

ENGLISH FOR AGRONOMISTS



МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
ЧЕРКАСЬКИЙ НАЦІОНАЛЬНИЙ УНІВЕРСИТЕТ
ІМЕНІ БОГДАНА ХМЕЛЬНИЦЬКОГО

ENGLISH
FOR AGRONOMISTS

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Навчальний посібник сформований у відповідності до програми з іноземної мови за професійним спрямуванням для студентів 1 курсу спеціальності «Агрономія».

Навчальний матеріал розташовано за тематичним принципом (за розділами). Робота за темою в межах одного розділу організовується на базі декількох текстів професійного спрямування, загального спрямування, зразків усного мовлення та завдань комунікативного характеру професійного та загального спрямування, текстів для додаткового читання, системи граматичних вправ репродуктивного та творчого характеру. Посібник вміщує завдання для самостійної роботи студентів та вправи для контролю умінь та навичок студентів.

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ПЕРЕДМОВА

Навчальний посібник призначається для студентів 1 курсу спеціальності «Агрономія». Мета посібника – формувати у студентів навички читання та розуміння літератури фахової професійної тематики на основі активізації знань загальнонавчальної лексики та основ граматики. Поряд з цим у посібнику реалізується мета комплексного оволодіння студентами всіма видами мовленнєвої діяльності на основі комунікативного підходу до вивчення іноземної мови.

Навчальний матеріал посібника розподілено на два тематичних розділи “Agriculture” та “Agronomy”, текстовий матеріал яких згруповано за такими темами професійного інтересу студентів, як історія сільського господарства, галузі сільського господарства, розвиток сільського господарства, аграрна освіта, агрономія як галузь сільського господарства, рослинництво, управління ґрунтом, ґрунтознавство та види ґрунтів.

Кожний розділ, в свою чергу, вміщує декілька текстів професійного спрямування, які з різних сторін висвітлюють тему, та текстів, які несуть додаткову інформацію за певною тематикою.

Кожний урок включає серію лексичних та граматичних вправ, призначених для формування мовленнєвих, лексичних, граматичних навичок та тренування вживання мовних явищ на різних етапах оволодіння англійською мовою. Вправи охоплюють загальноанглійську тематику, сприяючи розвитку навичок говоріння, аудіювання, читання та письма. Комунікативні вправи мають різноплановий вплив на навчальний процес та стимулюють пізнавальний інтерес особистості студента.

Грамматичні вправи вміщують основні програмні явища англійської мови, які необхідні для розуміння даного лексичного матеріалу, тобто, основну інформацію про частини мови, їх особливості та специфіку вживання. Грамматичні вправи спрямовані на засвоєння необхідного граматичного матеріалу, ефективне його повторення та практичне застосування отриманих знань.

Навчальний посібник включає граматичний довідник, призначений для самостійної роботи студентів з метою повторення раніше вивченого граматичного матеріалу.

UNIT I

AGRICULTURE

Lesson 1

Origins of Agriculture



The development of agriculture about 12,000 years ago changed the way humans lived. They switched from nomadic hunter-gatherer lifestyles to permanent settlements and farming.

Agriculture and domestication probably started in the Fertile Crescent (the Nile Valley, the Levant and Mesopotamia). Now, it is the territories of Iraq, Syria, Turkey, Jordan, Lebanon, Israel, and Egypt.

Wheat and barley are some of the first crops people grew. People probably started agriculture slowly by planting a few crops but still gathered many foods from the wild. People may have started farming because the weather and soil began to change. Farming can feed many more people than hunter-gatherers can feed on the same amount of land. This allowed the human population to grow to such large numbers as there are today.

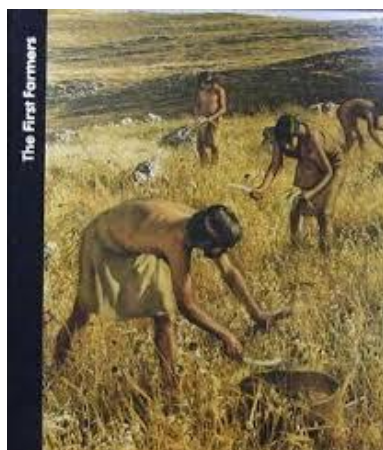
(Adopted from National Geographic: Learn with us. Internet Resource)

1. Find the English equivalents in the text:

Кочовий спосіб життя, мисливсько-збиральний спосіб життя, постійне поселення, землеробство, сільське господарство, одомашнення, пшениця, ячмінь, висаджувати культури, дика природа.

2. Match the verbs with the meaning

To change	виросувати
To switch from	переходити
To grow	садити
To plant	змінювати
To gather	годувати
To feed	збирати



3. Read the passage and mark the following statements as true (T) or false (F):

- 1) Many thousand years ago people switched from farming to hunting.

- 2) The first crops people grew were cotton and wheat.
- 3) People started agriculture by planting a few crops.
- 4) People may have started farming because the weather did not change.

4. Match the terms with the definitions:

Agriculture	the activity of hunting wild animals or game, especially for food or sport
Farming	the process of taming an animal and keeping it as a pet or on a farm
Domestication	the activity or business of growing crops and raising livestock
Hunting	the science or practice of farming, including cultivation of the soil for the growing of crops and the rearing of animals to provide food, wool, and other products

5. Read the sentences and fill in the blanks:

Farming weather wheat domestication barley
soil hunting

- 1) Many years ago, people turned from _____ to permanent settlements and _____.
- 2) Agriculture and _____ probably started in the Fertile Crescent.
- 3) The first crops that people grew were _____ and _____.
- 4) Many years ago, people started farming because the _____ and _____ began to change.

6. Answer the following questions:

- 1) When did the origins of agriculture date back?
- 2) Where did the agriculture probably start?
- 3) How did people start agriculture?
- 4) Why did people probably start farming?



7. Read the text and put 3 questions to it:

Earliest Agriculture

The earliest agriculture of southern Asia was typically based on roots and tubers such as yams and taro, tree crops such as coconut and banana, and perennials such as sugarcane.

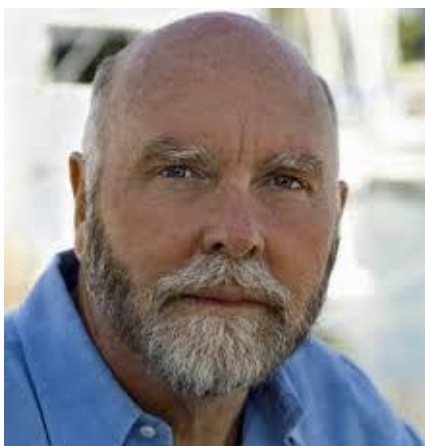
In the Americas, vegiculture developed with cassava, sweet potatoes, arrowroot, and peanuts, and moved up the eastern slopes of the Andes, ultimately domesticating the potato. These crops spread quickly throughout the world after European contact. Potatoes displaced wheat and barley in cold soils of northern Europe and bananas became the fruit of choice in the New World tropics.

Discussion Point

MEETING PEOPLE

(from John and Liz Soars. New Headway. English Course. – Oxford University Press, 2000)

8. Read the text about Seumas McSporran ['Jeiməs mək'sporən].



Seumas McSporran is a very busy man. He is 60 years old and he has thirteen jobs. He is a postman, a policeman, a fireman, a taxi driver, a school-bus driver, a boatman, an ambulance man, an accountant, a patrol attendant, a barman, and an undertaker. Also, he and his wife, Margaret, have a shop and a small hotel.

Seumas lives and works on the island of Gigha in the west of Scotland. Only 120 people live on Gigha but in summer 150 tourists come by boat every day.

Every weekday Seumas gets up at 6.00 and makes breakfast for the hotel guests. At 8.00 he drives the island's children to school. At 9.00 he collects the post from the boat and delivers it to all the houses on the island. He also delivers the beer to the island's only pub. Then he helps Margaret in the shop.

He says: "Margaret likes being busy, too. We never have holidays and we don't like watching television. In the evenings Margaret makes supper and I do the accounts. At 10.00 we have a glass of wine and then we go to bed. Perhaps our life isn't exciting, but we like it."

9. Answer the following questions:

1. Where does Seumas live?
2. How old is he?
3. How many jobs does he have?
4. What's his wife's name?
5. What does she do?
6. How many people live on Gigha?
7. How many tourists visit Gigha in summer?
8. What does Seumas do in the morning?
9. What do he and Margaret do in the evening?

10. Put questions to the following sentences.

1. He helps in the shop.
2. He makes breakfast for the hotel guests.
3. He serves petrol.
4. He delivers the beer to the pub.
5. He collects the post from the boat.
6. He drives the children to school.
7. He delivers the letters.
8. He has a glass of wine.
9. He works as an undertaker.

11. Ask and answer questions with a partner about Seumas's working day.

12. Match a job in A with a line in B.

A	B
A pilot	designs buildings
An interpreter	delivers letters
A nurse	looks after people in hospital
A barman	looks after money
An accountant	writes for a newspaper
A journalist	translates things
A postman	sells things
An architect	flies planes
A shopkeeper	serves drinks

GRAMMAR EXERCISES

13. Give the plural of the following nouns.

Language, task, reason, man, invention, field, specialist, decade, standard, article, journal, book, country, computer, organization, tourist, city, word, hand, life, writer.

14. Choose the right form of the noun from the brackets.

1. Ann's father told the children two funny (story, stories).
2. Many (family, families) live in this new house.
3. The travelers will see many (country, countries).
4. Put the book on the (table, tables).
5. There are flowers in the (vase, vases).
6. The (child, children) is playing in the yard.
7. There are 20 (student, students) in our group.
8. The cat caught a (mouse, mice).
9. My (friend, friends) are students.
10. We spent the week-end in the (country, countries).

15. Use the necessary form of the pronoun.

1. (He) ... composition is very good. 2. (We) ... son goes to school. 3. (You) ... sister is young. 4. (They) ... knowledge of the subject is very poor. 5. (He) ... name is John. 6. (I) ... family lives in Kyiv. 7. (She) ... friends often visit her. 8. (We) ... group is small. 9. (She) ... favorite subject is History. 10. (They)... classroom is light.

16. Paraphrase the following using the Possessive case:

The pen that belongs to John; the camera that belongs to my friend; the book that belongs to her pupils; the dress that belongs to the girl; the flats that belong to the workers; the car that belongs to the miners; the coat that belongs to her brother; the watch that belongs to the teacher.

17. Paraphrase the following sentences as in the model.

This is my coat. - This coat is mine.

1. This is our school. 2. This is my note-book. 3. This is your desk. 4. This is his bicycle. 5. This is her bag. 6. This is their classroom. 7. This is our bus. 8. This is her suggestion. 9. These are your tickets. 10. These are our tests.

18. Replace the nouns by the personal pronouns in the Nominative or Objective Case.

1. *The girls* are playing tennis. 2. I saw *the girls* in the park. 3. Put *the books* on the shelf. 4. *The books* are on the shelf. 5. We saw *the film* yesterday. 6. *The film* is very interesting. 7. *My sister* studies at school. 8. I am waiting for *my sister*. 9. We listened to *the teacher* with great interest. 10. *The teacher* explains a new grammar rule.

19. Fill in the blanks with the forms of the verb to be in Present Indefinite.

1. I ... a student. 2. This man ... a farmer. 3. My friend ... in the garden. 4. We ... busy. 5. My father ... not old. 6. The students ... in the classroom. 7. She ... an engineer. 8. I ... sorry. I ... late. 9. Our teacher ... young. 10. They ... in the park.

20. Translate the following sentences into English.

1. Мій батько – тракторист. 2. Наш учитель зараз у Києві. 3. Твоя сестра вдома? 4. Петро не хворий, він у Києві. 5. Де твій брат? Його немає в кімнаті. 6. Ми в читальному залі. 7. Художник у галереї зараз. 8. Ольга вдома? 9. Його батько зараз дуже стомлений. 10. Хто твоя сестра? Вона лікар.

Lesson 2

The Branches of Agriculture

Prereading task:

1. Look at the pictures of the article and say what you can see here.

2. Read the text and find the terms for agriculture branches.

Agriculture is defined as the art and science of animal and crop production. There are four main branches of agriculture, namely:

- Livestock production
- Crop production
- Agricultural economics
- Agricultural engineering



Livestock production involves:

- nomadic pastoralism (the keeping of cattle while moving from one region in search of pasture and clean water)
- poultry farming (rearing of chicken, goose, turkey, duck, pigeon, etc.)
- pig farming (rearing of pigs)
- apiculture (bee keeping)
- aquaculture (fish farming)



Crop production or arable farming includes:

- field crop involving
 - 1) *annual crops* like cereals and pulses, e.g., peas
 - 2) *perennial crops*, like coffee, tea, sugarcane
- horticultural crops involving
 - 1) pomology (growing of fruits)
 - 2) olericulture (growing of vegetables)
 - 3) floriculture (growing of flowers)



Agricultural economics is a branch of agriculture which deals with the utilization of scarce resources. It aims at maximizing output while minimizing costs.

Agricultural engineering is a branch of agriculture that deals with the use and maintenance of farm tools, machinery, and structures.

(From Subjects)

3. Find the English equivalents in the text:

Тваринництво, рослинництво, економіка сільського господарства, сільськогосподарське машинобудування, кочове скотарство, птахівництво, свинарство, бджільництво, аквакультура, рибництво, польові культури, однорічні культури, багаторічні культури, садові культури, помологія, олійництво, квітникарство.

4. Fill in the gaps in the sentences (using a-e variants) and make a conclusion about the importance of different agricultural branches:

- 1) Field crop provides grains that are a good source of _____.
- 2) The fruit and vegetable production gives all the necessary vital _____.
- 3) The animal breeding supplies _____.
- 4) Poultry covers the needs of the population in _____.
- 5) Apiculture provides products such as _____ that are used commercially.

- a) *honey and wax*
- b) *meat, milk, sour cream, and cottage cheese*
- c) *eggs and meat*
- d) *important nutrients called carbohydrates*
- e) *vitamins, proteins, and sugars*

5. Answer the following questions using the information of the text and exercise 4:

- 1) How is agriculture defined?
- 2) What are the main branches of agriculture?
- 3) What does livestock production include?
- 4) What does animal breeding supply?
- 5) What needs does poultry cover?
- 6) What does crop production involve?
- 7) What does field crop provide?
- 8) What does the fruit and vegetable production give?
- 9) What products does apiculture provide?
- 10) What is agricultural engineering?

6. Read the text, write down key words and put 3 questions to it for a group discussion:



The agricultural economics is the study of allocation, distribution, and utilization of the resources used by farming. Agricultural economics plays a role in the economics of development, for a continuous level of farm surplus is one of

the wellsprings of technological and commercial growth.

In general, one can say that when a large fraction of a country's population depends on agriculture for its livelihood, average incomes are low. That does not mean that a country is poor because most of its population is engaged in agriculture; it is closer to the truth that because a country is poor, most of its people must rely upon agriculture for a living.

(From Encyclopedia Britannica)

7. Look at the article and say what you know about agricultural engineers:

Occupational Outlook Handbook: Agricultural Engineers

(From US Bureau of Labor Statistics)



What Agricultural Engineers Do

Agricultural engineers solve problems concerning power supplies, machine efficiency, the use of structures and facilities, pollution and environmental issues, and the storage and processing of agricultural products.

Work Environment

Agricultural engineers work mostly in offices, but may spend time traveling to agricultural settings. Agricultural engineers typically work full time.

How to Become an Agricultural Engineer

Agricultural engineers typically need a bachelor's degree in an engineering field, such as agricultural or biological engineering.

Pay

The median annual wage for agricultural engineers was \$82,640 in May 2021.

Job Outlook

Employment of agricultural engineers is projected to show little or no change from 2021 to 2031.

Despite limited employment growth, about 100 openings for agricultural engineers are projected each year, on average, over the decade. Most of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force, such as to retire.

State & Area Data

Explore resources for employment and wages by state and area for agricultural engineers.

Similar Occupations

Compare the job duties, education, job growth, and pay of agricultural engineers with similar occupations.

