it originated?
4. What is the origin of Karakul sheep?
5. Why are Karakul lambs called Persian lambs in the fur trade?
6. Where and when does Merino sheep take its origin?
7. What are the main characteristics of Merinos?

4.4. PIG BREEDING

Active Vocabulary:

Pig – stout-bodied short-legged omnivorous animal, a farm animal with a curly tail, hooves, floppy ears, pigs are omnivores – they eat both plants and meat – and on small farms, they're fed kitchen leftovers as well as their basic diet.

Boar – an uncastrated male hog

Sow – an adult female hog

Porker – a pig fattened to provide meat

Farrow – the production of a litter of pigs

1. Read and translate the text.

THE PIG

As we already know, the pig is an omnivorous animal with a simple stomach.

There are a number of pure breeds of pigs, including Black breeds. White breeds, and the Tamworths which have a golden-red colour. Crosses commonly show the mixed colours of the pure breeds.

Pigs thrive in the open air under summer conditions, and they can during warm weather, convert their food into meat as economically out-of-doors as in the sty.

A pregnant pig is called a sow which usually produces from 6 to 12 at a litter. The act of parturition is called farrowing. On the approach of farrowing a sow should be m

good condition but not fat. Close confinement prior to farrowing is harmful. Sows suckling litters require somewhat more water. Their rations should be supplied with micro and macro elements otherwise anemia will result.

One should remember that the teeth of the pig do not provide conditions for very fine grinding. That's why they do not digest the fiber of feeds well.

2. Answer the following questions:

1. How many breeds of pigs do you know? 2. What do crosses commonly show? 3. What is a pregnant pig called? 4. Has the pig a compound stomach? 5. Can pig convert their food into meat both out of doors and in the sty? 6. What is harmful for a pregnant sow? 7. What should the rations of sows suckling litters be supplied with? Do the teeth of the pig provide conditions for very fine grinding?

3. Form the verbs from the following words and translate them: requirement, namely, consumption, products, provision, grinding.

4. Read and translate the text.

SELECTED BREEDS OF PIGS

Berkshire

A breed of domestic pig from England, where in the early 19th century this name became synonymous with improved pig strains of differing origin and type. The Berkshire is medium-sized and predominantly black in colour, with white on its face, legs, and tip of tail. It has a short dished face with erect ears pointing slightly forward. The breed is used for fresh pork production in England, Japan, North and South America, and other areas worldwide. A larger bacon strain has been evolved in Australia and New Zealand.

Duroc

A breed of pig developed between 1822 and 1877 from the Old Duroc pig of New York and the Red Jersey pig of New Jersey. Red is the preferred and predominant colour for the Duroc, though wide variations may occur.

Hampshire

Hampshire is black with a white saddle, which includes the forelegs. Recent selection has improved the breed's growing ability, and its carcass is among the highest in quality and quantity of meat.

Yorkshire

A breed of swine produced in the 18th century by crossing white pig of North England with the smaller, fatter, white Chinese pig. The Yorkshire is probably the most widely distributed breed of pig in the world.

5. Answer the following questions.

1. What shape has the Berkshire?
2. For what is this breed used?
3. What colour is the Duroc?
4. What are the main characteristics of Hampshire?
5. What are the main characteristics of Yorkshire?

6. Use all your knowledges about pigs for doing this test.

1. Synonym to "pig".

1. hog
2. chordate
3. vertebrate
4. animal

2. "Pigs are watched by _____".

1. swine
2. swineherds
3. livestock
4. their own young

3. "Pigs have a full set of _____ teeth".

1. 22
2. 33
3. 44
4. 55

4. "Pigs are known for their _____".

1. interest
2. intonation
3. interview
4. intelligence

5. "Pigs are _____, which means that they consume both plants and animals".

1. ungulates
2. suidae
3. omnivores
4. peccaries

6. "In the wild, pigs are _____ animals".

1. meat-eating
2. foraging
3. pot-bellied
4. parasite

7. "Pigs harbour a range of parasites and diseases that can be _____ to humans".

1. used
2. allowed
3. introduced
4. transmitted

8. "Intensive piggeries are a type of _____ specialized for the raising of domestic pigs".

1. factory farm
2. house
3. warehouse
4. storehouse

9. "Pigs are generally fed a combination of grain and _____ sources".

1. fat
2. carbohydrate
3. protein
4. water

10. "A "sow stall" is the name of the confinement system for _____ sows".

1. piglet
2. adult
3. shoat
4. boar

11. "The domestic pig or hog is normally given the scientific name _____".

1. *Sus barbatus*
2. *Sus salvanus*
3. *Sus heureni*
4. *Sus scrofa domestica*

12. "Pigs have been domesticated from wild _____ as early as 7000 BC in the Near East and, separately, in China".

1. gilt
2. shoat
3. boar
4. litter

13. Synonym to "livestock".

1. cattle
2. herd
3. shed
4. sounder

14. "The meat from the domestic pig is called _____".

1. veal
2. pork

3. beef

4. mutton

15. "A young female pig who has borne more than two litters is called a _____".

1. gilt

2. boar

3. barrow

4. sow

16. Synonym to "swineherd".

1. sty

2. porker

3. shepherd

4. baconer

17. "Pigs are known to be _____ animals and have been found to be more trainable than dogs or cats".

1. stupid

2. intelligent

3. aquatic

4. marine

18. "Truffle pigs are ordinary pigs trained to find _____".

1. acorns

2. bark

3. truffles

4. leaves

19. "Neutred male pigs are called _____".

1. barrows

2. boars

3. gilts

4. sows

20. "Fetal pigs are _____ pigs used in biology classes for dissection".

1. species

2. specimen

3. born

4. unborn

21. What tense is it?

"Hogs have been domesticated as sources of food, leather and similar products since ancient times"?

1. Present Indefinite

2. Present Continuous

3. Present Perfect

4. Past Indefinite

22. *What word is odd? "Pigs can to be trained to perform numerous simple tasks and tricks".*

1. can
2. to
3. be
4. trained

23. *"Pigs _____ since ancient times in the Old World".*

1. are domesticated
2. were domesticated
3. have been domesticated
4. had been domesticated

24. *What word is wrong? "The domestic pig is farmed for its meat calling pork".*

1. farmed
2. for
3. its
4. calling

25. *What tense is it? "Modern pigs are found across Europe and extend into Asia?"*

1. Past Indefinite Passive
2. Present Indefinite Passive
3. Present Perfect Passive
4. Past Perfect Passive

26. *"The pot-bellied pig is a breed of domesticated pig originating _____ Vietnam with fourteen sub-species".*

1. in
2. at
3. from
4. out of

27. *What word is wrong? "Some religious groups considers pork unclean".*

1. some
2. pork
3. considers
4. unclean

28. *"Islam forbids the eating of flesh of swine or pork in any form _____ of its uncleanliness".*

1. before
2. because
3. after
4. when

29. "Feral pigs have been introduced _____ many parts of the world".

1. at
2. with
3. on
4. into

30. "George Clooney was famously known to have owned a potbellied pig named Max, although Max _____ in December 2006".

1. dies
2. died
3. has died
4. had died

4.5. POULTRY KEEPING

Active Vocabulary:

cock, rooster – півень

chicken, hen – курка

chick – курча

cockerel, young rooster – молодий півень

broiler – бройлер

poultry keeping – птахівництво

poultry keeper – птахівник

poultry farm – пташина ферма

poultry house – пташина ферма

to lay eggs – нести яйця

turkey – індичка

goose (geese) – гуска (гуси)

duck – качка

duckling – каченя

1. Read and translate the text.

POULTRY

Poultry are kept; for flesh and eggs. They include hens with chicken, turkeys, cocks, ducks with ducklings and geese with goslings.

The breeds of poultry are numerous. There are no teeth in the mouth of the fowl, the food is swallowed whole so the fowl is able to digest its food and absorb the nutrients much more rapidly than other farm stock.

Poultry Farming is commercial rising of chickens, turkeys, ducks, and geese for their meat and eggs. Since the 1930s and 1940s, the poultry industry has become one of the most efficient producers of protein for human consumption. It expanded rapidly

during World War II because of the shortage of beef and pork, which require a much longer time to develop; only seven weeks are required to produce a broiler and five months to produce a laying hen.

Chickens

Today more than 85 percent of the laying hens are housed in wire cages containing from two to ten hens each. The cages may be in a single tier or in tiers of up to five cages. Most of these are automated to provide a constant supply of feed and water and to maintain control of the environment. With temperatures remaining at near-ideal conditions, the birds never suffer frozen feet. Mortality is consistently lower than in the times when hens were mainly housed on a litter floor, where they were constantly in contact with one another and with feces; the latter condition also required more antibiotics and drugs to prevent disease.

Turkeys

The turkey industry began to develop on a larger scale in the late 1930s and early 1940s and has since grown rapidly. At first the birds were grown on ranges, but disease problems forced farmers to raise them on wire platforms. This proved costly and labor inefficient, so when controls were found for the diseases, turkey farms returned to the use of ranges or large houses

Geese

Most geese are produced in small farm flocks of up to a few hundred; few large operations exist. The birds are hardy and are usually grown on ranges, where they are good foragers and require little care after the first two or three weeks. Goose remains a specialty food, but the demand for goose down has increased in recent decades. The birds themselves are sometimes used by farmers for weed control.

2. Answer the following questions.

1. What is the most popular poultry raised in the USA?
2. Why has poultry industry become one of the most efficient producers of protein for human consumption?
3. How much time is required to produce a broiler or a laying hen?
4. What is the result of modern technological development of poultry industry?
5. What conditions are provided for raising hens?
6. Why does the use of cages provide greater comfort than litter floors?
7. When did the turkey industry begin to develop?
8. Where were the birds grown at first?
9. What do you know about the geese producing?

The Past Indefinite Tense

1. Give the forms of the Past Indefinite.

a) to regulate, to smile, to hope, to help, to learn, to stop, to plan, to visit, to offer, to prefer, to discuss, to study, to enjoy, to play, to cry;

b) to be, to have, to do, to go, to sit, to begin, to become, to make, to eat, to teach, to write, to leave, to tell, to think, to take, to get, to buy, to read, to say, to bring, to forget, to pay.

2. Answer the following questions.

1. When were you born? 2. Where were you born? 3. Where were you yesterday? 4. What was the weather like last Sunday? 5. When were you at the theatre? 6. Who were you at the theatre with? 7. What was your home task for today? 8. Why wasn't your teacher pleased with your answer?

3. Make the following sentences interrogative and negative.

1. My brother was at home last night. 2. The baby was asleep. 3. There was somebody in the room. 4. You were glad to hear this news. 5. The students were at the meeting last Friday. 6. He was late for the train. 7. The trees were yellow in September. 8. The weather was sunny last week.

4.6. ANIMAL FEEDING

Active Vocabulary:

nutrients – поживні речовини

feeds - корм

pasture - пасовище

hay - сіно

silage - силос

cereal - зернові

roughage – грубий корм

forage -фураж

concentrates - концентрати

by-products – побічні продукти

1. Read and translate the text.

ANIMAL NUTRITION

Animals in general require the same nutrients as humans. Some feeds, such as pasture grasses, hay and silage crops, and certain cereal grains, are grown specifically for animals. Other feeds, such as sugar-beet have been processed for human use. Surplus food crops, such as wheat, other cereals, fruits, vegetables, and roots, may also be fed to animals. In this way such surpluses are converted into meat, milk, and eggs for

the human diet. History does not record when dried roughage or other stored feeds were first given to animals. Most early records refer to nomadic people who followed the natural feed supplies. When animals were domesticated and used for work in crop production, some of the residues were doubtless fed to them.

The feeds produced today are the result of research, experimentation, and chemical analysis and are the subject of continuing study by agricultural scientists.

Animal feeds are divided into two general categories: concentrates and roughages. The concentrates are rated high in terms of the digestibility of their nutrients but low in fibre content, while the roughages are high in fibre and comparatively low in digestive nutrients. The concentrates include wheat, corn (maize), oats, rye, barley, and the sorghums. Such cereals are easily digestible and rich in starch. Other concentrates include the high-protein meals that are made from such vegetable seeds as soybeans, field peas, peanuts, sunflower seeds, and cottonseed.

The most commonly cultivated roughages are pasture grasses and plants. Pasture is highly nutritious, rich in protein and vitamins, and much cheaper to grow for grazing than feed products that must be harvested. Second in importance are the various kinds of hay, which are produced by drying grasses and legumes. The hay is dried in order to preserve nutrients that can be lost by exposure to rain and prolonged sunshine. Legume hay is the richest in protein. Other forms of roughage include silage. Among the vitamins needed by animals, the one most often lacking in basic animal feeds is vitamin A. It is especially important for growth, reproductive quality, and resistance to various diseases and infections. Green-growing crops are rich in carotene, a substance that animals easily convert to vitamin A. Vitamin D is also important in order to enable animals to assimilate and use calcium and phosphorus. Field-cured hay, fish oil, and other feed oils are good sources of vitamin D.

The proper balance of minerals is achieved in animal diets through supplements and additives. The idea of making silage as a means of preserving and utilizing more of the corn plant was gradually developed in Europe and brought from France to the United States in the 1870s.

2. Answer the following questions.

1. What is called feed?
2. Why is it necessary to select and prepare feed for animals?
3. What categories are animal feeds divided into?
4. What are the characteristics of the concentrates and the roughages?
5. What do the concentrates include?
6. What are the most commonly cultivated roughages?
7. Why is pasture one of the important kinds of roughages?
8. How are the various kinds of hay produced?

9. What other forms do roughages include?
10. Why is vitamin A especially important for animal's feed?
11. What is the role of vitamin D in animal diet?
12. What plants are rich in vitamins A and D?
13. How can the proper balance of minerals be achieved in animal diets?
14. What nutrients do animals require?
15. What feeds are specifically grown for animals?
16. What other feeds may be fed to animals?
17. When was dried roughage or other stored feeds first given to animals?
18. What countries began to preserve corn plants by making silage?

3. Read the text.

CEREAL OR GRAIN CROPS

Cereals are those members of the grass family which produce edible seed. Wheat, barley, rye, oats, corn and rice are known to be most common and most valuable cereals. The cereals grown in the temperate zone are known as small grains. They are wheat, barley, oats and rye. They may be spring or winter annuals. Corn and rice are warm season crops. They are to be seeded in spring or early summer and mature in the fall.

Of the cereals raised wheat, rice and corn are the world's three most important grain crops. Although rice is the main food of more people, wheat is the first in importance as to the area sown and the total annual production.

There are some reasons why cereals are considered to be the man's leading food source. They produce food in a relatively short period of time, for they are annuals. In addition, they are adapted well to different soil and climatic conditions. Cultural practices required in growing grain crops are quite similar. Grain is easily drilled, harvested, cleaned and stored. All these operations are known to be highly mechanized. Though cereals do not supply much protein and vitamins, they are believed to remain a major source of food for people.

4. Decide whether the statements are true or false according to the text.

- 1) Cereals do not need enough moisture. – a) true b) false
- 2) Cereals are one of the most important food sources for man because they are annuals and mature in a relatively short period of time. – a) true b) false
- 3) Wheat is the least in importance for people. – a) true b) false
- 4) Cereals are seeded in the fall and mature in spring or early summer. – a) true b) false
- 5) Wheat, barley, oats and rye may be spring or winter annuals. – a) true b) false

5. Find the equivalents.

- 1) хлібні зернові культури
- 2) ячмінь
- 3) дозрівати
- 4) цінні злакові культури
- 5) достатньо вологи

6. Complete the sentences.

protein and vitamin	roots	favourable
conditions	on the same field	winter wheat

- 1) ... is considered to be most common crop in our region.
- 2) Plants are known to absorb food from the soil by their
- 3) Fine and mellow soil is very important for corn, for it provides ... for plant growth.
- 4) Cereals should not be grown for many years
- 5) Cereals do not supply much

7. Make up the sentences.

- 1) main / of / people / food / is / the / many / rice.
- 2) adapted / soil / cereals / to / are / well / different.
- 3) are / the / common / wheat / barley / rye / oats / corn / rice / cereals / and / most.
- 4) in / zone / cereals / temperate / are / the / grown.
- 5) and / are / season / warm / crops / corn / rice.

TEST 4

1. Decide whether the statements are true or false according to the text.

- 1) We know that farm animals are important sources of food for people. – a) true
b) false
- 2) Products that are produced by farm animals are highly nutritious. – a) true
b) false
- 3) The production cycle of hogs is much longer than that of cattle or sheep. –
a) true b) false
- 4) Dairy cattle may be used in making various wool products. – a) true b) false
- 5) About six months is usually required to fatten a pig. – a) true b) false

Animal husbandry, a branch of agricultural production, includes the breeding of farm animals and their uses. Farm animals are highly important sources of food for

man. They are known to produce highly nutritious products such as milk, meat and eggs. In addition, the skin of animals, down and feather of poultry and wool of sheep are used as raw materials to produce clothing and for many other purposes.

The most important group of farm animals is cattle. There are four types of cattle. They are dairy cattle, beef cattle, draft cattle and dual-purpose cattle. Dairy cattle, that is, dairy cows provide milk that may be used in making various dairy products. Beef cattle are the producer of beef. One can raise dual-purpose cattle producing both milk and meat. Draft cattle and horses are almost everywhere replaced by agricultural machinery.

Important sources in producing human food are sheep and hogs. Sheep are raised for two purposes: wool and mutton production. The production cycle of hogs is much shorter than that of cattle or sheep. In other words, unlike the other farm animals hogs are rapid growing ones. They may be fattened in less than six months. That is why hog breeding is one of the most important and economic ways of solving the problem of supplying the population with meat.

2. Find the equivalents.

- 1) відгодовувати
- 2) сільськогосподарська техніка
- 3) м'ясо-молочна худоба
- 4) баранина
- 5) сировина

3. Complete the sentences.

nutritious important feather feeds meat

- 1) Poultry supply us with meat, eggs, down and
- 2) We know that farm animals are ... sources of food for people.
- 3) One should provide farm animals with proper
- 4) The problem of supplying the population with ... is the one that must be solved in the near future.
- 5) Products that are produced by farm animals are highly

4. Make up the sentences.

- 1) many / on / are / farm / cows / our / there.
- 2) man / are / important / why / animals / so / farm / for / ?
- 3) with / are / cows / machines / dairy / special / milked.
- 4) are / mutton / sheep / wool / production / raised / for / and.

UNIT 5. ACTUAL ISSUES OF LIVESTOCK

5.1. VITAMINS

1. Read and translate the text.

Vitamin B

Vitamin B prevents the polyneuritis (nervous symptoms). Its lack also causes loss of appetite, emaciation and general weakness. Vitamin B is widely distributed in natural human foods and stock feeds. The unmilled cereal grains are rich in it. Fresh green forage contains a fair supply as well as well-cured hay and other dry forages of good quality. It is supplied in fair amounts by milk and whey. Yeast is especially rich in vitamin B. Though vitamin B can be destroyed by prolonged heating at temperature above the boiling point, it is stable in ordinary feeds. For example, it has been found that whole rice stored in an arid climate for 100 years was still rich in it. Also the vitamin B complex can, at least in certain instances, be synthesized in the paunch of ruminants through the action of bacteria.

2. Decide whether the statements are true or false according to the text.

- 1) Vitamin B deficiency results poor appetite and weakness.
a) true b) false
- 2) Cereals are rich in vitamin B.
a) true b) false
- 3) Fresh green forage has low amounts of vitamin B.
a) true b) false
- 4) Vitamin B is unstable.
a) true b) false
- 5) It has been found that whole rice stored in the arid climate for 100 years was not rich in it.
a) true b) false

3. Find the equivalents.

- 1) запобігати
- 2) загальна слабкість
- 3) дріжджі
- 4) довготривале нагрівання
- 5) рубець

4. Complete the sentences.

prolonged heating	ordinary feeds	the vitamin B complex	the nervous
symptoms	livestock feeds		

- 1) Vitamin B is widely distributed in natural human foods and
- 2) ... can be synthesized in the paunch of ruminants.
- 3) Vitamin B is stable in
- 4) ... destroys vitamin B.
- 5) ... are loss of appetite, emaciation and general weakness

5. Make up the sentences.

- 1) of / the / area / is / climate / this / dry.
- 2) is / vitamin B / in / rich / especially / yeast.
- 3) don't / cows / to / feeds / eat / like / dry.
- 4) is / milk / not / source / a / rich / very.

6. Read and translate the text.

Vitamin A

Vitamin A is found in the fish-liver oils, egg yolk, liver, butter, cream, whole milk, kidneys, and other animal products. Meat muscle contains little or no vitamins A. Foods of plant origin do not contain vitamin A, but many of them contain instead yellow pigments from which the vitamin can be formed in the animal body. These pigments are carotenes, and four different compounds are recognized, the most important of which is beta carotene. These substances known as pro-vitamins can be converted into vitamin A in the intestinal wall. Beta carotene yields two molecules of vitamin A. Some animals do not convert all the pro-vitamin of their food into vitamin A but store some of the pro-vitamin as such. These animals have yellow body fats. Cows that do not convert all their carotene into vitamin A secrete carotene in the milk.

7. Decide whether the statements are true or false according to the text.

- 1) Meat muscle contains great amounts of vitamin A. – a) true b) false
- 2) Foods of plant origin contain yellow pigments. – a) true b) false
- 3) Carotenes can be converted into vitamin A. – a) true b) false
- 4) Vitamin A is found in different products of animal origin. – a) true b) false
- 5) Cows do not secrete carotene in the milk. – a) true b) false

8. Find the equivalents.

- 1) різноманітні хімічні сполуки
- 2) найважливіші речовини
- 3) корми тваринного походження
- 4) жовток яйця
- 5) відомий як бета-каротин

9. Complete the sentences.

intestinal wall	vitamin A	pro-vitamin
yellow body fats	two molecules of vitamin A	

- 1) Beta carotene yields.
- 2) Pro-vitamins can be converted into vitamin A in the
- 3) Whole milk, butter, egg yolk and cream contain
- 4) Some of animals do not convert all the ... of their food into vitamin A.
- 5) Such animals have

10. Make up the sentences.

- 1) meat / butter / refrigerators / and / in / stored / the / are.
- 2) cows / growing / vitamin A / vitamin B / and / both / require.
- 3) plant / foods / origin / pigments / contain / yellow / of.
- 4) the / carotene / beta carotene / active / most / is.
- 5) the / is / in / found / vitamin A / fish-liver / kidneys / egg / oils / yolk / and.

