**Міністерство освіти і науки України**

**МИКОЛАЇВСЬКИЙ Національний університет**

**імені В.О. Сухомлинського**

Кафедра іноземних мов

**Навчально-методичнЕ ЗАБЕЗПЕЧЕННЯ**

**З навчальної дисципліни**

**ІНОЗЕМНА МОВА (ЗА ПРОФЕСІЙНИМ СПРЯМУВАННЯМ)**

Для напряму/спеціальності 014.05 Середня освіта (Біологія), 014.06 Середня освіта (Хімія), 091 Біологія

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1. **ПЛАНИ ПРАКТИЧНИХ ЗАНЯТЬ**

**ПРАКТИЧНЕ ЗАНЯТТЯ № 1-2**

**I. Організаційна частина.**

1. Повідомлення теми, мети заняття.

**Тема заняття:** Я студент біологічного факультету.

**Дидактична мета:**

***Студенти повинні знати:***

* активну лексику за темою, яка вивчається;
* правила утворення та вживання граматичних часів групи Simple;
* значення біології як науки для людини і суспільства;
* форми минулого часу неправильних дієслів.

***Студенти повинні вміти:***

* правильно вимовляти, вживати у власному мовленні, сприймати на слух активну лексику за темою, яка вивчається;
* вживати граматичні часи групи Simple в усному та писемному мовленні;
* читати текст з повним розумінням прочитаного;
* пояснювати та обговорювати значення біології як науки для людини і суспільства.

**Виховна мета:**

* формування навичок виконання дій професійної діяльності;
* формування позитивної мотивації до вивчення англійської мови;
* розвиток навичок ділового спілкування;
* розвиток аналітичних навичок.

***Ключові слова:*** Biology, biologist, discovery, living things, science, scientific problem, scientific method

2. Актуалізація опорних знань і контроль вихідного рівня знань студентів.

*What is biology?*

*Why is biology important?*

3. Мотивація навчальної діяльності.

*Why did you choose to study biology?*

**II. Зміст основної частини заняття (перелік практичних завдань):**

**1. Read the following words and guess their meaning:**

|  |
| --- |
|  |

**2. Read and translate the text:**

**BIOLOGY IN OUR LIFE**

Biology is the science of life and people who are engaged in it are called biologists. They study the secrets of living things. Their discoveries are of great value to all mankind.

Biology tells us about our body: how it is constructed and how it functions. It gives us important information about other living things and how their lives affect mankind. Knowledge of biology will help you to keep healthy. It will be your guide in solving many of everyday living and scientific problems.

Biologists made a great contribution to science. They increased our food supply, they developed new and better varieties of plants and animals. Scientific methods of farming gave us much more food. Biologists control many diseases. They saved millions of lives by discovering the causes of these diseases and methods of prevention and cure. Vaccines, penicillin and other antibiotics are products of the biological laboratory.

Biologists solved many mysteries of the body. They discovered how blood circulates, how food is digested and many other secrets of life. They are now working in different fields of biology and their studies may lead to a solution of many problems.

A biologist's laboratory is a fascinating place. In it you may find a variety of plants and animals, some of which are invisible to the naked eye. There are powerful microscopes and other instruments. One of the most important tools of a scientist is his laboratory notebook. He always keeps very complete and accurate records of his observations and experiments.

In carrying out his work biologists use the scientific method that is:

1) They find out everything that is known about the problem by reading or by discussing the matter with others.

2) They think of several possible explanations or solutions. Some of these will prove to be wrong. One or more of the others may be right.

3) They test all the possibilities by experiments. They repeat the experiment several times. They make every effort to prevent errors.

4) When they reach a conclusion, they inform other scientists who may repeat the work.

**Notes to the text:**

to be of great value – мати велике значення, цінність

to keep healthy – бути здоровим

to make a contribution – зробити внесок

to be acquainted with – бути ознайомленим з

according to – згідно з

to do one's best – старатися

**3. Translate the following words bearing in mind the meaning of the affixes and memorize them:**

to engage (v), engagement (n)

to discover {v)), discoverer (n), discovery (n)

to value (v), value (n), valuable (adj)

to construct (v), construction (n), constructive (adj)

importance (n), important (adj)

to know (v), knowledge (n)

to develop (v), developer (n), development (n)

to vary (v), variety (n); variation (n), various (adj), variable (adj)

to acquaint (v), acquaintance (n) mystery (n), mysterious (adj)

to observe (v), observer (n), observation (n)

to specialize (v), specialist (n), speciality (n), special (adj)

**4. State the parts of speech and underline the suffixes:**

science, information, to function, engagement, to circulate, biological, preventive, digestion, constructor, possibility, to repeat, knowledge, various, specialize, to inform

**5. Supply the three forms of the following verbs:**

to tell, to say, to speak, to give, to keep, to make, to lead, to begin, to be, to do, to choose, to know

**6. Define the tense of the predicate and put the sentences into the interrogative and negative forms:**

1. He is a good biologist.
2. These scientists work at a very interesting problem.
3. He solved this difficult problem.
4. My teacher developed a new plant.
5. They began to investigate this problem last year.
6. Animals and plants live under different conditions.
7. Life exists in many places on the earth.
8. Some animals can exist under the immense pressure of the deep seas.
9. Biologists solved many mysteries of the body.
10. Students of the biological faculty study different subjects.