8. Make sure you remember the definitions of the notions; match 1-5 to a-e:



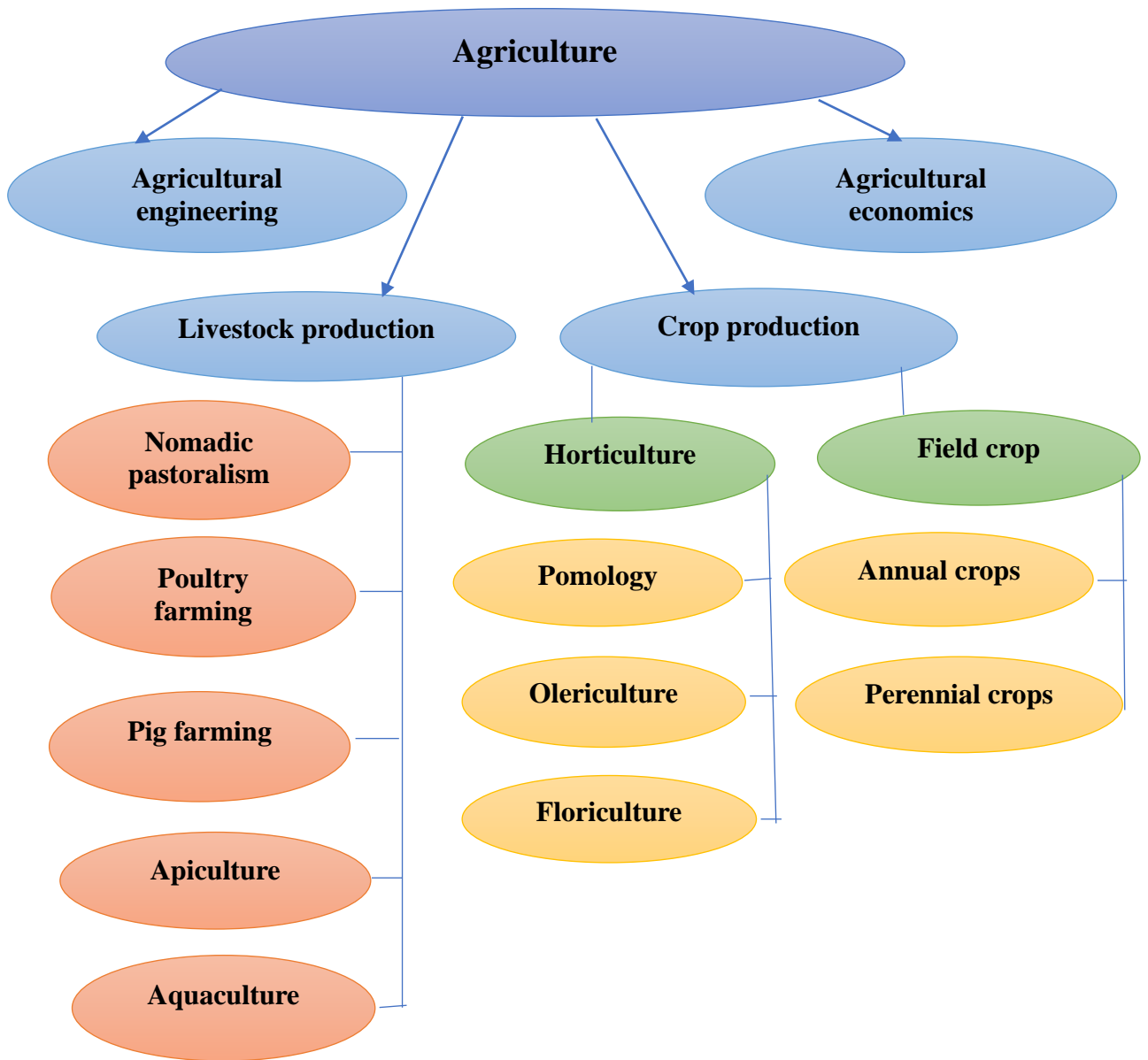
- 1) Horticulture
- 2) Apiculture
- 3) Olericulture
- 4) Pomology
- 5) Floriculture



- a) *technical term for beekeeping*
- b) *the art or practice of garden cultivation and management*
- c) *the cultivation of flowers*
- d) *the science that deals with fruits and fruit growing*
- e) *a branch of horticulture that deals with the production, storage, processing, and marketing of vegetables*



9. Make sure you remember the key words of the lesson:



WHERE DO YOU LIVE?

10. a) Write the words in the correct column.

An armchair, a fridge, a television, a coffee table, a shelf, a plant, a stereo, a lamp, a cooker, a washing machine, a telephone, a cupboard, a cup, a sofa.

The living room	The kitchen	Both

b) What is in your living room? Tell a partner.

c) Helen has a new flat. Describe her living room.



There is a

There are

d) Complete the answers. Practise the questions and the answers.

1. Is there a television in the room? -
Yes, there ...

2. Is there a radio in the room? -

No, there ...

3. Are there any books on the shelves? - ...

4. How many books are there on the shelves? - ...

5. Are there any photographs in the room? - ...

e) Ask and answer questions about these things.

A dog a fire a rug a cat a mirror a computer a clock

Plants lamps flowers pictures newspapers bookshelves photos

f) Look at the picture of Helen's living room. Complete the sentences with a preposition.

On under next to in front of

1. The television is _____ the wall.
2. The coffee table is _____ the sofa.
3. There are some magazines _____ the table.
4. The books are _____ the shelves.
5. There are some photos _____ the shelves.
6. The armchair is _____ coffee table.

g) Read the text and put 4 questions to it.

Description of a Living Room

There are three people in the living room. A man and a woman are on the sofa; a little girl is in the armchair. There is a radio on the coffee table and a rug under it. There is a cat on the rug in front of the fire. There are a lot of pictures on the walls but there are not any photographs. There are two plants on the floor next to the television and some flowers on the small table next to the sofa.

11. Read the conversation of Helen and Bob.



H: And this is the kitchen.
 B: Mmm, it's very nice.
 H: Well, it's not very big, but there are a lot of cupboards. And there's a new fridge, and a cooker. That's new, too.
 B: But what's in all these cupboards?
 H: Well, not a lot. There are some cups, but there aren't any plates. And I have some knives and forks, but I don't have any spoons!

B: Do you have any glasses?

H: No, sorry.

B: Never mind. We can drink this champagne from those cups! Cheers!

12. Complete the sentences with *some* or *any*.

1. In our classroom there are _____ books on the floor.
2. There aren't _____ plants.
3. Are there _____ Spanish students in your class?
4. There aren't _____ Chinese students.
5. We have _____ dictionaries in the cupboard.
6. There aren't _____ pens in my bag.

13. What is there in your classroom? Describe it.

14. Pierre is a Frenchman on business in Boston. Listen to him describe what's in his briefcase. Tick (+) the things in it.



- ___ a newspaper
- ___ a dictionary
- ___ a sandwich
- ___ pens
- ___ a notebook
- ___ keys
- ___ a bus ticket
- ___ a letter
- ___ photos
- ___ a mobile phone

- ___ stamps
- ___ an address book

What's in my briefcase? Well, there's a newspaper – a French newspaper – and there's a dictionary – my French / English dictionary. I have some pens, three, I think. Also I have a notebook for vocabulary, I write words in that every day. And

of course I have my keys, my car keys and my house keys. Oh yes, very important, there are some photos of my family, my wife and my daughter and there's my mobile phone. I ring my home in Paris every night. That's all, I think. I don't have any stamps and my address book is in my hotel.

GRAMMAR EXERCISES

15. Give the comparative and the superlative degree of the following adjectives using the suffixes –er, (the) –est.

Short, cold, early, big, near, late, fast, small, old, nice, young, large, kind, long, quick, easy.

16. Give the comparative and the superlative degree of the following adjectives and adverbs using the words more, (the) most.

Interesting, carefully, comfortable, progressive, efficient, clearly, beautiful, difficult, beautifully, regularly, prominent, brightly, especially, wonderful, realistic, remarkable, special, dependent, attentively.

17. Use the adjectives and adverbs in the right degree of comparison.

- 1) My brother is much ... than myself (young).
- 2) The opera theatre is one of the ... buildings in the city (beautiful).
- 3) The sound grew ... and ... (faint).
- 4) The party was not so ... as I had expected (gay).
- 5) I have no one ... than you (near).
- 6) What is the ... news (late)?
- 7) Yesterday I came home ... than usual (late).
- 8). Ann sings far ... than Nina (well).
- 9) I like this picture ... of all (well).

18. Read and write the following cardinal numerals:

- a) 3; 13; 30;4; 14; 40; 5; 15; 50; 2; 12; 20; 8; 18; 80.
- b) 21; 82; 74; 69; 96; 74; 53; 22; 87; 58; 22; 35; 41.
- c) 143; 331; 205; 101; 845; 796; 367; 452; 100;578.
- d) 1,365; 2,175; 7,312; 9,888; 5,500; 5,050; 2,222; 6,000.

19. Form read and write ordinal numerals from the following:

- a) 5, 7, 9, 3, 1, 10, 11, 8, 4, 6, 15, 13, 2.
- b) 20, 21, 30, 32, 40, 50, 54, 48, 80, 98.
- c) 100, 120, 134, 505, 876, 921, 752, 263.
- d) 1,200; 3,456; 8,935,679; 1,221; 5,000,000.

20. Read the dates:

9.03.1812; 22.06.1941; 1.12.2005; 24.08.1991; 10.05.2010;
5.02.1988; 4.12.1984, 15.11.2011; 31.04.1678.

Lesson 3

Food and Agriculture Organization of the UN



The Food and Agriculture Organization of the United Nations (FAO) is an international organization that leads international efforts to defeat hunger and improve nutrition and food security. The motto of the organization is “let there be bread” (*Lat. Fiat panis*).

The FAO is composed of 195 members including 194 countries and the European Union. Their headquarter is in Rome, Italy, and the FAO maintains regional offices around the world. It helps governments and development agencies coordinate their activities to improve and develop agriculture, forestry, fisheries, and land, and water resources. It also conducts research, provides technical assistance to projects, operates educational and training programs, and collects data on agricultural output, production, and development.

The idea of an international organization for food and agriculture emerged in the late 19th and early 20th century. In 1905, the International Institute of Agriculture was created. It was the first intergovernmental organization to deal with the problems and challenges of agriculture on global scale. Later, it was transformed into the Food and Agriculture Organization.

1. Find the English equivalents in the text:

Міжнародна організація, міжнародні зусилля, подолати голод, покращити харчування, штаб-квартира, підтримувати регіональні офіси, покращувати сільське господарство, розвивати лісництво, проводити дослідження, забезпечити технічну підтримку, збирати дані, міжурядова організація.

2. Translate the following terms and terminological expressions:

The Food and Agriculture Organization, food security, agriculture, forestry, fisheries, and land, water resources, educational and training programs, agricultural output, production, development, challenges of agriculture.

3. Match the definitions with the notions:

Agriculture	a place where fish are reared for commercial purposes
Forestry	the science or practice of farming, including cultivation of the soil for the growing of crops and the rearing of animals to provide food, wool, and other products

Fishery	the physical, biotic, environmental, infrastructural and socio-economic components of a natural land unit, including surface and near-surface freshwater resources important for management.
Land and water resources	the science or practice of planting, managing, and caring for forests

4. Answer the following questions:

- 1) What is FAO?
- 2) What is the aim of the FAO?
- 3) What is the motto of the FAO?
- 4) What are the main functions of the FAO?
- 5) What are additional responsibilities of the FAO?
- 6) What was the first intergovernmental organization to deal with the problems of agriculture on global scale?

5. Read an extract from a website of FAO. Fill in the gaps in the sentences below using the following words and phrases:

About FAO



- 1) The Food and Agriculture Organization is a specialized agency of the United Nations that leads international efforts to _____.
- 2) Our goal is to achieve food security for all and make sure that people have regular access to enough _____ to lead active _____.
- 3) With 195 members – 194 countries and the European Union, FAO works in over 130 countries _____.
- 4) Join us in creating a world without hunger and _____.

- a) *high-quality food*
- b) *healthy lives*
- c) *defeat hunger*
- d) *poverty*
- e) *worldwide*

6. Read an extract from a website of FAO. Put 3 questions for a discussion in your group.



Land is the basis for agriculture and other rural land uses. It encompasses soils, climate, vegetation, topography and other natural resources.

The UN defines land as “a delineable area of the earth’s terrestrial surface, encompassing all attributes of the biosphere.

This surface includes climate, the soil and terrain forms, the surface hydrology, the near-surface sedimentary layers and associated groundwater reserve, the plant and animal populations, the human settlement pattern and physical results of past and present human activities”.

The surface hydrology involves shallow lakes, rivers,

Discussion point

LETTERS

7. Dorita is an English student at a school in Queens, New York city.

Read her letter to Miguel, her brother in Argentine.



*41 Street
Sunnyside, New York 11104
October 12*

Dear Miguel,

How are you? I'm fine. Here's a letter in English. It's good practice for you and me.

I have classes in English at the college. I'm in a class with eight students. They are all from different countries: Japan, Brazil, Switzerland, Poland, and Italy. Our teacher's name is Isabel. She's very nice and a very good teacher.

I live in an apartment with two American girls, Annie and Marnie Kass. They are sisters. Annie is twenty years old and she is a dancer. Marnie is eighteen and she is a student. They are very friendly, but it is not easy to understand them. They speak very fast.

New York is very big, very exciting but very expensive. The subway isn't difficult to use and it's cheap. It's very cold now but Central Park is lovely in the snow. I'm very happy here.

Write to me soon.

Love,

Dorita.

8. Correct the false sentences.

- 1) Dorita is from Argentina.
- 2) She is in Miami now.
- 3) Dorita is happy in New York.
- 4) She is on holiday there.
- 5) It's a very big class.
- 6) The students in her class are all from America.
- 7) Arnie and Marnie are both students.
- 8) The subway is easy to use.

9. Write questions about Dorita's letter.

- 1) _____ - Argentina.
- 2) _____ - Japan, Brazil, Switzerland, Poland, and Italy.
- 3) _____ - They are sisters. They live with Dorita.
- 4) _____ - Annie's twenty and Marnie's eighteen.
- 5) _____ - Yes, it is.

GRAMMAR EXERCISES

10. Use the Present Simple Tense of the verbs in brackets. Translate the sentences into Ukrainian.

My working day (to begin) at seven o'clock. I (to get) up, (to switch) on the radio and (to do) my morning exercises. It (to take) me fifteen minutes. At half past seven we (to have) breakfast. My father and I (to leave) home at eight o'clock. He (to take) a bus to his factory. My mother (to be) a doctor, she (to leave) home at nine o'clock. In the evening we (to gather) in the living room. We (to watch) TV and (to talk).

11. Translate the following sentences. Make them interrogative and negative.

1. The children drink coffee in the evening.
2. Her sister dances very well.
3. Our grandmother grows potatoes.
4. The pupils remember this rule.
5. Nick goes to bed at ten.
6. They listen to the radio in the morning.
7. You meet him every day.
8. It often snows in winter.
9. You want to play chess with him.
10. His mother teaches geography at school.

12. Ask questions about the time and place of the action.

1. They plant trees in autumn.
2. Peter comes to the University at eight.
3. They discuss films after classes.
4. We listen to the news at ten o'clock.
5. The teacher corrects our dictations in the evening.
6. Her brother studies in Lviv.
7. Many birds fly to the south in autumn.
8. They spend their holidays in the country.
9. My parents live in a village.
10. His group-mates go to the theatre in the evening.

13. Put questions to the italicized words.

1. The children go to bed *at ten o'clock*.
2. His son knows English *well*.
3. My father reads *newspapers* in the evening.
4. Her aunt lives in *Lutsk*.
5. Our parents grow *wheat*.
6. This man works at *a machine-building plant*.
7. It snows *in winter*.
8. We buy *bread* at this shop.
9. *My* sister learns many poems by heart.
10. *Ann* helps her mother about the house.

14. Translate into English.

1. Де ти живеш? – Я живу в Києві.
2. Коли в тебе канікули? – У січні.
3. Що тобі найбільше подобається в університеті?
4. Мій брат працює в лікарні. Він лікар. Він встає в двадцять хвилин на восьму. Він працює вранці і вдень. Увечері він не працює. Увечері він відпочиває.
5. Твоя сестра говорить французькою мовою? – Ні. Вона говорить німецькою мовою, а її чоловік говорить англійською мовою.
6. Коли ви встаєте? – Я встаю за чверть сьома.
7. Коли встає твій брат? – Він встає за двадцять восьма. – А твоя сестра також встає за двадцять восьма? – Ні. Вона встає о дев'ятій годині.
8. Я вивчаю англійську мову. Мій друг також вивчає англійську мову.
9. Де ти живеш? Де живе твій товариш?
10. Де працюють твої батьки?

Lesson 4

The Development of Agriculture in Ukraine



The agriculture is one of the most important branches of the national economy. Most of the rural population works in agriculture. The development of agriculture depends upon the industrial level of the country. The industry supplies the agricultural equipment, chemical fertilizers, and other necessary materials.





Agriculture uses the achievements of several sciences, especially those of botany, zoology, and chemistry. Those achievements depend also upon the human talent and various circumstances which influence on the agricultural production.






The plant cultivation and the animal breeding are the main branches of agriculture. Wheat, rye, oats, and barley belong to the cereals. They are main resources of the nourishment. The grain crops cultivation consists of plowing, sowing, and harvesting. Agriculture supplies the technical crops: sugar beets, flax, hops, hemp, and sunflower.

1. Find the English equivalents in the text:

Сільське населення, сільськогосподарська техніка, хімічні добрива, досягнення науки, сільськогосподарське виробництво, рослинництво, тваринництво, зернові культури, пшениця, жито, овес, ячмінь, оранка, сівба, збирання врожаю, технічні культури, цукрові буряки, льон, хміль, коноплі, соняшник.

2. Fill in the following table:

English term	Picture	Ukrainian term	Cereals or Technical crops
Wheat			
Rye			
Oats			
Barley			

Sugar beets			
Flax			
Hops			
Hemp			
Sunflower			

3. Match the following notions with their definitions:

Agriculture	economic activity concerned with the processing of raw materials and manufacture of goods in factories
Industry	systematic study of the structure and behaviour of the physical and natural world through observation and experiment
Science	a branch of animal science that addresses the evaluation of the genetic value of livestock
Plant cultivation	the science or practice of farming, including cultivation of the soil for the growing of crops and the rearing of animals to provide food, wool, and other products

Animal breeding	the act of caring for or raising plants
-----------------	---

4. Fill in the blanks in sentences 1-6 using a-f:

- 1) The development of agriculture depends upon _____
- 2) The industry supplies _____
- 3) The main branches of agriculture are _____
- 4) The cereals are _____
- 5) The technical crops are _____
- 6) The grain crops cultivation consists of _____



- a) *the agricultural equipment, chemical fertilizers, and other necessary materials*
- b) *sugar beets, flax, hops, hemp, and sunflower*
- c) *plowing, sowing, and harvesting*
- d) *the plant cultivation and the animal breeding*
- e) *wheat, rye, oats, and barley*
- f) *the industrial level of the country*

5. Read the text and put 3 questions to it:



Ukraine is one of the world's top agricultural producers and exporters. Ukraine plays a critical role in supplying oilseeds and grains to the global market. More than 55 percent of its land area is arable land. Agriculture provides employment for 14 percent of Ukraine's population.