11. Read and translate the text.

Vitamin-A Deficiency

The effect of avitaminosis has been extensively studied in cattle. Night-blindness is one of the first clinical manifestations of vitamin-A deficiency. Convulsions, total blindness, and degenerative changes in the kidneys are later manifestations. Abortions and the birth of weak calves have been noted under natural conditions of vitamin-A deficiency. Calves on diets low in carotene develop night-blindness, papillary oedema; permanent blindness associated with constriction of the optic nerve, and elevated cerebrospinal fluid pressure. Studies of the levels of vitamin A and carotene in the blood plasma of cows and calves have been made by a number of investigators. Studies on vitamin-A deficiency in horses have also been made. Vitamin-A deficiency in swine may be confused with rickets, for both produce difficulty in walking, including stiffness. In severe cases of both diseases pigs may become paralysed so that they cannot rise to their feet. In vitamin-A deficiency the condition is brought about by degeneration of the nervous system, and the result is a failure to control the legs, instead of inability to move them.

One of the first symptoms of vitamin-A deficiency is often marked restlessness. Later, the pigs may have severe spasms and also show characteristic impairment of vision.

12. Decide whether the statements are true or false according to the text.

- 1) Vitamin-A deficiency may result in night-blindness, poor growth, atrophy of epithelial tissues of the eye. -a) true b) false

2) First clinical manifestations of vitamin-A deficiency are convulsions, total blindness, and degenerative changes in the kidneys. – a) true b) false

3) Night-blindness is later manifestations of vitamin-A deficiency. – a) true b) false

4) Vitamin-A deficiency in swine do not result any degeneration of the nervous system. – a) true b) false

5) Restlessness is one of the first symptoms of vitamin-A deficiency. – a) true b) false

13. Find the equivalents.

- 1) помітний неспокій
- 2) погіршення зору
- 3) народження слабких телят
- 4) дегенеративні зміни
- 5) підвищений внутрішньочерепний тиск

14. Complete the sentences.

abortions and birth of weak calves	destroyed	avitaminosis paralyzed
papillary oedema		

- 1) Cow on diet low in carotene develop
- 2) In severe cases of both diseases pigs may become
- 3) ... may result under natural conditions of vitamin-A deficiency.
- 4) The effect of ... has been extensively studied in cattle.
- 5) Vitamin-A is ... by ultra-violet light.

15. Make up the sentences.

- 1) sensitive / is / to / air / in / vitamin A / oxidation.
- 2) natural / the / is / fish-liver / most / oils / source / important.
- 3) of / toxic / vitamin A / excessive / are / amounts.
- 4) present / in / concentration / liver / vitamin A / is / highest / the / in.
- 5) have / severe / spasms / the / pigs / may.

16. Read and translate the text.

Vitamin D. Its Functions and Sources

Animals must have an adequate supply of vitamin D to enable them to assimilate and utilize the calcium and phosphorus in their food. Since vitamin D is necessary for the prevention of rickets, it is often called the anti-rachitic vitamin. The requirements for vitamin D are especially great during growth, when the skeleton is being developed. The vitamin is also essential even for mature animals, though lesser amounts are

required. During pregnancy there is a special need by the mother for vitamin D and also for calcium and phosphorus, to enable her to build the skeleton and other tissues of the fetus without depleting her own skeleton. During lactation there is an even greater demand for the vitamin, due to the large amounts of calcium and phosphorus that must be assimilated and utilized in the production of milk.

Among the common stock feeds the only important sources of vitamin D are hay and other dry roughages that have been field-cured by exposure to sunlight. Even such sun-cured forages unfortunately have only a rather limited amount of the vitamin.

Green, growing plants contain little or no vitamin D, but it is formed during the sun-curing process by the action of the ultra-violet rays upon traces of ergo sterol in the plant tissues.

17. Decide whether the statements are true or false according to the text.

- 1) Animals must have vitamin D in their food. – a) true b) false
- 2) Hay is the worst source of vitamin D. – a) true b) false
- 3) Without vitamin D animals cannot utilize calcium and phosphorus in their food. – a) true b) false
- 4) During lactation cows require less amounts of this vitamin. – a) true b) false
- 5) Vitamin D is formed by the action of moon light in the plant tissues. – a) true b) false

ADDITIONAL MATERIAL (MINERALS)

1. Read and translate the text.

Essential and Non-Essential Amino Acids

The proteins of the bodies of animals and of the common feeding stuffs are made up of 22 or more different amino acids. In the digestion of food within the body, the proteins are broken down into these amino acids, which are absorbed from the digestive system and enter the blood stream as free amino acids.

The mixture of amino acids is then carried in the blood to the various body tissues, where each organ or tissue removes the quantities of the individual amino acids that it needs for its repair or functioning. The nitrogen is split off from the excess amino acids by the liver and this waste nitrogen is excreted in the urine by the kidneys.

The amino acids which are required by the body and which cannot be made from other substances are called the essential amino acids. Those that can be made from other substances are called the non-essential amino acids.

Many experiments have been conducted with laboratory animals fed rations of highly purified nutrients to determine which of the amino acids are essential. On account of the complexity of such investigations the information on the problem is still

incomplete. It has been proved, however, that certain amino acids are essential for growth and others are not essential.

2. Decide whether the statements are true or false according to the text.

- 1) The proteins are broken down into different amino acids and from digestive system enter the blood stream as free amino acids. – a) true b) false
- 2) It is unknown which of amino acids are essential. – a) true b) false
- 3) The amino acids which can be made from other substances are called the essential amino acids. – a) true b) false
- 4) Those that cannot be made from other substances are called non-essential amino acids. – a) true b) false
- 5) The proteins of the bodies of animals and of the common feeding stuffs are made up of less than twelve different amino acids. – a) true b) false

3. Find the equivalents.

- 1) незамінні та замінні аміно кислоти
- 2) речовина
- 3) надлишковий азот
- 4) поглинати
- 5) очищені поживні речовини

4. Complete the sentences.

health and rapid growth	amino acids	kidneys
repair or functioning	are soluble	

- 1) The amino acids ... in the juices of the small intestine.
- 2) Milk contains proteins that supply all the amino acids necessary for ...
- 3) Each organ or tissue removes the quantities of the individual amino acids that it needs for its
- 4) There are approximately 22 different ... in nature.
- 5) Waste nitrogen is excreted in the urine by the ...

5. Make up the sentences.

- 1) with / been / many / laboratory / have / experiments / animals / conducted.
- 2) down / acids / into / amino / are / proteins / broken / different.
- 3) for / rapid / acids / necessary / health / growth / amino / are / and.
- 4) the / mixture / is / of / carried / to / amino / the / various / acids / tissues / body.
- 5) non-essential / substances / the / amino / other / from / can / made / acids / be.

6. Read and translate the text.

Calcium and Phosphorus

With dairy cattle the critical periods are during growth and when secreting milk. The mineral elements of which there is more frequent deficiency are calcium and phosphorus.

Three-fourths of mineral matter of the animal body is made up of calcium and phosphorus, and it is these elements which are most often lacking in the ration.

The cow in milk uses a large amount of calcium in comparison with other domestic animals. Milk is rich in both calcium and phosphorus, serving as one of the best sources of these elements for human use.

In case the amount of calcium and phosphorus in the food is not sufficient, the cow draws on reserves in her skeleton. It should be understood that the cow gets most of her calcium from the roughages.

Legumes are the best source of calcium of all feeds used. The paths of calcium and phosphorus excretion are the intestine and the kidneys. Phosphorus deficiency in the soil occurs in many parts of the world. This leads to a deficiency of the element in plant product of the soil and may cause serious disorders and economic losses of herbivores. In phosphorus deficiency of cattle there is a decrease in the inorganic phosphorus the food, poor appetite, and a gradual decrease of milk production. Poor appetite may be evident later. Animal may chew bones or eat parts of carcasses.

7. Decide whether the statements are true or false according to the text.

- 1) Milk is rich in both calcium and phosphorus. – a) true b) false
- 2) Legumes are the worst sources of calcium of all feeds used. – a) true b) false
- 3) Poor appetite shows the phosphorous deficiency. – a) true b) false
- 4) Since phosphorus play a part in every cell of the human and animal body, its presence in foods for humans and animals is essential. – a) true b) false
- 5) The skeleton is composed of , and also serves as a storage place for calcium and phosphorus. – a) true b) false

8. Find the equivalents.

- 1) дефіцит; 2) грубі корма; 3) травоядні тварини; 4) худоба молочної породи; 5) бобові культури.

9. Complete the sentences.

roughage	chew bones	poor appetite	calcium
and phosphorus	excretion		

- 1) Three-fourth of mineral matter of the animal body is made up of
- 2) The path of calcium and phosphorus ... are the intestine and kidneys.

- 3) The cow gets most of her calcium from the
- 4) Sometimes cattle may ... or eat parts of carcasses.
- 5) ... may be evident later.

10. Make up the sentences.

- 1) the / source / of / legumes / calcium / are / best.
- 2) in / is / milk / phosphorus / calcium / rich / and.
- 3) cattle / milk / dairy / us / give.
- 4) animals / plants / called / herbivorous / the / that / on / live / are.
- 5) cow / milk / amount / uses / the / in / a / of / calcium / large.

5.2. MILK AND DAIRY PRODUCTS PRODUCTION

Active Vocabulary:

Composition of milk – склад молока

Dairy products – молочні продукти

Contain – містити

Constituents – складові

Digestible – легкоотравний

Digestive – травний

Digestion – травлення

Calcium – кальцій

Vary – змінюватись

Soluble salts – розчинні солі

Sodium chloride – сода, хлористий натрій

Potassium chloride – хлористий калій

Insoluble – нерозчинний

Emulsifying agent – речовина, що утворює емульсію

Mixture – суміш

Cream (sing) – вершки

Fat content – склад жиру

Separate – відділяти (ся)

Acidity – кислотність

Churn – збивати масло

Whipping cream – збиті вершки

Whole milk – незбиране молоко

Dry milk – сухе молоко

Cocondensed milk – згущене молоко

Sour cream – сметана

Butter milk – маслянка, сколотини
Curd (s) – cheese сир
Determine – визначати, зумовлювати
Coagulated – коагульований
Pasteurized – пастеризований
Lactic acid – молочна кислота
Whey – сироватка
Milk rennet – згортання молока
Yogurt – йогурт
Skimmed milk – збиране молоко
Margarine – маргарин
Ice cream – морозиво
Flavouring – ароматизатор
Sweetener – наповнювач (підсолоджувач)
Kefir – кефір
Fermenting milk – ферментуюче молоко
Canned – консервований
Cultured milk foods – кисломолочні продукти

1. Read and translate the text.

MILK AND DAIRY PRODUCTS

The great importance of milk in the diet is due to that fact that it contains most of the essential food constituents in easily digestible form. It represents the best source of calcium, a good source of vitamins A, B complex and C, and contains fat, sugar, proteins, and, in smaller amounts, all the other essential minerals.

Composition of milk. The average percentage of water is 87. The carbohydrates are lactose, which is held in solution along with the minerals as soluble salts. The fat (butter fat) is emulsified, part of the protein of the milk acting as emulsifying agent. The yellow colour of milk is due to the colour pigment of the fat, which, in turn, is derived from the green food eaten by the cow. The principal proteins are casein and albumin. Casein is probably a mixture of compound proteins, the phosphoproteins, and is in part associated with calcium as calcium caseinate. The mixture of casein and calcium caseinate is often called caseinogen.

Cream. The cream of milk is best separated by a centrifuge, which may be so regulated that cream of any desired fat-content may be obtained. Cream contains the same constituents as milk, but in a very different proportion. It resembles milk in many of its properties. Cream intended for retailing is usually of two grades – heavy or whipping cream and coffee cream. Whipping cream must contain not less than 30 percent of fat and coffee cream not less than 18 percent.

Cheeses. The curd of milk which has undergone changes in its composition through the growth of microorganisms is a fair definition of cheese. Most cheeses are made from the acid curds. All cheeses may be considered as rich sources of proteins and minerals, especially calcium.

Butter. If cream is whipped or churned for a long time, the fat globules combine, and fat separates out in lumps which include some of the proteins, milk sugar and salts with a considerable quantity of water adhering. This mass is essentially butter. All butters contain a high percentage of vitamin A, the amount varying with the breed of cattle and the season of the year.

Ice cream is made from milk, milk solids, cream, flavourings, and sweeteners. Nuts and fruits are sometimes added. Ice cream is higher in calories than milk.

Yogurt is made by fermenting milk (whole, skim, or low-fat milk or milk solids) with different strains of bacteria. Most commercial yogurts are low in fat and high (20%) in galactose. But more than half the weight of some yogurts consists of added sugar and fruits. Dairy or related products also include filled and imitation dairy products (for example, filled cheese). Most filled products contain milk solid and nonbutter fat; they come in forms such as cheese and canned milk. An imitation dairy product is one that resembles real milk products, especially in flavour and cooking characteristics, but does not contain any milk solids. Instead, it contains nondairy ingredients.

In the last few years, the consumption of dairy products has declined for various reasons. Technology has created a large number of nutritious beverages. The threat of high blood cholesterol and obesity has also played a role; many consumers use dairy substitutes instead. In addition, many people are still ignorant about the value of milk.

2. Fill in the gaps using the following words.

Foam, aged, milk, fluid, coagulates, homogenization, whipping, evaporated, nutritive, viscosity

1. The optimum amount of fat for a _____ cream is 30 to 35 per cent.
2. A cream which is warm or which is not sufficiently aged will whip to butter, as the fat is not sufficiently firm to form a stabilized _____.
3. A 20 per cent cream may be made to pour like 40 per cent cream by _____, a process in which the fat clusters are greatly reduced in size and greatly increased in number.
4. A high fat cream which has _____ and is cold whips faster.
5. Milk and _____ products are available in many forms.
6. Fresh _____ milk is almost always pasteurized.
7. _____, dry, frozen, condensed, and fermented milk (butter milk and yoghurt) is used in preparation of food.

8. Long cooking at high temperatures _____ some protein, causes an offflavour in the milk, and caramelizes the lactose that is; it decomposes or breaks it down into simpler compounds.
9. You can use dry milk in addition to fluid milk to increase the _____ value.
10. Higher _____ increases the whipping properties of cream.

3. Match the word with its definition.

1. Ice cream
 2. Cheese
 3. Pasteurization
 4. Yogurt
 5. Caseinogen
 6. Casein, albumin
 7. Butter
 8. Margarine
 9. Sour cream
- a) dairy product made by fermenting milk with bacteria
 - b) partial sterilization by heating
 - c) mixture of casein and calcium caseinate
 - d) principal proteins found in milk
 - f) milk product made from acid curds
 - g) mixture of milk, milk solids cream, flavourings
 - h) manufactured substitute for butter
 - i) cultured dairy product obtained by fermenting of cream with its later ripening (aging)
 - j) dairy product obtained by churning the fat from milk

4. Group the words below under the following headings.

Dairy products Cereals Fruit Herbs Vegetables

Blackberry, maize, peanut, fig, beans, mint, sour cream, wheat, cream, onions, rye, ice cream, flour, pineapple, lettuce, gooseberry, filbert, turnip, parsley, grape, dill, nectarine, pumpkin.

5. Translate into English.

1. Молоко містить всі необхідні для підтримки життя речовини, що добре засвоюються організмом.
2. Білки молока містять всі незамінні амінокислоти.
3. Більш ніж 50 % мінеральних речовин у молоці складають солі кальцію і фосфору.
4. В молоці містяться вітаміни А, D, Е, С, В1, В2, В6.

5. За способом обробки молоко випускають пастеризоване, стерилізоване, вітамінізоване, іонітне, обезжирене.
6. Вершки – це молочний продукт, що містить підвищений відсоток жиру.
7. Кефір – це один із найбільш розповсюджених харчових продуктів.
8. Кефір готують із незбираного і знежиреного молока.
9. Сир – це молочнокислий продукт, що має високу поживну та енергетичну цінність.
10. Сметана – це молочнокислий продукт, який отримують при ферментизації вершків і наступному їх дозріванні.

6. Answer the questions.

1. What does milk contain?
2. What can you say about the composition of milk?
3. What milk products do you know?
4. How may the cream of milk be obtained?
5. How are coffee and whipping creams differentiated from each other?
6. What percentage of fat is desirable for a whipping cream?
7. What properties and conditions are essential to whipping cream?
8. What is most of the butter on the market made from?
9. What kinds of animals were domesticated for dairy purposes?
10. Why is it important for man to consume cow milk daily?
11. What factors influence milk composition?
12. Is milk as rich in proteins as meat?
13. What are the main two proteins in milk and why are they important?
14. What minerals is milk rich in?

7. Make up the sentences using these constructions.

- animals that are used for milk production;
- sheep milk that is consumed in South European countries;
- the cow which produces milk, with the highest fat content;
- female mammals that produce milk for their young;
- infants who drink mother's milk;
- nutrients that differ in proportions in milk that is produced by various species of mammals;
- senior citizens who receive enough calcium in their diet to compensate calcium that is lost from the body.

5.3. MEAT AND MEAT PRODUCTS PRODUCTION

Active Vocabulary:

Flesh – м'ясо

Muscular tissue – м'язова тканина

Connective tissue – сполучна тканина

Tendons – сухожилля

Lean meat – пісне м'ясо

Food value – поживна цінність

Satiety – насичення

Palatable – смачний, приємний на смак

Cattle – велика рогата худоба

Beef – яловичина

Veal – телятина

Pork – свинина

Lamb – ягня

Mutton – баранина

Bones – кістки

Gland – залоза (и)

Edible organs – їстівні органи (у тварин)

Carcass – туша

Fibre – волокно

Cell – клітина (біологічна)

Extractives – екстракти

Texture – тканина

Digest – перетравлювати, засвоювати (про їжу)

Skin – шкіра

Albumin – альбумін (білок)

Gelatin – желатин

Blood – кров

Liver – печінка

Kidneys – нирки

Glandular tissues – залозні тканини

Sweetbread – солодке м'ясо

Glycogen – глікоген (тваринний крохмаль)

Preservation – зберігання, консервування

Canning – консервування

Curing – засолювання

Cooling – охолодження

Drying – сушіння

Freezing – заморожування

1. Read and translate the texts.

TYPES OF MEAT

Meat is the common term used to describe the flesh or other edible parts of animals (usually domesticated cattle, swine, and sheep) used for food, including not only the muscles and fat but also the tendons and ligaments. Processed or manufactured products prepared from animal tissues are also called meat. Containing all the amino acids necessary for the human body, meat is valued as a complete protein food. Parts such as livers, kidneys, hearts, and other portions are excellent sources of vitamins and of essential minerals.

Meat digests slowly, but 95 percent of meat protein and 96 percent of the fat are digested. Meats are often classified by the type of animal from which they are taken. Red meat refers to the meat taken from mammals; white meat refers to the meat taken from fowl; seafood refers to the meat taken from fish and shellfish; and game refers to meat taken from animals that are not commonly domesticated. In addition, most commonly consumed meats are specifically identified by the live animal from which they come. The most widely consumed meat is beef, the flesh of mature cattle that normally weigh from 450 to 540 kg. Beef is flesh of mature cattle, as distinguished from veal, i.e. the flesh of calves. The best beef is obtained from early maturing, special beef breeds. The primary beef-consuming countries of the world (in per capita terms) are Uruguay, Argentina, New Zealand, Australia, and the United States. Beef is not particularly popular in most of Southeast Asia, Africa, and the Indian subcontinent; the sanctity of the cow in the Hindu religion forbids the consumption of its meat by the Hindus. Beef is not unusual in the cuisines of Korea and Japan, however; in Japan, near Osaka, a highly prized beef is produced from cattle that are vigorously massaged and fed a liberal dietary supplement of beer.

Veal, the flesh of calves of cattle, is much less fatty than beef. Veal is meat of calves slaughtered between 3 and 14 weeks. Although the meat of an animal from 15 weeks to one year is technically called calf, it is frequently marketed as veal.

Pork is flesh of hogs, usually slaughtered between the ages of six months and one year. About 30 percent of the meat is consumed as cooked fresh meat. Pork is one of the most popular types of meats and is consumed around the world. However, it is prohibited by the dietary laws of Judaism and Islam, so pork is virtually unknown in the cuisines of the Middle East and those of some local populations in Asia and Africa. The chief pork-consuming countries are Germany, Denmark, Poland, and Austria.

Lamb is live sheep before the age of one year, and the flesh of such animals. Mutton refers to the flesh of the mature ram or ewe at least one year old; the meat of

sheep between 12 and 20 months old may be called yearling mutton. The meat of sheep 6 to 10 weeks old is usually sold as baby lamb, and spring lamb is from sheep of five to six months. The primary lamb- and mutton-consuming countries are New Zealand, Australia, Greece, Uruguay, and Ireland.

The usual methods of preserving meat from bacteria and decay are refrigerating, freezing, curing, freeze-drying, and canning.

Chemistry and nutrient composition of meat

Regardless of the animal, lean muscle usually consists of approximately 21 percent protein, 73 percent water, 5 percent fat, and 1 percent ash (the mineral component of muscle). These figures vary as an animal is fed and fattened. Generally, as fat increases, the percentages of protein and water decrease.

Vitamins and minerals. Meat contains a number of essential vitamins and minerals. It is an excellent source of many of the B vitamins, including thiamine, choline, B 6, niacin, and folic acid. Some types of meat, especially liver, also contain vitamins A, D, E, and K. Meat is an excellent source of the minerals, iron, zinc, and phosphorus, a number of essential minerals, such as copper, molybdenum, nickel, selenium, chromium, and fluorine having been found in meat as well.