**ІІІ. Підбиття підсумків заняття.**

1. Узагальнення та систематизація вивченого.

*What is the role of biology in the history of society?*

*What is the role of biology in the modern society?*

1. Оголошення завдання для самостійної роботи.

**Get ready for the following imaginary situations:**

1. You are the Dean of the biological faculty. Tomorrow you are to speak to the first-year students. What would you tell them? What would you wish your future students?

2. Students of various faculties meet at a tourist camp. Everybody speaks about the importance of the science he studies. Prove that biology is the most vital of all the sciences.

1. Повідомлення оцінок за роботу на занятті та їх обґрунтування.

**ПРАКТИЧНЕ ЗАНЯТТЯ 3-4**

**I. Організаційна частина.**

1. Повідомлення теми, мети заняття.

**Тема заняття:** Біологія у нашому житті.

**Дидактична мета:**

***Студенти повинні знати:***

* активну лексику за темою, яка вивчається;
* правила утворенні дієприкметника теперішнього часу;
* правила утворення та вживання граматичних часів групи Continuous;
* категорії дієслів, які не вживаються у часах групи Continuous.

***Студенти повинні вміти:***

* правильно вимовляти, вживати у власному мовленні, сприймати на слух активну лексику за темою, яка вивчається;
* вживати граматичні часи групи Continuous в усному та писемному мовленні;
* читати текст з метою пошуку специфічної інформації;
* пояснювати та обговорювати процес і зміст навчання на біологічному факультеті.

**Виховна мета:**

* формування навичок виконання дій професійної діяльності;
* формування позитивної мотивації до вивчення англійської мови;
* розвиток навичок ділового спілкування;
* розвиток аналітичних навичок.

***Ключові слова:*** student, Faculty of Biology, botany, zoology, anatomy, chemistry, microbiology, physiology of man and animals, of physiology of plants, genetics, soil science, conservation of nature, bionics, biophysics, biochemistry, post-graduate course of study.

2. Актуалізація опорних знань і контроль вихідного рівня знань студентів.

*What is biology?*

*What are the main branches of Biology?*

3. Мотивація навчальної діяльності.

*Which branch of Biology is the most interesting for you?*

**II. Зміст основної частини заняття (перелік практичних завдань):**

**1. Read and translate the text and reproduce it:**

I am a student of the Faculty of Natural Sciences. Our faculty is one of the largest faculties of the University. We study different subjects: Botany, Anatomy, Microbiology and many others. Besides these subjects we study Economy, Philosophy and English. We study English to be able to read scientific books on biology.

There are many departments in our faculty: of botany, of zoology, of microbiology, of physiology of man and animals, of physiology of plants, of genetics, of soil science, of conservation of nature, of bionics, etc. Besides there are research laboratories and museums. Every student has an opportunity to work in modern, well-equipped laboratories, where different problems of biology are under investigation.

Students are acquainted with all branches of biology. They are lectured in various subjects of natural science, namely botany, zoology, anatomy, microbiology, biophysics, biochemistry, soil science, bionics, genetics.

During the first two years they attend lectures on mathematics, physics, chemistry, political subjects and foreign languages. In the third year more narrow specialization begins. They have several specialized courses and additional practical and research work in the subject they chose as their future speciality. Besides attending lectures they may join some scientific circle and choose a problem to work on according to their bents. All of them know that biology is the science of glorious past and great future. They do their best to acquire as much knowledge as possible.

Graduates of the biological faculty are assigned to work at laboratories, schools, research institutes. Those who have a bent for research work may apply for a post-graduate course of study.

**2. Translate the text without a dictionary trying to guess the meaning of the unfamiliar words from the context:**

Biology gives us an acquaintance with the world of living things and an understanding of some of the great fundamental laws and processes of nature. There are many special fields of knowledge and many phases and principles to which elementary training in general biology is essential.

These include medicine, physiology, agriculture, horticulture, forestry, sanitation, hygiene and many others. Because man is an organism subject to the same laws which govern all living things and is built according to the same plan as other higher animals, an elementary knowledge of biology gives us a basis for an understanding of our own body.

**3. Translate the following into English:**

Біологія – наука про живі організми. Вона вивчає таємниці живої природи: як влаштовані живі організми, як вони функціонують. Результати досліджень біологів мають велике значення для розвитку багатьох галузей науки. Відкриття біологів допомагають розв’язати багато проблем сучасної науки, зрозуміти взаємозв’язок (interrelation) між живими організмами та оточуючим середовищем (environment). Визначення сутності життя (essence of life) – одне з провідних завдань загальної біології.