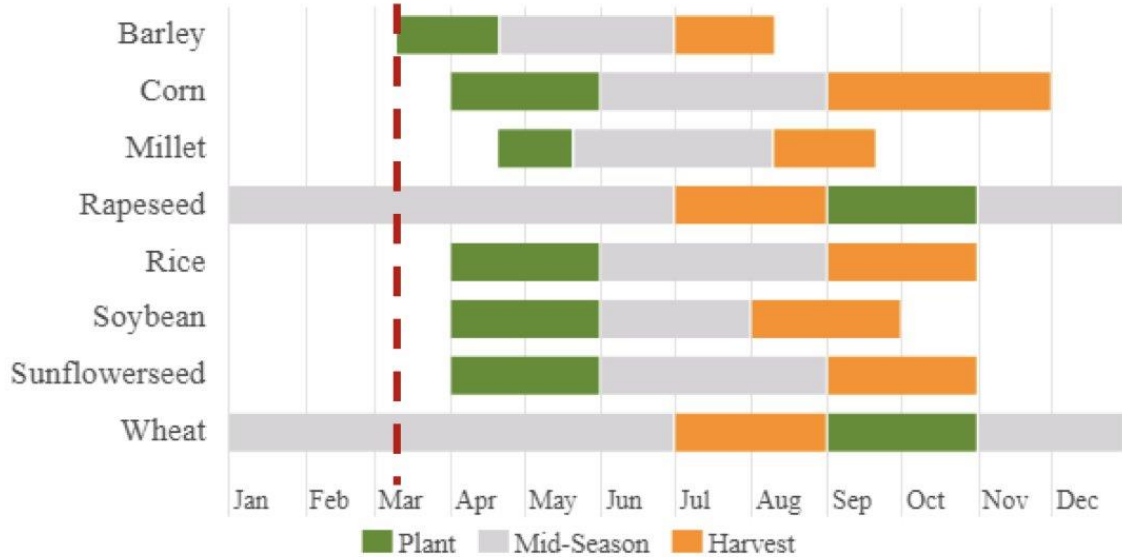
The field work starts in spring and is over in autumn. In spring one ploughs, harrows, fertilizes, and sows summer crops. In summer and autumn, one mows and threshes grain crops, picks up fruits and vegetables. Agriculture is a single branch of the national economy which depends upon the climatic conditions.

6. Look at the diagram and answer the following questions:

- 1) When is barley (corn, millet, rapeseed, rice, soybean, sunflower seed, wheat) planted?
- 2) When is barley (corn, millet, rapeseed, rice, soybean, sunflower seed, wheat) harvested?

Winter barley is not on this list but follows the same calendar as wheat.

Ukraine – Crop Calendar



**Discussion point
DIFFERENT PEOPLE**

7. Listen to some people from different places. Complete the chart.

Questions	Manola from Lisbon	Ray and Elsie from Toronto	Brad from Malibu	Alise from Samoa
House or flat?				
Old or modern?				
Where?				
How many bedrooms?				
Live(s) with?				
Extra information				



1) Manola from Lisbon

I live in the old town near the sea. It is called the Alfama. I have a very beautiful flat. There's just one room in my flat, one very big room with one very big

window. My bed's next to the window so I see the sea and all the lights of the city when I go to sleep. I live alone, but I have a cat and I'm near the shops and lots of friends come to visit me. I love my flat.



2) Ray and Elsie from Toronto

E: Our house is quite old, about fifty years old. It's quite near to the city centre. We have a living room, quite a big kitchen and three bedrooms, but the room we all love is our family room.

R: Yes, there's a TV and a stereo and a large comfortable sofa in there, and some big, old armchairs.

We love sitting there in winter with the snow outside.

E: Our children aren't at home now, they both have jobs in the USA, so most of the time it's just Ray and me.



3) Brad from Malibu

My house is fantastic. It's right next to the sea. My neighbours are very rich. Some of them are famous film stars. In my house there are ten rooms, five are bedrooms, and everything is white, the floors, the walls, the sofas, everything. I also have a swimming pool, a cinema and an exercise room. I live here alone. I'm not married at the moment. My ex-wife is French. She lives in Paris now with

our three sons.



4) Alise from Samoa

I live with my family in a house near the sea. We have an open house, that is ...our house doesn't have any walls. Houses in Samoa don't have walls because it is very, very hot, but we have blinds to stop the rain and sun. Our house is in the old style. We have only one room for living and sleeping, so it is both a bedroom and a living room. We have rugs and we sit and sleep on the floor.

8. Talk about where you live.

9. Where do people speak these languages?

Model: They speak French in France and also in Canada.

French
Spanish
German



Italian
Portuguese
Japanese
English

10. Answer the questions with *can* or *can't* and ask your partner to answer them.

Can you ...?

1. drive a car
2. speak French
3. speak Italian
4. cook
5. play tennis
6. ski
7. swim
8. play the piano
9. use a computer

**11. What can computers do? Talk about computers with a partner.
What can they do? What can't they do?**



Can computers ...?

1. translate
2. write poetry
3. speak English
4. laugh
5. play chess
6. hear
7. check spellings
8. feel
9. make music
10. think
11. have conversations
12. fall in love

GRAMMAR EXERCISES

12. Form Past Simple of the following regular verbs:

to look, to seem, to dress, to love, to cry, to jump, to profit, to enjoy, to hurry, to clear, to ask, to translate, to rob, to carry, to cook, to shout, to answer, to play.

13. Give the three forms of the following irregular verbs:

to know, to go, to learn, to leave, to make, to mean, to meet, to say, to teach, to tell, to understand, to write, to give, to take, to read, to begin, to buy, to come, to grow, to eat, to drink, to have, to see, to speak, to break, to win, to sleep, to stand.

14. Make the following interrogative and negative.

1. The teacher repeated the question.
2. His wife planned her work well.
3. Their children cleaned the garden and then they played basketball.
4. The girl answered the question at once.
5. They slept in the open air.
6. The clock struck ten.
7. The little girl cried a little and then smiled.
8. She cooked a good dinner.
9. They waited for a bus.
10. The bus arrived at five.

15. Change the following into the Past Simple Tense.

1. The girl learns English.
2. My friend gets up early.
3. The worker comes home at six.
4. The old women talk about the weather.
5. Nick goes to bed at ten.
6. You meet him every often in summer.
7. His mother comes home late.
8. The meeting lasts about two hours.
9. They live in France.
10. They travel there by train.

16. Put questions to the italicized words:

1. They sat *in the first row*.
2. The performance lasted *for two hours*.
3. He went to Kyiv *to see some friends*.
4. She put the mail *on my desk*.
5. He walked to the university *with Mary*.
6. They spoke to us *in French*.
7. He arrived home *very late*.
8. I found my English book *yesterday*.

17. Translate into English.

1. Діти допомагали батькам.
2. Батько прийшов додому пізно.
3. Що ви робили в неділю?
4. Де ти був учора ввечері? – Я ходив у кіно. Тобі сподобався фільм? – Так, фільм мені дуже сподобався.
5. Що ви робили на уроці англійської мови? – Ми читали новий текст, відповідали на запитання і перекладали речення з української мови на англійську.
6. Коли ви почали вивчати англійську мову? – Ми почали вивчати англійську мову три роки тому.

18. Open the brackets using the verbs in Present Simple or Past Simple.

1. Tom always (to eat) breakfast.
2. Yesterday he (not to eat) breakfast because he (to get) up late.
3. We (to like) to cook but we (not to like) to wash dishes.
4. He never (to shout) at his students. He (to be) a wonderful teacher, I remember.
5. My friend (to know) Spanish very well.
6. Who (to ring) you up an hour ago?
7. He (to live) on the third floor.
8. It (to take) you long to find his house yesterday?

Lesson 5

The Agricultural Education in Ukraine



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The agricultural education is a consisting part of the educational system in our country. The demand for specialists increases every year. The national economy needs the specialists with the high special and higher education. Specialists are nowadays trained at special (technical) high schools and higher schools (institutes and universities). Nowadays one must consider three levels in higher education: Bachelor's, Master's,

and Doctor's Degree.

The system of the agricultural education is directed to the solution of different practical tasks in the production. The initial level of the agricultural education includes special technical schools where the young people are mostly given some theoretical knowledge (especially in agricultural engineering) and different practical skills. The agricultural colleges belong to the next level. The students of the agricultural colleges are trained both theoretically and practically. The training considers different natural and climatic conditions in different regions of our country. It also includes practical work.

After their study, thousands of young specialists work in agriculture. Experts who have Master's Degree, deal with research of various agricultural problems. Postgraduates write theses and become Candidates of Agriculture and Doctors of Agriculture.

1. Find the English equivalents in the text:

Аграрна освіта, складова частина, система освіти, потреба у фахівцях, вища освіта, ступінь бакалавра, вирішення практичних завдань, початковий

рівень, теоретичні знання, сільськогосподарське машинобудування, практична робота, мати справу з науковими дослідженнями.

2. Translate the following terms and expressions:

Agricultural education, national economy, special technical schools, agricultural colleges, natural and climatic conditions, Doctors of Agriculture.

3. Answer the following questions:

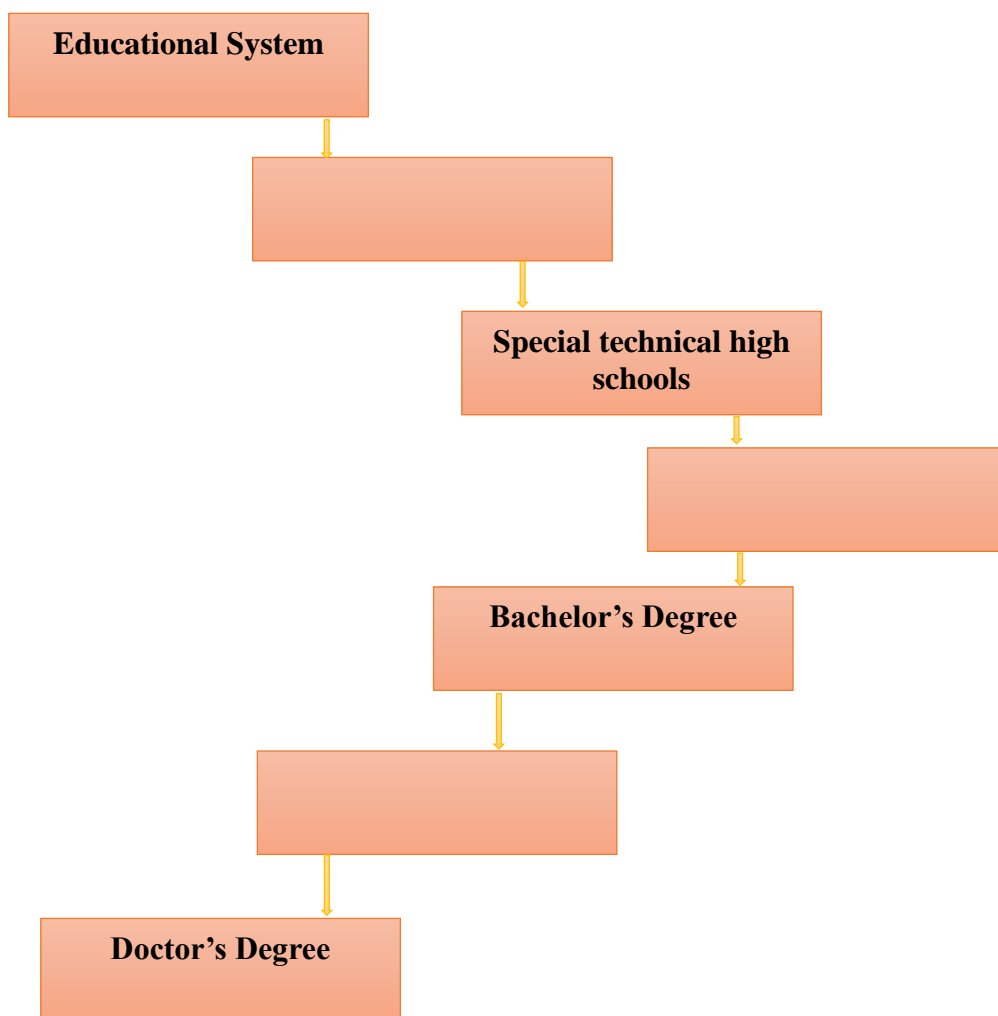
- 1) What specialists does the national economy need?
- 2) Where are specialists trained nowadays?
- 3) What levels are there in higher education?
- 4) What is the system of the agricultural education directed to?
- 5) What does the agricultural training consider?
- 6) What can postgraduates do?

4. Look at the chain of education system and fill in the gaps using variants below:

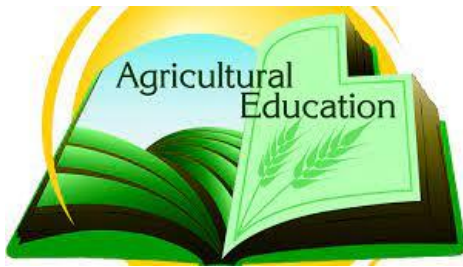
higher schools

Master's Degree

Agricultural education



5. Mark the following statements as true (T) or false (F). If they are false, correct the mistakes:

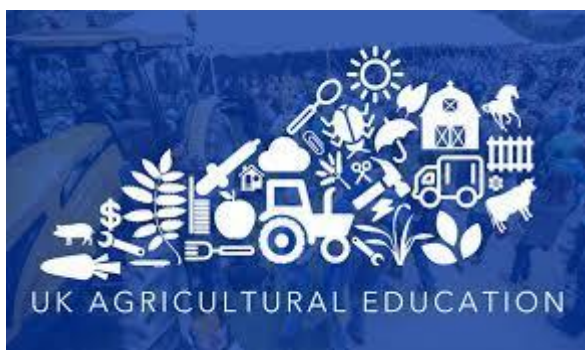


- 1) The educational system is a consisting part of the agricultural education.
- 2) The demand for specialists decreases every year.
- 3) The system of the agricultural education is directed to the solution of theoretical tasks in the production.
- 4) The students of the agricultural colleges are trained both theoretically and practically.
- 5) After their study, thousands of young specialists work in industry.

6. Read the text and put 3 questions to it:

UK Agriculture Courses

From Study in UK



Agriculture courses have grown in popularity over recent years, and recently the UK government officially crowned it the fastest growing subject in the UK. A degree in agriculture at a UK university is no longer just for those who interested in farming, but also for those interested in biosciences, economics, and supply chain

management.

An agricultural degree will cover a wide range of modules including agriculture science, agribusiness, future trading, and farm engineering. Studying agriculture at a UK university will give you a solid grounding in the issues that affect agriculture now and, in the future, preparing you for employment or further study. Many agricultural campuses are also based across large plots of land and you will enjoy the benefits of putting theoretical teaching into practice out on university fields and farms.

Discussion point **SEASONS**

7. Answer the following questions.

1. What season is it now?
2. What are the seasons?
3. What month is it now?

4. Say the month of the year.
5. When are the different seasons in your country?
6. Say the month of autumn (winter, spring, summer).

8. Read the stories of three people.

AL WHEELER from Canada



We have long, cold winters and short, hot summers. We have a holiday home near a lake, so in summer I go sailing a lot and I play baseball, but in winter I often play ice hockey and go ice-skating. My favourite season is autumn, or



fall, as we say in North America. I love the colours of the trees – red, gold, orange, yellow, and brown.

MANUELA DA SILVA from Portugal



People think it's always warm and sunny in Portugal, but January and February are often cold, wet and grey. I don't like winter. I usually meet friends in restaurants and bars and we



chat. Sometimes we go to a Brazilian bar. I love Brazilian music. But then suddenly it's summer and at weekends we drive to the beach, sunbathe, and go swimming. I love summer.

TOSHI SUZUKI from Japan



I work for Pentax cameras, in the export department. I don't have a lot of free time, but I have one special hobby – taking photographs,



of course! I like taking photographs of flowers, especially in spring. Sometimes, after work, I relax in a bar near my office with friends. My friend, Shigeru, likes singing pop songs in the bar. This has a special name, “karaoke”. I don't sing – I'm too shy!

9. Answer the questions:

- 1) Do they all play sports?
- 2) What do Al and Manuela do in winter?

- 3) Do Manuela and Toshi like going to bars?
- 4) Where is Al's holiday home?
- 5) When does Toshi like taking photographs of flowers?
- 6) What do Manuela and her friends do in summer?
- 7) Do you know all their jobs?
- 8) Why does Al like autumn?
- 9) Why doesn't Toshi sing in the bar?
- 10) Which colours are mentioned in the text?

10. There are six mistakes about Al, Manuela, and Toshi. Correct them.

1. Al comes from Canada. In winter he plays ice hockey and goes skiing. He has a holiday home near the sea.
2. Manuela comes from Brazil. She likes sunbathing and sailing in summer.
3. Toshi comes from Japan. He has a lot of free time. He likes taking photographs and singing pop songs in bars.

11. What do you think?

1. What is your favourite season? Why?
2. What do you do in the different seasons?

GRAMMAR EXERCISES

12. Change the following into the Future Simple Tense.

1. I go for a walk after supper.
2. Everybody laughs at this picture.
3. Helen gives private lessons.
4. He spends his summer holidays in the country.
5. She agrees with him.
6. I saw him at the concert.
7. Our school year begins on the 1st of September.
8. We do our homework in the afternoon.