Cholesterol. Cholesterol is a constituent of cell membranes and is present in all animal tissues. Leaner meats typically are lower in cholesterol. Veal, however, is an exception: it is lower in fat than mature beef but has significantly higher cholesterol levels.

Carbohydrates. Meat contains virtually no carbohydrates. This is because the principal carbohydrate to be found in muscle, the complex sugar glycogen, is broken down in the conversion of muscle to meat. Liver is an exception, containing up to 8 percent carbohydrates.

Water. Water is the most abundant component of meat. Lean young veal may be as much as 80 percent water, while fully fattened beef may be as little as 50 percent. Because water is lost when meats are cooked, the percentages of protein and fat in cooked meats are usually higher than in the raw counterparts.

2. Answer the questions.

1. What is meat?
2. What kinds of meat do we find in the market?
3. What does meat contain?
4. Does meat contain carbohydrates?

3. Give your arguments on the following, using the prompts in brackets.

– pros and cons of a vegetarian diet (healthy and useful meals; protest against animal abuse; preventing from gaining an extra weight).

– advantages and disadvantages of ultrafashionable low-caloric diets (the role of proteins and vitamins in daily human diet; widely spread anti-obesity campaign in Europe and the USA; junk food and its harmful effect on our lifestyle).

4. Use the Present Perfect, Active or Passive, instead of the infinitives in brackets.

1. The hogs just (*to slaughter*) as their weight (*to reach*) 100 kg.
2. They consider French cuisine the most delicious they ever (*to taste*).
3. The Indian local population never (*to eat*) beef.
4. Cooks already (*to invent*) various dishes containing beef, mutton or pork offal.
5. Universal quality standards for producers of different countries (*not/to develop*) yet.
6. Since ancient times meat curing widely (*to use*) to improve shelf life of ham and sausages.
7. The variation of hamburger known as the cheeseburger (*to become*) popular on fast-food restaurant menus.
8. Due to the scientific advances nutrient composition of meats (*to study*) in detail recently.

5. Use the Present Simple, the Past Simple or the Present Perfect, Active or Passive, instead of the infinitives in brackets.

1. The meat (*to thaw*) yet? – Not yet.
2. Why the meat (*to be*) so tough? – Yesterday it (*to freeze and to thaw*) twice. It (*to have*) no juice left in it.
3. He never (*to eat*) hamburgers! Can you imagine that!
4. We never (*to eat*) veal. It (*to be*) too high in cholesterol.
5. Can you tell me if lamb (*to be*) popular in old Russia?
6. Curing and smoking (*to be*) the commonest methods of meat preservation in the past.
7. A number of new techniques of meat preservation (*to introduce*) in recent years.
8. Some types of meat (*not/to consume*) for reasons of religious prohibitions.
9. Products made of the same types of meat (*to vary*) greatly with national customs and tastes.
10. Variety meats (*to cook*) and (*to serve*) in different manners throughout the world.

6. Put the adjectives and adverbs in brackets in the required degree of comparison and put the necessary articles.

1. Pork consumption is (*low*) in Muslim regions.

2. Tenderness and flavour of aged beef are believed to be (*good*) than those of newly slaughtered beef.
3. Meat curing and smoking are among (*old*) methods of meat preservation.
4. The amount of connective tissue in veal is (*large*) than that in beef.
5. It is known that veal contains (*little*) fat than beef.
6. While (*mild*) flavour of lamb is preferred in Western countries, (*strong*) flavour of mutton is (*popular*) in the Middle and Far East countries.
7. (*Low*) temperature is one of (*important*) factors decreasing bacterial growth.
8. Experiments showed that (*rapid*) freezing is (*good*) than (*slow*) one.
9. Lamb is (*favourite*) meat in Greek and Turkish cuisines.
10. Offal is sometimes (*high*) in minerals, vitamins, and proteins than muscle tissue.
11. In the US variety meats are associated not as (*often*) with urban as with rural cookery.
12. Offal can be consumed either (*directly*) as food or processed into other products.
13. Pig is known to be the second (*large*) provider of meat after cattle.
14. The (*strong*) the flow of saliva and gastric juices, the (*easy*) the digestion.
15. Both lamb and mutton are (*highly*) valued in New Zealand as well as in Australia and Britain.

5.4. STORAGE AND SAFETY OF LIVESTOCK PRODUCTS

Active Vocabulary

spoilage – псування

sour milk – кисле молоко

mold – цвіль, плісенний грибок

bread dough – хлібне тісто

perishable foods – їжа, що псується

yeast – дріжджі, закваска

decay – гниття, розпад

decomposition – розкладання; гниття

date – термін

sauerkraut – кисла капуста

soak – замочувати; усмоктувати; занурюватися

cure – заготовляти, консервувати

living tissues – живі тканини

minute size – найдрібніший розмір

ice chest – льодовик, холодильник

fermentation – бродіння, ферментація

wild yeasts – дикі дріжджі

canned foods – консервовані продукти

nutritive value – харчова цінність

clove – гвоздика (прянощі)

cinnamon – кориця

eugenol – хім. сполука евгенол

“corning” – засолювати, консервувати сіллю (м'ясо, рибу)

cook-in-the-can method – метод порційного консервування (по банках)

cook-in-the-kettle method – метод консервування в загальному котлі з подальшою розфасовкою

fancy grade – вищий ґатунок (екстра)

choice grade – кращий ґатунок (відбірний)

1. Read and translate the text.

FOOD STORAGE

Food spoilage is due to the growth of microorganisms in the food. In the course of their development these produce, in some cases, harmless products, such as lactic acid in *sour milk* or carbon dioxide and alcohol in *bread dough* made with yeast; in others harmless but undesirable products, such as the flavour which mold imparts to bread; while, in still other cases, harmful toxins are produced. Food preservation has both hygienic and economic aspects. From the point of view hygiene, food is preserved in order to prevent the formation of products which are harmful to the body.

Many essential but *perishable foods* are preserved for the purpose of prolonging the period of availability. Oranges or tomatoes supply vitamin C from January to January, Green vegetables as well as the more stable root vegetables can be fresh or in cans at any time. Thanks to improved methods of food preservation, it is now possible for everyone at all times to have clean, wholesome food – a well-balanced diet.

Microorganisms. For those who have studied bacteriology, the ravages of food by microorganisms make an old story. In all *living tissues* microorganisms are found which assist either in the growth of the plant or animal or in their decay. In addition the air, water, and all other substances with which food comes in contact contain microorganisms foreign to the natural food but capable of reacting the solutions present in it.

Thus any food is subject to either decay or spoilage by the growth of microorganisms. Our study of microorganisms will confine itself to a description of the different classes and the conditions which are favourable or unfavourable to their growth.

There are three classes – molds, yeast, and bacteria. All are characterized by their extremely *minute size* and their wide distribution.

Molds. The conditions for the growth of mold are less rigid than for any other class of microorganisms. For this reason we may find well-established settlements of molds on almost any substances: they are found on acid foods, such as lemons, oranges or tomatoes; on neutral foods, such as bread and meats; on sweets such as jellies and jams; and on salty food such as bacon or ham.

Low temperatures retard the growth of mold, but temperatures below that of an ordinary *ice chest* (10 to 15 °C) are necessary. Molds must have some moisture. A dry food will not mold unless it is kept in a damp place. Molds will form in darkness or light, but many species cease to grow if exposed to bright sunlight. Circulating air is destructive to mold growth.

Yeasts. Yeasts, unlike molds, will grow only on foods containing sugars. The reaction called *fermentation* changes the sugar to alcohol and carbon dioxide with minute quantities of other products. Although yeasts will grow only in the presence of sugar, they may be found widely distributed.

Bacteria. Although there are many properties which are characteristic of all bacteria, the differences in the behaviour of the different kinds of bacteria are greater than those of the different kinds of yeasts and molds. Bacteria are widely distributed. Like yeasts and molds, they may be found anywhere – in the air, water, soil, and in all foods. In a less acid medium they multiply most rapidly, and, therefore, it is the less acid foods which are most subject to bacterial decomposition. The flavours of cheeses, butter, and butter substitutes are also products of bacterial activity. On the other hand, the spoilage of *canned foods*, meats, milks and vegetables is also due to the products of bacterial growth.

Drying. Drying has been a means of food preservation for centuries and is still used for many foods. It promotes preservation by removing the water essential for the growth of all microorganisms. We find in the market dried fruits, milk, meats, and vegetables, but the varieties of each are few.

The method of drying varies greatly with the food. Foods containing sugar require less drying than others. Within the last few years, intensive efforts have been made to produce dried products which are not only clean but also will resemble fresh foods in appearance and nutritive value.

Dried foods occupy less storage space and may be stored without consideration of temperature. Most dried foods require soaking before cooking in order to restore the water lost by drying. The dried foods most commonly used are prunes, raisins, currants, apples, apricots, peaches, figs, dates, beans, fish, beef, and mushrooms.

Chemical preservation. Many foods are preserved by the use of added substances, which destroy or check the growth of microorganisms. Although many chemicals are known which could be used to help in the preservation of foods, few are allowed by government authorities.

Canning. Canning is the most common form of food preservation. Preservation is insured by the use of sufficient heat to destroy all microorganisms which might develop in the canned product during storage.

It may be noted that foods of high acid concentration require either less time, or

The *cook-in-the-kettle method* consists in cooking the food in an open kettle until all has reached sterilization point, or longer if desired. The food is then packed and sealed in clean sterile jars

The *cook-in-the-can method* describes itself. Food to be canned is washed, blanched if necessary, cut into suitable pieces, and placed in either tin cans or glass jars. Hot water, usually containing either salt or sugar, or both, is added to fill completely the can or jar, which is placed in a suitable cooker to destroy the microorganisms present. Tin-canned food is sealed before processing. All food which is commercially canned in tin cans is heated previous to sealing.

Cold storage. Temperature is the most important factor influencing bacterial growth. Pathogenic bacteria do not grow well at temperatures under 3° C. Therefore, meat should be stored at temperatures that are as cold as possible. Refrigerated storage is the most common method of meat preservation. The typical refrigerated storage life for fresh meats is 5 to 7 days. Freezer storage is an excellent method of meat preservation. It is important to wrap frozen meats closely in packaging that limits air contact with the meat in order to prevent moisture loss during storage. The length of time meats are held at frozen storage also determines product quality. Under typical freezer storage of – 18° C beef can be stored for 6 to 12 months, lamb for 6 to 9 months, pork for 6 months, and sausage products for 2 months.

Freezing. The rate of freezing is very important in maintaining meat quality, rapid freezing being superior. If meats are frozen slowly, large ice crystals form in the meat and rupture cell membranes. When this meat is thawed, much of the original moisture found in the meat is lost as juice flow from the meat. For this reason cryogenic freezing (the use of supercold substances such as liquid nitrogen) or other rapid methods of freezing meats are used at the commercial level to maintain maximal product quality. It is important to note, however, that freezing does not kill most microorganisms; they simply become dormant. When the meat is thawed, the spoilage continues where it left off.

Vacuum packaging. Oxygen is required for many bacteria to grow. For this reason most meats are vacuum-packaged, which extends the storage life under refrigerated conditions to approximately 100 days. In addition, vacuum packaging minimizes the oxidation of unsaturated fatty acids and slows the development of rancid meat.

Curing and smoking. Meat curing and smoking are two of the oldest methods of meat preservation. They not only improve the safety and shelf life of meat products but

also enhance the colour and flavour. Smoking of meat decreases the available moisture on the surface of meat products, preventing microbial growth and spoilage. Meat curing, as commonly performed in products such as ham or sausage, involves the addition of mixtures containing salt, nitrite, and other preservatives

2. Fill in the gaps using the words: *harmful, microorganisms, heat, hygienic, favorable, storage facilities, preserving, freezing, dried, appearance.*

1. Food preservation has both _____ and economic aspects.
2. From the point of view of hygiene food is preserved in order to prevent the formation of products which are _____ to the body.
3. Bacteria grow very rapidly where conditions are _____.
4. Bacteria are more difficult to destroy than the other _____.
5. Considerable success is now being experienced in the _____ of fish and meat and of many fruits and vegetables by _____.
6. New method of freezing and better _____ for frozen products have improved the flavour and texture of the food.
7. Within the last years intensive efforts have been made to produce _____ products which are not only clean but also will resemble fresh foods in _____ and nutritive value.
8. The temperature in the canning of food depends upon several factors, the number of microorganisms present in the uncooked food the rate at which _____ can penetrate the food to be canned.

3. Choose the correct form in bold.

1. Any food **is/are** subject to either decay or spoilage by the growth of microorganisms.
2. Microorganisms **must be/may** multiply in two ways.
3. A spore **differ/differs** from the microorganisms from which it comes in being more resistant to conditions unfavorable to growth.
4. Spore – bearing organisms are **more/most** difficult to destroy than those which multiply by simple cell division.
5. Molds **must/can** have some moisture.
6. The mixture of various kinds of yeasts present everywhere in the air **is/are called** wild yeast.
7. Like yeasts and molds, bacteria **may/must** be found anywhere – in the air, water, soil and in all foods.
8. The method of drying **vary/varies** greatly with food.
9. Many foods **are/is preserved** by the use of added substances, which destroy or check the growth of microorganisms.
10. Canning is **the most/more** common form of food preservation.

4. Match the word or words with the definition.

- | | |
|--------------|---|
| 1. choice | a. the things that something in science normally does |
| 2. behaviour | b. small amounts of water in or on something |
| 3. mould | c. the soft part inside a fruit or vegetable |
| 4. moisture | d. a sour-tasting liquid made from malt or wine |
| 5. flesh | e. a substance in foods such as bread and potatoes |
| 6. vinegar | f. the wine made in a particular year |
| 7. vintage | g. a green or black substance that grows on old food |
| 8. starch | h. high quality |

5. Translate into English.

1. Як відомо, харчові продукти швидко псуються.
2. Для того, щоб довше зберегти харчові якості продуктів, їх консервують, засолюють, коптять, заморожують.
3. Псуванню харчових продуктів сприяє ріст мікроорганізмів.
4. Мікроорганізми поділяються на декілька класів: пліснява, дріжджі, бактерії.
5. Зазвичай пліснява утворюється в темряві, але іноді й на світлі. В більшості випадків пліснява припиняє рости, якщо вона піддається сонячному освітленню.
6. Смак сирів та масла змінюється під дією бактерій.
7. З іншого боку, псування консервованих продуктів – м'яса, молока, овочів – також відбувається під дією росту бактерій.
8. Найсприятливіший спосіб зберігання харчових продуктів у холодильниках; в цьому випадку, смак, вигляд і поживна цінність незначно змінюється

5.5. GENETICALLY MODIFIED ORGANISMS (GMO)

1. Before you read the passage, talk about these questions.

1. How can bioengineering improve animal industries?
2. What are some concerns about bioengineering?

2. Read the conference schedule. Then, mark the following statements as true (T) or false (F).

1. The keynote speaker will address biotechnology in agriculture.
2. On Sunday, group B attends a presentation cloning bacteria.
3. The closing remarks will discuss concerns with bioengineering.

Friday March 18

4:30 pm Registration • Parker Hall lobby

5:30 pm Keynote Address

Chapman Ballroom. Keynote speaker Dr. Mary Gilbertson will describe her research in genetic engineering.

Saturday March 19

8:30 am - 12:00 pm Presentations, Parker Hall

Group A: Room 119

Transgenic organisms. Dr. Meyers White talks about current research and newly developed transgenic organisms and their benefits.

Group B: Room 106

Biotechnology applications in agriculture. Dr. Francis Gray discusses three promising new directions for biotechnology in agriculture.

2:00 pm - 4:00 pm Poster Session Rorschach Exhibition Area

Sunday March 18

8:30 am - 12:00 pm Presentations, Parker Hall

Group A: Room 119

Cloning bacteria and other microorganisms: engineering applications. Dr. Ursula Prsybysic and Dr. William Shawcross present on the latest engineering applications.

Group B: Room 106

Genes, gene expression, and gene enhancement: new techniques for producing favorable outcomes. Dr. Samel Perez discusses a set of techniques developed by Camber University.

2:00 pm - 3:00 pm Closing Remarks

Chapman Ballroom. Dr Whitaker will discuss societal concerns about bioengineering. How might we face greater regulation of our research and even prohibition?

3. Read the sentence pair. Choose where the words best fit the blanks.

1. gene enhancement / regulation

A. _____ can create stronger animals.

B. There is strict _____ of genetic research.

2. biotechnology / societal concerns

A There are many _____ about cloning.

B Robert wants to work in the _____ field

4. Match the words (1-6) with the definitions (A-F).

1. cloning	A. the appearance of a trait
1. gene	B. making a copy of an organism
2. transgenic	C. a segment of DNA
3. prohibition	D. banning something
4. expression	E. altering genetic material
5. genetic engineering	F. having artificially introduced genetic material

5. Express the main idea of the texts in the shortest possible way.

protein – протеїн, білок

restriction – обмеження

endonuclease – ендонуклеоза

cadaver – труп

ligase – лигаза

enhancement – підсилювання

splice – зрощувати, з'єднувати

novel – новий

trait – риса

enzyme – фермент

specify – точно визначати, указувати

initial – початковий, первісний

application – застосування

approve – схвалювати, стверджувати

momentous – важливий

radical – основний

Genetic engineering, genetic modification (GM) and gene splicing are terms for the process of manipulating genes, usually outside the organism's normal reproductive process.

It involves the isolation, manipulation and reintroduction of DNA into cells or model organisms, usually to express a protein. The aim is to introduce new characteristics or attributes physiologically or physically, such as making a crop resistant to herbicide, introducing a novel trait, or producing a new protein or enzyme. Examples can include the production of human insulin through the use of modified bacteria, the production of erythropoietin in Chinese Hamster Ovary cells, and the production of new types of experimental mice such as the OncoMouse (cancer mouse) for research, through genetic redesign.

Since a protein is specified by a segment of DNA called a gene, future versions of that protein can be modified by changing the gene's underlying DNA.

One way to do this is to isolate the piece of DNA containing the gene, precisely cut the gene out, and then reintroduce (splice) the gene into a different DNA segment.

Daniel Nathans and Hamilton Smith received the 1978 Nobel Prize in physiology or medicine for their isolation of restriction endonucleases, which are able to cut DNA at specific sites. Together with ligase, which can join fragments of DNA together, restriction enzymes formed the initial basis of recombinant DNA technology.

Applications. The first Genetically Engineered drug was human insulin approved by the USA's FDA in 1982. Another early application of GE was to create human

growth hormone as replacement for a drug that was previously extracted from human cadavers. In 1986 the FDA approved the first genetically engineered vaccine for humans, for hepatitis B. Since these early uses of the technology in medicine the use of the GE has expanded to supply many drugs and vaccines.

One of the best known applications of genetic engineering is that of the creation of genetically modified organisms (GMOs).

There are potentially momentous biotechnological applications of GM, for example oral vaccines produced naturally in fruit, at very low cost.

A radical ambition of some groups is human enhancement via genetics, eventually by molecular engineering. DNA sequencing is a technique which is used to identify each base in DNA.

6. Make up word combinations using the text:

1) human	a) sapiens
2) restriction	b) genome
3) reproductive	c) trait
4) medical	d) engineering
5) homo	e) process
6) novel	f) research
7) molecular	g) acid
8) modifie	h) a protein
9) deoxyribonucleic	i) bacteria
10) express	j) endonuclease

7. Give definitions of the following words and word combinations.

Genome, genetically modified organism, DNA sequencing, model organism, restriction endonuclease

1..... a species that is extensively studied to understand particular biological phenomena, with the expectation that discoveries made in the organism model will provide insight into the workings of other organisms.

2. is the process of determining the nucleotide order of a given DNA fragment, called the DNA sequence. Currently, almost all DNA sequencing is performed using the chain termination method, developed by Frederick Sanger.

3. is an organism whose genetic material has been altered using techniques in genetics generally known as recombinant DNA technology

4. is an enzyme that cuts double-stranded DNA. The enzyme makes two incisions, one through each of the phosphate backbones of the double helix without damaging the bases.

5. The complete set of genetic information of an organism including DNA and RNA.

TEST 5

1. *Milk of reindeer is used in...*
 - a) Africa; b) India; c) northern Europe.
2. *....is often prescribed for persons who are allergic to the proteins in cow milk.*
 - a) goat milk; b) human milk; c) horse milk.
3. *Milk is deficient in ...*
 - a) calcium and phosphorous; b) iron and copper; c) potassium and calcium.
4. *The average percentage of water is ...*
 - a) 70; b) 60; c) 87.
5. *The curd of milk which has undergone changes in its composition through the growth of microorganisms is a fair definition of ...*
 - a) butter; b) yoghurt; c) cheese.
6. *Game refers to meat taken from...*
 - a) wild animals; b) sheep; c) calves.
7. *Veal refers to meat taken from...*
 - a) cows; b) sheep; c) calves.

UNIT 6. BUSINESS CORRESPONDENCE

6.1. RESUME. AN APPLICATION FORM

1. Look through the following information

How to write an application letter

Contact Information

Name

Address

City, State, Zip Code

Phone Number

Email Address

Date

Employer Contact Information *(if you have it)*

Name

Title

Company

Address

City, State, Zip Code

Salutation

Dear Mr./Ms. Last Name, *(leave out if you don't have a contact)*

Body of Application Letter

The body of your application letter lets the employer know what position you are applying for, why the employer should select you for an interview, and how you will follow-up.

First Paragraph

The first paragraph of your letter should include information on why you are writing. Mention the job you are applying for and where you found the job listing. Include the name of a mutual contact, if you have one.

Middle Paragraph(s)

The next section of your application letter should describe what you have to offer the employer. Mention specifically how your qualifications match the job you are applying for. Remember, you are interpreting your resume, not repeating it.

Final Paragraph

Conclude your application letter by thanking the employer for considering you for the position. Include information on how you will follow-up.

Complimentary Close

Sincerely, Signature

2. Fill in the application form

PERSONAL INFORMATION:

First Name _____

Middle Name _____

Last Name _____

Street Address

City, State, Zip Code

Phone Number

() _____

Are you eligible to work right now?