**ІІІ. Підбиття підсумків заняття.**

1. Узагальнення та систематизація вивченого.

*What brunches of biology are there?*

*Explaine briefly their main aims.*

1. Оголошення завдання для самостійної роботи.

**Get ready for the following imaginary situations:**

1. You are to write a report about the work of the biologists of your faculty. You wrote a little. Ring your friends up, tell them what you already wrote and ask them what can be added.

2. You are discussing hobbies and professional interests with your friends. Tell your new friends about your hobby groups, clubs and circles of your institute.

3. You are working at a biological laboratory. Suddenly the door opens and a man comes in. “It's a chemical laboratory, isn't it?”, he asks. Tell him about your laboratory and its peculiarities.

1. Повідомлення оцінок за роботу на занятті та їх обґрунтування.

**ПРАКТИЧНЕ ЗАНЯТТЯ 5-6**

**I. Організаційна частина.**

1. Повідомлення теми, мети заняття.

**Тема заняття:** Біологія як наука.

**Дидактична мета:**

***Студенти повинні знати:***

* активну лексику за темою, яка вивчається;
* правила утворенні дієприкметника теперішнього часу;
* правила утворення та вживання граматичних часів групи Continuous;
* категорії дієслів, які не вживаються у часах групи Continuous.

***Студенти повинні вміти:***

* правильно вимовляти, вживати у власному мовленні, сприймати на слух активну лексику за темою, яка вивчається;
* вживати граматичні часи групи Continuous в усному та писемному мовленні;
* читати текст з метою пошуку специфічної інформації;
* пояснювати та обговорювати процес і зміст навчання на біологічному факультеті.

**Виховна мета:**

* формування навичок виконання дій професійної діяльності;
* формування позитивної мотивації до вивчення англійської мови;
* розвиток навичок ділового спілкування;
* розвиток аналітичних навичок.

***Ключові слова:*** scientific study of living things, subdivision, botany, zoology, organism, exist, living substance, living matter, general properties.

2. Актуалізація опорних знань і контроль вихідного рівня знань студентів.

*What is the origine of the term ‘Biology’?*

3. Мотивація навчальної діяльності.

*What are the similarities and differences between plants and animals?*

**II. Зміст основної частини заняття (перелік практичних завдань):**

***Ключові слова:*** scientific study of living things, subdivision, botany, zoology, organism, exist, living substance, living matter, general properties.

**Хід заняття:**

1. **Read the following words and guess their meaning:**

|  |
| --- |
|  |

**2. Read and translate the text:**

**BIOLOGY AS A SCIENCE**

Biology is the science of living things. The word "biology" comes from two Greek words: bio – "life" and logos – "discourse" or "study". Biology includes all the facts and principles which are derived from a scientific study of living things. The special study of plants, called Botany, and of animals, called Zoology, are the two great subdivisions of the science of biology. Plants and animals are called organisms, so biology may also be defined as the science of organisms.

Life exists in many places on the earth, often in spite of very difficult conditions. In the Arctic regions, the temperature may fall to 60 degrees below zero, while in deserts it may climb to over 120 degrees. Some animals live under the immense pressure of the deep seas, and others live near the tops of the highest mountains. But no matter where they exist, all living things must have certain necessary conditions. Let us see what these are: living things need oxygen, living things must have the right amount of pressure, living things must have water, living things need the proper temperature, living things must have food.

Most people think that plants are not alive in the same sense that animals are, or that there is some fundamental difference between plant and animal life. But this is not so. Plants and animals have much in common. Their more important points of resemblance are: 1) The living substance of plants and animals is organized into protoplasm. Protoplasm is the basic material of all living systems and its general properties are fundamentally the same in each system both in plants and animals. 2) The living matter is organized in both plants and animals into microscopic units called cells. 3) Certain vital processes take place in plant bodies in the same manner as in animal bodies. These processes are respiration, digestion, assimilation, growth and reproduction. 4) Both animals and plants cannot live without water, air, food, light and moderate amount of heat. They both are of different shapes, sizes and colours. In fact, the differences are not so many as the likenesses although they are more apparent, for only three are important, namely: plants are not conscious, they are unable to move about, they make their own food.