13. Make the following interrogative and negative.

1. Bob will graduate from the university next year.
2. There will be a dance at the end of the party.
3. I shall do what you want.
4. Harris will sing a comic song.
5. They will announce this news later today.
6. We shall take Jane for a picnic.
7. They will have a meeting tonight.
8. There will be many visitors today.

14. Put questions to the italicized words.

1. Some of them will go *to Brighton* one of these days.
2. Next Sunday I shall write *a letter* to my friend.

3. Soon there will be many young trees *in the park*.
4. *Our friends* will come to see us today.
5. Jack won't go to the cinema *because he is busy*.
6. We'll play chess *tonight*.
7. *We* 'll get up at seven tomorrow.
8. The plant will make *agricultural machines*.

15. Replace the infinitives in brackets by the Future Simple or the Present Simple Tense.

1. If you (to come) at five o'clock, we (to see) an interesting program on TV
2. Before you (to leave) home, ring me up.
3. As soon as you (to get) my letter, let me know.
4. When I (to enter) the University, I (to study) two foreign languages.
5. If you (to be) busy on Sunday afternoon, we (not to go) to the stadium.
6. If you (to look through) today's paper, you (to find) an interesting article.
7. When she (to arrive) at the hotel, it (to be) 5 o'clock.
8. When you (to be tired), we (to stop) working.

16. Complete the following sentences.

1. I shall have lunch as soon as ...
2. He will post the letter as soon as ...
3. We shall go to the country if the weather ...
4. I'll listen to the radio before I ...
5. She will not call you up until you ...
6. They will go to the cinema or a concert after they ...
7. I'll make you a sign, when I ...
8. Wait here until the doctor ...

UNIT II

AGRONOMY

Lesson 1

Agronomy as a Branch of Agriculture



Agronomy is a branch of agriculture that deals with the field crop production and soil management. Agronomists generally work with crops that are grown on a large scale and that require relatively little management.

Agronomic experiments focus on a variety of factors relating to crop plants, including yield, diseases, cultivation, pest and weed management, and sensitivity to

factors such as climate and soil. Agronomists may specialize in plant breeding and biotechnology to improve crops.

Many agronomists also utilize ecological principles to conserve and protect the environment from the negative effects of agriculture, a field known as agroecology.

(From Encyclopedia Britannica)

1. Find the English equivalents in the text:

Вирощування польових культур, землеробство, потребувати догляду, культурні рослини, врожайність, хвороби, вирощування, боротьба зі шкідниками і бур'янами, клімат, ґрунт, селекція рослин, навколишнє середовище, негативні наслідки, сільське господарство.

2. Match the verbs with the meaning

To deal with	спеціалізуватися
To focus on	використовувати
To specialize	займатися
To utilize	зберігати
To improve	зосереджуватися
To conserve	захищати
To protect	покрашувати



3. Read the passage and mark the following statements as true (T) or false (F):

- 1) Agronomy is a branch of agriculture that deals with ecology management.
- 2) Agronomists work with crops that are grown on a little scale and require large management.
- 3) Agronomists specialize in plant breeding and biotechnology.

4. Match the terms with the definitions:

Crop	the upper layer of earth in which plants grow
Soil	the surroundings in which a person, animal, or plant lives or operates
Plant	a cultivated plant grown as food
Environment	a living organism growing in a permanent site, absorbing water, and synthesizing nutrients

5. Read the sentences and fill in the blanks:

management improve crops protect production

- 1) The scope of agronomy involves the field crop _____ and soil _____.
- 2) Experts in agronomy deals with _____.
- 3) Agronomists may specialize in plant breeding and biotechnology to _____ crops.
- 4) Agronomists usually apply ecological principles to conserve and _____ the environment.

6. Answer the following questions:

- 1) What is agronomy?
- 2) What do agronomists work with?
- 3) What do agronomic problem involve?
- 4) Why do agronomists specialize in biotechnology?
- 5) Why do agronomists apply ecological principles?

7. Read the text and put 3 questions to it:

Agronomy

Agronomy can be defined as the branch of agricultural science that deals with the production of both plant and animal crops, and the management of soil. The subject matter of agronomy is quite diverse, but falls into three major categories: (1) crop breeding and the genetic improvement of varieties; (2) methods of cultivations of crops (both



plants and animals); (3) sustainability of the agricultural enterprise, especially with respect to fertility of the soil. People who work in agronomy are called agronomists. They work as teachers and professors, researchers, and consultants in a variety of governmental positions at the local and state levels, and in industrial organizations.

(From *Encyclopedia.com*)

8. Read the article and answer the following questions:

- 1) What is the article about?
- 2) What was Eva Ekeblad?
- 3) What did she discover?
- 4) What are her main achievements?

Eva Ekeblad (1724 – 1786)

Swedish aristocrat and agronomist

From Encyclopedis Britannica



Eva Ekeblad is Swedish aristocrat and agronomist who was best known for her work involving potatoes, notably developing (1746) methods for both distilling alcohol and making flour from the tuber.

In the mid-1740s potatoes were a relative oddity in Sweden, primarily used as animal feed. However, the tuber was attracting attention for its potential, especially after reports that other countries were using it to produce alcohol.

In 1746 she discovered what was described then as the most advanced method for creating alcohol from the plant. She also developed a process for making potato flour. These discoveries were credited with helping prevent famines, notably by allowing grains that had previously been used in alcohol production to be directed toward the creation of foodstuffs. Ekeblad also discovered that potato flour could replace arsenic in face and wig powders. Among her other discoveries was a method for bleaching yarn.

In 1748 Ekeblad became the first woman inducted into the Royal Swedish Academy of Sciences, though three years later she was reduced to an honorary member because of her gender.

Discussion point

OPPOSITES

day

night



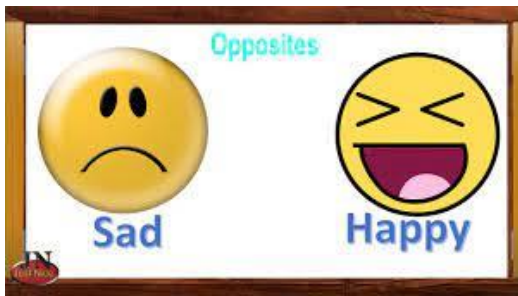
9. Match the adjectives with their opposites.

old

horrible

big

old



new	young
lovely	difficult
easy	cheap
hot	cold
expensive	slow
fast	small

10. Make up word-combinations adj+noun, using adjectives from ex.7.

- _____ man
- _____ girl
- _____ telephone
- _____ device
- _____ rabbit
- _____ turtle
- _____ cake
- _____ dish
- _____ weather
- _____ winter
- _____ shoes
- _____ clothes
- _____ mouse
- _____ elephant

11. Make up sentences with word-combinations from exercise 8.

12. Read about little Miss Picasso and the new Mozart.

Little Miss Picasso



Alexandra Nechita is called “the new Picasso”. She paints large pictures in cubist style and sells them for between \$ 10,000 and \$ 800.000.

She was born in Romania but now she lives in Los Angeles with her family. She could paint very well when she was only four but her parents couldn't understand her pictures. Alexandra says: “I paint how I feel, sometimes I'm happy and sometimes sad. I can't stop painting.” Every day after school she does her homework, plays with her little brother, then paints for two or three hours until bedtime.

Alexandra doesn't spend her money, she saves it: “We were poor when we were first in America. We couldn't buy many things, but now I can buy a big house for my family and we can travel the world. Last year we were in London, Paris, and Rome. It was fantastic!”

The New Mozart

Lukas Vondracek is very shy, but every year he travels the world and meets hundreds of people. Lukas is a brilliant pianist and he gives lots of concerts. Last year he was in Washington, Chicago, and London. He is sometimes called “the new Mozart”. He says “I'm shy, but I love giving concerts”.



Lukas was born in Opava in the Czech Republic but now he lives with his parents in Vienna, where he practises the piano six hours a day. He goes to school two days a week. Lukas could play the piano when he was two and he could read music before he could read books. Now he can write music, too.

Lukas doesn't just play the piano; he plays football and ice hockey. He says: “Mozart was poor and he couldn't play football, so I'm not like him at all!”

13. Answer the questions about Alexandra and Lukas.

1. Why is he / she special?
2. Where was he / she born?
3. Where does he / she live now?
4. Who does he / she live with?
5. What could he / she do when he / she was very young?
6. Does he / she have much free time? Why?
7. Is he / she poor?
8. Where was he / she last year?
9. What is the same about Alexandra and Lukas? What is different?

GRAMMAR EXERCISES

14. Make the following sentences interrogative and negative.

1. You are doing that exercise correctly.
2. He is looking for the book which he lost.
3. All the birds are flying south.
4. The sky is getting very dark.
5. They are laughing at what you said.
6. They are travelling in Europe at present.
7. Helen is taking dancing lessons at the country club.
8. Mr. Evans is writing a series of articles on the economic situation.

15. Put questions to the italicized words.

1. The children are planting *trees*.
2. They are working *in the garden*.
3. The girl is trying on *a dress*.
4. *Nick* is talking with his friends.
5. The students *are reading*.
6. The man is sitting *in the armchair*.

7. The girl *is drawing*.
8. The woman is wearing *a blue dress*.

16. Use the verbs in brackets in the Present Continuous Tense.

1. Look! It (begin) to rain.
2. They (wait) for us on the corner now.
3. I see that you (wear) your new suit today.
4. Listen! Someone (knock) at the door.
5. Please! Be quiet! The baby (sleep).
6. The leaves (fall) from the trees.
7. John (have) lunch in the cafeteria now.
8. Listen! I think the telephone (ring).

17. Replace the infinitive in brackets by the Present Simple or the Present Continuous Tense.

1. We (to gather) mushrooms in summer.
2. The children are in the forest now. They (to gather) mushrooms.
3. Where is Kate? She (to do) her homework. She always (to do) her homework in the evening.
4. The pupils (to write) compositions once a month.
5. Don't shout. The pupils of the ninth form (to write) compositions.
6. Water (to boil) at 100°.
7. Turn off the gas. The milk (to boil) .
8. Mary (to dance) all modern dances very well.

18. Use the verbs in brackets in the Past Continuous Tense.

1. They (eat) dinner when we came.
2. It (rain) when I left home.
3. When you telephoned, I (have) dinner.
4. The baby (sleep) soundly when I went to wake him.
5. She (talk) with Mr. Smith when I saw her in the hall.
6. The accident happened while they (travel) in the South.
7. When I got up this morning, the sun (shine) brightly.
8. At seven o'clock, when you rang me up, I (read) the newspaper.

Lesson 2

• ***Before reading***

Answer the following questions:

- 1) What are your favourite fruits?
- 2) What are your favourite vegetables?
- 3) What are national dishes of your country?
- 4) What are your favourite dishes?

Crop Production



Crop production is a branch of agriculture that deals with growing crops for use as a food and fiber. Crop production involves land preparation, crop operations and weeding.

Land preparation is the first operation in ensuring that crops can achieve the best yields. It is essential to provide plants with the best soil conditions for their development. A proper seedbed should be prepared with the right nutrients and conditions that can allow seed sprouting and the crop's establishment for its later development.

Several operations determine a crop's performance including seeding and weeding. Adequate seeding rates, spacing and placement are crucial for the development of the plant. This is also influenced by soil conditions and the cropping system.

1. Find the English equivalents in the text:

Рослинництво, вирощування сільськогосподарських культур, їжа, клітковина, підготовка землі, посівні роботи, прополка, підготовка ґрунту, найкращі урожаї, ґрунтові умови, посівне ложе, поживні речовини, проростання насіння, укорінення культури, бути вирішальним.

2. Match the verbs with the meaning:

To deal with	гарантувати
To involve	визначати
To ensure	забезпечувати
To achieve	мати справу з
To provide	досягати
To determine	охоплювати

3. Mark the following statements as true (T) or false (F):

- 1) Crop production includes planting and harvesting.
- 2) Land preparation is essential to have the best yields.
- 3) A proper seedbed should be prepared with the right nutrients and conditions.
- 4) The development of the plant is influenced by soil conditions and the cropping system.

4. Match the terms with the definitions:

Crop	produce or provide (a natural, agricultural, or industrial product)
Land	the upper layer of earth in which plants grow
Yield	a cultivated plant that is grown as food
Soil	a flowering plant's unit of reproduction, capable of developing into another such plant
Seed	the part of the earth's surface that is not covered by water, as opposed to the sea or the air

5. Match the processes (1-3) with the definitions (a-c):



- 1) land preparation
- 2) crop operations
- 3) weeding

- a) *the process of removing or cutting down the unwanted plants or weeds*
- b) *the process of preparing the land for seeding and plantation*
- c) *operations determining a crop's performance*

6. Answer the following questions:

- 1) What does crop production deal with?
- 2) What operation ensures the best yields for crops?
- 3) What operations determine a crop's performance?
- 4) What is crucial for the development of the plant?

7. Read the text and put 3 questions to it:

Weeding



Weeding is conducted at critical times to avoid the establishment of weeds and crop damage. Late weeding of previous crops is done to prevent setting of weed seeds. The use of adequate tools and equipment can help accomplish the task faster

and with less manpower, improving the livelihoods of farmers and increasing the time efficiency. There are two ways of controlling weeds: mechanically or chemically. For the mechanical option, the aim is to uproot the weeds. While for the chemical, the aim is to kill weeds using a selective chemical agent that usually is sprayed.

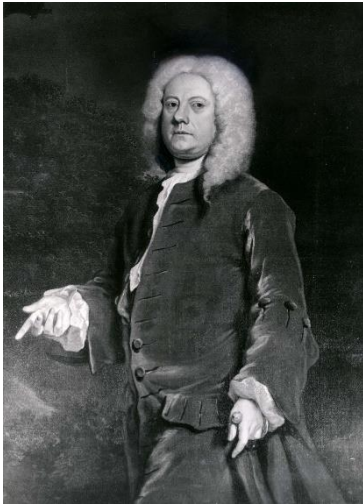
8. Read the article and answer the following questions:

- 1) What is the article about?
- 2) What was Jethro Tull?
- 3) What did he invent?
- 4) What are his main achievements?

Jethro Tull (1674 – 1741)

British agronomist and inventor

By The Editors of Encyclopaedia Britannica Edit History

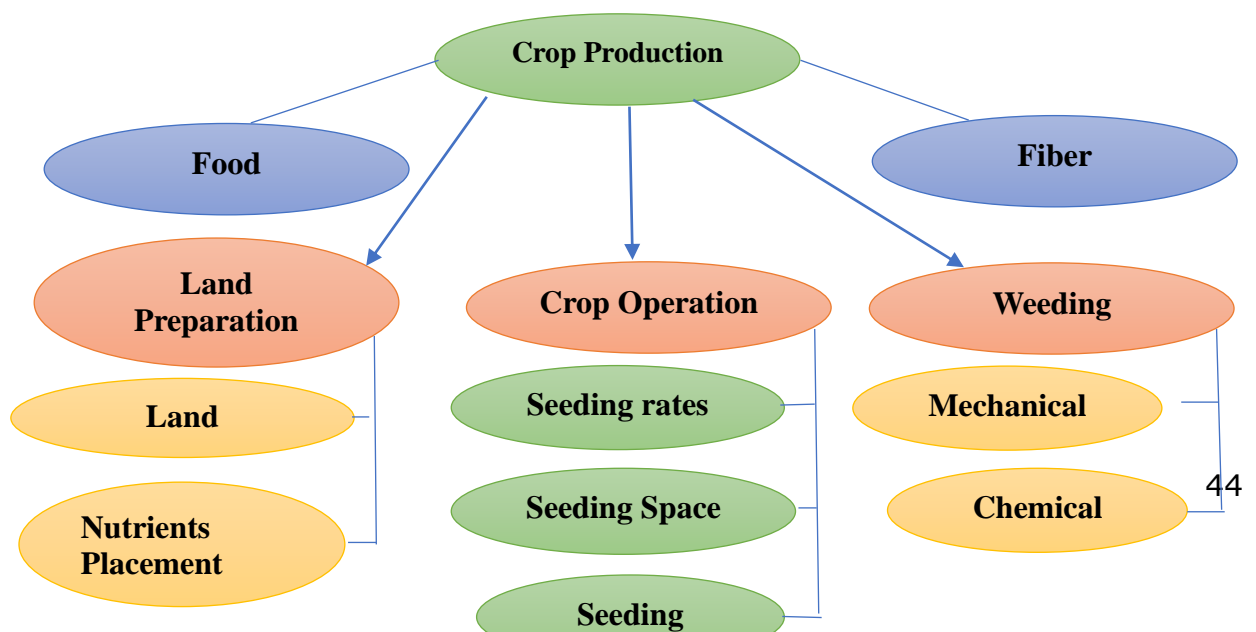


Jethro Tull was an English agronomist, agriculturist, writer, and inventor whose ideas helped form the basis of modern British agriculture.

Tull trained for the bar, to which he was called in 1699. But for the next 10 years he chose to operate his father's farm in Oxfordshire, on which about 1701 he perfected a horse-drawn seed drill that economically sowed the seeds in neat rows. This was a notable advance over the usual practice of scattering the seeds by hand.

In 1709 Tull bought a farm of his own in Berkshire. While later traveling in France and Italy, he was impressed by the cultivation methods in use in the vineyards, wherein the rows of earth between the vines had been pulverized. This reduced the need for manure and increased aeration and the access of water to and from plant roots, though Tull mistakenly believed that earth was the food of plants and that pulverization made it easier for plants to absorb it. He developed a horse-drawn hoe and successfully adopted the vineyard method to his farm. His success led to the publication of his *The New Horse Houghing Husbandry: Or an Essay on the Principles of Tillage and Vegetation* (1731). Tull's methods were initially subjected to violent attack, but they were eventually adopted by the large landowners and laid the basis for more modern and efficient British farming.