Yes _____ No _____

If you are under age 18, do you have an employment/age certificate?

Yes ___ No ___

Have you been convicted of or pleaded no contest to a felony within the last five years?

Yes _____ No _____

If yes, please explain: _____

POSITION/AVAILABILITY:

Position Applied For

Days/Hours Available

Monday _____

Tuesday _____

Wednesday _____

Thursday _____

Friday _____

Saturday _____

Sunday _____

Hours Available: from _____ to _____

What date are you available to start work?

EDUCATION:

Name and Address of School - Degree/Diploma - Graduation Date

Skills and Qualifications: Licenses, Skills, Training, Awards

EMPLOYMENT HISTORY:

Present Or Last Position:

Employer: _____

Address: _____

Supervisor: _____

Phone: _____

Email: _____

Position Title: _____

From: _____ To: _____

Responsibilities: _____

Salary: _____

Reason for Leaving: _____

Previous Position:

Employer: _____

Address: _____

Supervisor: _____

Phone: _____

Email: _____

Position Title: _____

From: _____ To: _____

Responsibilities: _____

Salary: _____

Reason for Leaving: _____

May We Contact Your Present Employer?

Yes _____ No _____

References:

Name/Title Address Phone

I certify that information contained in this application is true and complete. I understand that false information may be grounds for not hiring me or for immediate termination of employment at any point in the future if I am hired. I authorize the verification of any or all information listed above.

Signature _____

Date _____

3. Look through the following information and write your own resume

RESUME

A Resume is a self-promotional document that presents an applicant in the best possible light, for the purpose of getting invited to a job interview. It's not an official personnel document. It's not a job application.

Example

David Warren

1823 Stackhouse Ln.

Akron, OH 44301

dw36@psu.edu

Home (817) 555-0021

Office (817) 555-9010

Objective

A tenure track position in a well-established sociology department, which will allow for adequate time and funding to be directed toward research.

Summary of Achievements

Rhodes Scholar

1988 -1990: Awarded two years of post-graduate study at Oxford University. Pursued the M.Phil in Social Sciences.

Gene Landis Award for Outstanding Teaching

1995 & 1997: Selected by the student body of York College.

Experience

1999 -Present

Assistant Professor, Sociology -University of Pittsburgh, Pittsburgh, PA

Taught such notable courses as "Intro to Sociology", "Sociology of Inequality", and "The McDonaldization of Society".

1995 -1998

Lecturer, York College, York, PA

Education

Ph.D, Sociology, 1994

Penn State University, State College, PA

Specialization: Global inequality, sociology of marriage

M.Phil, Social Sciences, 1990

Oxford College, Oxford, UK

B.A. Sociology, Literature 1988

Cornell University

Ithaca, NY

Selected Publications

"Building More Prisons: Retribution or Rehabilitation?", American Journal of Sociology. Worthington Press, June 1995

"Big Mac Nation", published in The Globalization Reader. Bretton-Woods Press. August

GRAMMAR

NOUNS: SINGULAR AND PLURAL

Singular	Plural	Uses
day bird street rose	days birds streets roses	The plural of a noun is usually made by adding -s to the singular
tomato match dish class box	tomatoes matches dishes classes boxes	Nouns ending in -o , -ch , -sh , -s , -ss or -x form their plural by adding -es . (NOTE: words of foreign origin or abbreviated words ending in -o add -s only: <i>dynamo</i> - <i>dynamos</i> ; <i>kilo</i> - <i>kilos</i> ; <i>photo</i> - <i>photos</i> ; <i>piano</i> - <i>pianos</i>);
baby city	babies cities	Nouns ending in -y following a consonant form their plural by dropping the -y and adding -ies .
loaf wife wolf calf half knife shelf life sheaf	loaves wives wolves calves halves knives shelves lives sheaves	Twelve nouns ending in -f or -fe drop the -f or -fe and add -ves : <i>loaf</i> , <i>wife</i> , <i>wolf</i> , <i>calf</i> , <i>half</i> , <i>leaf</i> , <i>self</i> , <i>knife</i> , <i>life</i> , <i>sheaf</i> , <i>shelf</i> , <i>thief</i> . (Exceptions: <i>beliefs</i> , <i>chiefs</i> , <i>roofs</i> , <i>cliffs</i> , <i>safes</i> , <i>cuffs</i> , <i>handkerchiefs</i>). The nouns <i>hoof</i> , <i>scarf</i> and <i>wharf</i> take either -s or -ves in the plural: <i>wharfs</i> or <i>wharves</i> , <i>hoofs</i> or <i>hooves</i> ; <i>scarfs</i> or <i>scarves</i> .
man woman foot goose tooth louse mouse child	men women feet geese teeth lice mice children	A few nouns form their plural by a vowel change.
sheep deer fish species swine	sheep deer fish species swine	Some nouns have the same form for singular and plural.

crisis	crises	Some nouns that English has borrowed from other languages have foreign plurals.
criterion	criteria	
datum	data	

NOUNS: COMMON AND POSSESSIVE CASE

a) Singular Noun the girl my wife my baby Tom Archimedes Pythagoras Thomas Carlos my brother-in-law	Possessive Form the <i>girl's</i> name my <i>wife's</i> coat my <i>baby's</i> toys <i>Tom's</i> friend <i>Archimedes'</i> Law <i>Pythagoras'</i> Theorem <i>Thomas's/Thomas'</i> <i>Carlos's/Carlos'</i> my <i>brother-in-law's</i> guitar	1. 's is used with singular nouns not ending in -s. 2. Classical names ending in -s usually add only the apostrophe. 3. Other names ending in -s take 's or the apostrophe alone. 4. With compounds, the last word takes the 's.
b) Plural Noun the girls the men my children	Possessive Form the <i>girls'</i> names the <i>men's</i> work my <i>children's</i> toys	1. A simple apostrophe (') is used with plural nouns ending in -s. 2. 's is used with plural nouns not ending in -s.

COUNT AND NONCOUNT NOUNS

1. I bought <i>a chair</i> . Tom bought <i>three chairs</i> . 2. We bought <i>some furniture</i> . <i>INCORRECT: We bought a furniture.</i> <i>INCORRECT: We bought some furnitures.</i>	<i>Chair</i> is a count noun; chairs are items that can be counted. <i>Furniture</i> is a noncount noun. In grammar, furniture cannot be counted.
--	---

	Singular	Plural	
COUNT NOUN	a chair one chair	chairs two chairs some chairs a lot of chairs many chairs	A count noun: a) may be preceded by a/an in the singular; b) takes a final -s/-es in the plural.
NONCOUNT NOUN	furniture some furniture a lot of furniture much furniture	—	A noncount noun: a) is not immediately preceded by a/an ; b) has no plural form; does not take a final -s/-es .

SOME COMMON NONCOUNT NOUNS

<p>1. Whole groups made up of similar items: <i>baggage, clothing, equipment, food, fruit, furniture, garbage, hardware, jewelry, junk, luggage, mail, machinery, make-up, money/cash/change, postage, scenery, traffic.</i></p>
<p>2. Fluids: <i>water, coffee, tea, milk, oil, soup, gasoline, blood, etc.</i></p>
<p>3. Solids: <i>ice, bread, butter, cheese, meat, gold, iron, silver, glass, paper, wood, cotton, wool, etc.</i></p>
<p>4. Gases: <i>steam, air, oxygen, nitrogen, smoke, smog, pollution, etc.</i></p>
<p>5. Particles: <i>rice, chalk, corn, dirt, dust, flour, grass, hair, pepper, salt, sand, sugar, wheat, etc.</i></p>
<p>6. Abstractions:</p> <ul style="list-style-type: none"> – <i>beauty, confidence, courage, education, enjoyment, fun, happiness, health, help, honesty, hospitality, importance, intelligence, justice, knowledge, laughter, luck, music, patience, peace, pride, progress, recreation, significance, sleep, truth, violence, wealth, etc.</i> – <i>advice, information, news, evidence, proof;</i> – <i>time, space, energy;</i> – <i>homework, work;</i> – <i>grammar, slang, vocabulary.</i>
<p>7. Languages: <i>Arabic, Chinese, English, Spanish, etc.</i></p>

- 8. Fields of study:** *economics, chemistry, engineering, history, literature, mathematics, psychology, etc.*
- 9. Recreation:** *baseball, soccer, tennis, chess, bridge, poker, etc.*
- 10. General activities:** *driving, studying, swimming, travelling, walking* (and other gerunds).
- 11. Natural Phenomena:** *weather, dew, fog, hail, heat, humidity, gravity, rain, lightning, sleet, snow, thunder, wind, darkness, light, sunshine, electricity, fire.*

USING NOUNS AS MODIFIERS

<p>1. The soup has vegetables in it. It is vegetable soup.</p> <p>2. The building has offices in it. It is an office building.</p>	<p>When a noun is used as a modifier, it is in its singular form.</p>
<p>3. The test lasted two hours. It was a two-hour test.</p> <p>4. Her son is five years old. She has a five-year-old son.</p>	<p>When a noun used as a modifier is combined with a number expression, the noun is singular and a hyphen (-) is used.</p>

THE INDEFINITE ARTICLE

Use of a/an	Examples
<p>1. Before a singular countable noun, when it is mentioned for the first time and represents no particular person or thing:</p>	<p><i>I can see a book on the table.</i> <i>They live in a flat.</i> <i>He bought an ice-cream.</i></p>
<p>2. Before a singular countable noun which is used as an example of a class of things:</p>	<p><i>A child needs love =</i> <i>All children need/Any child needs love.</i></p>

3. With a noun complement. This	<i>My friend is a manager. She'll be a dancer.</i>
includes names of professions:	
4. With certain numbers. Before half when half follows a whole number. But $\frac{1}{2}$ kg = half a kilo, though <i>a + half + noun</i> is sometimes possible. With $\frac{1}{3}$, $\frac{1}{4}$, etc a is usual:	<i>a dozen, a hundred, a million</i> (but one dozen, one hundred, one million is also possible). <i>1½ kilos = one and a half kilos or a kilo and a half; a half-holiday, a half-portion, a half-share; a third, a quarter etc., but one is also possible.</i>
5. In expressions of price, speed, ratio etc.:	<i>5p a kilo, sixty kilometres an hour, four times a day;</i> (Here a/an = per)
6. Before a singular countable noun after the word what in exclamatory sentences and after the words such, quite, rather :	<i>Such a long queue! Such long queues! What a pretty girl! What pretty girls! She is still quite a child. It is rather a difficult problem.</i>
7. With the nouns in the function of apposition. But when the apposition refers to a well-known person the is used:	<i>The report was made by Petrenko, a student of our University. Jack London, the great American novelist, was born in San Francisco.</i>
8. In a number of set expressions: <i>a lot of, a great many, a great deal of, a good deal of, a great number of, a good many, a couple, a little, a few, at a speed of, at a time when, at a time, in time, on a large (small) scale, all of a sudden, by bus (train), to be in a hurry, to be in a position, to be at a loss, it's a pity, for a short (long) time, as a result of, as a matter of fact, to have a good time, to have a mind, in a loud (low) voice, to have a look, to have a headache, to take a sit, to have a cold, to go for a walk.</i>	

THE DEFINITE ARTICLE

Use of «the»	Examples
1. Before a noun which has become definite as a result of being mentioned:	<i>I saw a new film on TV yesterday.</i> The film wasn't very interesting.
2. Before a noun made definite by the addition of a phrase or clause:	<i>the girl in blue; the boy that I met;</i> <i>the place where I met him.</i>
3. When the object or group of objects is unique:	<i>the earth, the sea, the sky, the moon, the sun, the world.</i>
4. Before a noun which by reason of locality can represent only one particular thing:	<i>Ann is in the garden.</i> (the garden of this house). <i>Please open the window.</i>
5. Before superlatives and <i>first, second</i> etc. used as adjectives or pronouns, and <i>only</i> :	<i>the first week; the best day; the only way.</i>
6. Before a noun that represents a class of animals or things: But <i>man</i> , used to represent the human race, has no article.	The cow is a domestic animal. The pine is an evergreen tree. <i>If oil supplies run out, man have to fall back on the horse.</i>
7. The + adjective represents a class of people:	the old = old people in general. the rich = rich people in general.
8. Before certain proper names of oceans, rivers, seas, gulfs, groups of islands, chains of mountains,	<i>The Atlantic, the Thames, the Alps, the Black Sea, the Crimea, the City, the United States of America, the Sahara, the Persian Gulf.</i>

plural names of countries, deserts, and before certain other names:	
9. Before the adjectives <i>east/west</i> etc. + noun in certain names:	<i>the East/West End, the East/West Indies, the North/South Pole.</i>
10. Before other proper names consisting of adjective + noun or noun + of + noun:	<i>The National Gallery, the Tower of London.</i>
11. Before names of newspapers, ships, orchestras, pop groups etc.	<i>the Times, the Great Britain, the Philadelphia Orchestra, the Beatles.</i>
12. the + plural surname can be used to mean «the ... family»:	<i>the Smiths = Mr and Mrs Smith (and children).</i>
13. the + a singular countable noun (type of machine, invention, musical instruments).	<i>The bicycle is an excellent means of transport. When was the telephone invented? The piano is my favourite instrument.</i>

NO ARTICLE

Uses	Examples
1. Before plural nouns:	<i>My friends are students.</i>
2. Before abstract nouns except when they are used in a particular sense:	<i>Men fear death.</i> but: <i>The death of the Prime Minister left his party without a leader.</i>
3. After a noun in the possessive case, or a possessive adjective:	<i>the boy's uncle = the uncle of the boy</i> <i>It is my (blue) book = The (blue) book is mine.</i>
4. Before names of meals:	<i>The Scots have porridge for breakfast</i> but: <i>The wedding breakfast was held in her father's house.</i>

5. Before names of games:	<i>He plays golf.</i>
6. Before parts of the body and articles of clothing, as these normally prefer a possessive adjective:	<i>Raise your right hand.</i> <i>He took off his coat.</i>
7. When <i>home</i> is used alone, i.e. is not preceded or followed by a descriptive word or phrase:	<i>He is at home. He went home.</i> <i>I arrived home after dark.</i> <i>I sent him home.</i>
8. Before the nouns: bed, church, court, hospital, prison, school/college/university , when these places are visited or used for their primary purpose. We can be/get back <i>from school/college/university</i> . We can <i>leave school, leave hospital, be released from prison</i> . <i>But:</i> When these places are visited or used for other reasons the is necessary:	We go: <i>to bed</i> to sleep; <i>to church</i> to pray; <i>to court</i> as litigants; <i>to hospital</i> as patients; <i>to prison</i> as prisoners; <i>to school/college/university</i> to study; similarly we can be: <i>in bed</i> , sleeping or resting; <i>at church</i> as worshippers; <i>in hospital</i> as patients; <i>at school</i> as students. <i>Sometimes he goes to the prison to give lectures.</i>
9. <i>work</i> = place of work.	<i>He is at work.</i> <i>He's on his way to work.</i>
10. We go <i>to sea</i> as sailors. To be <i>at sea</i> = to be on a voyage (as passengers or crew). But to go <i>to</i> or be <i>at the sea</i> = to go <i>to</i> or be <i>at the seaside</i> . We can also live <i>by/near the sea</i> .	

PERSONAL PRONOUNS

The Nominative Case	The Objective Case
I – я he – він she – вона it – воно (він, вона) we – ми you – ви, ти they – вони	me – мене, мені him – його, йому her – її, їй it – його, йому, її, їй us – нас, нам you – вас, вам, тебе, тобі them – їх, їм

POSSESSIVE PRONOUNS

Conjoint Form	Absolute Form
my – мій, моя, моє, мої his – його (<i>чоловічий рід</i>) her – її its – його (<i>середній рід</i>), її our – наш, наша, наше, наші your – ваш, ваша, ваше, ваші their – їхній, їхня, їхнє, їхні	mine – мій, моя, моє, мої his – його (<i>чоловічий рід</i>) hers – її ours – наш, наша, наше, наші yours – ваш, ваша, ваше, ваші tw – твій, твоя, твоє, твої theirs – їхній, їхня, їхнє, їхні

REFLEXIVE PRONOUNS

Persons	Singular		Plural	
1 st pers.	myself	сам(а)	ourselves	самі себе
2 nd pers.	yourself	себе	yourselves	
3 rd pers.	himself, herself, itself		themselves	
1. <i>He</i> looked at <i>himself</i> in the mirror.		A reflexive pronoun usually refers to the subject of a sentence. <i>He</i> and <i>himself</i> refer to the same person.		

2. <i>He himself</i> answered the phone, not his secretary.	Sometimes reflexive pronouns are used for emphasis.
3. <i>He</i> answered the phone <i>himself</i> .	
4. She lives <i>by herself</i> .	The expression <i>by</i> + <i>a reflexive pronoun</i> usually means «alone».

INDEFINITE PRONOUNS

Sentences		-thing	-body, -one	-where
Affirmative	some	something <i>щось-небудь</i>	somebody someone <i>хтось</i> <i>хто-небудь</i>	somewhere anywhere <i>десь</i> <i>де-небудь</i>
	any	anything <i>усе, що</i> <i>завгодно</i>	anybody/anyone <i>усякий</i> <i>будь-який</i>	anywhere <i>де завгодно</i> <i>куди завгодно</i>
Interrogative	any	anything <i>щось-небудь</i>	anybody anyone <i>хто-небудь</i> <i>будь-хто</i>	anywhere <i>де-небудь</i> <i>куди-небудь</i>
Negative	not ... any	not... anything <i>нічого</i>	not ... anybody not ... anyone <i>ніхто</i>	not ... anywhere <i>ніде, нікуди</i>
	no	nothing <i>нічого</i>	nobody/no one none <i>ніхто</i>	nowhere <i>ніде, нікуди</i>
Affirmative Interrogative Negative	every	everything <i>усе</i>	everybody everyone <i>усякий, кожний,</i> <i>усе</i>	everywhere <i>скрізь, усюди</i>

QUANTITATIVE PRONOUNS

few little <i>мало, мало</i> <i>хто</i> <i>недостатньо</i> <i>о</i>	Few birds can be seen in that place. (= <i>almost none</i>) I know little about painting. (= <i>almost nothing</i>)	Few and little have a negative meaning. They mean <i>not enough</i> .
a few <i>кілька</i> a little <i>трохи</i>	A few birds can be seen in that place. (= <i>some birds</i>) I know a little about painting. (= <i>something</i>)	A few, a little have a positive meaning. They mean <i>some though not much (many)</i>

DEMONSTRATIVE PRONOUNS

Singular		Plural	
this – цей, ця, це	that – той, та, те	these – ці	those – ті

DEGREES OF COMPARISON OF ADJECTIVES AND ADVERBS

Adjectives and Adverbs	Positive	Comparative	Superlative	Formation
One-syllable adjectives and adverbs	old wise hot easy fast early	older, elder wiser hotter easier faster earlier	oldest, eldest wisest hottest easiest fastest earliest	For most one-syllable adjectives and adverbs, -er and -est are added.
Two-syllable adjectives and adverbs	famous slowly	more famous more slowly	most famous most slowly	For most two-syllable adj. and adv., more and most are used.
	busy pretty	busier prettier	busiest prettiest	-Er/-est are used with two-syllable adjectives that end in -y . The -y is changed to -i .

	clever	cleverer more clever	cleverest most clever	Some two-syllable adjectives use -er/-est or more/most : <i>able, pleasant, angry, handsome, simple, common, quiet, narrow, sour, polite, cruel.</i>
	gentle	gentler more gentle	gentlest most gentle	
	friendly	friendlier more friendly	friendliest most friendly	
Adjectives and adverbs with three or more syllables	important productive carefully	more important more productive more carefully	most important most productive most carefully	More and most are used with long adjectives and adverbs.
Irregular Adjectives and Adverbs				
good/well bad/badly far much/many little	better worse farther/further more less	best worst farthest/furthest most least		

ОСОБОВІ ФОРМИ ДІЄСЛОВА FINITE FORMS OF THE VERB

Дійсний спосіб The Indicative Mood	
Активний стан Active Voice <i>to ask</i>	
Пасивний стан Passive Voice <i>to be asked</i>	
Неозначені часи Indefinite Tenses <i>to ask</i>	Доконані часи Perfect Tenses <i>to have asked</i>
<i>to be asked</i>	<i>to have been asked</i>

Pre- sent	Past	Future	Present	Past	Future
<i>ask</i> <i>asks</i>	<i>asked</i>	<i>shall</i> <i>ask</i> <i>will</i>	<i>have</i> <i>asked</i> <i>has</i>	<i>had</i> <i>asked</i>	<i>shall</i> <i>have</i> <i>will asked</i>
<i>am</i> <i>is</i> <i>asked</i> <i>are</i>	<i>was</i> <i>asked</i> <i>were</i>	<i>shall</i> <i>be</i> <i>will</i> <i>asked</i>	<i>have</i> <i>been</i> <i>has</i> <i>asked</i>	<i>had</i> <i>been</i> <i>asked</i>	<i>shall have</i> <i>been</i> <i>will asked</i>
Тривалі часи Continuous Tenses <i>to be asking</i>			Перфектно-тривалі часи Perfect Continuous Tenses <i>to have been asking</i>		
<i>to be being asked</i>			—		
Prese nt	Past	Future	Present	Past	Future
<i>am</i> <i>is</i> <i>asking</i> <i>are</i>	<i>was</i> <i>asking</i> <i>were</i>	<i>shall</i> <i>be</i> <i>asking</i> <i>will</i>	<i>have</i> <i>been</i> <i>has</i> <i>asking</i>	<i>had</i> <i>been</i> <i>asking</i>	<i>shall have</i> <i>been</i> <i>will asking</i>
<i>am</i> <i>is</i> <i>being</i> <i>are</i> <i>asked</i>	<i>was</i> <i>being</i> <i>asked</i> <i>were</i>	—	—	—	—

INDEFINITE TENSES

(to work, to write)