**Notes to the text:**

In the same sense— в тому самому сенсі, що й...

of the same kind— того ж виду, сорту

to be certain — бути впевненим

no matter — неважливо

in spite of — незважаючи на

**3. Translate the following words bearing in mind the meaning of the affixes and memorize them:**

to specialise (v), specialist (n), speciality (n), special (adj), specialization (n), especially (adv)

science (n), scientist (n), scientific (adj), scientifically (adv)

to include (v), to exclude (v), inclusion (n), inclusive (adj)

to derive (v), derivation (n), derivative (adj)

to divide (v), division (n), divisor (n), divisible (adj)

to define (v), definition (n), definite (adj)

to differ (v), difference (n), different (adj), differently (adv)

indifference (n), indifferent (adj), indifferently (adv)

to resemble (v), resemblance (n)

**4. Form adverbs from the following adjectives and translate them:**

inclusive, scientific, definite, different, special, certain, common, fundamental, apparent

**5. Give synonyms for the following words:**

to exist, immense, to form, to need, same, fundamental, some, common, vital, manner, to call, certain, main, likeness, right, basic, high, to resemble, general

**6. Translate the sentences into Ukrainian:**

1. I like both of these plants.
2. I like both the flowers and the leaves of this plant.
3. Both functions of this organ are important.
4. Both water and air are necessary for the living organisms.
5. General properties of protoplasm are the same both in plants and animals.
6. Both plants and animals cannot live without water.
7. Both these plants are of the same shape and size.

**7. Supply the Infinitives of the following verbs:**

told, gave, known, made, led, came, thought, taken, called, climbed, put, written, included, defined, saw

**ІІІ. Підбиття підсумків заняття.**

1. Узагальнення та систематизація вивченого.

*What are the main points of recemblance between plants and animals?*

*How do living things differ from nonliving ones?*

1. Оголошення завдання для самостійної роботи.

**Get ready for the following imaginary situation:**

*The boy next door is in the fifth form. He states that he studies botany but not biology. Explain his mistake to him.*

1. Повідомлення оцінок за роботу на занятті та їх обґрунтування.

**ПРАКТИЧНЕ ЗАНЯТТЯ 7-8**

**I. Організаційна частина.**

1. Повідомлення теми, мети заняття.

**Тема заняття:** Біологія – наука про живі організми.

**Дидактична мета:**

***Студенти повинні знати:***

* активну лексику за темою, яка вивчається;
* правила утворення та вживання основних граматичних часів в англійській мові.

***Студенти повинні вміти:***

* правильно вимовляти, вживати у власному мовленні, сприймати на слух активну лексику за темою, яка вивчається;
* вживати основні граматичні часи англійської мови в усному та писемному мовленні;
* читати текст з метою пошуку специфічної інформації;
* пояснювати та обговорювати спільні характеристики живих організмів.

**Виховна мета:**

* формування навичок виконання дій професійної діяльності;
* формування позитивної мотивації до вивчення англійської мови;
* розвиток навичок ділового спілкування;
* розвиток аналітичних навичок.

***Ключові слова:*** branch, environment, sense organs, endocrine system, nervous system, hormones, external stimuli

2. Актуалізація опорних знань і контроль вихідного рівня знань студентів.

*What is the difference in the way plants and animals respond to external stimuli?*

3. Мотивація навчальної діяльності.

*What are the similarities and differences between plants and animals’ nervous systems?*

**II. Зміст основної частини заняття (перелік практичних завдань):**

**1. Translate the text into Ukrainian; say what new information about plants and animals you got from it:**

Biology is the study of living things. In studying them we learn the relations of plants and animals to one another, with the world around them and how we can control them. Biology is commonly divided into two branches – botany and zoology. Both animal and plant life is continually changing and there are great differences and likenesses between them.

All organisms are capable of responding to changes in the environment by reacting to external stimuli.

In animals this coordination and response to stimuli are accomplished by sense organs and the endocrine and nervous systems.

Plants lack a nervous system, and specific sense organs, but they respond to external stimuli and their chemical coordination in somewhat analogous to that regulated by the endocrine system of animals.

Both plants and animals have hormones. These substances are produced in one part of the organism and in very small amounts, influence specific psychological processes when transported to another part of the organism. Plant hormones, however, are not produced in specific glands as animal hormones are, and they differ chemically from the hormones of animals, being in general simpler substances. Other substances which act like hormones but are not known to be produced by the plant are called plant regulators. The study of plant hormones and these synthetic substances is one of active fields of plant physiological research and their use in agriculture has become very important.

**2. Translate the following sentences into Ukrainian, paying attention to the various meanings of "to have", "to be" and ways of translating different modal verbs:**

1. Variation in plants is the basis for plant improvement.
2. These plants are improved by us.
3. They are at the University now but they are to meet here.
4. The crop yields are to be increased this year.
5. He has a lot of literature on this subject.
6. He has to translate a new article so he will have to work the whole evening.
7. You must read this book.
8. You have to read this book.
9. You should read this book.
10. You are to read this book.
11. You ought to read this book.
12. We have to develop new varieties of plants.
13. We had to adapt the plants to new conditions.
14. We shall have to create suitable conditions for this experiment.
15. Our teacher is to be here at 9 o'clock.
16. The principle of isotope analysis can also be applied in cases where a greater number of substances are to be determined.
17. This plant has to be treated with cold.
18. We have to read much to become good specialists.
19. These fruits are to be crossed.
20. The structure of this soil had to be improved.
21. You ought to plant this seed in spring.
22. The grain had to pass through a low temperature stage.