9. Make sure you remember the key words of the lesson:



Discussion point
TWO FAMOUS FIRSTS

10. Read about George Washington.



George Washington (1732-1799)

He was the first President of the United States. He became President in 1789, eight years after the American War of Independence.

His early life

George was born in Virginia. His family owned a big farm and had slaves. George didn't have much education. During his life he had three jobs: he was a farmer. He grew tobacco and owned horses. He worked hard but he also liked dancing and going to the theatre. In 1759 he married a widow called Martha Custis. They were happy together, but didn't have any children.

His later life

He was Commander-in-Chief of the army and fought the British in the War of Independence. When the war ended in 1781 he was happy to go back to the farm, but his country wanted him to be President. Finally, in 1789, he became President, and gave his name to the new capital city. He started the building of the White House, but he never lived in it. By 1797 he was tired of politics. He went back to his farm and died there two years later.

11. Complete the questions; ask and answer them with your partner.

1. How many jobs did he ...?
2. When did he ... President?
3. What did he ... doing in his free time?
4. Did George and Martha have any ...?
5. What ... he build?
6. How long ... he President?

12. Read about Margaret Thatcher.



Margaret Thatcher (1925)

She was the first woman prime minister in Europe. She became Prime Minister of Britain in 1979.

Her early life

She was born above a shop in the small English town of Grantham. Her father, Alfred Roberts, was a grocer. He worked very hard for little money. Margaret also worked hard, and she went to Oxford University, where

she studied chemistry. In 1951 she married Denis Thatcher, a rich businessman. They had twins, a girl and a boy. The love of her life was politics. She didn't have much time for other interests. She said she only needed four hour's sleep a night.

Her later life

She became a politician in 1959, leader of the Conservative Party in 1975, and Prime Minister of Britain four years after that. She had a strong personality. A lot of people were afraid of her, and she was called "The Iron Lady". In 1984 Irish terrorists bombed her hotel, but she survived. She was Prime Minister for eleven years. She finally resigned in 1990, but she didn't want to, and she was in tears when she left 10 Downing Street.

13. Complete the questions; ask and answer them with your partner.

1. What ... her father's job?
2. When did she ... Denis?
3. How many children did they ...?
4. How much sleep ... she need?
5. When did the terrorists ... her hotel?
6. How long ... she Prime Minister?

14. Are the sentences true or false?

1. He/She came from a rich family.
2. He/She loved being a politician.
3. He/She worked hard.
4. He/She had a lot of other interests.
5. He/She had a goof education.
6. He/She married, but didn't have any children.
7. He/She was in office for eight years.
8. Finally he/she was tired of politics and resigned.

15. What do you think?

Who were famous leaders in your country? What did they do?

GRAMMAR EXERCISES

16. Change the following into the Past Continuous Tense.

1. The man is standing near the door.
2. Tom told a story.
3. The children swam in the river.
4. Is Mary wearing a white dress?
5. She went to the cinema.
6. They didn't work in the garden.
7. We are not sitting by the window.
8. The workers built a bridge.

17. Put questions to the italicized words.

1. The man *was reading a magazine* when somebody knocked at the door.
2. He was waiting *for a bus*.
3. *My brother* was skating.
4. The students were dancing *when I opened the door*.
5. The girl was eating *ice-cream* when we came in.
6. She was looking *after her little brother*.
7. The pupils were discussing *a story*.
8. The man was passing the theatre *when the clock struck ten*.
9. It was snowing *when we went out*.
10. The boy was running *very fast*.

18. Use the verbs in brackets in the Past Continuous or the Past Simple Tense.

1. I (to go) to the cinema yesterday.
2. I (to go) to the cinema at four o'clock yesterday.
3. My brother (not to play) tennis yesterday. He (to play) tennis the day before yesterday.
4. My sister (not to play) the piano at four o'clock yesterday. She (to play) the piano the whole evening.
5. When I came into the kitchen, mother (to cook).
6. She (to cook) fish yesterday.
7. You (to do) your homework yesterday?
8. You (to do) your homework from eight till ten yesterday?

19. Use the verbs in brackets in the Future Continuous Tense.

1. At ten o'clock tomorrow morning she (have) her music lesson.
2. I (wait) on the corner for you at the usual time tomorrow morning.
3. It probably (rain) when you get back.
4. If you come before six, I (work) in my garden.
5. At this time tomorrow afternoon, I (take) my final English exam.
6. If we go there now, they (have) dinner. But if we go later, they (watch) television.
7. At this time next year, he (study) at the University.
8. Don't come to see him tonight, he (to pack) things.

20. Translate into English.

1. Ми бачили її вчора. Вона працювала в саду.
2. Коли годинник пробив дванадцять, ми всі сиділи за столом.
3. Де ти був о третій годині? Я дзвонив тобі, але ніхто не відповів. – Я ремонтував велосипед.
4. Коли я зайшов до залу, Ольга грала на скрипці.
5. Що вона робила, коли ви прийшли до неї? – Вона прибирала в кімнаті.

6. Коли я вийшов з дому, ішов сильний дощ.
7. Що робив учитель, поки ви писали твір?
8. Що робив ваш син о десятій годині вечора? – Читав якусь книжку.

Lesson 3

Soil Management

(From Sustainable Agriculture Research and Education)



Soil management is the application of operations, practices, and treatments to protect soil and enhance its performance, such as soil fertility of soil mechanics. It includes soil conservation, soil amendment, and optimal soil health. In agriculture, some amount of soil management is needed both in nonorganic and organic types to prevent agricultural land from becoming poorly productive over decades. Organic farming emphasizes optimal soil management, because it uses soil health as the exclusive or nearly exclusive source of its fertilization and pest control.

Soil management is an important tool for addressing climate change by increasing soil carbon and as well as addressing other major environmental issues associated with modern industrial practices. Project Drawdown highlights three major soil management practices as actionable steps for climate change mitigation: improved nutrient management, conservation agriculture and use of regenerative agriculture. Project Drawdown refers to the non-profit organization with the mission to help the world reach drawdown and stop catastrophic climate change quickly, safely, and equitably.

1. Find the English equivalents in the text:



Управління ґрунтом, застосування методів лікування, захист ґрунту, підвищення ефективності, родючість ґрунту, збереження ґрунту, покращення ґрунту, малопродуктивний, удобрення, боротьба зі шкідниками, збільшення вуглецю у ґрунті, дієві кроки, пом'якшення зміни клімату, покращене управління поживними речовинами, консерваційне землеробство, регенеративне землеробство, некомерційна організація, досягти спаду (просадки), безпечно, справедливо.

2. Translate the English terms and terminological expressions:

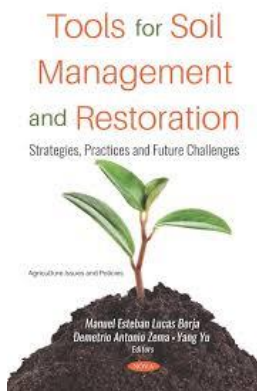
Soil management, soil performance, soil conservation, soil amendment, soil health, soil fertilization, nutrient management, conservation agriculture, use of regenerative agriculture.

3. Find the synonyms to the verbs (a) in (b):

a) to apply, to protect, to include, to emphasize, to increase, to improve, to mitigate, to change

b) *to save, to grow, to involve, to diminish, to use, to highlight, to modify, to perfect.*

4. Mark the following statements as true (T) or false (F):



- 1) Soil management involves soil conservation and soil amendment.
- 2) Soil management is needed in nonorganic type to prevent agricultural land from becoming poorly productive over decades.
- 3) Organic farming emphasizes optimal soil management.
- 4) Soil management is an important tool for addressing climate change.
- 5)

5. Match the notions with their definition:

Soil conservation	the capacity of the soil to function as a vital living ecosystem to sustain plants, animals, and humans
Soil amendment	supplementing the existing soil with additional, needed nutrients
Soil health	any material added to a soil to improve its physical properties
Soil fertilization	a combination of practices used to protect the soil from degradation

6. Answer the following questions:

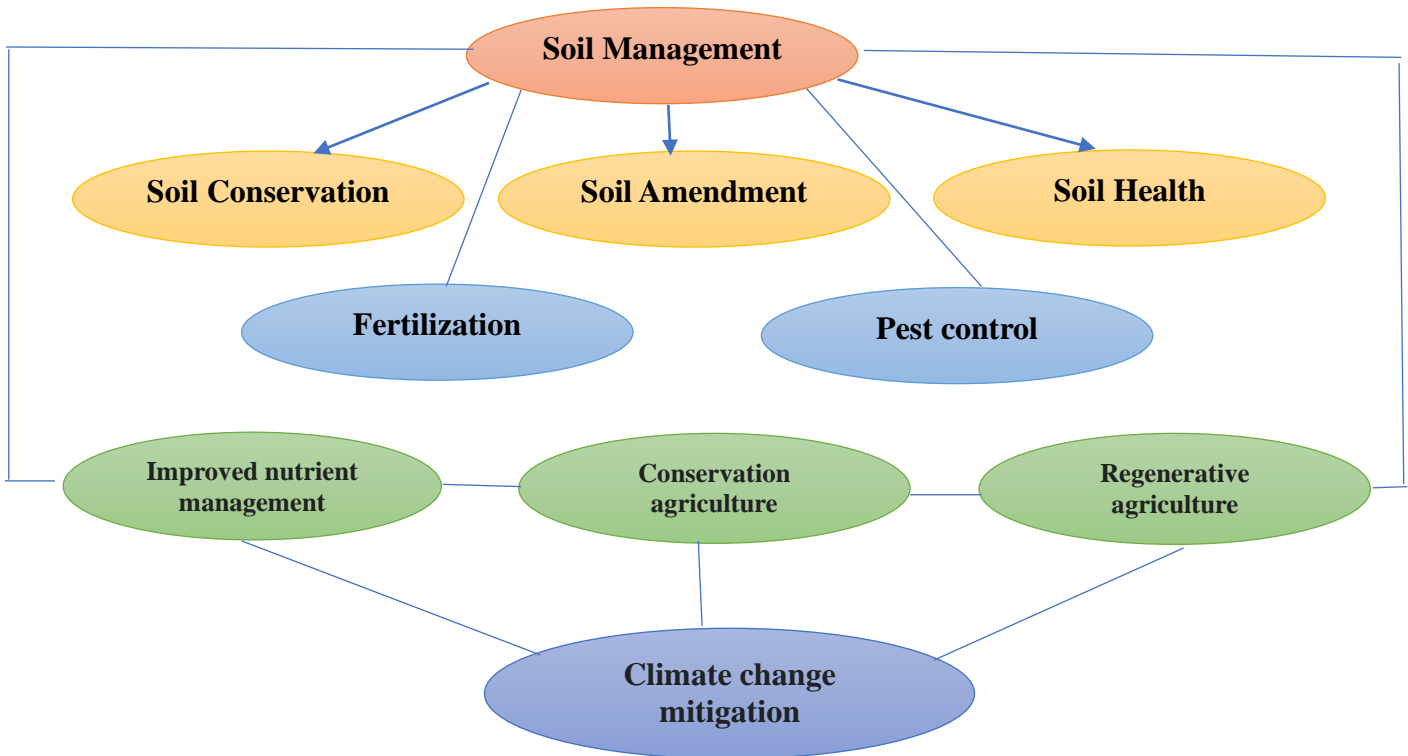
- 1) What is soil management?
- 2) What does soil management include?
- 3) Why does organic farming emphasize optimal soil management?
- 4) What way is soil management an important tool for addressing climate change by?
- 5) What soil management practices does Project Drawdown highlight?

7. Read the text and put 3 questions to it for group discussion:



Soil management can be seen as an integral part of land management. It focuses on the different soil types and characteristics that can enhance the soil quality for the aimed land-use. To ensure food security, soil management is important since it can potentially improve agricultural production, combat climate change, and contribute to green economic growth. Improving nutrient recycling, increasing organic matter content, and applying fertilizers at the right time and in the right amount can ensure nutrients are used more efficiently and soils are healthier.

8. Make sure you remember the key words of the lesson:



Discussion point
THE WORLD OF WORK

9. Read about Ali and Bob.



ALISON HAUSER

Ali is a scientist. She comes from Cambridge in England but now she lives in Switzerland. She works three days a week at the Institute of Molecular Biology in Geneva. She speaks three languages: English, French and German. She's married and has a daughter. She likes skiing in winter and going for walks in summer.

BOB NELSON



Bob is a doctor. He's English but now he lives in Australia in the small town of Alice Springs. He isn't an ordinary doctor, he's a flying doctor. Every day, from 8 a.m. to 10 a.m. he speaks to people on his radio, then he flies to help them. He works 16 hours a day non-stop but he loves his job. He isn't married. He has no free time.

10. Practice the questions and answers with your friends.

1. Where does Alison Hauser come from?
2. Where does she live now?
3. What does she do?
4. Where does she work?
5. Does she speak French?
6. Does she speak Spanish?
7. What does she like doing in winter and summer?

11. Complete the questions and ask your friend to answer them.

1. Where _____ Bob _____ from?
2. What _____ he _____?
3. _____ he fly to help people?
4. _____ he _____ French and German?
5. _____ he _____ his job?
6. _____ he married?
7. _____ he _____ time?

12. Read the information about Philippe Ballon, Keiko Wilson and Mark König. Tell your friends about them.



Philippe Ballon	
Job	<i>A barman</i>
Country	<i>France</i>
Town	<i>Paris</i>
Place of work	<i>In the centre of Paris</i>
Languages	<i>French, a little English</i>
Married	<i>No</i>
Family	<i>A dog (!)</i>
Free time	<i>Walking his dog, playing football</i>



Keiko Wilson	
Job	<i>An interpreter</i>

Country	<i>Japan</i>
Town	<i>New York</i>
Place of work	<i>At the United Nations</i>
Languages	<i>Japanese, English, French</i>
Married	<i>Married to an American</i>
Family	<i>Two sons</i>
Free time	<i>skiing</i>



Mark König	
Job	<i>A journalist for the BBC</i>
Country	<i>England</i>
Town	<i>Berlin</i>
Place of work	<i>In an office</i>
Languages	<i>German, English, Russian</i>
Married	<i>Yes</i>
Family	<i>Three daughters</i>
Free time	<i>Listening to music</i>

13. Write questions about Keiko (Mark or Philippe).

1. Where / come from?
2. Where / live?
3. What / do?
4. Where / work?
5. Does / speak English?
6. What / in free time?
7. How many children ...?
8. ... a dog?

GRAMMAR EXERCISES

14. Read and translate the following sentences into Ukrainian.

- 1) What's the time? — Sorry, I have left my watch at home.
- 2) I can't get into the room. I have lost the key.
- 3) It is absolutely dark in the room. Who has turned off the light?
- 4) Where are the students? — They have just left for the library.
- 5) My sister has always helped me with my English.
- 5) You have never heard about it, have you?
- 6) He hasn't written to her yet.
- 7) Have you ever seen this film?
- 8) I have often been to the Museum of Art. Have you?

15. Open the brackets using the verbs in Present Perfect.

1. I (to speak) to him about it several times.
2. We (to learn) many new words in this course.
3. He (to make) the same mistake several times.
4. I (to hear) that story before.
5. I am afraid that I (to lose) my car keys.
6. She (to see) the film several times.
7. I (to tell) John what you said.
8. She (to return) my book at last.

16. A. Make the following interrogative.

1. You have taken my note-book.
2. His sister has past her examinations.
3. Her brother has entered the University.
4. The children have already had breakfast.
5. The teacher has just come.

B. Make the following negative.

1. Our professor has come from London (yet)
2. I have written a letter to Ann.
3. They have opened the shop.
4. My friend has changed since I saw him last.
5. He has told the director about it.

17. Open the brackets using the verbs in Present Continuous or Present Perfect Tense.

1. What's the matter? Why he (to stop)?
2. My cousin (to look) for a job, but he (not to find) job yet.
3. It (to be) impossible for her to feel at home here.
4. What you (to study) now?
5. Sophie is busy. She (to knit) a sweater for her grandson.
6. People (to plant) carrots and tomatoes now.
7. What you (to look) for?
8. What you (to talk) about?

18. Open the brackets using the verbs in Present Perfect or Past Indefinite Tense.

1. I (not yet to eat) today.
2. He (not to eat) yesterday.
3. You (to play) the piano yesterday?
4. You (to play) the piano today?
5. What you (to prepare) for today?
6. Look at this birdhouse. Mike (to make) it himself.
7. When you (to see) Mary? —I (to see) her last week.
8. At last I (to translate) the article: now I shall have a little rest.

19. Translate into English.

1. Я залишив свій зошит вдома.
2. Де Петро? — Він ще не прийшов.
3. Що ти робиш? — Читаю англійське оповідання. Скільки сторінок ти вже прочитав? — Я прочитав уже сім сторінок.
4. Скільки нових слів ви вивчили в цьому місяці?
5. Я не можу їхати з тобою. Я ще не склав екзамену з геометрії.
6. Ми щойно прочитали телеграму.
7. Ми одержали телеграму вчора.
8. Я знаю цього лікаря з 2010 року.

Lesson 4

Pedology

From Encyclopedia Britannica



Pedology is a scientific discipline concerned with all *aspects of soils*, including:

- physical and chemical properties soils;
 - the role of organisms in soil production and in relation to soil character;
- the description and mapping of soil units;
 - the origin and formation of soils.