Present Indefinite			
<i>work (s), write (s)</i>			
Affirmative	Interrogative	Negative	Interrogative-Negative
<p><i>I work, write</i></p> <p><i>He/she works, writes</i></p> <p><i>We/you/they work, write</i></p>	<p><i>Do I work, write?</i></p> <p><i>Does he/she work, write?</i></p> <p><i>Do we/you/they work, write?</i></p>	<p><i>I do not work, write</i></p> <p><i>He/she does not work, write</i></p> <p><i>We/you/they do not work, write</i></p>	<p><i>Do I not work, write?</i></p> <p><i>Does he/she not work, write?</i></p> <p><i>Do we/you/they not work, write?</i></p>
Past Indefinite			
<i>worked, wrote</i>			
Affirmative	Interrogative	Negative	Interrogative-Negative
<p><i>I worked, wrote</i></p> <p><i>He/she worked, wrote</i></p> <p><i>We/you/they worked, wrote</i></p>	<p><i>Did I work, write?</i></p> <p><i>Did he/she work, write?</i></p> <p><i>Did we/you/they work, write?</i></p>	<p><i>I did not work, write</i></p> <p><i>He/she did not work, write</i></p> <p><i>We/you/they / did not work, write</i></p>	<p><i>Did I not work, write?</i></p> <p><i>Did he/she not work, write?</i></p> <p><i>Did we/you/they not work, write?</i></p>

Future Indefinite			
<i>shall/will + work, write</i>			
Affirmative	Interrogative	Negative	Interrogative-Negative
I/we <i>shall work, write</i>	<i>Shall I/we work, write?</i>	I/we <i>shall not work, write</i>	<i>Shall I/we not work, write?</i> <i>Will he/she/you/they not work, write?</i>
He/she/you/ they <i>will work, write</i>	<i>Will he/she/you/they work, write?</i>	He/she/you/ they <i>will not work, write</i>	

CONTINUOUS TENSES
(to work, to write)

Present Continuous			
<i>am, is, are + working, writing</i>			
Affirmative	Interrogative	Negative	Interrogative-Negative
I <i>am working, writing</i>	<i>Am I working, writing?</i>	I <i>am not working, writing</i>	<i>Am I not working, writing?</i> <i>Is he/she not working, writing?</i> <i>Are we/you/they not working, writing?</i>
He/she <i>is working, writing</i>	<i>Is he/she working, writing?</i>	He/she <i>is not working, writing</i>	
We/you/they <i>are working, writing</i>	<i>Are we/you/they working, writing?</i>	We/you/they <i>are not working, writing</i>	
Past Continuous			
<i>was, were + working, writing</i>			
Affirmative	Interrogative	Negative	Interrogative-Negative
I/he/she <i>was working, writing</i>	<i>Was I/he/she working, writing?</i>	I/he/she <i>was not working, writing</i>	<i>Was I/he/she not working, writing?</i> <i>Were we/you/they not working, writing?</i>
We/you/they	<i>Were we/you/</i>	We/you/they/	

<i>were working, writing</i>	<i>they working, writing?</i>	<i>were not working, writing</i>	
Future Continuous			
<i>shall/will + be working, writing</i>			
Affirmative	Interrogative	Negative	Interrogative-Negative
<i>I/we shall be working, writing</i>	<i>Shall I/we be working, writing?</i>	<i>I/we shall not be working, writing</i>	<i>Shall I/we not be working, writing? Will he/she/you/they not be working, writing?</i>
<i>He/she/you/they will be working, writing</i>	<i>Will he/she/you/they be working, writing?</i>	<i>He/she/you/they will not be working, writing</i>	

PERFECT TENSES
(to work, to write)

Present Perfect			
<i>have, has + worked, written</i>			
Affirmative	Interrogative	Negative	Interrogative-Negative
<i>I/we/you/they have worked, written</i>	<i>Have I/we/you/they worked, written?</i>	<i>I/we/you/they have not worked, written</i>	<i>Have I/we/you/they not worked, written? Has he/she not worked, written?</i>
<i>He/she has worked, written</i>	<i>Has he/she worked, written?</i>	<i>He/she has not worked, written</i>	

Past Perfect			
<i>had+ worked, written</i>			
Affirmative	Interrogative	Negative	Interrogative-Negative
I/he/she/we/ you/they <i>had</i> <i>worked,</i> <i>written</i>	<i>Had</i> I/he/she/ we/you/they <i>worked,</i> <i>written?</i>	I/he/she/we/ you/they <i>had</i> <i>not worked,</i> <i>written</i>	<i>Had</i> I/he/she/ we/you/they <i>not worked,</i> <i>written?</i>

Future Perfect			
<i>shall/will have + worked, written</i>			
Affirmative	Interrogative	Negative	Interrogative-Negative
I/ We <i>shall</i> <i>have</i> <i>worked,</i> <i>written</i>	<i>Shall</i> I/we <i>have</i> <i>worked,</i> <i>written?</i>	I/ We <i>shall</i> <i>not have</i> <i>worked,</i> <i>written</i>	<i>Shall</i> I/we <i>not have worked,</i> <i>written?</i> <i>Will</i> he/she/ you/they <i>not</i> <i>have worked,</i> <i>written</i>
He/she/you/ they <i>will</i> <i>have</i> <i>worked,</i> <i>written</i>	<i>Will</i> he/she/ you/they <i>have</i> <i>worked,</i> <i>written?</i>	He/she/you/ they <i>will not</i> <i>have worked,</i> <i>written</i>	

PERFECT CONTINUOUS TENSES
(to work, to write)

Present Perfect Continuous			
<i>have, has + been + working, writing</i>			
Affirmative	Interrogative	Negative	Interrogative-Negative
I/we/you/the y <i>have been</i> <i>working,</i> <i>writing</i>	<i>Have</i> I/we/ you/they <i>been</i> <i>working,</i> <i>writing?</i>	I/we/you/they <i>have not been</i> <i>working,</i> <i>writing</i>	<i>Have</i> I/we/ you/ they <i>not been working,</i> <i>writing?</i> <i>Has</i> he/she <i>not been working,</i> <i>writing?</i>

He/she <i>has been working, writing</i>	<i>Has he/she been working, writing?</i>	He/she <i>has not been working, writing?</i>	
Past Perfect Continuous			
<i>had + been + working, writing</i>			
Affirmative	Interrogative	Negative	Interrogative-Negative
I/he/she/we/you/they <i>had been working, writing</i>	<i>Had I/he/she/we/you/they been working, writing?</i>	I/he/she/we/you/they <i>had not been working, writing</i>	<i>Had I/he/she/we/you/they not been working, writing?</i>
Future Perfect Continuous			
<i>shall/will + have been working, writing</i>			
Affirmative	Interrogative	Negative	Interrogative-Negative
I/we <i>shall have been working, writing</i>	<i>Shall I/we have been working, writing?</i>	I/we <i>shall not have been working, writing</i>	<i>Shall I/we not have been working, writing?</i>
He/she/you/they <i>will have been working, writing</i>	<i>Will he/she/you/they have been working, writing?</i>	He/she/you/they <i>will not have been working, writing</i>	<i>Will he/she/you/they not have been working, writing?</i>

THE FUNCTIONS OF THE VERB «TO BE»

Functions	Examples
1. The Notional Verb	He <i>is</i> at home now. The students <i>are</i> in the classroom.

2. An Auxiliary Verb	He <i>is</i> writing a letter. I <i>was</i> asked a difficult question.
3. A Link Verb	Jhon <i>is</i> a student. He <i>is</i> intelligent. He <i>is</i> the best student in our group.
4. A Modal Verb	We <i>are to meet</i> at noon. They <i>are to begin</i> this work at once.

THE FUNCTIONS OF THE VERB «TO HAVE»

Functions	Examples
1. The Notional Verb	She <i>has</i> a large family. We <i>have got</i> a comfortable flat.
2. An Auxiliary Verb	He <i>has graduated</i> from the University. I <i>have been waiting</i> for you for half an hour.
3. A Modal Verb	I <i>have to get up</i> early on Mondays. They <i>had to go</i> there. He will have to do it.

THE FUNCTIONS OF THE VERB «TO DO»

Functions	Examples
1. The Notional Verb	The exercise was <i>done</i> well. You didn't <i>do</i> anything to help her.
2. An Auxiliary Verb a) The Present and Past Indefinite (interrogative and negative forms) b) The Imperative Mood (negative form) c) to express emphasis	He <i>doesn't work</i> here. <i>Did</i> you see him yesterday? – Yes, I <i>did</i> . <i>Don't</i> be late for the lessons. But I <i>do know</i> him.

GENERAL QUESTIONS

Predi- cate or auxilia- ry verb	Sub- ject	Part of the Predi- cate	Object	Adver- bial Modi- fiers	Short Answers	
					Affirmative	Negative
Is	he			at	Yes, he is.	No, he isn't.
Do	you	take	books	home?	Yes, I do.	No, I don't.
Does	she	live		here?	Yes, she does	No, she doesn't.
Did	it	rain		in	Yes, it did.	No, it didn't.
Will	he	be		Kyiv?	Yes, he will.	No, he won't.
Are	you	living?	French?	last	Yes, I am.	No, I'm not.
Was	Ann	study-		night?	Yes, she was.	No, she wasn't.
Can	you	ing?		there?	Yes, I can.	No, I can't.
		swim?		in class?		

TAG QUESTIONS

<p>Jack can come, can't he?</p> <p>Fred can't come, can he?</p>	<p><i>A tag question</i> is a question added at the end of a sentence. Speakers use tag questions chiefly to make sure their information is correct or to seek agreement.</p>
<p>AFFIRMATIVE SENTENCE + NEGATIVE TAG = AFFIRMATIVE ANSWER EXPECTED</p>	
<p>Mary is here, isn't she?</p> <p>You like tea, don't you?</p> <p>They have left, haven't they?</p>	<p>Yes, she is.</p> <p>Yes, I do.</p> <p>Yes, they have.</p>
<p>NEGATIVE SENTENCE + AFFIRMATIVE TAG = NEGATIVE ANSWER EXPECTED</p>	
<p>Mary isn't here, is she?</p> <p>You don't like tea, do you?</p> <p>They haven't left, have they?</p>	<p>No, she isn't.</p> <p>No, I don't.</p> <p>No, they haven't.</p>
<p>This/That is your book, isn't it?</p> <p>These/Those are yours, aren't they?</p>	<p>The tag pronoun for this/that = it</p> <p>The tag pronoun for these/those = they</p>
<p>There is a meeting tonight, isn't there?</p>	<p>In sentences with there + be, there is used in the tag.</p>

Everything is okay, isn't it? Everyone took the test, didn't they ?	Personal pronouns are used to refer to indefinite pronouns. They is usually used in a tag to refer to everyone, someone, everybody, somebody, no one, nobody .
Nothing is wrong, is it? Nobody called on the phone, did they? You've never been there, have you?	Sentences with negative words take affirmative tags.
I am supposed to be here, am I not ? I am supposed to be here, aren't I ?	am I not? is formal English. aren't I? is common in spoken English.

QUESTION WORDS

WHEN

When did they arrive? When will you come?	Yesterday. Next Monday.	When is used to ask questions about <i>time</i> .
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WHERE

Where is she? Where can I find a pen?	At home. In that drawer.	Where is used to ask questions about <i>place</i> .
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WHY

Why did he leave early? Why aren't you coming with us?	Because he's ill. I'm tired.	Why is used to ask questions about <i>reason</i> .
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HOW

How did you come to school? How does he drive?	By bus. Carefully.	How generally asks about <i>manner</i> .
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How much money does it cost? How many people came?	Ten dollars. Fifteen.	How is used with <i>much</i> and <i>many</i> .
How old are you? How cold is it? How soon can you get there? How fast were you driving? How long has he been here? How often do you write home? How far is it to Paris from here?	Eighteen. Ten below zero. In ten minutes. 50 miles an hour. Two years. Every week. 500 miles.	How is also used with <i>adjectives</i> and <i>adverbs</i> . How long asks about <i>length of time</i> . How often asks about <i>frequency</i> . How far asks about <i>distance</i> .

MORE QUESTIONS WITH *HOW*

QUESTION	ANSWER	
a) How do you spell «coming»? C-O-M-I-N-G. b) How do you say «yes» in Japanese? Hai. c) How do you say/pronounce this word?		To answer a): Spell the word. To answer b): Say the word. To answer c): Pronounce the word.
d) How are getting along? e) How are you doing? f) How's it going?	Great. Fine. Okay. So-so.	In d), e), and f): How is your life? Is your life okay? Do you have any problems? NOTE: f) is often used in greetings: <i>Hi, Bob. How's it going?</i>
g) How do you feel? How are you feeling?	Terrific! Wonderful! Great! Fine. Okay. So-so. A bit under	The questions in g) ask about health or about general emotional state.

	the weather. Not so good. Terrible! Awful!	
h) How do you do? do?	How do you	How do you do? is used by both speakers when they are introduced to each other in a somewhat formal situation.

WHO

Who can answer that question?	I can.	Who is used as the subject of a question. It refers to people.
Who came to visit you?	Jane and Tom.	
Who is coming to dinner tonight? Who wants to come with me?	Ann and Tom. We do.	Who is usually followed by a singular verb even if the speaker is asking about more than one person.

WHOSE

Whose book did you borrow? Whose key is this? (Whose is this?)	David's. It's mine.	Whose ask questions about <i>possession</i> .
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WHAT

What made you angry? What went wrong?	His rudeness. Everything.	What is used as the subject of a question. It refers to «things».
What do you need? What did Alice buy? What did he talk about? About what did he talk? (<i>formal</i>)	I need a pencil. A book. His vacation.	
What kind of soup is that?	It's bean soup.	What kind of asks about particular variety or type of something.

What kind of shoes did he buy?	Sandals.	
What did you do last night? What is Mary doing?	I studied. She is reading a book.	What + a form of do is used to ask questions about activities.
What countries did you visit? What time did she come? What colour is his hair?	Italy and Spain. Seven o'clock. Dark brown.	What may accompany a noun.
What is Tom like? What is the weather like?	He's kind and friendly. Hot and humid.	What + be like asks for a general description of qualities.
What does Tom look like? What does her house look like?	He is tall and has dark hair. It's a large, red brick house.	What + look like asks for a physical description.

WHICH

I have two pens. Which pen do you want? Which one do you want? Which do you want? Which book should I buy?	The blue one. That one.	Which is used instead of what when a question concerns choosing from a definite, known quantity or group.
Which countries did he visit? What countries did he visit? Which class are you in? What class are you in?	Paris and Canada. This class.	In some cases, there is little difference in meaning between which and what when they accompany a noun.

**SUMMARY CHART OF VERB TENSES
ACTIVE VOICE**

	Indefinite	Continuous	Perfect	Perfect Continuous
Present	I <i>write</i> letters every week.	I <i>am writing</i> a letter now.	I <i>have written</i> a letter today.	I <i>have been writing</i> for an hour.
Past	I <i>wrote</i> this letter yesterday.	I <i>was writing</i> a letter at 5 o'clock.	I <i>had written</i> all my letters by 9 o'clock.	I <i>had been writing</i> for an hour when you came.
Future	I <i>shall write</i> this letter tomorrow.	I <i>shall be writing</i> a letter at 5 o'clock tomorrow.	I <i>shall have written</i> all my letters by 9 o'clock tomorrow.	If you come at 7 I <i>shall have been writing</i> for an hour by that time.

PASSIVE VOICE

	Indefinite	Continuous	Perfect	Perfect Continuous
Present	These letters <i>are written</i> (by me) every week.	A letter <i>is being written</i> (by me) now.	The letter <i>has been written</i> (by me) today.	—
Past	This letter <i>was written</i> yesterday.	This letter <i>was being written</i> at 5 o'clock.	By 9 o'clock all my letters <i>had been written</i> .	—
Future	This letter <i>will be written</i> tomorrow.	—	All my letters <i>will have been written</i> by 7 o'clock tomorrow.	—

**PASSIVE VOICE
PRESENT**

1. Викладач <i>пояснює</i> новий матеріал.	на кожному уроці	1. The teacher explains new material at every lesson.
2. Новий матеріал <i>пояснюється</i> викладачем.	на кожному уроці	2. New material is explained by the teacher at every lesson.
3. Викладач <i>пояснює</i> новий матеріал.	зараз	3. The teacher is explaining new material now.
4. Новий матеріал <i>пояснюється</i> викладачем.	зараз	4. New material is being explained by the teacher now.
5. Викладач <i>пояснив</i> новий матеріал.	на цьому тижні	5. The teacher has explained new material this week.
6. Новий матеріал <i>був пояснений</i> викладачем.	на цьому тижні	6. New material has been explained by the teacher this week.
7. Викладач <i>пояснює</i> новий матеріал.	уже 10 хв. з 9 год. ранку	7. The teacher has been explaining new material for 10 minutes since 9 o'clock in the morning.
8. Новий матеріал <i>пояснюється</i> викладачем.	уже 10 хв. з 9 год. ранку	8. New material has been explained by the teacher for 10 minutes since 9 o'clock in the morning.

PAST

1. Викладач <i>пояснив</i> новий матеріал.	учора	1. The teacher explained new material yesterday.
2. Новий матеріал <i>був пояснений</i> викладачем.	учора	2. New material was explained by the teacher yesterday.

3. Викладач <i>пояснював</i> новий матеріал.	учора о 10 годині	3. The teacher was explaining new material yesterday at 10 o'clock.
4. Новий матеріал <i>пояснювався</i> викладачем.	учора о 10 годині	4. New material was being explained by the teacher yesterday at 10 o'clock.

FUTURE

1. Викладач <i>пояснить</i> новий матеріал.	завтра	1. The teacher will explain new material tomorrow.
2. Новий матеріал <i>буде пояснений</i> викладачем.	завтра	2. New material will be explained by the teacher tomorrow.
3. Викладач <i>пояснить</i> новий матеріал.	завтра до кінця першого уроку	3. The teacher will have explained new material tomorrow by the end of the first lesson.
4. Новий матеріал <i>буде пояснений</i> викладачем.	завтра до кінця першого уроку	4. New material will have been explained by the teacher tomorrow by the end of the first lesson.

MODAL VERBS

CAN; COULD; TO BE ABLE TO

Uses	Present/Future	Past
1) ability; capability	I can run fast. I can help you. I am able to help you. I will be able to help you.	I could run fast when I was a child, but now I can't. I was able to help you.
2) informal permission	You can use my car tomorrow.	

3) polite request	<i>Can I borrow</i> your pen? <i>Could I borrow</i> your pen? <i>Could you help</i> me?	
4) impossibility (negative only)	That <i>can't be</i> true! That <i>couldn't be</i> true!	That <i>can't have been</i> true! That <i>couldn't have been</i> true!
5) suggestion	— I need help in math. You <i>could talk</i> to your teacher.	You <i>could have talked</i> to your teacher.
6) less than 50% certainty	— Where is John? He <i>could be</i> at home.	He <i>could have been</i> at home.
7) doubt; astonishment (interrogative)	<i>Can she know</i> Japanese?	<i>Can he have done</i> it?

MAY; MIGHT

Uses	Present/Future	Past
1) polite request	<i>May I borrow</i> your pen? <i>Might I borrow</i> your pen?	—
2) formal permission	You <i>may leave</i> the room.	—
3) less than 50% certainty	— Where is John? He <i>may be</i> at the library. He <i>might be</i> at the library.	He <i>may have been</i> at the library. He <i>might have been</i> at the library.

MUST; BE TO; HAVE TO; HAVE GOT TO

Uses	Present/Future	Past
1) duty; obligation; strong necessity	I must go to class today. I have to go to class today. I have got to go to class today.	I had to go to class yesterday.
2) lack of necessity (negative)	I don't have to go to class today.	I didn't have to go to class yesterday.
3) prohibition (negative)	You must not open that door.	—
4) 90% certainty	Mary isn't in class. She must be sick. (present only)	Mary must have been sick yesterday.
5) plan; agreement	We are to meet at nine.	We were to meet at nine.
6) order; instruction	You must go there at once. You are to go there at once.	—
7) destiny (past only)	—	He was never to see his wife again.

SHOULD; OUGHT TO

Uses	Present/Future	Past
1) advisability; desirability	I should study tonight. I ought to study tonight.	I should have studied last night. I ought to have studied last night.
2) 90% certainty	She should do well on the test. She ought to do well on the test. (future only)	She should have done well on the test. She ought to have done well on the test.

SHALL

Uses	Present/Future	Past
1) polite question to make a suggestion	<i>Shall</i> I <i>open</i> the window?	—
2) future with «I» or «we» as subject	I <i>shall arrive</i> at nine. (<i>will</i> = <i>more common</i>)	—

WILL; WOULD

Uses	Present/Future	Past
1) 100 % certainty	He <i>will be</i> here at nine.	He said he <i>would be</i> here at nine.
2) polite request	<i>Will</i> you please <i>pass</i> the salt? <i>Would</i> you please <i>pass</i> the salt? <i>Would</i> you <i>mind</i> if I left early?	—
3) willingness	— The phone's ringing. I'll <i>get</i> it.	—
4) preference	I <i>would rather go</i> to the park than <i>stay</i> home.	I <i>would rather have gone</i> to the park.

INDEFINITE PRONOUN «ONE»

Examples	Functions
<i>One</i> should always be polite. How does <i>one</i> get to 5 th Avenue from here? <i>One</i> must keep <i>one's</i> word.	<i>one</i> means any person, people in general. The subject of an impersonal sentence. (<i>usually not translated</i>)
This book is more interesting than <i>the one</i> we read last week. Here are two books. Which <i>one</i> would you like?	Any function for replacing a noun already mentioned.
<i>One</i> should take care of <i>one's</i> health.	Notice the pronouns that may be used in the same sentence to refer back to <i>one</i> .