**3. Find the subject and the predicate and put questions to all parts of the sentence:**

1. Most of the animals have great importance for man.
2. Bodies of plants and animals contain inorganic substances.
3. We shall consider plants and animals together.
4. Biology became more dependent on other sciences.
5. Certain vital processes take place in plant body every season.
6. These plants differ greatly in size.

**4. Answer the following questions:**

1) What is biology? Define it.

2) What do you call the science of living organisms?

3) What elements does living matter consist of?

4) Are plants and animals similar in their fundamental composition? What are the differences and similarities?

5) How can biology be defined?

6) What does the word "biology" mean?

7) Do plants and animals depend upon one another?

8) How do plants or animals differ from lifeless things?

**5. Read the text; guess the meaning of the unfamiliar words from the context:**

In external appearance, plants are usually green. Some plants have varied and colourful flowers and others have no apparent blossoms. Among animals there is great variety of sizes, shapes and colours. The basic difference between plants and animals lies in the unit of structure and function of each, namely, the cell. Plant cells have a cell wall which is actually nonliving in chemical nature.

Animal cells do not have this.

**6. Translate into English:**

Живі організми живуть в різних умовах. Деякі з них можуть існувати за дуже високих температур, інші легко переносять сильні морози. Все вони повинні пристосовуватися до оточуючого середовища.

Біологія вивчає життєві процеси як у тварин, так і у рослин. Ці два великі підрозділи біології називаються ботанікою и зоологією. Як рослини, так і тварини повинні мати певні умови для існування. І ті, й інші не можуть жити без повітря, води, їжі та світла. Однакові життєві процеси відбуваються як у тварин, так і у рослин. Ці процеси називаються диханням, травленням, ростом и розмноженням.

Дуже важливий принцип живих організмів – це здатність реагувати на зовнішні подразники. Тварини реагують на зовнішні подразники через нервову систему и органи чуття. Рослини також пристосовуються до оточуючого середовища і реагують на зовнішні подразники. Однак механізм реакції подразнення у рослин сильно відрізняється від тваринного.

**ІІІ. Підбиття підсумків заняття.**

1. Узагальнення та систематизація вивченого.

Write a brief summary of the texts in English. Be prepared to speak on the topic "Differences and Similarities between plants and animals".

1. Оголошення завдання для самостійної роботи.

**Get ready for the following imaginary situations:**

1. One of your friends believes that only animals are living organisms, another one thinks that both animals and plants are alive with no difference whatsoever. Are they right? Why? Discuss the ways in which living things differ from lifeless objects.

2. Your friend alleges that there is no life on the bottom of deep seas. Prove that life exists nearly everywhere on earth. What evidence can you give to prove this?

3. Повідомлення оцінок за роботу на занятті та їх обґрунтування.

**ПРАКТИЧНЕ ЗАНЯТТЯ 9-10**

**I. Організаційна частина.**

1. Повідомлення теми, мети заняття.

**Тема заняття:** Рослини та тварини.

**Дидактична мета:**

***Студенти повинні знати:***

* активну лексику за темою, яка вивчається;
* загальну інформацію про правила побудови, інтонування та вживання питань різних типів в англійській мові.

***Студенти повинні вміти:***

* правильно вимовляти, вживати у власному мовленні, сприймати на слух активну лексику за темою, яка вивчається;
* давати відповіді на питання різних типів в різних часових формах;
* читати текст з повним зрозумінням прочитаного;
* пояснювати та обговорювати спільні риси та відмінності рослин та тварин.

**Виховна мета:**

* формування навичок виконання дій професійної діяльності;
* формування позитивної мотивації до вивчення англійської мови;
* розвиток навичок ділового спілкування;
* розвиток аналітичних навичок.

***Ключові слова:*** plants, animals, the animal kingdom, the plant kingdom, difference, likenesses, plant-like cells, classify, vertebrates, іnvertebrates, chlorophyll.

2. Актуалізація опорних знань і контроль вихідного рівня знань студентів.

*What are two main subdivisions of living things?*

3. Мотивація навчальної діяльності.

*How many kinds of plants and animals are there in the world?*

**II. Зміст основної частини заняття (перелік практичних завдань):**

1. **Read the following words and guess their meaning:**

|  |
| --- |
|  |

**2. Read and translate the text:**

**ANIMALS AND PLANTS**

No one knows how many different kinds of plants and animals there are. Some scientists estimate the number at three million. Many of them provide us with food, clothing, shelter and medicines. Some, including several kinds of insects, pierce our skin and feed on the blood. Others, both plants and animals, even live and grow inside our bodies. In this way they may cause diseases. You can see why scientists study living things with great care. Our lives may depend on how much we have learned about the living things around us.