Accordingly, pedology embraces several *subdisciplines*, namely:

- soil chemistry
- soil physics
- soil microbiology

Each discipline employs a sophisticated array of methods and laboratory equipment like used in studies of physics, chemistry, or microbiology of nonsoils systems. Sampling, description, and mapping of soils is considerably simpler, however. A soil auger is used to obtain core samples in places where no subsurface exposure can be found, and the soil units are defined, delineated, and mapped in a manner similar to procedures in stratigraphy. Such soils studies, in fact, overlap the concerns of the stratigrapher and the geologist, both of whom may treat the soils layers as strata of the Quaternary Period (from 2.6 million years ago to the present).

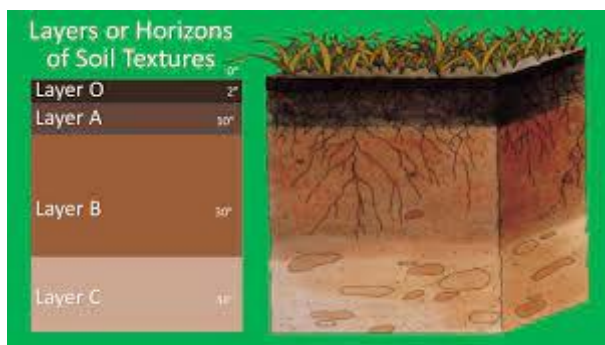
1. Find the English equivalents in the text:

Ґрунтознавство, аспекти ґрунту, фізичні та хімічні властивості, продуктивність ґрунту, характер ґрунту, опис, картографування ґрунтових одиниць, походження ґрунтів, складний набір методів, мікробіології неґрунтових систем, відбір проб, шнек для ґрунту, отримати зразки керна, підповерхнєве відслонення, ґрунтові одиниці, визначати, окреслювати, картографувати, подібний спосіб, стратиграфія, збігатися з інтересами, розглядати шари ґрунту, шари четвертинного періоду.

2. Translate the following terms and terminological expressions:

Scientific discipline, soil production, soil character, soil chemistry, soil physics, soil microbiology, laboratory equipment, soil auger, stratigraphy, soils layers, strata.

3. Mark the following statements as true or false:



- 1) Pedology is a scientific discipline dealing with all problems of climate.
- 2) Pedology involves some disciplines like chemistry and physics.
- 3) Pedology employs its own methods and laboratory

equipment.

- 4) Sampling, description, and mapping of soils in pedology is considerably simpler than in other sciences.

4. Match the definitions of the sciences:

Pedology	the branch of science that deals with the identification of the substances of which matter is composed
Physics	the branch of science that deals with microorganisms
Chemistry	another term for soil science
Microbiology	the branch of science concerned with the nature and properties of matter and energy

5. Fill in the gaps in the sentences using the word-combinations below:

- 1) By definition, pedology refers to studying _____, such as chemical and physical properties, in its natural environment.
- 2) Someone who studies _____ is called a pedologist.
- 3) Pedologists take advantage of advanced techniques and equipment that are almost similar to those used in the fields like _____.

- 4) Pedologists seek to understand the dynamics of the soil, unlike agronomists who simply see soil as a means for _____.
- 5) In recent times, however, the two fields of _____ have been increasingly becoming integrated.

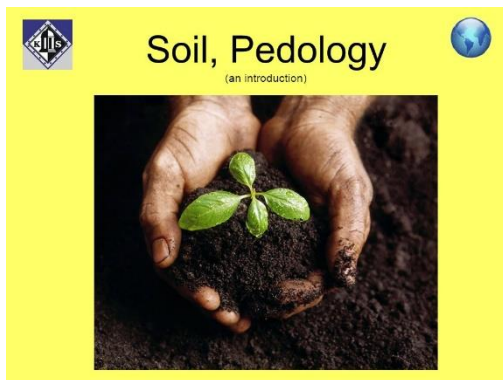


- a) *pedology and agronomy*
 b) *soil and all its aspects*
 c) *agronomic productivity*
 d) *physics and chemistry*
 e) *pedology*

6. Read the text and find headline (A-D) for each paragraph (1-4):

Concepts Used in Pedology

From World Atlas



1. _____

Many concepts help pedologists in their field. The first one is that soils are an interface to several layers on the earth, namely, the atmosphere, hydrosphere, lithosphere, and the biosphere. For this reason, everyone in the field must have knowledge about hydrology, geology, biology, and other earth and natural sciences. In addition, sciences related to the comprehension of soil genesis, such as glacial geology, paleoecology, and others, are needed to forecast future changes in the soil.

2. _____

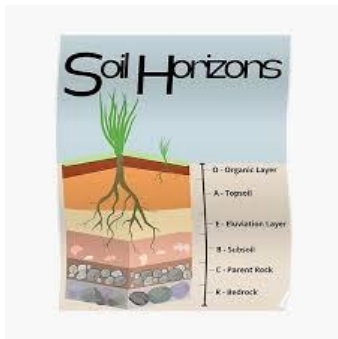
Soil forming processes, otherwise known as pedogenic processes, can destroy and create order in soil. Sometimes, these processes of creation and destruction can happen at the same time. In the end, pedologists can determine the level of balance between the two processes both in the past and in the present.

3. _____

In geology, there is a principle known as uniformitarianism, which states that the same processes and natural laws that operate today were present in the past. This principle also applies to pedology. However, it is accepted that the intensity and degree of these processes varies.

4. _____

From a geological perspective, there is a small number of soils that can be classified as old. This is because soils are constantly being destroyed or modified by any number of factors since they are exposed on the earth's surface. The new old soils, however, help to provide experts with knowledge of climate evolution over the years.



A *Processes of soil formation*

B *Principles of the past and present*

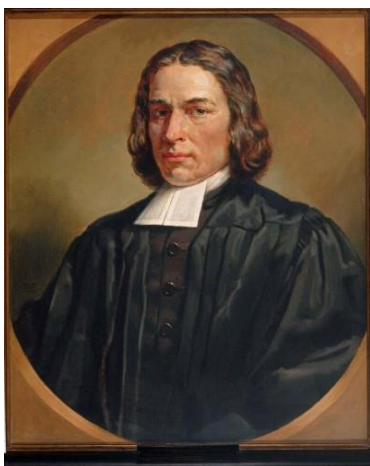
C *Modification of soils*

D *Interaction of layers on the earth*

7. Read the article and put 3 questions to it. Ask your friends to answer the questions.

Jared Eliot (1685 – 1763)
American colonial clergyman

By The Editors of Encyclopaedia Britannica Last Updated: Nov 3, 2022 Edit History



Jared Eliot was an American colonial clergyman, physician, and agronomist.

Eliot, the grandson of John Eliot, noted New England missionary, was graduated from the Collegiate School of Connecticut (Yale College) in 1706. He taught for two years and then received a call as pastor of the Congregational Church in Killingworth (Clinton), Conn. He served as minister of the congregation until his death. He also became respected as a physician throughout New England.

Eliot achieved some notice through his scientific research and writing. He investigated the mineral qualities of Connecticut lands and in 1762 published *An Essay on the Invention, or Art of Making Very Good, if*

not the Best Iron, from Black Sea Sand. The essay won recognition from the Royal Society in London. Eliot also worked with Yale's president Ezra Stiles on implementing silk production in Connecticut.

Eliot's major scientific contributions, however, were in the field of agronomy. He studied agricultural practices in Connecticut for several years and used his own lands for particular experiments. From that extensive research, he compiled his *Essays upon Field-Husbandry in New-England*, which was published in six parts from 1748 to 1759. Those essays became the most popular and prominent works on agronomy published in the English colonies before the American Revolution. Eliot sought to advance scientific techniques of agriculture, to improve farm production, and also to restore seemingly exhausted soils and to promote the planting of cover and forage crops.

Discussion point

WEEKDAYS AND WEEKENDS

8. Read about Bobbi Brown's weekends. Complete the text with the verbs.

Gets up lives is loves works doesn't work interviews starts



Bobbi Brown _____ in New Jersey. She _____ thirty-four and _____ for SKY TV in New York City. But she _____ on weekdays, she only works at weekends. She _____ famous people for an early morning news programme called *The World This Weekend*. On Saturdays and Sundays, she _____ at 3.00 in the morning because she _____ work at 6.30! She _____ her job because it is exciting.

9. Complete the text with the correct form of the verb in the box. Look up new words in your dictionary.

love relax have like go live start come visit (2) go shopping pick up
go out get up take buy make cook

My weekends are fast and exciting. My weekdays are fast and domestic! I _____ two sons, Dylan, 7, and Dakota, 5. Every morning I _____ one hour before them, at 6.00, and I _____ to the gym. I _____ home and I _____ breakfast, then I _____ them to school. On Mondays I always _____. I _____ all the food for the week. I often _____ dinner in the evenings, but not every day because I don't _____ cooking. Fortunately, my husband, Don, _____ cooking. On Tuesdays and Thursdays I _____ my father. He _____ on the next block. Every afternoon I

_____ the kids from school. In the evenings Don and I usually _____, but sometimes we _____ friends. We never _____ on Friday evenings because I _____ work so early on Saturdays.

10. Complete Bobbi's answers. Practise the questions and answers.

1. Where do you work? _____ New York.
2. Do you like your work? - Yes, I _____ .
3. Do you relax at weekends? - No, I _____ .
4. Why don't you relax at weekends? _____ I work.

11. Work in pairs. One of you is Bobby Brown. Ask and answer questions about your life.

- 1) Where ... you live / work?
- 2) Are ... married?
- 3) Do ... have children?
- 4) What time ... get up / Saturday morning / Monday morning?
- 5) Why ... get up at ...?
- 6) ... like your work?
- 7) Why ... like it?
- 8) ... like cooking?
- 9) ... your husband like cooking?
- 10) Who ... you visit on Tuesday and Thursday?
- 11) Where ... your father live?
- 12) ... go out on Friday evening? Why not?
- 13) ... have a busy life?

12. A Questionnaire "How do you live?" Make up dialogues with your friends.

Do you ...?

- 1) get up early on weekdays
- 2) play tennis
- 3) smoke
- 4) drink wine
- 5) like Chinese food
- 6) watch TV a lot
- 7) have a big breakfast
- 8) have a computer

GRAMMAR EXERCISES

13. Use the Past Perfect Tense of the verbs in brackets.

1. I was sure that I (see) the man before.
2. I asked him why he (leave) the party so early.
3. It was clear that he (give) us the wrong address.
4. The teacher corrected the exercises which I (prepared).

5. He knew that he (make) a serious mistake.
6. She said she (look) everywhere for the book.
7. I felt that I (meet) the man somewhere before.
8. He wanted to know what (happen) to his briefcase.

14. Change the following into the Past Perfect Tense. Use the words in brackets to indicate the time of actions.

1. The delegation has arrived (by last Sunday).
2. The students have read this book (by last week).
3. Ann has done her lessons (by the time I came).
4. They have finished this work (by 5 o'clock yesterday).
5. We haven't yet seen our teacher (before the bell rang).
6. Have you seen the telegram (before I called you up)?
7. He has translated the article (by this time yesterday).
8. I have already had dinner (when my friend came).

15. Make the following interrogative and negative. Give short answers.

1. You had studied English before you entered the university.
2. They had arrived at the station by 6 o'clock.
3. James had finished reading the book by last Sunday.
4. Eve had done her lessons by the time you rang her up.
5. The teacher had given her students their homework before the bell rang.
6. The lecture had begun by the time I entered the hall.
7. The children had fallen asleep by the time we returned.
8. They had finished the construction of the stadium by the time we moved there.

16. Replace the infinitives in brackets by the Past Indefinite or the Past Perfect Tense.

1. By two o'clock the teacher (to examine) all the students.
2. On my way to school I (to remember) that I (to leave) my report at home.
3. All my friends (to be) glad to hear that I (to pass) all the examinations successfully.
4. Where you (to work) before you (to enter) the university?
5. He (to study) French before he entered the institute.
6. All the passengers (to see) at once that the old man (to travel) a great deal in his life.
7. By the time we (to come) to see him, he (to return) home.
8. During the holidays my friend (to visit) the village where he (to live) in his childhood.

Lesson 5

Soil Types

(From Soil and its Types)

- **Before reading**

1. **Look at the picture and answer the following questions:**

- 1) What types of soil are there?
- 2) What type of soil is there in your country?
- 3) Why is good soil important?



Soil and its types are mainly classified on the basis of properties and sizes of different particles present in it. The three major types of soils are sandy soil, loamy soil, and clay soil.

Sandy soil contains 80% - 90% of sandy materials and 10% - 20% of fine clay materials. Here the soil particles are very loosely

packed, so it has plenty of air spaces. However, this soil cannot hold sufficient water. The humus content of it is also very low. Sandy soil is not suitable for normal plant growth as it is dry and has lesser nutrients. A very few plants like cucumber, gourd, watermelon grow in this soil.

Loamy soil contains almost equal parts of sandy and clay materials. This type of soil contains sufficient humus. Both aeration and water retaining capacity of this soil are moderate. These features make this soil very fertile. All types of crops and vegetables grow well in this soil.

Clay soil contains 80% - 90% of fine clay materials and 10% - 20% of sandy materials. It is very rich in humus also and becomes very sticky and dense. Aeration is very poor but it can retain a lot of water. These features make this soil unsuitable for normal agriculture. Some larger plants like mango, jackfruit, etc., grow in this soil.

Besides sandy soil, loamy soil, and clay soil, there are few other types of soils with some special features. These are silty soil, black soil, lime soil, red soil, salty soil, and grave soil.

2. **Find the English equivalents in the text:**

Піщаний ґрунт, суглинистий ґрунт, глинистий ґрунт, тонкі глиняні матеріали, сегменти ґрунту, бути нещільно утрамбованим, достатня кількість води, вміст гумусу, поживні речовини, аераційна і водоутримувальна здатність, бути помірним, родючий ґрунт, бути липким і щільним, мулистий ґрунт, чорнозем, вапняний ґрунт, червонозем, солончаковий ґрунт, гравійний ґрунт.




3. **Match the verbs with the meaning:**





To contain	ущільнювати
To hold	містити
To be suitable for	тримати
To retain	підходити для
To pack	утримувати (зберігати)

4. Mark the following statements as true (T) or false (F):

- 1) Sandy soil can hold sufficient water.
- 2) Sandy soil is dry and has a lot of nutrients.
- 3) Loamy soil contains sufficient humus.
- 4) Loamy soil is very fertile.
- 5) Clay soil cannot retain a lot of water.
- 6) Clay soil is suitable for normal agriculture.

5. Match the plants with the pictures:

1 cucumber	a	
2 gourd	b	
3 watermelon	c	

4 vegetables	d 
5 mango	e 
6 jackfruit	f 
7 fruits	g 

6. Match the soils (1-3) with their features (a-c):



- 1) sandy soil
- 2) loamy soil
- 3) clay soil

a) *is very rich in humus; has poor aeration; can retain a lot of water; is unsuitable for normal agriculture;*

b) *cannot hold sufficient water; the humus content is also very low; is not suitable for normal plant growth; it is dry; has lesser nutrients;*

c) *cannot hold sufficient water; has low humus content; is not suitable for normal plant growth; is dry; has lesser nutrients.*

7. Answer the following questions:

- 1) What basis are soils mainly classified on?
- 2) What are three major types of soils?
- 3) What type of soils cannot hold sufficient water?
- 4) What type of soils contains sufficient humus?
- 5) What type of soils can retain a lot of water?

8. Read the extract and answer the questions:

- 1) How is soil formed?
- 2) What aspects of the soil can be observed?

Soils are formed by five major factors, namely climate, parent material, time, organisms, and relief. However, there are other smaller processes that drive the soil formation process as well as soil patterns. In addition, soil genesis is often more complex than it is simple.

Most aspects of the soil, as well as soil landscapes, can be observed and then measured. These aspects include the number, shapes, sizes, and the arrangement of the soil. Each of these aspects is characterized based on a criterion that takes into account the degree of homogeneity, age, landscape position, slope, and other properties.

9. Read the text and put 4 questions to it:

Chernozem



Chernozem is the name of the soil type occurring in Ukraine, according to the World Reference Base of Soil Resources (WRB), the soil classification system of the Food and Agriculture Organization of the United Nations (FAO). They are characterized by a thick black upper layer or A horizon, the "chernic horizon" which must be at least 25 cm thick and is rich in decomposed plant material and therefore contains a lot of humus and carbon. In Ukraine, the thickness of the chernic horizon can be up to several meters!

Chernozems also has a very good structure, that is, plant roots have no trouble branching out into the soil and there is enough oxygen so that soil organisms can breathe. Biodiversity and abundance of organisms is high in Chernozems, and they are active at greater depths than in other soils, further improving the soil structure. The soil also contains a lot of calcium, so it does not easily become acidic. All of these properties mean that a Chernozem does not need much additional fertilizers or soil conditioners and produces good yields, provided it is managed sustainably.

Discussion point

CITIES OF THE WORLD

10. Read about New Orleans, Vienna and Liverpool.

New Orleans



New Orleans is the largest city in Louisiana, USA. It stands on the banks of the Mississippi River and is a busy port and tourist centre. Its population of about 550,000 is very cosmopolitan, with immigrants from many countries. Every year from all over the world visit New Orleans to see its famous Mardi Gras carnival.

In 1682 the French named Louisiana after the French King, Louis XIV. They built New Orleans in 1718. In 1762, Louis XV gave it to his cousin Carlos of Spain. Then, in 1800, it became French again until Napoleon sold it to the USA in 1803. The French quarter in New Orleans still has many old buildings and excellent restaurants.



New Orleans is the home of jazz. Jazz is a mixture of blues, dance songs and hymns. Black musicians started to play jazz in the late 19th century. Louis Armstrong and Jelly Roll Morton came from the city. New Orleans is most famous for its jazz, but it also has a philharmonic orchestra.