<p>One should take care of his health.</p> <p>One should take care of his or her health.</p>	
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THE PRONOUNS «BOTH, EITHER AND NEITHER»

Examples	Functions
<p>Both these children are mine. These children are both mine. Both my children are boys. They both accepted the invitation. You are both right. They have both been invited. We must both go there.</p>	<p>Both is plural in meaning and applied only to two persons or things.</p>
<p>a) Take either book. I don't mind which. The news didn't shock either of them. Have you seen either of your parents today?</p> <p>b) You may go by either road. The houses on either side were tall and big.</p>	<p>Either refers to two persons or things and has two meanings.</p> <p>a) one or the other of two;</p> <p>b) each of two; both.</p>
<p>Neither brother has been abroad. We accepted neither offer. Neither of the statements is true.</p>	<p>Neither means <i>not the one nor the other</i>.</p>

THE INFINITIVE

Infinitive	Active voice	Passive voice	Uses
Indefinite	to write to come	to be written —	the action is simultaneous with that expressed by the finite verb.
He wants to write her about it. He wants to be written about it.			
Continuous	to be writing to be coming	— —	the action is temporary and not a usual one.
He may be writing a new novel.			
Perfect	to have written to have come	to have been written —	the action precedes that of the predicate.
I am glad to have written her about it. I was surprised to have been written about it.			
Perfect Continuous	to have been writing to have been coming	— —	the action began before the time indicated by the predicate and is still going on.
He is said to have been writing this novel for 2 years already.			

Functions	Examples
Subject	To know him is to trust him. It is difficult to translate this text.
Predicative	Our aim is to master English. What I want is to be left alone.
Part of a Compound	We must stay at home. We decided to work together.

Verbal Predicate	
Object	He asked me to wait . He promised to come in time.
Attribute	He is always the first to come . The article to be translated is on the table.
Adverbial Modifier	I have come here to help you. The problem is too complicated to be solved at once.

REFERENCE LIST OF VERBS FOLLOWED BY INFINITIVES

A. VERBS FOLLOWED IMMEDIATELY BY AN INFINITIVE

1. <i>afford</i>	I <i>can't afford to buy</i> it.
2. <i>agree</i>	They <i>agreed to help</i> us.
3. <i>appear</i>	She <i>appears to be</i> tired.
4. <i>arrange</i>	I'll <i>arrange to meet</i> you at the airport.
5. <i>ask</i>	He <i>asked to come</i> with us.
6. <i>beg</i>	He <i>begged to come</i> with us.
7. <i>care</i>	I <i>don't care to see</i> that show.
8. <i>claim</i>	She <i>claims to know</i> a famous movie star.
9. <i>consent</i>	She finally <i>consented to marry</i> him.
10. <i>decide</i>	I <i>have decided to leave</i> on Monday.
11. <i>demand</i>	I <i>demand to know</i> who is responsible.
12. <i>deserve</i>	She <i>deserves to win</i> the prize.
13. <i>expect</i>	I <i>expect to enter</i> graduate school next year.
14. <i>fail</i>	She <i>failed to return</i> the book to the library in time.
15. <i>forget</i>	I <i>forgot to mail</i> the letter.
16. <i>hesitate</i>	<i>Don't hesitate to ask</i> for my help.
17. <i>hope</i>	Jack <i>hopes to arrive</i> next week.
18. <i>learn</i>	He <i>learnt/learned to play</i> the piano.
19. <i>manage</i>	She <i>managed to finish</i> her work early.
20. <i>mean</i>	I <i>didn't mean to hurt</i> your feelings.
21. <i>need</i>	I <i>need to have</i> your opinion.
22. <i>offer</i>	They <i>offered to help</i> us.
23. <i>plan</i>	I <i>am planning to have</i> a party.
24. <i>prepare</i>	We <i>prepared to welcome</i> them.
25. <i>pretend</i>	He <i>pretends not to understand</i> .
26. <i>promise</i>	I <i>promise not to be</i> late.
27. <i>refuse</i>	I <i>refuse to believe</i> his story.

28. <i>regret</i>	I <i>regret to tell</i> you that you failed.
29. <i>remember</i>	I <i>remembered to lock</i> the door.
30. <i>seem</i>	That <i>cat seems to be</i> friendly.
31. <i>struggle</i>	I <i>struggled to stay</i> awake.
32. <i>swear</i>	She <i>swore to tell</i> the truth.
33. <i>threaten</i>	She <i>threatened to tell</i> my parents.
34. <i>volunteer</i>	He <i>volunteered to help</i> us.
35. <i>wait</i>	I <i>will wait to hear</i> from you.
36. <i>want</i>	I <i>want to tell</i> you something.
37. <i>wish</i>	She <i>wishes to come</i> with us.

B. VERBS FOLLOWED BY A (PRO)NOUN + AN INFINITIVE

1. <i>advise</i>	She <i>advised me to wait</i> until tomorrow.
2. <i>allow</i>	She <i>allowed me to use</i> her car.
3. <i>ask</i>	I <i>asked John to help</i> us.
4. <i>beg</i>	They <i>begged us to come</i> .
5. <i>cause</i>	Her laziness <i>caused her to fail</i> .
6. <i>challenge</i>	She <i>challenged me to race</i> her to the corner.
7. <i>convince</i>	I couldn't <i>convince him to accept</i> our help.
8. <i>dare</i>	He <i>dared me to do</i> better than he had done.
9. <i>encourage</i>	He <i>encouraged me to try</i> again.
10. <i>expect</i>	<i>I expect you to be</i> in time.
11. <i>forbid</i>	I <i>forbid you to tell</i> him.
12. <i>force</i>	They <i>forced him to tell</i> the truth.
13. <i>hire</i>	She <i>hired a boy to mow</i> the lawn.
14. <i>instruct</i>	He <i>instructed them to be careful</i> .
15. <i>invite</i>	Harry <i>invited the Johnsons to come</i> to his party.
16. <i>need</i>	We <i>needed Chris to help</i> us figure out the solution.
17. <i>order</i>	The judge <i>ordered me to pay</i> a fine.
18. <i>permit</i>	He <i>permitted the children to stay up</i> late.
19. <i>persuade</i>	I <i>persuaded him to come</i> for a visit.
20. <i>remind</i>	She <i>reminded me to lock</i> the door.
21. <i>require</i>	Our teacher <i>requires us to be</i> in time.
22. <i>teach</i>	My brother <i>taught me to swim</i> .
23. <i>tell</i>	The doctor <i>told me to take</i> these pills.
24. <i>urge</i>	I <i>urged her to apply</i> for the job.
25. <i>want</i>	I <i>want you to be</i> happy.
26. <i>warn</i>	I <i>warned you not to drive</i> too fast.

THE PREPOSITIONAL INFINITIVE COMPLEX

Subject	It is easy <i>for you to say</i> that. <i>For him to help</i> his friends is quite natural.
Predicative	The question is <i>for you to decide</i> . The best thing is <i>for you to move</i> to the South.
Object	I waited <i>for him to speak</i> .
Attribute	This is the book <i>for you to read</i> .
Adverbial modifier of purpose	He opened the doors of the car <i>for us to get in</i> . I've brought two books <i>for my son to read</i> .
Adverbial modifier of result	The weather was too cold <i>for the children to go out</i> . It was too dark <i>for her to see</i> him.

THE OBJECTIVE INFINITIVE COMPLEX

<i>is used after the verbs denoting a) perception of senses*</i>	to see	I saw <i>him get off</i> the bus.
	to hear	Did you hear <i>her sing</i> ?
	to feel	She felt <i>her voice tremble</i> .
	to watch	I watch <i>her enter</i> the shop.
	to observe	We observe <i>the direction</i> constantly <i>change</i> .
	to notice	Nobody noticed <i>him come</i> in.

b) wish, intention, emotions:	to want	I want <i>you to help</i> me.
	to wish	He wishes <i>the work to be done</i> at once.
	to like	He likes <i>dinner to be</i> in time. I dislike
	to dislike	<i>you to say</i> such words.
	to hate	I hate <i>you to talk</i> like that.
	to intend	He intended <i>me to go</i> with him.
	should/would like	I should like <i>you to stay</i> here.

c) mental activity:	to consider	I consider <i>him to be</i> right.
	to believe	I believe <i>her to be</i> a good teacher.
	to think	We thought <i>him to be sleeping</i> .
	to find	We find <i>this value to be</i> accurate enough.
	to know	I know <i>him to have said</i> that.

	to expect to suppose	We expected <i>her to return</i> . I suppose <i>him to be</i> about fifty.
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d) order, request, permission, advice, compulsion:	to order to ask to request to allow to advise to recommend to cause to force get to make* to let*	He ordered <i>the children to stop</i> talking. I asked <i>Tom to help</i> me. He requested <i>the matter to be kept</i> secret. She doesn't allow <i>anyone to smoke</i> . She advised <i>me to tell</i> the police about it. I wouldn't recommend <i>you to stay</i> here. Her laziness caused <i>her to fail</i> . He forced <i>me to go</i> there. I got <i>him to repair</i> my car. What makes <i>you think</i> so? Let <i>me go</i> .
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*The verbs **to make**, **to let** and the verbs of physical perception are followed by the infinitive without «to».

THE SUBJECTIVE INFINITIVE COMPLEX

<i>is used with</i> a) the verbs of speech:	to say to report to inform	<i>She</i> is said <i>to write</i> a new novel. <i>They</i> are reported <i>to have left</i> London. <i>He</i> was informed <i>to have arrived</i> in Kyiv.
<i>verbs denoting:</i> b) mental activity:	to consider to believe to think to find to know to expect to suppose	<i>He</i> is considered <i>to be</i> a good speaker. <i>He</i> is believed <i>to know</i> English. <i>He</i> was thought <i>to have gone</i> . <i>They</i> are found <i>to be unfit</i> for service. <i>History</i> is known <i>to repeat</i> itself. <i>She</i> is expected <i>to come</i> any minute. <i>He</i> is supposed <i>to know</i> these things.
c) perceptions of senses	to see to hear to feel to watch to observe to notice	<i>He</i> was seen <i>to cross</i> the street. <i>She</i> was heard <i>to mention</i> your name. <i>She</i> was felt <i>to be suffering</i> . <i>He</i> was watched <i>to dance</i> in the hall. <i>The woman</i> was observed <i>to follow</i> him. <i>He</i> was noticed <i>to unlock</i> the door.
d) order, request, permission,	to order to ask to allow	<i>They</i> were ordered <i>to go to bed</i> . <i>She</i> was asked <i>to come</i> on Monday. <i>I</i> wasn't allowed <i>to watch</i> the film.

advice, compulsion:	to advise to force to make	<i>We</i> were advised not to drink the water. <i>He</i> was forced to give up this work. <i>He</i> was made to repeat the rule.
e) with the verbs	to seem to appear to happen to chance to prove to turn out	<i>The child</i> seems to be asleep . <i>He</i> appears to know a lot of things. <i>I</i> happened to see him yesterday. <i>He</i> chanced to have recognized me. <i>Your advice</i> proved to be very useful. <i>He</i> turned out to be a good friend.
f) with the expressions:	to be likely to be unlikely to be sure to be certain	<i>They</i> are likely to come here. <i>He</i> is unlikely to come tomorrow. <i>He</i> is sure to go hunting . <i>He</i> is sure to ring you up .

THE PARTICIPLE

Form	Transitive verbs		Intransitive verbs
	Active voice	Passive voice	Active voice
Participle I (Present Participle)	writing	being written	going
Participle II (Past Participle)	—	written	gone
Perfect Participle	having written	having been written	having gone
<p>Seeing that I was late I hurried. Be careful while crossing the street. Being left alone I went on with my work. She tried to calm the crying child.</p>		<p>Participle I (Active and Passive) denotes an action simultaneous with the action expressed by the finite verb.</p>	

Not knowing what to say he kept silent.	
Having written the letter he went to post it. Having finished their classes the students went home.	Perfect Participle (Active and Passive) denotes an action prior to that of the finite verb.
Being asked for her opinion she blushed. Having been shown the wrong direction he lost his way.	Perfect and Non-Perfect Participle (Passive) denotes a passive action.

COMPLEXES WITH THE PARTICIPLE THE OBJECTIVE PARTICIPLE COMPLEX

<i>is used with the verbs denoting</i> a) sense perceptions:	to see	I saw <i>her walking</i> along the street.
	to hear	We heard <i>him speaking</i> in the next room.
	to feel	She felt <i>her hand trembling</i> .
	to watch	I watched <i>the children playing</i> in the garden. The
	to observe	teacher observed <i>the students</i> writing compositions.
to notice		

b) wish and mental activity:	to want	I want <i>the letter posted</i> at once.
	to wish	I wish <i>your dreams realized</i> .
	to find	When I returned I found <i>her gone</i> .
	to leave	He left <i>his work unfinished</i> .

to have	She had <i>her dress made</i> here.	After these verbs only Past Participle is used. It denotes an action performed by someone else for the benefit of the person expressed by the subject.
to get	I must have <i>my hair cut</i> .	
	He will have <i>his coat cleaned</i> .	
	She must have <i>her hair done</i> . Have you got <i>your car repaired</i> ?	

THE SUBJECTIVE PARTICIPLE COMPLEX

<i>is used with the verbs denoting sense perceptions:</i>	to see to hear to watch to notice to consider	<i>She</i> was seen walking along the street.. <i>Two people</i> were heard quarelling . <i>They</i> were watched playing in the garden. <i>He</i> was noticed entering the office. <i>The work</i> was considered finished .
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THE ABSOLUTE PARTICIPLE COMPLEX

<i>The rain having stopped</i> , we went home. <i>The day being fine</i> , she went for a walk. <i>Time permitting</i> , we'll go to the forest.	In this complex Participle has its own subject expressed by a noun in the Common Case or a personal pronoun in the Nominative case.
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Functions	Examples
Complex Subject (The Subjective Participle complex)	<i>They</i> were heard speaking in a lively manner. <i>He</i> was seen surrounded by a group of students. <i>He</i> was noticed entering the library.
Complex Object (The Objective Participle complex)	I saw the workers packing the goods. They watched the car being repaired . They want the goods shipped on Monday.
Attribute	The cars being produced at our plant are very good.
Adverbial Modifier	Walking in the park , he met his old friend.
The Absolute Participle complex	The letter being written , I went to post it. He being tired , I decided not to disturb him.

THE GERUND. FORMS AND FUNCTIONS

Gerund	Active	Passive	Uses
Indefinite	reading	being read	The action expressed by the gerund: a) is simultaneous with that expressed by the finite verb. b) doesn't refer to any particular time.
She likes <i>reading</i> . She likes <i>being read</i> .			
Perfect	having read	having been read	The action expressed by the gerund precedes that expressed by the finite verb.
Thank you <i>for having helped me</i> . I remember <i>having been asked</i> this question.			

Functions	Examples
Subject	<i>Reading</i> books is useful. <i>Smoking</i> is harmful. <i>Reading</i> love stories made her cry.
Predicative	His hobby is <i>collecting</i> stamps. The main thing is <i>getting</i> there in time. Seeing is <i>believing</i> .
Part of a Compound Verbal Predicate	She went on <i>reading</i> . She stopped <i>smoking</i> .
Direct Object	I couldn't avoid <i>speaking</i> to her. The film is worth <i>seeing</i> . I don't mind <i>waiting</i> .
Prepositional Object	I am fond of <i>reading</i> . He insisted on <i>doing</i> the work himself. I don't like his habit of <i>making</i> people wait.
Attribute	All liked the idea of <i>going</i> to the country. I have no intention of <i>discussing</i> this question. There are different ways of <i>solving</i> this problem.
Adverbial	On <i>entering</i> the room he came up to me.

Modifier	He left the room without <i>saying</i> a word. Excuse me for <i>being</i> so late.
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REFERENCE LIST OF VERBS FOLLOWED BY GERUNDS

1. <i>admit</i>	He <i>admitted stealing</i> the money.
2. <i>advise</i>	She <i>advised waiting</i> until tomorrow.
3. <i>anticipate</i>	I <i>anticipate having</i> a good time on vacation.
4. <i>appreciate</i>	I <i>appreciated hearing</i> from them.
5. <i>avoid</i>	He <i>avoided answering</i> my question.
6. <i>complete</i>	I finally <i>completed writing</i> my term paper.
7. <i>consider</i>	I <i>will consider going</i> with you.
8. <i>delay</i>	He <i>delayed leaving</i> for school.
9. <i>deny</i>	She <i>denied committing</i> the crime.
10. <i>discuss</i>	They <i>discussed opening</i> a new business.
11. <i>dislike</i>	I <i>dislike driving</i> long distances.
12. <i>enjoy</i>	We <i>enjoyed visiting</i> them.
13. <i>finish</i>	She <i>finished studying</i> about ten.
14. <i>forget</i>	I <i>ll never forget visiting</i> Napoleon's tomb.
15. <i>can't help</i>	I <i>can't help worrying</i> about it.
16. <i>keep</i>	I <i>keep hoping</i> he will come.
17. <i>mention</i>	She <i>mentioned going</i> to the cinema.
18. <i>mind</i>	<i>Would</i> you <i>mind helping</i> me with this?
19. <i>miss</i>	I <i>miss being</i> with my family.
20. <i>postpone</i>	Let's <i>postpone leaving</i> until tomorrow.
21. <i>practise</i>	The athlete <i>practised throwing</i> the ball.
22. <i>quit</i>	He <i>quitted trying</i> to solve the problem.
23. <i>recall</i>	I <i>don't recall meeting</i> him before.
24. <i>recollect</i>	I <i>don't recollect meeting</i> him before.
25. <i>recommend</i>	She <i>recommended seeing</i> the show.
26. <i>regret</i>	I <i>regret telling</i> him my secret.
27. <i>remember</i>	I <i>can remember meeting</i> him when I was a child.
28. <i>resent</i>	I <i>resent her interfering</i> in my business.
29. <i>resist</i>	I <i>couldn't resist eating</i> the dessert.
30. <i>risk</i>	She <i>risks losing</i> all of her money.
31. <i>stop</i>	She <i>stopped going</i> to classes when she got sick.
32. <i>suggest</i>	She <i>suggested going</i> to the cinema.
33. <i>tolerate</i>	She <i>won't tolerate cheating</i> during an examination.
34. <i>understand</i>	I <i>don't understand his leaving</i> school.

THE GERUNDIAL COMPLEX

The Gerundial Complex consists of a noun (in the Common or Possessive Case) or a possessive pronoun and the gerund.	
Functions	Examples
Complex Subject	<i>Your coming</i> here is very desirable. It's no use <i>my telling</i> you a lie.
Predicative	What annoys me is <i>his being careless</i> .
Direct Object	I don't like <i>his reading</i> aloud. Forgive <i>my saying</i> it.
Prepositional Object	I insist on <i>your doing</i> it. Everything depends on <i>your getting</i> there in time.
Attribute	Everyone liked the idea of <i>his joining</i> us. I don't know the reason of <i>your leaving</i> .
Adverbial Modifier	He entered the room without <i>his seeing</i> it.

CONDITIONAL SENTENCES

Type of condition	if-clause	main clause	Examples
Type I Real condition (refers to the future)	Present Indefinite	Future Indefinite can + Infinitive	If I <i>have</i> enough money, I <i>will/ can buy</i> a car.
Type II Unreal condition (refers to the present or future)	Present Subjunctive II <i>(Past Indefinite)</i>	would/could + Infinitive	If I <i>had</i> enough money, I <i>would/could buy</i> a car
Type III Unreal	Past	would/could have	If I <i>had had</i> enough money, I

condition (refers to the past)	Subjunctive II <i>(Past Perfect)</i>	+ Past Participle	<i>would/could have bought</i> a car.
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IRREGULAR VERBS