Because there are so many different kinds of plants and animals, the task of the biologists is not an easy one. Up to the present time it was named and described more than 840,000 kinds of animals and 345,000 kinds of plants, to keep track of this great number of living things a system of classification has been set up. Plants and animals are sorted into groups according to the way they are built. For example, the tiger, the leopard, and the lion will be all grouped together. All of them belong to the cat family. All the members of the cat family, in turn, belong to a larger group that includes such meat-eating animals as the dog, the bear. They have teeth that are built for tearing and cutting flesh. Their sharp claws help them to capture and eat their prey. In this way, all plants and animals were classified by their structure. All living plants and animals were divided into two kingdoms: the animal kingdom and the plant kingdom.

Among the smallest and simplest living things there are some that are difficult to classify. There are tiny plant-like cells that can swim about actively in the water. In some cases, the classification of these is still in doubt.

The animal kingdom, as we have seen, includes many thousands of different animals. Scientists classify them further as follows:

Animal kingdom:

A. Invertebrates (Animals without backbones)

1. One-celled animals
2. Sponges
3. Cup animals (jelly-fishes and corals)
4. Spiny-skinned animals (star-fishes and their relatives)
5. Worms
6. Molluscs (oysters, snails, squids)
7. Jointed-legged animals (lobsters, spiders, insects)

B. Vertebrates (Animals with backbones)

1. Fishes
2. Amphibians (frogs, toads, salamanders)
3. Reptiles (snakes, lizards and turtles)
4. Birds
5. Mammals

The plant kingdom includes tiny one-celled plants that can be seen only with a powerful microscope and the great redwood and sequoia trees of the Pacific coast, the oldest and the largest living things on earth.

Down through the ages, man has relied upon plants for many of his needs. The beauty of plants enriches our lives. Most important of all is the fact that the other living things in our world could not exist very long without their plant neighbours.

Some plants have no roots, stems or leaves. Some of them consist of only one cell. Others, like the giant seaweeds may be more than 100 feet long. They are divided into two main groups. The algae have green chlorophyll. They can make their own food. The fungi have no chlorophyll. They must get their food from other plants and animals.

**Notes to the text:**

in this way – таким чином

in turn – у свою чергу

up to the present moment – до теперішнього моменту

to take саге – турбуватися, дбати

**3. Translate the following words bearing in mind the meaning of the affixes and memorize them:**

to estimate (v), estimation (n), estimate (n)

to provide (v), provider (n)

care (n), careful (adj), careless (adj), carefully (adv) .

to depend (v), dependent (n), independence (n), dependent (adj)

to describe (v), description (n), descriptive (adj)

to classify (v), class (n); classification (n)

to act (v), actor (n), actress (n), action (n), active (adj)

power (n), powerful (adj), powerless (adj)

beauty (n), to beautify (v), beautiful (adj)

**4. Supply the nouns corresponding to the following verbs:**

to construct, to engage, to develop, to include, to estimate, to differ, to resemble, to provide, to know, to divide, to derive, to depend, to discover, to vary, to acquaint, to define, to value, to specialize, to describe, to classify, to act

**5. Translate the following word-combinations into Ukrainian and use them in the sentences of your own:**

to do one's best, to be certain, in spite of, to keep track, in common, no matter, in turn, according to, in this way, to take care, to be of great value, to keep healthy, to make a contribution, of the same sense

**6. Give another word or phrase of similar meaning to the following:**

substance, to be similar to, to study, to consider, to construct, discovery, important, resemble, minute, earth, century

**ІІІ. Підбиття підсумків заняття.**

1. Узагальнення та систематизація вивченого.

*Are plans and animals interconnected on the earth? In what way?*

1. Оголошення завдання для самостійної роботи.

Get ready for the following imaginary situations:

*You are going to be a guide for a group of schoolchildren who have come to visit your faculty. Tell them about the biological museum and what they will see there.*

1. Повідомлення оцінок за роботу на занятті та їх обґрунтування.

**ПРАКТИЧНЕ ЗАНЯТТЯ 11-12**

**I. Організаційна частина.**

1. Повідомлення теми, мети заняття.

**Тема заняття:** Підрозділи біології.

**Дидактична мета:**

***Студенти повинні знати:***

* активну лексику за темою, яка вивчається;
* правила побудови, інтонування та вживання загальних питань в англійській мові.

***Студенти повинні вміти:***

* правильно вимовляти, вживати у власному мовленні, сприймати на слух активну лексику за темою, яка вивчається;
* вживати та інтонувати питання загального типу в різних часових формах в умовно-комунікативних та комунікативних ситуаціях;
* читати текст з загальним зрозумінням прочитаного;
* пояснювати, порівнювати та обговорювати функції рослинних та тваринних організмів.

**Виховна мета:**

* формування навичок виконання дій професійної діяльності;
* формування позитивної мотивації до вивчення англійської мови;
* розвиток навичок ділового спілкування;
* розвиток аналітичних навичок.