Vienna

Vienna, or Wien in German, is the capital of Austria. It stands on the banks of the river Danube and is the gateway between east and west Europe. Its music, theatre, museums, and parks make it a popular tourist centre. It has a population of over 1,500,000.

Vienna has a rich history. Its University opened in 1365, and is one of the oldest in Europe. From 1558 to 1806 it was the



centre of the Holy Roman Empire and it became an important cultural centre for art and learning in the 18th and 19th centuries. The famous psychiatrist, Sigmund Freud, lived and worked there.

Vienna was the music capital of the world for many centuries. Haydn, Mozart, Beethoven, Brahms, Schubert, and Strauss family all came to work here. It is now the home of one of the world's most famous orchestra, the Vienna Philharmonic. Its State Opera House is also world famous.

Liverpool



Liverpool is Britain's second biggest port, after London. It stands on the banks of the River Mersey in the north-west England. It is an important passenger port for travel to Ireland and many Irish immigrants live there. It has a population of nearly 500,000.

King John named Liverpool in 1207. The city grew bigger in the 18th century, when it became an important trade centre for sugar, spices, and slaves between Africa, Britain, the Americas, and the West Indies.

Liverpool's most famous musicians are the Beatles. In the 1960's this British rock group was popular all over the world. They had 30 top ten hits. They were all born in Liverpool and started the group there in 1959. They first played at a night club called the Cavern and then travelled the world. One of them, Paul McCartney, is now the richest musician in the world. Many tourists visit Liverpool to see the homes of the Beatles.



11. Answer the questions about the cities.

1. How many people live there?
2. What is the name of its river?
3. Why is it a tourist centre?
4. What are some important dates in its history?
5. Which famous people lived there?
6. What kind of music is it famous for?
7. What is world famous about the city?
8. Which of these things can you do in the city you read about?
 - go by ship to Ireland
 - see Sigmund Freud's house
 - see a famous carnival
 - walk round the French quarter
 - listen to a famous orchestra
 - visit the homes of a famous rock group

12. Write some similar information about your city, town, or village. Tell a partner or the class.

GRAMMAR EXERCISES

13. Make the sentences negative and interrogative:

1. A university is an institution for advanced teaching, conferring degrees and engaging in academic research.
2. A university provides scientific degree in different subjects.
3. Many higher schools publish their own research journals.
4. A university offers courses in various disciplines.
5. Faculties are departments or groups of related departments.

14. Put questions to the italicized words:

1. This university model involves *strict discipline and control* over every aspect of the university.
2. A national university functions as *a completely independent body* inside of the same state.
3. Most universities offer courses in subjects ranging from *the* natural sciences, engineering, architecture *or* medicine, *to* sports sciences, social sciences, law *or* humanities.
4. In a number of countries, *major classic universities* usually have their own botanical gardens, astronomical observatories, business incubators and university hospitals.
5. In some countries most students attend university *in their local town*.

15. Translate the sentences into English:



1. Оксфордський університет є найкращим університетом Об'єднаного Королівства та одним з ведучих закладів вищої освіти у Європі.
2. Студенти отримують наукові ступені бакалавра та магістра.
3. Академічний рік триває протягом трьох семестрів та закінчується екзаменами.
4. Успішні студенти отримують стипендію.
5. Центральна науково-дослідна бібліотека Оксфордського університету – це друга найбільша бібліотека Об'єднаного Королівства після Британської бібліотеки.

16. Translate the sentences into English:



1. Університет Кембриджу став другим найстарішим університетом Об'єднаного Королівства.

2. Один із найвідоміших математиків світу Ісаак Ньютон провів більшу частину свого життя в цьому університеті.
3. Веслувальний Клуб Кембриджського університету було засновано в 1828 році.
4. Єдиною метою клубу була перемога над веслувальним клубом Оксфордського університету.
5. До другої світової війни тенісна команда університету отримала 28 перемог в Уїмблдонському чемпіонаті.

17. Replace the infinitives in brackets by the Past Indefinite, Past Continuous or Past Perfect Tense.

Last night we (to go) to a football match. We (to take) a bus. The bus (to be) full of people as many people (to want) to see the match. We (to get) off the bus and (to go) in the direction of the stadium. While we (to cross) the road, I (to see) Victor. He (to stand) at the corner. He said he (to wait) for his friend who (to come) to Kyiv the day before and (to wish) to see the new stadium. We (to enter) the stadium just as the football players (to come) out on the field. At the entrance to the stadium we (to meet) Oleg. He (to show) us to our seats and we (to agree) to meet in the snack bar during the interval. He (to ask) me if I (to play) football in my childhood.

18. Use the verbs in brackets in Future Perfect.

1. I am sure they (complete) the road by June.
2. He says that before he leaves, he (see) every show in the town.
3. By the time you arrive, I (finish) reading your book.
4. I (be) in this country for two years by next January.
5. A year from now he (take) his medical examination and will begin to practice.
6. If you don't make a note of that appointment, you (forget) it by next week.
7. By the end of the week we (translate) this book already.
8. By the time he leaves home, we (come) to the station.

ГРАМАТИЧНИЙ ДОВІДНИК

§1. Однина і множина іменників

Обчислювальні іменники можуть мати форму однини і множини.

1. Як правило, множина іменників в англійській мові утворюється за допомогою додавання закінчення **-s**:

a book – some books	книга – декілька книг
photo – photos	фотографія – фотографії
ball – balls	м'яч – м'ячі
one kilo – ten kilos	один кілограм – десять кілограм
shop – shops	магазин – магазини

2. Після **-s, -ss, -sh, -ch, -x** – додається **-es**:

bus – buses	автобус – автобуси
glass – glasses	стакан – стакани
dish – dishes	страва – страви
watch – watches	годинник – годинники
dress – dresses	сукня – сукні
bench – benches	лавка – лавки
box – boxes	коробка – коробки

3. Якщо іменник закінчується на приголосну + **y**, тоді **y** змінюється на **i** + **es**:

faculty – faculties	факультет – факультети
city – cities	місто – міста
lorry – lorries	вантажівка - вантажівки
family – families	сім'я – сім'ї

Після голосної – у не змінюється:

day – days	день – дні
boy – boys	хлопець - хлопці
journey – journeys	подорож – подорожі

4. Якщо іменник закінчується на **-f** та **-fe**, в множині маємо **-ves**:

leaf – leaves	листок - листки
shelf – shelves	поличка - полички
thief – thieves	зłodій – зłodії

4. До декількох іменників, які закінчуються на **-o** у множині додається **-es**:

potato – potatoes	картоплина – картоплини
tomato – tomatoes	помідор – помідори
hero – heroes	герой – герої

До більшості іменників, які закінчуються на **-o**, у множині додається **-s**:

photo – photos	фотографія – фотографії
zoo – zoos	зоопарк – зоопарки

5. Деякі іменники утворюють форму множини не за правилами:

man – men	чоловік – чоловіки
woman – women	жінка – жінки
child – children	дитина – діти
foot – feet	нога – ноги (стопа – стопи)
tooth – teeth	зуб – зуби
mouse – mice	миша – миші
sheep – sheep	вівця – вівці
fish – fish	риба – риби
person – people	людина – люди

e.g. I have three **days** to prepare for the competitions.

He has some **information** for the **coaches** of the **teams**.

Money is always useful.

Can you buy two bottles of **milk**?

Track-and-field athletics includes many different **events**.

§2. Ступені порівняння прикметників

1. В англійській мові *односкладові* прикметники утворюють вищий та найвищий ступінь порівняння за допомогою суфіксів **-er**, **-est**:

cheap – cheaper – the cheapest дешевий – дешевший - найдешевший

small – smaller – the smallest (малий)

big – bigger – the biggest (великий)

nice – nicer – the nicest (гарний)

2. *Двоскладові* прикметники, які закінчуються на приголосну + у, теж утворюють ступені порівняння за допомогою цих суфіксів:
 happy – happier – the happiest (щасливий)
 lucky – luckier – the luckiest (удачливий)
 lovely – lovelier – the loveliest (приємний)
 pretty – prettier – the prettiest (симпатичний)
 heavy (важкий), dirty (брудний), tidy (охайний), easy (легкий), silly (нерозумний), funny (смішний).
3. Деякі двоскладові прикметники можуть утворювати ступені порівняння і за допомогою суфіксів, і за допомогою слів **more, the most**:
 Narrow – narrower / more narrow – the narrowest / the most narrow (вузький)
 Common (загальний), pleasant (приємний), quiet (тихий), polite (ввічливий), clever (розумний), simple (простий), gentle (лагідний), cruel (жорстокий), tired (втомлений), stupid (нерозумний).
4. Деякі *двоскладові* прикметники утворюють ступені порівняння за допомогою слів **more, the most**:
 Useful – more useful – the most useful (корисний)
 Helpful (корисний), careful (обережний), hopeless (безнадійний), boring (нудний), willing (готовий), annoyed (надоїдливий), surprised (здивований), correct (правильний), exact (точний), certain (певний), normal (звичайний), frequent (частий), recent (недавній), famous (відомий), modern (сучасний), afraid (зляканий), eager (нетерплячий), foolish (глупий).
5. *Трискладові та багатоскладові* прикметники утворюють ступені порівняння за допомогою слів **more, the most**:
 exciting – more exciting – the most exciting (захоплюючий)
 interesting – more interesting – the most interesting (цікавий)
 elegant – more elegant – the most elegant (елегантний)
 reliable – more reliable – the most reliable (надійний)
6. Деякі прикметники утворюють ступені порівняння не за правилами:
 Good – better – the best (хороший)
 Bad – worse – the worst (поганий)
 Far – farther / further – the farthest / furthest (далекий)
7. Ми використовуємо **more, the most** та їх антоніми **less, the least**, щоб порівняти кількості:
 Many / much – more – the most
 Little – less - the least
- e.g. The room is **the warmest**.
 This dress is **more elegant**.
 These results of the experiment are **the most reliable**.
 It is his **best** record in jumping.
 I am very busy these days, I have **less** free time than I used to.

§3. The Present Indefinite (Present Simple) Tense

Часи групи *Indefinite* вживаються для вираження дії як факт, регулярної повторюваної дії стосовно теперішнього, минулого чи майбутнього часу.

1. Дієслова у формі Present Indefinite показують дію як факт, регулярну повторювану дію в теперішньому часі. Ця форма утворюється від форми інфінітиву без частки *to*:

e.g.: I **train** every day. – *Я тренуюся щодня.*

They **play** football every evening. – *Вони грають у футбол щовечора.*

2. Заперечна та питальна форма утворюються за допомогою допоміжного дієслова *do*:

e.g.: **Do I train** every day? – Yes, I do.

No, I do not (don't).

I **don't train** every day.

Do they play football every evening? – Yes, they do.

No, they don't.

They **don't play** football every evening.

3. Якщо підмет виражений 3 особою однини, до дієслова додається закінчення *-s*. Це ж закінчення переходить до допоміжного дієслова в питальній та заперечній формах:

e.g.: He runs in the park every morning.

Does he run in the park every morning? – Yes, he does.

No, he does not (doesn't).

He **doesn't run** in the park every morning.

4. Дієслово *to be* – *бути* має такі форми в Present Indefinite:

(I) **am**

(you, we, they) **are**

(he, she, it) **is**

e.g.: He **is** a record-holder. – *Він рекордсмен.*

They **are** students of the Physical Training Faculty. – *Вони студенти факультету фізичної культури.*

I **am** a coach of the University team.

Питальна та заперечна форма утворюються без допоміжного дієслова:

Is he a record-holder? – Yes, he is.

No, he isn't. He **is not** a record-holder.

Are they students of the Physical Training Faculty? – Yes, they are.

No, they are not.

They **are not** students of the Physical Training Faculty.

§4. The Past Indefinite (Past Simple) Tense

1. Дієслова у формі Past Indefinite показують дію як факт, повторювану дію в минулому часі. Ця форма утворюється шляхом додавання закінчення – *ed* до форми інфінітиву без частки *to* для правильних дієслів; для неправильних дієслів – друга форма (таблиці неправильних дієслів):

e.g.: to train – **trained**
to play – **played**
to run – **ran**
to swim – **swam**

I **trained** yesterday. – *Я тренувався вчора.*

They **played** football last week. – *Вони грали у футбол минулого тижня.*

2. Заперечна та питальна форма утворюються за допомогою допоміжного дієслова *did*:

e.g.: **Did I train** yesterday? – Yes, I did.

No, I did not (didn't).

I **didn't train** yesterday.

Did they play football last week? – Yes, they did.

No, they didn't.

They **didn't play** football last week.

3. Дієслово *to be* – *бути* має такі форми в Past Indefinite:

to be – **was, were** – been

e.g.: He **was** a record-holder five years ago. *Він був рекордсменом п'ять років тому.*

They **were** students of the Physical Training Faculty last year. – *Вони були студентами факультету фізичної культури минулого року.*

Питальна та заперечна форма утворюються без допоміжного дієслова:

Was he a record-holder five years ago? – Yes, he was.

No, he wasn't.

He **was** not a record-holder five years ago.

§5. The Future Indefinite (Future Simple) Tense

1. Дієслова у формі Future Indefinite показують дію, яка відбудеться в майбутньому. Ця форма утворюється за допомогою допоміжних дієслів *shall* (для першої особи однини та множини) та *will* (для інших осіб) та форми інфінітиву змістового дієслова без частки *to*:

e.g.: I **shall train** tomorrow. – *Я тренуватимусь завтра.*

They **will play** football next week. – *Вони гратимуть у футбол наступного тижня.*

2. Заперечна та питальна форма утворюються за допомогою допоміжних дієслів:

e.g.: **Shall I train** tomorrow? – Yes, I shall.

No, I shall not (shan't).

I shan't train tomorrow.

Will they play football next week? – Yes, they will.

No, they will not (won't).

They **won't play** football next week.

3. **Заміна майбутнього часу на теперішній в підрядних реченнях часу і умови:**

В англійській мові існує правило стосовно складнопідрядних речень з підрядними часу і умови – в таких підрядних майбутній час замінюється на теперішній.

e.g.:

1. They **will go** to London, if they **win** the first place at the championship. – Вони поїдуть до Лондону, якщо виграють перше місце на чемпіонаті.

2. They **will finish** their warm up when the coach **comes** to the stadium. – Вони закінчать розминку, коли тренер прийде на стадіон.

§6. The Present Continuous Tense

Часи групи *Continuios* виражають дію, як процес; дію, яка відбувається в момент мовлення, підкреслюючи її тривалість. Часи групи *Continuios* утворюються за допомогою допоміжного дієслова **to be** та *Participle I (-ing)* основного дієслова.

1. Дієслова у формі *Present Continuous* показують дію, яка відбувається (триває) в даний момент. Ця форма утворюється за допомогою допоміжного дієслова **to be** у формі *Present Indefinite* та форми *Participle I* змістового дієслова:

e.g.: is (are, am) + V (ing).

I am reading a grammar rule now. – Я читаю граматичне правило зараз.

He **is doing** his homework now. – Він робить домашнє завдання зараз.

They **are training** now. – Вони тренуються зараз.

2. У питальній формі допоміжне дієслово ставиться перед підметом:

e.g.: **Am I reading** a grammar rule now? – Yes, I am.

No, I am not.

Is he doing his home task now? – Yes, he is.

No, he is not (isn't).
Are they training now? – Yes, they are.
No, they are not (aren't).

3. У заперечній формі частка **not** додається до допоміжного дієслова:
e.g.: I **am not reading** a grammar rule now.
He **is not (isn't) doing** his homework now.
They **are not (aren't) training** now.

4. Present Continuous вживається також для вираження запланованої майбутньої дії, особливо з дієсловами, що означають рух:

e.g.: We **are starting** tomorrow morning. – Ми вирушаємо завтра вранці.

§7. The Past Continuous Tense

1. Дієслова у формі *Past Continuous* показують дію, яка відбувалася (тривала) в певний момент у минулому. Ця форма утворюється за допомогою допоміжного дієслова *to be* у формі *Past Indefinite* та форми *Participle I* змістового дієслова:

e.g.: was (were) + V (ing).

I **was reading** a grammar rule from 9 till 10 yesterday. – Я читав граматичне правило з 9 до 10 години вчора.

He **was doing** his homework when you came. – Він робив домашнє завдання, коли ви прийшли.

They **were training** the whole morning yesterday. – Вони тренувалися весь ранок вчора.

2. У питальній формі допоміжне дієслово ставиться перед підметом:

e.g.: **Was I reading** a grammar rule from 9 till 10 yesterday? – Yes, I was.

No, I was not.

Was he doing his homework when you came? – Yes, he was.

No, he was not (wasn't).

Were they training the whole morning yesterday? – Yes, they were.

No, they were not (weren't).

3. У заперечній формі частка **not** додається до допоміжного дієслова:

e.g.: I **was not reading** a grammar rule from 9 till 10 yesterday.

He **was not (wasn't) doing** his homework when you came.

They **were not (weren't) training** the whole morning yesterday.

§8. The Future Continuous Tense

1. Дієслова у формі *Future Continuous* показують тривалу дію, яка відбуватиметься (триватиме) у певний момент у майбутньому. Ця форма утворюється за допомогою допоміжного дієслова *to be* у формі *Future Indefinite* та форми *Participle I* змістового дієслова:

e.g.: shall (will) be + V (ing).