Infinitive		Past Indefinite	Past Participle
1		2	3
abide	терпіти	abode, abided	abode, abided
arise	виникати	arose	arisen
awake	будити	awoke	awaked, awoke
be	бути	was, were	been
bear	нести; народжувати	bore	borne, born
beat	бити	beat	beaten
become	ставати	became	become
befall	траплятися	befell	befallen
beget	виробляти	begot	begotten
begin	починати	began	begun
behold	помічати	beheld	beheld
bend	згинати(ся)	bent	bent, bended
bereave	втрачати	bereaved, bereft	bereaved, bereft
beseech	благати, просити	besought	besought
beset	оточувати	beset	beset
bet	битися об заклад	bet, betted	bet, betted
bid	пропонувати ціну	bade, bid	bidden, bid
bind	зв'язувати	bound	bound
bite	кусати(ся)	bit	bitten, bit
bleed	кровоточити	bled	bled
bless	благословляти	blessed, blest	blessed, blest
blow	дути	blew	blown
break	ламати(ся)	broke	broken (broke)
breed	розводити	bred	bred
bring	приносити	brought	brought
broadcast	передавати по радіо	broadcast (-ed)	broadcast (-ed)
build	будувати	built	built

burn	палити, горіти	burnt, burned	burnt, burned
burst	спалахнути	burst	burst
buy	купувати	bought	bought
cast	кидати, скидати	cast	cast
catch	ловити	caught	caught
choose	вибирати	chose	chosen
cleave	розколювати(ся)	clove, cleft	cloven, cleft
cling	чіплятися	clung	clung
clothe	вдягати	clothed (clad)	clothed (clad)
come	приходити	came	come
cost	коштувати	cost	cost
creep	повзти, повзати	crept	crept
cut	різати	cut	cut
dare	сміти; наважуватися	dared (durst)	dared
deal	займатися	dealt	dealt
dig	копати; рити	dug	dug
do	робити	did	done
draw	тягти; малювати	drew	drawn
dream	мріяти	dreamed, dreamt	dreamed, dreamt
drink	пити	drank	drunk
drive	водити; їхати	drove	driven
dwell	жити; мешкати	dwelt	dwelt
eat	їсти	ate	eaten
fall	падати	fell	fallen
feed	годувати	fed	fed
feel	відчувати	felt	felt
fight	битися	fought	fought
find	знаходити	found	found
flee	тікати; уникати	fled	fled
fling	кидати(ся)	flung	flung
fly	літати	flew	flown
forbid	забороняти	forbade, forbad	forbidden
forecast	передбачати	forecast,	forecast, forecasted
forego	передувати	forecasted	foregone
foresee	передбачати	forewent	foreseen
foretell	провіщати	foresaw	foretold
forget	забувати	foretold	foregotten
forgive	прощати	forgot	forgiven

forsake	залишати; покидати	forgave	forsaken
freeze	морозити	forsook	frozen
get	отримувати	got	got, gotten
gild	золотити	gilded, gilt	gilded
give	давати	gave	given
go	ходити	went	gone
grind	точити; шліфувати	ground	ground

grow	рости	grew	grown
hang	вішати	hung, hanged	hung, hanged
have	мати	had	had
hear	чути	heard	heard
heave	піднімати	heaved, hove	heaved, hove
hew	рубати	hewed, hid	hewed, hewn
hide	ховати(ся)	hid	hidden, hid
hit	ударяти	hit	hit
hold	тримати	held	held
hurt	завдавати болю	hurt	hurt
keep	тримати	kept	kept
knit	в'язати; плести	knitted, knit	knitted, knit
know	знати	knew	known
lade	навантажувати	laded	laden
lay	класти;	laid	laid
lead	накривати	led	led
lean	вести	leant, leaned	leant, leaned
leap	нахилити(ся)	leapt, leaped	leapt, leaped
learn	вивчати	learnt, learned	learnt, learned
leave	залишати	left	left
lend	позичати	lent	lent
let	дозволяти	let	let
lie	лежати	lay	lain
light	запалювати(ся)	lighted, lit	lighted, lit
lose	втрачати	lost	lost
make	робити	made	made
mean	означати	meant	meant
meet	зустрічати	met	met
melt	танути	melted	melted, molten
mislay	загубити	mislaid	mislaid

mislead	вводити в оману	misled	misled
mistake	помилятися	mistook	mistaken
mow	косити	mowed	mowen
outdo	перевершувати	outdid	outdone
outgrow	переростати	outgrew	outgrown
overbear	перемагати	overbore	oveborne
overcast	хмаритися	overcast	overcast

overcome	перемогти	overcame	overcome
overdo	перебільшувати	overdid	overdone
overdraw	перевищувати	overdrew	overdrawn
overhear	підслуховувати	overheard	overheard
overtake	доганяти	overtook	overtaken
overthrow	перекидати	overthrew	overthrown
partake	брати участь	partook	partaken
pay	платити	paid	paid
put	класти	put	put
read	читати	read	read
rebuild	відбудовувати	rebuilt	rebuilt
relay	міняти; замінити	relaid	relaid
rend	рвати; розривати	rent	rent
retell	переказувати	retold	retold
rid	позбавляти	ridded, rid	rid, ridded
ride	їхати верхи	rode	ridden
ring	дзвонити	rang	rung
rise	вставати	rose	risen
run	бігати	ran	run
saw	пиляти	sawed	sawn, sawed
say	казати	said	said
see	бачити	saw	seen
seek	шукати; просити	sought	sought
sell	продавати	sold	sold
send	посилати	sent	sent
set	ставити; класти	set	set
sew	шити; зашивати	sewed	sewn, sewed
shake	трусити; хитати	shook	shaken
shear	стригти	sheared	shorn, sheared
shed	губити; втрачати	shed	shed

shine	світити; сяяти	shone	shone
shoe	взувати	shod	shod
shoot	стріляти	shot	shot
show	показувати	showed	shown, showed
shut	зачиняти(ся)	shut	shut
sing	співати	sang	sung
sink	тонути; осідати	sank	sunk, sunken
sit	сидіти	sat	sat

slay	приголомшити	slew	slain
sleep	спати	slept	slept
sling	кидати;	slung	slung
slink	шпурляти	slunk	slunk
smell	пахнути	smelt, smelled	smelt, smelled
sow	сіяти; засівати	sowed	sown, sowed
speak	говорити	spoke	spoken
speed	поспішати	sped, speeded	sped, speeded
spend	витрачати	spent	spent
spoil	псувати(ся)	spoilt, spoiled	spoilt, spoiled
spread	поширювати(ся)	spread	spread
stand	стояти	stood	stood
stave	розбитися	staved, stove	staved, stove
steal	красти	stole	stolen
stick	колоти	stuck	stuck
stride	переходити	strode	stridden, strid
strike	бити;	struck	struck, stricken
strive	страйкувати	strove	striven
swear	присягати(ся)	swore	sworn
swell	збільшуватися	swelled	swollen, swelled
swim	плавати	swam	swum
swing	гойдати(ся)	swung	swung
take	брати	took	taken
teach	навчати	taught	taught
tear	руйнувати	tore	torn
tell	розповідати	told	told
think	думати	thought	thought
throw	кидати	threw	thrown
thrust	штовхати	thrust	thrust

understand	розуміти	understood	understood
undertake	починати	undertook	undertaken
wake	будити	woke, waked	waked, woken
wear	носити	wore	worn
win	вигравати	won	won
withdraw	відкликати	withdrew	withdrawn
withhold	відкладати	withheld	withheld
write	писати	wrote	written

GLOSSARY OF AGRICULTURAL WORDS

Acid soil: refers to any soil with a pH below 7. The lower the number the more acid the soil.

Aggregate Fruit: a clustered fruit composed of numerous fruitlets each with its own seed, (e.g. strawberry).

Agri-business: the group of industries dealing with agricultural produce and services to agriculture.

Agriculture: anything having to do with farming (raising crops or livestock for food, fibre or fur; or the industry which includes marketing, processing and trade in these products).

Animal Rights: seeks to establish the same privileges and rights for animals as people have.

Animal Welfare: the proper care of animals.

Annual: a plant that grows one season and produces seed for next year, (e.g. peas).

Antibiotics: products used to kill bacteria, especially those which cause infectious diseases.

Artificial Insemination: the introduction of male reproductive cells into the female reproductive tract by artificial means, commonly abbreviated AI.

Auctioneer: a person who solicits bids for and conducts a public sale for such things as farm animals and equipment.

Avian: relating to birds.

Beta-carotene: orange pigment in plants that is a form of vitamin A.

Bacteria: microscopic, unicellular organisms found almost everywhere, appearing singly or in chains. Some cause disease and some are beneficial.

Baler: a machine used to compact and package roughage such as hay or straw.

Barley: a grain used primarily for animal feed.

Barn: a building used to shelter animals or store hay.

Bee: an insect which collects nectar from flowers and produces honey. As it collects nectar, it carries pollen from one flower to another. Bees are housed in hives from which honey and beeswax are collected.

Beef Farm: a farm where cattle are kept for the production of beef.

Bin: a box or enclosed place for grain or feed storage.

Bio-diversity: biological diversity; a measure of the variety of species of plants animals or other organisms in an ecosystem.

Biological Control: the use of living organisms such as bacteria, fungi, or insects to control harmful weeds or insects which infest crops; this type of control excludes the use of chemical substances and relies mainly on natural sources.

Biotechnology: the use of all or part of an organism to perform a task, function, or produce a product.

Bovine: family of animals including cattle and buffalo.

Brassica: cruciferous plants with tap roots and erect branched stems, including cabbage, brussel sprouts, mustard, canola, cauliflower, and kale.

Breeder Operation: an operation in which poultry are bred to produce fertilized eggs.

Bread: a food baked from wheat and/or other grains.

Broiler: a chicken or turkey raised for meat and slaughtered at less than half mature weight.

Brood hen: a hen that is used to keep eggs warm for hatching.

Brooder: a heated house for chicks, piglets, etc.

Bull: an adult, male bovine used primarily for breeding.

Butter: a solid, yellow substance of fat, air and water made by churning milk or cream.

By-product: a substance which is produced in addition (secondary) to the main product (e.g. glue is made from animal hooves).

Calf: a baby cow or bull.

Calve: to give birth to a calf.

Canola: a crop whose seeds are used for making cooking oil; also, its meal is used as a livestock feed.

Care: providing the necessities for living things (e.g. animals: food, water and shelter).

Cash Crop: any crop that is considered easily marketable, as wheat; a crop for direct sale in a market, as distinguished from a crop for use as livestock feed or for other purposes.

Castrated Animal: an animal that has had its testicles removed.

Cattle: more than one bovine animal (bulls and/or cows); general term for all sexes.

Cellulose: a carbohydrate that is in the cell wall of plant cells.

Cereal: refers to crops from the grass family grown for grain (e.g. oats, wheat, barley, rye, corn); also a processed form of breakfast food.

Chaff: the empty pods or scale-like seed covers which are separated from the grain in the threshing and cleaning operation.

Cheese: a food product made from milk solids.

Chick: a baby chicken.

Chicken: a small, domestic bird (colour varies) kept for its eggs and/or meat.

Churning: strongly stirring or agitating to combine or to separate a mixture (e.g. cream to butter).

Cleaned Seed: seed which has been screened to remove weeds, seeds and chaff.

Clerk: a person who works in a food store, bank, office or any setting where products or services are exchanged.

Coat: the external covering of an animal (e.g. mammals have skin and hair for a coat).

Colostrum: the first secretion from the mammary glands after giving birth. This thick yellow milk contains antibodies that are passed on to the young to protect them from disease.

Colt: a more specific term for a male foal.

Combine: a machine which moves down the grain field removing the seeds from the stems of ripe plants of grains.

Commodity: raw materials or semi-finished goods rather than goods in general (e.g. milk, beef, vegetables, etc.).

Compost: a combination of organic matter, soil, nutrients, moisture, and lime in a state of partial decay.

Conservation: the management and preservation of natural resources for present and future uses.

Corn: a crop grown for human food, and as a livestock feed.

Corral: a fenced-in area for animals.

Cow: mature female bovine; some used for milk and some for meat.

Cover crop: a crop grown to cover and protect soil from erosion by wind and water, especially in winter.

Cream: the yellowish part of milk containing 18 to 20% butterfat that is usually removed from the milk during processing.

Crop: the yield of produce at harvest.

Crop Rotation: planting different crops in fields than were there previously. Used as a crop, soil management and conservation method.

Cross-pollinate: the passing of pollen from the male part of one plant to the female part of another plant of the same species.

Cud: a mouthful of previously swallowed food, regurgitated from the first stomach of ruminants. The cud is then chewed again further breaking it down for digestion.

Cultivar: a plant variety produced by cultivation that keeps its characteristics even when reproduced.

Cultivating: preparing the land for the raising of crops.

Cultivator: an implement that digs into the soil. It is used for breaking up land and ripping out weeds.

Cultural Practices: techniques used in growing plants that include planting disease resistant varieties, rotating crops, spacing and pruning methods, providing good drainage and irrigation.

Curing: to preserve meat, fruit, or hides by salting, drying, etc.

Cutting: any part of a plant that can be severed from the plant and grow into a new plant.

Dairy Farm: a farm where cows or goats are kept for the production of milk.

Dessicate: remove the moisture from anything.

Dioecious: having male and female reproductive parts on separate plants.

Donkey: an animal similar to the horse but has much larger ears and is smaller in size. They have recently become popular as a protector of sheep against coyotes.

Dressed Weight: the weight of an animal after slaughter, defeathering, or skinning and evisceration.

Dwarfing Rootstock: a rootstock that limits the size of the plant that is grafted onto it.

Ear: the entire head of corn including the cob, husk and silks.

Ecology: the study of relationships between the environment and organisms.

Egg: a roundish, hard-shelled body which can be used for reproduction (birds and most reptiles) or consumed as food.

Elevator: a building or terminal where grain is elevated and transferred to an alternate mode of transportation (e.g. truck to rail, rail to ship).

Embryo Transfer: the procedure where a female with desirable characteristics is induced to superovulate. The eggs are fertilized, and the resulting embryos transferred to other females.

Entomologist: a specialist in the study of the forms and behaviour of insects.

Environment: the immediate surroundings of a plant or animal which influence its wellbeing.

Equipment: any material or apparatus used in farm production and operation (e.g. machines, gas tanks).

Estrus: a recurring period of sexual receptivity in many female animals.

Eviscerate: remove internal contents.

Ewe: an adult female sheep.

Farm: an establishment or plot of land, usually with a house, barn, silo, etc., where food is produced by growing crops or raising livestock.

Farmer: a person who operates a farm.

Farmer's Market: a place where farmers or producers sell their products directly to the consumer.

Farm Gate Value: the cash value of a product when it leaves the farm.

Farmstead: an area that includes the human dwelling and other building which are often part of the farm.

Farrier: a person who trims, cuts, and fixes the hooves of horses and cattle; a blacksmith.

Feed Conversion Rate: the rate at which feed is converted into weight gain.

Fertile: a) of soil; capable of producing an abundance of crops, b) of animals; able to reproduce.

Fertilizer: a substance added to soil to make it more fertile.

Fertilization: the joining of male and female to produce offspring.

Filly: a more specific term for a female foal.

Flora and Fauna: plant and animal.

Flour: cracked or powdered grain used in baking.

Foal: a general term for a baby horse (noun); to give birth to a baby horse (verb).

Food Processing: operations which are done to prepare food for storage or sale (e.g. canning, freezing, pickling, drying, etc.).

Forage: grass and legume crops used for livestock feeds.

Fowl: any kind of bird.

Free Trade: international trade left to its natural course without tariffs, quotas, or other restrictions.

Free Trade Agreement: an agreement between countries of a particular region to allow certain goods and services to be traded among them without tariffs, quotas, or other restrictions.

Fresh: produce which has not undergone processing, such as freezing or canning.

Fructose: a simple sugar found in honey and fruits.

Fruit: the edible, mature, seed-bearing product of a plant.

Fungicide: a substance that kills fungus.

Genetically Modified Organism (GMO): an organism that has been developed by insertion of a gene from a source other than that species, through recombinant DNA technology. (There is increasing recognition that this term is misleading, as any organism that is modified by evolution, traditional plant breeding or mutation is "genetically modified").

Germination: the point at which a dormant seed begins to sprout, forming a new plant.

Gestation: the process of carrying in the womb during the period from conception to delivery.

Gizzard: the second part of a bird's stomach, used for grinding food.

Goat: a small mammal used for milk, meat and, in some cases, fiber.

Goose: a long-necked water bird; feathers used for stuffing in pillows, quilts, jackets, etc.

Goslings: baby geese.

Grafting: a method of plant propagation (reproduction) in which a piece of a desired plant (usually stems, buds or rootstock) is inserted into another plant so they unite and grow as one plant.

Grain: the edible, hard seed or kernel from cereal plants such as wheat, barley, corn, oats and rye.

Grain Auger: a machine used to move or elevate grain from one place to another (e.g. from a truck to a bin).

Grass: a narrow-leafed plant with seed-like grains grown for lawns and also used for pasture or grazing material for animals.

Green manure: a growing crop plowed under and mixed with the soil to provide organic matter and fertility.

Grit: hard particles such as sand or stone.

Growth: the development and maturing of a plant or animal.

Habitat: a place where the needs for food, water, and shelter of an organism are met.

Harden Off: acclimatize a plant to a change in its environment by gradually increasing exposure to the new environment.

Harrow: an implement used for light, shallow loosening of the soil, for preparing seed beds and for killing weeds.

Harrowing: loosening the top soil to prepare it for seeds and to get rid of weeds.

Harvesting: the collecting of produce from a crop.

Hatch: the emerging of the baby chick from the incubated egg.

Hatchery: a building that has specialized equipment for incubating and hatching eggs.

Hay: grasses and legumes grown to be harvested prior to maturity and stored as dried roughage.

Head: the portion of a plant which contains the seed (as in grain or grass).

Heat: the receptive period of the sexual cycle, especially in female animals.

Heifer: a young cow that has not borne any previous calves. She remains a heifer until her first calf is born.

Hen: a female chicken.

Herbaceous Perennial: a soft stemmed plant that lives from year to year by dying down to ground level at the end of each growing season.

Herbicide: a substance that kills plants.

Herd: a large group of cattle, sheep, goats or other animals.

Honey: a sweet liquid made in the hive by bees, and it can be used for human or animal feed.

Hooves: hard, horny feet on some animals (e.g. horses, cattle, goats, sheep).

Horn: a hard bony projection from the head of an animal (e.g. cattle, goats).

Horse: an animal which is used for riding or farm work; farm work includes stock handling and, in the past, pulling loads (draft).

Horticulture: the science and art of growing fruits, vegetables, ornamental trees, shrubs and flowers.

Hydro-cool: immerse in ice water to chill.

Hybrid: the offspring of two animals or plants of different breeds, varieties, species, or genera (especially as produced through human manipulation for specific genetic characteristics).

Hydroponics: the growing of plants in nutrient solutions with or without an inert medium to provide mechanical support.

Intensive Cereal Management (ICM): close monitoring of cereal crops enabling application of inputs at the most critical points for optimal and economical yields.

Incubator: an apparatus used to keep eggs warm while they are being hatched artificially.

Inoculation: using a needle to give a plant or an animal a substance which can aide in the prevention or curing of disease.

Inspector: a person who evaluates a farming operation or product according to standard guidelines.

Insecticide: a substance that kills insects.

Irrigation: providing extra water in order to grow crops in a dry area.

Kernels: the individual seeds from stalks of grain.

Kid: a young goat.

Lactation Period in cows: the time from when a cow calves to the time when it is dried off to calve again; the period during which the cow is milked (approximately 305 days).

Lamb: a baby sheep (noun); to give birth to a lamb (verb).

Laying Hen: a hen which is specifically raised to produce eggs. (Also layer).

Legumes: a group of plants that have pods containing seeds and the ability to fix nitrogen from the air. Used for food and forage (e.g. beans, peas, clover, alfalfa).

Litter: straw, hay, wood shavings, or other materials used for bedding animals.

Living Modified Organism (LMO): any organism that is the result of biotechnology and is capable of metabolizing and reproducing.

Mare: an adult female horse.

Mechanization: the use and development of machines to replace hand and animal labour.

Milking Machine: an apparatus that attaches to a cow's or goat's teats and by vacuum draws the milk into a holding tank.

Milking Parlour: a place separate from the barn where cows or goats are milked.

Moisture: (for germination) the water required by a seed to sprout and later, to sustain life.

Mulch: a layer of material (bark, hay or plastic) put over the soil surface to protect the plants from erosion, crusting, drying, freezing or weed competition.

Mule: the sterile offspring of a horse and a donkey that is usually smaller in size and makes a different sound than a horse.

NAFTA: North America Free Trade Agreement, signed in 1993 to establish free trade guidelines between Canada, the United States, and Mexico.

Neutering: the removal of testicles from male animals; done for many reasons such as to prevent fighting and increase weight gain. (Castration).

Oats: a grain used primarily for animal feed and also as a cereal.

Organic: grown without the use of synthetic chemicals.

Oxen: adult, neutered, male bovines used for draft purposes; important in pioneer days.

Pasture: an area of grassy land where farm animals range and feed.

Pasteurized: the process of heating to partially sterilize a food to kill bacteria.

Pathologist: a specialist who deals with the nature of disease, especially the structural and functional changes caused by disease.

Pen: a stall for an animal.

Perennial: a plant that lives for more than two years.

Pesticides: manufactured chemicals, naturally occurring organisms, chemicals or devices which are used by the farmer to control plant, insect and disease pests that destroy crops or livestock. Pesticide use is carefully regulated to ensure safety to the environment, the food supply and the user.

Pet: an animal kept for the pleasure of its owner.

Pig: a short-legged, hoofed mammal with bristly hair and a flexible snout that is raised mainly for meat.

Piglet: a baby pig.

Pheromones: a chemical substance secreted and released by an animal for detection and response by another, especially for a member of its own species.

Physiologist: an expert who deals with the function and vital processes of living organisms.

Plant: (1) a living, multicellular organism that usually has no locomotion, has roots, cellulose, cell walls, and has capacity for indefinite growth (noun), (2) to place seeds in the soil to produce plants (verb).

Pod: the container for seeds on a legume plant.

Pollinate: the transfer of pollen from the male part of the flower to the female part of a flower to produce a fertilized egg that will develop into a seed.

Pome Fruit: a firm fleshed fruit in which multiple seeds are protected by a central core, e.g. apple, pear.

Poultry: a young fowl; a young turkey.

Profit Margin: the profit remaining in a business after all expenses have been deducted.

Pullet: a hen less than one year old.

Quota: a supply management system in which the amount produced is limited to the demands of the market.

Ram: a male sheep.

Recombinant DNA technology: genes from one species are introduced into a non-related organism.

Retail Value: the cash value of a product sold to the final consumer.

Ripening: the process of maturing in plants resulting in seeds that are fully developed and can be used to grow new plants.

Rooster: a male chicken.

ROP: record of production; keeps track of production in dairy, beef, sheep and hogs (e.g. weight gain, milk weight, amount of milk, amount of backfat, percent of butterfat in milk, etc.).

Rootstock: the underground part of a plant including a short portion of the stem onto which a scion can be grafted.

Rural: a place, person or thing which is related to the country or sparsely populated area.

Ruminant: an animal with four stomachs. Included are cattle, goats, sheep and deer.

Rye: a grain crop used for bread flour and for animal feed.

Scion: a portion of a stem used for grafting.

Seed: the reproductive portion of a plant.

Seed Drill: an implement used for planting the seeds in rows along the field.

Seeding: the process of putting seed in the ground to grow.

Sheep: a very adaptable animal covered in wool which is kept for meat and wool.

Sheep dog: a working dog used to herd sheep flocks.

Sheep Shears: clippers, usually electric, used to cut the wool from the sheep.

Shelter: a building or other structure which is used to protect animals from weather; animals usually go in and out on their own.

Silage: Grasses, legumes and corn grown, harvested and stored as wet roughage feed for cattle.

Silo: a storage building or pit in which green hay or high-moisture grains are fermented and stored as animal feed.

Spraying: mechanically applying a mixture containing water to prevent/control the development of weeds, insects or diseases.

Sprout: the earliest emergence from a seed as it begins to germinate and grow.

Stalk: the straw or stem-like part of the plant that supports the seed head.

Stallion: an adult male horse used primarily for breeding.

Steer: a neutered male bovine used for its meat.

Stem: the stalk of a plant.

Stock: animals kept on the farm for production purposes.

Stone Fruit: a fruit with fleshy pulp that encloses a single seed in a hard shell, (e.g. peach, plum, cherry).