***Ключові слова:*** plants, animals, life functions, sensation (irritability), motion, food-taking, nutrition (digestion, absorption, circulation, assimilation), respiration, excretion, reproduction.

2. Актуалізація опорних знань і контроль вихідного рівня знань студентів.

*What are the groups of living things generally defined by scientists?*

3. Мотивація навчальної діяльності.

*What are the principles living organisms are divided into groups?*

**II. Зміст основної частини заняття (перелік практичних завдань):**

**1. Answer the questions:**

1. How many different kinds of animals and plants exist in the world?
2. Why is the classification of living things necessary?
3. How are living things sorted into groups?
4. What are the differences between animal and plant kingdoms?
5. How do men use plants and animals?

**2. Translate into English:**

**I.**

1) Чим займається твій брат? – Він біолог. – А чим він займається зараз? – Працює в лабораторії. Я телефонував йому півгодини тому.

2) Не приходьте до мене завтра о другій. У цей час я буду займатися зі своїм учнем і не зможу з вами поговорити.

3) Де ваш друг? – Він у читальному залі. Він вивчає там класифікацію безхребетних тварин.

4) Що ви робили вчора о 8 вечора? – Я закінчив свої справи і займався перекладом нової статті з мікробіології. Я вивчаю англійську мову за професійним спрямуванням і щоденно перекладаю тексти з наукових журналів.

**II.**

Вченні стверджують, що існує понад мільйон різних видів рослин та тварин. Рослини та тварини сильно відрізняються одне від одного розмірами, виглядом, кольором тощо. Ці відмінності добре видно, якщо порівняти рослини, трави, дерева, квіти або різних комах, птахів, риб, людей. Незважаючи на всі відмінності, живі організми мають багато спільного. Як рослини, так і тварини залежать одне від одного у підтриманні життєвих функцій.

**3. Translate the text into Ukrainian and then back into English, compare your version with the original:**

a) In this rich varied world there are large plants, like trees, some of which are the largest living things. There are plants, thousands of which can live in a squall drop of water. There are helpful plants that man cultivates, and harmful ones. Plants that live in water, and those that live only on land; plants that produce flowers and fruit, and others that do not; plants that live for hundreds of years and plants that live for only a few hours. Green plants are so common that you may never stop to think how wonderful and how important they are.

b) What life functions are? As we study more about plants and animals and how they live, we shall see that all of them perform several functions in common. These are called life functions. One way of studying animals and plants is to begin with their life functions. These life functions are: sensation (irritability), motion, food-taking, nutrition (digestion, absorption, circulation, assimilation), respiration, excretion and reproduction.

**4. Read one the following passages, without a dictionary and reproduce them to your groupmates:**

a) Visitors to Khosta, a resort on the Black Sea Coast, always go to see the great silver poplar, that grows there. Ten people with joined hands can just encircle the tremendous tree, rising sixty five metres above the ground. The unique plant is at least 160 years old.

b) Deep in the sea it is always dark, for sunlight cannot reach down more than about a half mile. The only light in all this vast darkness is made by animals them-selves. Certain squid which are cousins of octopuses, swim in schools and keep together by means of coded flashing lights. Many kinds of deep sea fish have lights on their bodies. It is believed that this beaming of light helps them to recognize their own kind.

c) Scientists know that all living organisms are luminous. But why? Hundreds of guesses were made and thousands of experiments staged. Now scientists established that luminosity of living organisms is their mode of jettisoning excessive energy, of "letting off steam", so to speak.

Is there any practical use to be had from the discovery? Yes. It was established that the luminosity of the organisms is connected with their general condition. Cells affected by cancer, for example, are less luminous than healthy ones. Thus one more method of discovering the presence of that illness has been found.

d) Plants are sensitive to sound. Indian botanists proved that by subjecting plants to sound of definite pitch, it is possible to stimulate or hinder their growth. A seven-year experiment showed that rice and tobacco are the most "musical" plants.

**ІІІ. Підбиття підсумків заняття.**

1. Узагальнення та систематизація вивченого.

*What life functions are? Define them.*

1. Оголошення завдання для самостійної роботи.

**Get ready for the following imaginary situations:**

1. Many people like to keep pets at home. Your friend is no exception. Ask him what animals he keeps. Tell him about plants and animals.

2. Your friend says that only animals cannot live without plants. What is your opinion?

3. Повідомлення оцінок за роботу на занятті та їх обґрунтування.

**ПРАКТИЧНЕ ЗАНЯТТЯ 13-14**

**I. Організаційна частина.**

1. Повідомлення теми, мети заняття.

**Тема заняття:** Історія виникнення таксономії.

**Дидактична мета:**

***Студенти повинні знати:***

* активну лексику за темою, яка вивчається;
* правила побудови, інтонування та вживання загальних питань в англійській мові.