I **shall be reading** this sport article from 5 till 6 tomorrow. – *Я читатиму цю спортивну статтю з 5 до 6 години завтра.*

He **will be doing** his homework when you come. (Правило заміни майбутнього часу на теперішній у підрядних часу і умови). – *Він робитиме домашнє завдання, коли ти прийдеш.*

They **will be training** the whole evening tomorrow. – *Вони тренуватимуться весь вечір завтра.*

2. У питальній формі перше допоміжне дієслово ставиться перед підметом:

e.g.: **Shall I be reading** this sport article from 5 till 6 tomorrow? – Yes, I shall.

No, I shan't.

Will he be doing his homework when you come? – Yes, he will.

No, he won't.

Will they be training the whole evening tomorrow? – Yes, they will.

No, they won't.

3. У заперечній формі частка **not** додається до першого допоміжного дієслова:

e.g.: I **shall not (shan't) be reading** this sport article from 5 till 6 tomorrow.

He **will not (won't) be doing** his homework when you come.

They **will not (won't) be training** the whole evening tomorrow.

§9. The Present Perfect Tense

Часи групи *Perfect* виражають дію, як результат; дію, яка закінчилася до певного моменту у минулому, теперішньому чи майбутньому часі, але пов'язана з ним у вигляді якогось результату. Часи групи *Perfect* утворюються за допомогою допоміжного дієслова **to have** та *Participle II* (-ed; III f.) основного дієслова.

1. Дієслова у формі *Present Perfect* показують дію, яка відбулася до моменту мовлення, але пов'язана з ним у вигляді якогось результату. Ця форма утворюється за допомогою допоміжного дієслова *to have* у формі *Present Indefinite* та форми *Participle II* змістового дієслова:

e.g.: have (has) + Participle II

I **have** already **read** this sport news. – Я вже прочитав ці спортивні новини.
He **has** just **done** his favourite exercise. – Він щойно виконав свою улюблену
вправу.

They **have** already **trained**. – Вони вже потренувалися.

2. У питальній формі допоміжне дієслово ставиться перед підметом:

e.g.: **Have** I already **read** this sport news? – Yes, I have.

No, I have not.

Has he done his favourite exercise? – Yes, he has.

No, he has not (hasn't).

Have they already trained? – Yes, they have.

No, they have not (haven't).

3. У заперечній формі частка **not** додається до допоміжного дієслова:

e.g.: I **have** not **read** this sport news.

He **has** not **done** his favourite exercise.

They **haven't** **trained** yet. – Вони ще не потренувалися.

§10. The Past Perfect Tense

1. Дієслова у формі *Past Perfect* показують дію, яка відбулася до певного моменту у минулому. Ця форма утворюється за допомогою допоміжного дієслова *to have* у формі *Past Indefinite* та форми *Participle II* змістового дієслова:

e.g.: had + Participle II

I **had read** this sport news before my friend told me about it. – Я прочитав ці спортивні новини до того, як мій друг розповів мені про них.

He **had done** his morning exercises by 7 o'clock. – Він зробив зарядку до 7 години.

They **had trained** before his coach came. – Вони потренувалися до того, як прийшов тренер.

2. У питальній формі допоміжне дієслово ставиться перед підметом:

e.g.: **Had** I **read** this sport news before my friend told me about it? – Yes, I had.

No, I had not.

Had he **done** his morning exercises by 7 o'clock? – Yes, he had.

No, he had not (hadn't).

Had they **trained** before his coach came? – Yes, they had.

No, they had not (hadn't).

3. У заперечній формі частка **not** додається до допоміжного дієслова:

e.g.: I **had** **not** **read** this sport news before my friend told me about it.

He **had not done** his morning exercises by 7 o'clock.
They **had not trained** before their coach came.

§11. The Future Perfect Tense

1. Дієслова у формі *Future Perfect* показують дію, яка відбудеться до певного моменту у майбутньому. Ця форма утворюється за допомогою допоміжного дієслова *to have* у формі *Future Indefinite* та форми *Participle II* змістового дієслова:

e.g.: shall (will) have + Participle II

I **shall have read** this sport news before my friend tells me about it. – Я прочитаю ці спортивні новини до того, як мій друг розповість мені про них.

He **will have done** his morning exercises by 7 o'clock. – Він зробить зарядку до 7 години.

They **will have trained** before their coach comes. – Вони потренуються до того, як прийде тренер.

2. У питальній формі перше допоміжне дієслово ставиться перед підметом:

e.g.: **Shall** I **have read** this sport news before my friend tells me about it? – Yes, I shall.

No, I shall not.

Will he **have done** his morning exercises by 7 o'clock? – Yes, he will.

No, he will not (won't).

Will they **have trained** before their coach comes? – Yes, they will.

No, they will not (won't).

3. У заперечній формі частка **not** додається до допоміжного дієслова:

e.g.: I **shall not have read** this sport news before my friend tells me about it.

He **will not have done** his morning exercises by 7 o'clock.

They **will not have trained** before their coach comes.

Glossary

A

- agriculture — сільське господарство
- animal breeding — розведення худоби
- ant — личинка
- abomasum — сичуг — четвертий відділ шлунку жуйних тварин
- anaemia — малокрів'я
- attach — прикріплювати, приєднувати
- angle — кут; to be angled — бути нахиленим

• after frost has weathered the soil — spring cultivation of autumn-sown
після того, як ґрунт піддався дії низьких температур восени зернових

- auger — шнек, шнековий конвеєр
- ashes — попіл
- absorption — засвоєння, поглинання,
- aminoacid — амінокислота
- arduous — трудомісткий
- annual — річний, однорічний
- aromatic variety — ароматичний сорт
- ammonia saltpetre — аміачна селітра
- adjust — регулювати
- apple-tree — яблуня
- apricot-tree — абрикос
- acaricides — акарициди
- atrophied — to be atrophied - відмирати
- improvement — апробація

B

- branch — галузь, гілка
- breeding — розведення
- barley — ячмінь
- boast -трутень apiculture — бджільництво
- bumble bee — джміль
- breed — розводити, виводити тварини
- breed — порода
- belt pulley — привідний шків
- bar — пруток, стрижень
- beater — вітер
- black soil — чорнозем, супіщані чорноземи
- bacterium (pl. bacteria) — бактерія
- baking qualities — хлібопекарські властивості
- boron — бор
- bitter variety — гіркий сорт
- blossom — суцвіття
- bulk — маса
- bear fruits — плодоносити
- beets — буряки
- bulb — цибулина
- budding period — час бутонізації
- bud — бутон

C

- cultivate — вирощувати

- cultivation — вирощування
- carpenter bee — робоча бджола
- compartment — відділ (шлунку), перегородка
- calf (calves) — теля (телята)
- class of ruminants — клас жуйних тварин
- calving — отел
- consume — споживати , використовувати
- colostrum — молозиво
- convert — перетворювати
- confinement — обмеження, утримання в приміщенні
- caecum (pl. caeca) -сліпа кишка
- crop — зоб у птахів, просапна культура
- cock — півень
- chicken — курча
- cultivate — обробляти землю, вирощувати
- crawler — гусеничний трактор
- conventional — звичайний
- coulter — різак, чересло плуга
- cut — зрізувати
- corn — весняний догляд засіяних
- cutter bar — різальний апарат
- combine harvester — комбайн
- chemical composition of soils — хімічний склад ґрунту
- composted fertilizer — компост
- clay — глина
- cell engineering — клітинна інженерія
- cereals — зернові, тонконогові
- copper — мідь
- calcium saltpetre — кальційова селітра
- clay soils — глинисті ґрунти
- content — вміст
- crop — просапна культура
- cone — шишка
- cessation — припинення
- cause — викликати
- cherry-tree - вишня
- crown — крона
- crumb and peel density — щільність м'якуша і шкірки
- currants — смородина
- cabbage — капуста
- carrot — морква
- condiments — приправи

- cucumbers — огірки
- clover — конюшина
- covering — покрив
- crop area — посівна площа
- compile — складати

D

- digest — переварювати
- dairy cows — молочні корови
- duck — качка
- dilate — розширяти
- duckling — каченя
- drive (drove, driven) — керувати, проводити в дію
- dam building — будівництво дамб
- digger — плуг з передплужником
- deep — глибокий
- depth — глибина
- disturb the crop — пошкодити жіль вимикання
- drive disengagement lever — важіль відключення приводу
- drill — висів
- divide — ділити
- drum — барабан
- direct — направляти
- divider — той, хто ділить
- decay substance — гноївка
- deoxyribonucleic acid (DNA) — дезоксирибонуклеїнова кислота (ДНК)
- density — густота
- drought — засуха
- dig — копати
- dill — окріп
- dry — сушити
- decay — гнити
- disperse — розсівати

E

- equipment — обладнання
- evaporation — випаровування
- evacuate — удаляти
- ensure long working life — забезпечити тривалий експлуатаційний період
- entire — весь, цілий
- environmental conditions — умови оточуючого середовища
- early-ripening — ранньостиглий
- efficiency — ефективність

F

- fertilize — удобрювати
- fertilizer — добриво
- flax — льон
- forest growing — лісове господарство
- fruits and vegetable production — виробництво овочів і фруктів
- flax production — льонарство
- farrow — опороситися
- farrowing — опороситися
- fibre — волокно, нитка
- fowl — птиця
- faeces — фекалії
- fluid — рідина
- frame — рама
- furrow — борозна
- flow — потік
- fall (fell, fallen) — падати
- food crops — харчові культури
- fertility — родючість
- feed crops — кормові культури
- facilitate — сприяти
- fertile — родючий
- foetus — плід
- fibre production - виробництво волокна
- flax shoots — сходи льону
- flax straw — льоносолома
- flow harvesting — потокове збирання
- fruit colouring intensity — інтенсивність забарвлення плода
- fertilizing tube — тукопровід
- fungicides — фунгіциди
- fade — в'янути

G

- grain crops — зернові культури
- gestation — стільність (корови), період вагітності
- grind — пережовувати, молотити, переламувати
- grinding — пережовування
- gosling — гусеня
- goose (geese) — гуска
- gizzard — мускульний (другий) шлунок у птахів
- gullet — харчопровід
- gland — залоза
- general-purpose — загального користування

- grip — зчеплення із землею, захват
- germinate — проростати
- germination — проростання
- germinating power — схожість
- granule — гранула
- gene engineering — генна інженерія
- grey forest soils — сірі лісові ґрунти
- germinating power — схожість
- ground frosts — приморозки
- garlic — часник
- greenhouse — теплиця
- grass flour — трав'яне борошно
- grass mixture — трав'яна суміш

H

- hops — хміль
- hemp — конопля
- harrow — боронувати
- harrow — борона
- the hops production — хмелярство
- hornet — шершень
- harmful — шкідливий
- hen — курка
- harvest — врожай
- half-liquid manure — напіврідкий гній
- hybrid — гібрид
- header — жатка
- hydrological soil acidity — гідрологічна кислотність ґрунту
- high-yield — високоврожайний
- hemp group — родина коноплевих
- humidity — волога
- humid — вологий
- horticulture — садівництво
- hay — сіно
- haymaking — сінокіс
- herbicides — гербіциди

I

- industrial crops production — виробництво технічних культур
- intestine — кишечник
- implement — причіпне знаряддя
- interaction — взаємодія
- increase — збільшуватись

- infectious — інфекційний

L

- lactation — лактація
- laxative — слабуючий
- liver — печінка
- linkage — зчеплення, важільний механізм, важільна передача
- L-shaped blades — L-подібні ножі
- litter manure — підстилковий гній
- loose organical substance — сипуча органічна речовина
- liquid manure — рідкий гній
- lime — вапно
- loam — суглинок
- loamy — суглинистий
- light sandy soil — легкий піщаний ґрунт
- liming — вапнування
- leguminous crops — бобові культури
- low-yield — низьковрожайний
- labour-intensive process — трудомісткий процес
- late-ripening — пізньостиглий
- legume crops — бобові культури

M

- mow — косити
- milk — доїти
- macerate — вимочувати, спустошувати
- mount — монтувати, навіщувати
- mouldboard — полиця плуга
- magnesium — магній
- maturity — стиглість
- moisture — волога
- marshy soil — заболочений ґрунт
- middle-ripening — середньостиглий
- marinate — маринувати
- mite — кліщ
- meet sanitary requirements — відповідати санітарним вимогам

N

- nourish — годувати, живити
- nourishment — харчування, живлення, годівля
- nitrogen — азот
- nitrogen — fixing genes — бульбочкові бактерії які фіксують атмосферний азот
- nutrition — підживлення

- nutrient substances — поживні речовини
- nitrogen fertilizers — азотні добрива

O

- oats -овес
- omasum — книжка — третій відділ передшлунку жуйних тварин
- omnivorous animal — всеїдна тварина
- overload slip clutch — запобіжна фрикційна муфта
- onion — цибуля

P

- plough — орати
- plough — плуг
- plant raising — рослинництво
- pure breed — чиста порода
- pregnant — вагітний
- parturition — роди
- poultry — домашні птахи
- pancreas — підшлункова залоза
- poult — індичатко
- pulley — блок, шків
- produce a very level surface — давати дуже рівну поверхню
- power harrows -важкі борони
- poultry droppings — пташиний послід
- phosphorus — фосфор
- peat — торф
- potassium — калій
- particle — частка
- preparation — препарат
- processing — обробка
- plant — breeder селекціонер
- pest resistance — протидія шкідникам
- precipitations — опади
- perennial — багаторічний
- pitch — смола
- phosphorous fertilizers — фосфорні добрива
- potassium fertilizers — калійні добрива
- peach-tree — персик
- pear-tree — груша
- plum-tree — слива
- pasture — пасовище
- peat deposit — торфовище
- perennial — багаторічний
- polymowing — багатоукісний

- pesticides — пестициди
- pure — чистий

R

- rumen — рубець-перший відділ передшлунку тварин
- resource — ресурси
- rye — жито
- reticulum — сітка — другий відділ передшлунку жуйних тварин
- roughage — грубий корм
- ration — раціон
- respiration — дихання
- regular servicing — регулярне обслуговування
- road making — будівництво доріг
- right-handed mouldboard — право-стороння полиця
- reversible — оборотний, реверсний
- root crops — коренеплоди
- rotate — обертатися
- reel — мотовило
- range of plants — сівозміна
- ripening — наливання, стиглість
- react(to) — реагувати
- root system — коренева система
- raspberry — малина
- ripe — стиглий
- ripening — стиглість
- ripening proof — ознака стиглості
- root out — викорінювати
- range of grasses — сівозміна
- rodent — гризун
- rodenticides — родентициди
- rot on the stalk — гнити на корені
- rejuvenate — омолоджувати

S

- supply — забезпечувати
- sugar beets — цукрові буряки
- sunflower — соняшник
- spring crops — ярі культури
- sow — сіяти
- sugar beets production — виробництво цукрових буряків
- spring varieties — ярі культури
- stomach — шлунок
- suckle — згодовувати, давати ссати вим'я, смоктати

- sow — свиноматка
- swallow — ковтати
- starch — крохмаль
- squeeze — вижимати
- supply — постачати
- shaft — вал відбору потужності слід,
- soil engaging parts — ґрунтоза-хватні частини
- soil — ґрунт
- seedbed — рілля, підготовлений до посіву ґрунт
- slice — пласт
- share — сошник, леміш
- self-propelled — самохідний
- space — простір
- speed — швидкість
- separate — відокремлювати
- sieve — сито, решето
- straw — солома
- seeds — насіння
- sewage waste — каналізаційні відходи
- sandy loam — супіщаний ґрунт
- stunt — затримка в рості
- stunted — низькорослий
- selection — селекція
- simultaneously — одночасно
- spring wheat — яра пшениця
- sticky substance — клейковина
- swath — валок
- sowings — посіви
- sensitive — чутливий
- soil acidity — кислотність ґрунту
- solution — розчин
- superphosphate — суперфосфат
- shale — сланець
- sample — зразок
- seedling — саджанець
- stem — стебло
- stock — треста
- sugar amount — маса цукру
- sugar beet top — гичка цукрових буряків
- sprout — проростати
- soil tillage — обробка ґрунту
- strawberry — полуниця
- salt solution — розчин солі
- sorrel — щавель

- spot — пляма
- spray — оприскувати
- swell — набрякати
- soil tillage — обробка ґрунту

T

- thresh — молотити
- technical crops -технічні культури
- Tamworth — тамворс, англійська порода свиней м'ясного напрямку
- thrive — швидко рости
- turkey — індик
- three-point linkage — триточковий навісний пристрій
- track load — гусениця вантаж
- tyre — шина, покришка
- trailed — причіпний
- tine — зуб
- tank — бак, резервуар
- tubers — коренеплоди
- tillage — обробіток ґрунту з допомогою с/г знарядь
- to till — обробляти
- tilled crop — пропашна культура
- transfer — передавати
- temperate climate — помірний клімат
- turf-podzol soil — дерново-підзолистий ґрунт
- tomatoes — помідори

U

- unfavorable weather conditions — несприятливі погодні умови
- utensils — посуд
- underground amount — підземна
- utilization — використання
- uninfectious — неінфекційний

V

- viticulture — виноградарство
- variety — сорт
- volatile oil — ефірна олія

W

- wheat — пшениця
- winter crops — озимі культури
- winter varieties — озимі культури
- wasp — матка

- water — напувати
- wheeled tractor — колісний тракторнеобхідний — збільшувати вимірювати
- with up to six mouldboards — з числом полиць, що досягає шести
- windrow harvesting — роздільне збирання
- winter wheat — озима пшениця
- weak acid reaction— слабка кислотна реакція
- warm — прогрівати
- weeds — бур'яни
- warmth — тепло
- wax — віск
- waxen film — восковий наліт

Y

- yellow jacket bee - бджола-охоронець
- yield capacity — врожайність

Z

- zinc — цинк

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