Supermarket: a place where food produce and other items are sold to consumers.

Supply Management: a distribution system in which the total quantity of a product produced in an industry is controlled, often through quotas. This maintains a level of financial return for the farmers.

Sustainable Agriculture: the practice of agriculture that over the long term conserves or enhances environmental quality and the resource base on which agriculture and society depends.

Swather: an implement used to cut down grain or grass and place it into rows for the baler or the combine to pick up.

Taproot: a tapering root that grows vertically downward in which a plant stores food, (e.g. carrot, turnip).

Tariff: a tax or duty to be paid on a particular class of imports or exports.

Tractor: a powerful, motor-driven machine used to pull implements and do other work on the farm

Trough: a container for drinking water or feed of farm animals.

Turkey: a large bird of the pheasant family which is native to North America and kept for its meat.

Tuber: a fleshy food-storing swelling of an underground stem, (e.g. potato).

Vegetable: any plant whose fruit, seeds, roots, tubers, bulbs, stems, leaves or flower parts are used for food. May be eaten raw or cooked.

Vegetative Propagation: ways of increasing plant numbers using leaves, stems, roots or other parts by techniques such as layering, cuttings or grafting.

Veterinarian: a person who treats diseases and injuries of animals.

Watershed: the entire land surface from which water ultimately drains into a particular stream or river system.

Wean: to accustom a young mammal to food other than its mother's milk.

Weed: a plant that is not valued where it is growing.

Weed Control: the elimination of unwanted vegetation from a crop, thus reducing the competition for nutrients, water, light, etc.

VOCABULARY

A

abomasum *n* сичуг
absorb *v* поглинати, абсорбувати
accordingly *adv* відповідно, таким чином
acid *n* кислота
adapt (to) *v* пристосовуватися
adrenal *a* наднирковий
adult *a, n* дорослий, зрілий
aggregate *a* згрупований, складний
aggregation *n* накопичення, нагромадження, маса
allow *v* дозволяти, давати можливість, робити можливим
ambivalence *n* амбівалентність
amount *n* сума, кількість
amphibian *n* амфібія, земноводна
ancestor *n* предок
anchorage *n* закріплення, скріплення
anthrax *n* сибірка
appendage відросток; додатковий пристрій
appendicular *a* апендикулярний, що стосується відростка
~ skeleton апендикулярний скелет (додатковий скелет)
application *n* вживання, використання
aquatic *a* водяний
arable *a* орний
arable farming рільництво
area *n* площа, район, зона
arm *n* рука
arrange *v* організовувати, налагоджувати, упорядковувати
articulate *v* з'єднувати, сполучати
asexual *a* безстатевий
attachment *n* з'єднання, приєднання
available *a* доступний, наявний
axial *a* осьовий

B

bacteria *n* бактерії, бактерія
bacteriophage *n* бактеріофаг
bacterium (*sing*) *n* бактерія
bark *n* кора
barn *n* корівник, стайня
barracuda *n* баракуда, морська щука

bee *n* бджола
beef *a, n* м'ясний, яловичина
bee-keeping *n* бджільництво
belly *n* живіт, черево
bite *v* кусати, жалити
blind *a* сліпий
blindness *n* сліпота
blood *n* кров
body *n* тулуб, тіло, труп
bone *n* кістка, скелет
bony *a* кістковий, кістяний
boring *a* нудний, набридливий
bovine *a* бичачий
brain *n* (головний) мозок, розум
branch *n* галузь
breakdown *n* розпад
breastbone *n* грудина
breathe *v* дихати
breed *n, v* порода; розводити
bristle *n* щетина
brook *n* струмок
brucellosis *n* бруцельоз
buffalo *n* буйвол
bull *n* бик, самець (слона, кита і т.п.)
bundle *n* вузол, пучок
butter-fat *n* молочний жир

С

calciferous *a* вапняковий, вапняний
calcify *v* перетворюватись на вапно, твердіти
calf (*pl* calves) *n* теля
camel *n* верблюд
carrier *n* бацилоносій, переносник збудника хвороби
cartilage *n* хрящ
cattle *n* велика рогата худоба
cattle-pen *n* загін, кошара (для овець)
cattle-plague *n* чума рогатої худоби
caudal *a* хвостовий
cause *v* спричиняти
cavity *n* порожнина, впадина
cell *n* клітина
cerebral *a* мозковий
cerebrospinal *a* спинномозковий

cervical *a* шийний, потиличний
chamber *n* камера, порожнина
chemical хімічний
chemist *n* хімік
cherry *n* вишня
chewing (cudding) *n* жування
chitin *n* хітин
chordate *n* хордовий, той, що має хорду
clam *n* морський моллюск
clothing *n* одяг
coat *n* оболонка, пліва
coelom *n* вторинна порожнина тіла тварини
cold-blooded *a* холонокровний
colonize *v* колонізувати, заселяти, оселятися
colourless *a* безбарвний
colt *n* молодий кінь
compartment *n* відділення, відділ, купе
complex *a* складний
composition *n* утворення
conduct *v* проводити
confuse *v* сплутувати, бентежити
conserve *v* зберігати, берегти
consider вважати
conspicuous *a* видний, помітний
constitution *n* склад, будова
contain *v* містити (в собі)
contractile *a* той, що скорочую
contraction *n* звуження, стиснення
convert *v* перетворювати
cord *n* мозок, канатик, тяж
corpuscle *n* тільце, часточка
counter-part *n* копія, двійник, щось, що доповнює інше
covering *n* оболонка, покриття
cranium (*pl* crania) череп
crawl *v* повзти
cream *n* вершки, крем
creamy *a* жирний
creature *n* жива істота, створіння
crocodile *n* крокодил
crossing *n* схрещування
curved *a* зігнутий, викривлений, кривий
cycle *n* цикл, період

D

dairy *a* ~ product молочний, молочний продукт
dairying *n* ведення молочного господарства
damage *n, v* пошкодження; шкодити
decline *v* зменшуватись, спадати
deer *n* олень
deficiency *n* недостача, дефіцит
depend on *v* залежати від
derive *v* отримувати, походити
dermal *a* шкірний, дермальний
destroy *v* руйнувати
die *v* вмирати
dietary *a* дієтичний
digest *v* перетравлювати (їжу)
digestion травлення
digestive *a* ~ system травний, система травлення
dinosaur *n* динозавр
disease *n* хвороба
distribute *v* розподіляти
dive *v* пірнати, поринати
diverse *a* відмінний, різноманітний, різний
diversity *n* різноманітність
divide *v* ділити
DNA ДНК
domestic *a* свійський
domestication *n* одомашнювання
down *n* пух
draft *n* тягло, упряж
drag *v* волочити, тягти
drain *v* виводити, витікати
draw *v* тягнути
droplet *n* крапля
dry *a* сухий
dual *a* подвійний
duck *n* качка
duck-billed *a* з качиним носом
duck-billed platypus *n* качкодзьоб
duct *n* ductless glands проток, залози внутрішньої секреції
dwell *v* жити, мешкати
dwelling *n* житло, помешкання

E

ectodermal *a* ектодермальний

elephant *n* слон
embed *v* вставляти, занурювати
embryo *n* (*pl.* embryos) ембріон, зародок
embryonic *a* ембріонний
employ *v* використовувати
enable *v* надавати можливість
encircle оточувати
enclose *v* оточувати, замикати
endodermal *a* ендодермальний
endoskeleton *n* внутрішній скелет
endothelial *a* ендотеліальний
engulf *v* поглинати
envelope *n* конверт, оболонка
environment *n* навколишнє середовище
enzyme *n* ензим, фермент
epidermis *n* епідерма, епідерміс
epithelial *a* епітеліальний
equine *a* кінський, конячий
escape *n, v* втеча, втікати
esophagus *n* стравохід
eukaryote *n* еукаріот
exception *n* виняток
excrete *v* виділяти
excretory *a* екскреторний
exist *v* існувати
exoskeleton *n* зовнішній скелет
expansion *n* розширення
exploit *v* експлуатувати
external *a* зовнішній

F

facial *a* лицьовий, лицевий
fall into *v* розпадатися на
farming *n, a* сільське господарство, землеробство
fascinate *v* зачаровувати, приваблювати
fat *n, v* жир, сало; жирний, товстий
fat-soluble *a* жиророзчинний
fear *n, v* страх, боятися
feather *n* перо (пташине), оперення, пір'я, дичина
feed *v* харчуватись, годувати
fell *n* шкура (тварини), шерсть
female *n, a* жіночого роду; самка

ferment *n* фермент
fermentation *n* бродіння, ферментація
fiber *n* волокно
fin *n* плавник, плавець
flat *a* плоский, рівний
flesh *n* (сире) м'ясо, тіло, плоть
flexibility *n* еластичність, гнучкість
flexible *a* гнучкий, еластичний
flipper *n* плавець, плавник
flourish *v* процвітати
fluid *a, n* рідкий, рідина
foal *n* лоша, стригун
fodder *n* корм, фураж
food *n* ~ bolus ~ stuff їжа, шматок їжі, продукти харчування
foot (*pl* feet) *n* фут
fowl *n* птиця (звичайно курка або півень)
fowl *n* свійська птиця (зазв. курка, півень), птиця, дичина; полювати на дичину, ловити птахів
framework *n* корпус, кістяк
frog *n* жаба
fungus (*pl* fungi) *n* гриб, грибок, пліснява
fur *a, n* хутряний; хутро
furnish *v* постачати, надавати

G

gamete *n* статеві клітина
ganglion (*pl* ganglia) *n* нервовий вузол
germ *n* мікроб, бактерія, мікроорганізм зародок
giant *a, n* гігантський; гігант
gills *n* жабри, друге підборіддя
gland *n* залоза
glanders *n* сап
glands (*pl*) *n* шийні залози
glasshouse *n* оранжерея, теплиця
goat *n* коза
goby *n* бичок (риба)
gonad *n* статеві залози
goose (*pl* geese) *n* гусак, гуска, гуси
gradually *adv* поступово, послідовно
grass *n* трава
grassland *n* сіножать, луг, пасовище
grazing *n* пасіння, пасовище
grind *n* перемелювати, розтирати

Н

habitant *n* житель, мешканець
habitat середовище проживання
h(a)emoglobin *n* гемоглобін
hagfish *n* міксина
ham *n* шинка, окіст, стегно
harden *v* застигати, затвердіти
hatch *v* вилуплятися, виводити
haul *n, v* перевезення; тягнути, переносити
heart *n* серце
heifer *n* нетель, ялівка, первістка
height *n* висота
hemopoietic *a* кровотворний
hen *n* курка
hence *adv* отже, таким чином
herd *n* стадо
hibernate *v* перебувати у зимовій сплячці, зимувати
hide *v* ховатись
hinge *n* шарнір
hog *n* свиня (амер.), кабан
hog-breeding *n* свинарство
hog-raising *n* свинарство
hold *v* утримувати
hole *n* діра, отвір
honey *n* мед
horn *n* ріг
horse *n* кінь
host *n* живитель
human *n* людина, людська істота
hunt *v* полювати
hyoid *n* hyoid bone під'язикова кістка, геоїд

І

ichthyology *n* іхтіологія
include *v* містити в собі
infection *n* інфекція, зараження
infectious *a* інфекційний
inhabit *v* жити, мешкати, населяти
inhabitant житель, мешканець
inner *a* внутрішній
inside *prep.* всередині
instruction *n* наказ, інструкція,
integument *n* зовнішня оболонка

integumentary *a* покривний
intensive *a* інтенсивний
intercellular *a* міжклітинний
intercostal *a* міжреберний
internal *a* внутрішній
intestine *n* large ~ small ~ нутроці, кишки, товста кишка, тонка
intracellular *a* внутрішньоклітинний
invade *v* вторгатися, нападати, уражати (хворобою)
invertebrate *n* безхребетна тварина
invisible *a* невидимий
involuntary мимовільний
IQ (intelligence quotient) коефіцієнт розумового розвитку

J

jaws (*pl*) *n* щелепи
joint *n, v* місце з'єднання, суглоб; з'єднувати

K

kangaroo *n* кенгуру
keep *v* тримати
kidney *n* нирка

L

lachrymal *a* слъозовий, слъозова протока, слъозовий канал
lack *n* нестача
land *n* земля, суша, суходіл
lard *n* смалець
larynx *n* гортань, глотка
lay *v* класти, нестися
leather *n* шкіра (вичинена)
leftovers (*pl.*) *n* залишки
leg *n* нога
length *n* довжина
leukosis *n* лейкоз
limb *n* кінцівка, частина (тіла)
lipid *n* ліпід, ліпоїд
liquefy *v* перетворюватись на рідину
liver *a, n* печінковий; печінка, житель (*амер.*)
liver oil печінковий жир
livestock *n* домашня худоба
lizard *n* ящірка
lorry *n* вантажівка
lumbar поперековий

lungs *n* (pl.) легені
lymphatic *a, n* лімфатичний; лімфатична судина

M

maintain *v* утримувати, тримати
make up *v* складати
male *a, n* чоловічого роду; самець
mammal *n* ссавець
manufacture *n* виробництво, виготовлення
manure *n* гній
mare *n* кобила
marine *a* морський
marsupial *a, n* сумчастий; сумчаста тварина.
master *n* майстер, спеціаліст, хазяїн
match *v* підходити, відповідати
matrix *n* матриця, основа
matter *n* речовина, матерія
mature *a* зрілий, дорослий
medicine *n* ліки, медицина
medium *a, n* середній; середовище
medium breed середня порода
medium *n*
membrane *n* оболонка, мембрана, плівка, перетинка
mesodermal *a* мезодермальний, міжклітинний (матеріал)
message *n* послання, лист
microbe *n* мікроб
microorganism *n* мікроорганізм
milk *v* доїти, давати молоко
minor *a* другорядний
miss *n, v* втрата, не мати чогось, втрачати
modify *v* модифікувати, видозмінювати
monotreme *n* ссавець, що кладе яйця
moose *n* самка лося; американський лось
mouse (*pl* mice) *n* миша
mouth *n* рот
mucus *n* слиз
mule *n* мул, осел
multicellular *a* багатоклітинний
muscle *n* м'яз, мускул
muscular *a* м'язовий, мускульний
mutton *n* баранина

N

nasal *a* носовий
economy national ~ господарство, народне господарство
nature *n* природа
need *n, v* потреба; потребувати
net-like *a* ~ compartment сітчастий, сітчастий відділ
niche *n* сховище, ніша
nitrogen *n* азот
nonliving *a* неживий
notably *a* помітно, значно
notochord *n* спинна струна, хорда
nourish *v* годувати, живити
nucleic *a* нуклеїновий
nucleus *n* ядро, центр
number *n* число, кількість
nutrient *n* поживна речовина

O

oscur *v* траплятись
oceanic *a* океанський
octopus *n* восьминіг, спрут
omasum книжка (III відділ шлунка жуйних)
on record *a* зареєстрований
orchard *n* плодовий сад (фруктовий) сад
organelle *n* органелла, органоїд
organism *n* організм
origin *n* походження
outer *a* зовнішній
outside *n* зовнішня частина чогось
ovaries *n* яєчники
ox (*pl* oxen) *n* бик, віл
oxygen *n* кисень

P

pair *n* пара
paired *a* парний, подвійний
pancreas *n* підшлункова залоза
particle *n* часточка
pasture *n* ~ land *n, v* пасовище, вигін, випасати
pathogen *n* патоген
pear *n* груша
perforate *v* просвердлювати, пробивати отвір
perform *v* виконувати, здійснювати

perpetuation *n* увіковічення, збереження назавжди
pest *v* паразит, шкідник
pesticides (*pl*) *n* пестициди
petroleum *n* нафта
pharynx *n* зів, глотка, горлянка
piece *n* частинка, шматочок
pigeon *n* голуб
pig *n* свиня
pituitary *a, n* слизовий; гіпофіз
pity *v* жаліти
placental *a* плацентарний
platypus *n* качкодзьоб
plot *n* земельна ділянка
poisonous *a* отруйний, шкідливий
polled *a* комолий, безрогоий
portion *n* частка, порція
possess *v* мати, володіти
pouch *n* сумка (у сумчастих тварин)
poultry *n* птиця (домашня)
power *n* сила, енергія, влада
precede *v* передувати
prevent *v* запобігати
prevention *n* запобігання
primates (*pl*) *n* примати
private *a* приватний
produce *v* виробляти, продукувати
producer *n* виробник
production *n* виробництво, продукція
projection *n* виступ
prolific *a* плодючий
prolong *v* затримувати, відстрочувати
protein *n* ~ soat протеїн, протеїнове покриття
provide *v* забезпечувати, постачати
purpose *n* мета, ціль

Q

quantity *n* кількість
quarter *n* чверть, квартал; біг на чверть милі

R

rabbit-breeding *n* кролівництво
rabies *n* сказ, водобоязнь
raise *v* підвищувати, вирощувати

raising *n* розведення (тварин)
ram *n* баран
range *n* асортимент
raw *a* ~ material сирий, необроблений, сировина
rear *v* розводити, вирощувати
record *v* записувати, реєструвати
recreation *n* відпочинок
recycle *v* використовувати повторно
reflect *v* відображати
release *v* відпускати, звільняти
remote *a* віддалений, далекий
replicate *v* відтворювати
reproduce *v* відтворюватись
reptile *n* плазун
require *v* вимагати
respective *a* відповідний
respectively *adv* відповідно
respiratory *a* ~ system дихальний, система дихання
restore *v* відновлювати, відтворювати
restrict *v* обмежувати
reticulum *n* сітка (II відділ шлунка жуйних)
rib *n* ребро
rickets *n* рахіт
rigidity *n* жорсткість, твердість, міцність
RNA РНК
rock *n* гірська порода
rough *a* грубий
roughly *adv* грубо, приблизно
round up *v* зганяти (докупи)
row *n* ряд
rumen *n* рубець (I відділ шлунка жуйних)
ruminant *a*, ~ stomach жуйний; жуйна тварина, шлунок жуйних

S

sacral *a* крижовий scales *n* луска
scaly *a* вкритий лускою
scurvy *n* цинга
secrete *v* виділяти
sediment *n* осад, осадок
seek *v* прагнути
sensory *a* чуттєвий
separate *a* окремий, ізольований
servant *n* слуга

sewage *n* нечистоти, стічні води
shape *n* форма
shark *n* акула
sheep *n* вівця, вівці
sheep-breeding *n* вівчарство
shell *n* оболонка, панцир, черепашка
shoot *v* відкидати
short-lived *a* недовговічний
shoulder *n* плече, лопатка
similar *a* подібний, схожий
skate *n* скат (риба)
skin *n* шкіра, шкура
skull *n* череп
slug *n* слимак, слизняк
snail *n* равлик
snake *n* змія, гадюка
soil *n* ґрунт
solvent *n* розчин
source *n* ~ of food джерело, джерело їжі
specialize (in) *v* спеціалізовуватись (в)
species *n* рід, порода, вид, різновид
specific *a* особливий, специфічний
sperm-whale *n* кашалот
spinal *a* ~ cord спинний, спинний мозок
spine *n* спинний хребет, хребет, хребетний стовп
sponge *n* губка
spread *v* поширюватись, розповсюджуватись
squeeze *v* протискатися
squid *n* кальмар
squirt *v* розпилювати
stable стійкий
stage *n* стадія, етап
stallion *n* жеребець
stem *n* стебло, стовбур
sternum *n* (*pl.* sterna) грудина, грудна кістка
sticky *a* липкий, клейкий
stockrearing *n* скотарство
stoma *n* устячко, гирло
stomach *n* шлунок, живіт
striated *a* (*syn.* striped) смугастий
subdivide *v* підрозділяти
substance *n* субстанція, речовина
succeed *v* досягати (великого) успіху

sucker *n* присосок
supply *n, v* постачання, запас; постачати
surface *n* поверхня
survive *v* виживати, вижити
suture *n, v* шов, нитка для зашивання, накладати шов
swine *n* свиня, свині
scales *n* луска

T

tame *n* приручати
taming *n* приручення
teaspoon *n* чайна ложка
tendency *n* тенденція
term *n, v* термін, строк; називати
terrestrial *a* земний
testes (*pl*) *n* яєчки
thing *n* living ~істота (жива), річ, предмет
thoracic *a* ~ cage грудний, грудна порожнина, грудна клітка
thrive *v* розвиватись
thyroid *n* щитовидна залоза
timid *a* боязкий, несміливий
tiny *a* крихітний, дуже малий
tissue *n* тканина
toad *n* жаба
tough *a* ~ fibre грубий, міцний, грубе (міцне) волокно
toxic *a* токсичний
toxin *n* токсин, отрута
toxoplasmosis *n* токсоплазмоз
trachea *n* трахея
translucent *a* напівпрозорий
transmit *v* передавати, посилати, відправляти
true *a* справжній, правильний
tuberculosis *n* туберкульоз
tunicate *a* вкритий оболонкою
turkey *n* індик
turtle *n* черепаха (морська)
twofold *a* подвійний, подвоєний
type *n* тип, представник

U

udder (*s*) *n* вим'я
unit *n* утворення, одиниця виміру, підрозділ
upland (*s*) *a, n* гористий; нагірна частина країни

V

valuable *a* цінний
variable *a* перемінний
variety *n* різновид, різноманіття
vegetarian *n* вегетаріанець
ventral *a* черевний
versatile *a* рухливий, моторний
vertebra *n* (*pl* vertebrae) хребець
vessels (*pl*) *n* судини
via *prep* через, за допомогою
virion *n* віріон (вірусна частка)
virus *n* вірус
vitamin *n* вітамін
voluntary *a* добровільний

W

warm-blooded *a* теплокровний
waste *a, n* зайвий, непотрібний; покидь
water-soluble розчинний у воді
wax *n* віск
weigh *v* важити, мати вагу
whale *n* кит
whale shark китова акула
wing *n* крило
wool *n* вовна
worship *n, v* культ, обожнювати

Y

yak *n* як
yellow fever *n* жовта лихоманка
yield *n* продуктивність, урожай

Z

zebu *n* зебу
zoonotic *a* зоонозний

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