***Студенти повинні вміти:***

* правильно вимовляти, вживати у власному мовленні, сприймати на слух активну лексику за темою, яка вивчається;
* вживати та інтонувати питання спеціального типу в різних часових формах в умовно-комунікативних та комунікативних ситуаціях;
* читати текст з загальним зрозумінням прочитаного, із загальним охопленням змісту, з метою пошуку специфічної інформації;
* пояснювати, обговорювати визначення ботаніки як підрозділу біології, класифікацію рослин;
* здійснювати усний та письмовий переклад наукового та науково0популярного тексту.

**Виховна мета:**

* формування навичок виконання дій професійної діяльності;
* формування позитивної мотивації до вивчення англійської мови;
* розвиток навичок ділового спілкування;
* розвиток аналітичних навичок.

***Ключові слова:*** plants, Plantae**,** liverworts, hornworts, mosses, club mosses, whisk ferns, horsetails, ferns, cycads, ginkgo tree, conifers, flowering plants.

2. Актуалізація опорних знань і контроль вихідного рівня знань студентів.

*What is the subject matter of Botany?*

3. Мотивація навчальної діяльності.

*What is the role of plants in ecosystem?*

**II. Зміст основної частини заняття (перелік практичних завдань):**

**1. Read and translate the text:**

**Botany** is the study of plants. The kingdom Plantae is divided into divisions (the term "division" was traditionally used instead of "phylum" as in the animals, but either term is now accepted).

* Hepatophyta, liverworts
* Anthocerophyta, hornworts
* Bryophyta, mosses
* Lycophyta, club mosses
* Psilotophyta, whisk ferns
* Sphenophyta, horsetails
* Pterophyta, ferns
* Cycadophyta, cycads
* Ginkgophyta, ginkgo tree
* Gnetophyta
* Coniferophyta, conifers
* Anthophyta, flowering plants
* Liliopsida, monocots
* Magnoliopsida, dicots

Of these, the best known to most people are Bryophyta (mosses), Pterophyta (ferns), Coniferophyta (conifers), which are cone-bearing plants, and Anthophyta (angiosperms), which are flowering plants. Angiosperms are divided into two groups, dicots and monocots. Dicots have two cotyledons (embroyonic leaves), while monocots have only one cotyledon.

The names "Pinophyta" and "Magnoliophyta" are often used for "Coniferophyta" and "Anthophyta". Likewise, the monocots and dicots are called "Liliopsida" and "Magnoliopsida" respectively.

**2. Read the text and define the characteristic features of trees:**

# Tree

A **tree** is defined as a perennial plant consisting of one or more large woody stems. The component parts of a tree are the roots, trunk(s), branches, twigs and leaves. A small group of trees growing together is called a grove or coppice, and a large population of mixed tree species is called a forest.

Tree stems consist mainly of transport tissues (xylem and phloem). In fact, wood consists of xylem cells, and the bark is primarily made of phloem.

The roots of a tree are generally embedded in earth and absorb water and nutrients from the surrounding soil. Above ground, the trunk gives height to the leaf-bearing branches to aid in their competition with other trees for sunlight. In many tree species, the branches spread so as to present the largest possible leaf surface area to the sun.

A tree may not have all the organs mentioned here: most palms do not have branches, the saguaro of North America has no functional leaves, and tree ferns do not have bark. Based on their rough shape and size, all these are nonetheless considered trees.

Some types of tree can grow to over 100 meters tall and/or live for several millennia if circumstances are optimal. A plant that is similar to trees, but generally having smaller, multiple trunks, is often called a shrub, although boundary between the two categories is not precise.

Several biotopes are defined largely by the trees that inhabit them, for example, the rainforest and the taiga.

Trees often serve as important symbols in mythologies and religions. Examples are Yggdrasil in the Norse Mythology, the Christmas Tree that is derived from Germanic mythology, the Tree of Knowledge of Judaism and Christianity, and the Bodhi tree in Buddhism.

Trees show a wide variety of leaf types and shapes, bark, flowers, fruit, etc. Trees occur in several diverse families of plants. The earliest trees were probably tree ferns, which once grew in vast forests. Later the conifers, ginkgos and cycads appeared (modern cycads no longer appear as trees). Most species of trees today are flowering plants, which were the most recent to appear. The list below gives some examples of well known trees and how they are typically classified.

**2. Read the texts and say if fruit and herb have anything in common:**

# Fruit

Botanically, a **fruit** is the ripened ovary of a flowering plant, dry or moist and fleshy. When discussing food, the term usually refers to fruits that are sweet and fleshy, especially ones that are not usually consumed by themselves at supper.

The two concepts partially overlap. Some culinary fruits are not fruits in the botanical sense, for example rhubarb: only the stems are edible.

On the other hand, some botanical fruits are not considered fruits in a culinary context. Gourds (e.g. pumpkins), tomatoes, and green peppers are fruits in the botanical sense, but are treated as vegetables in cooking. Some spices, such as allspice and nutmeg are botanically fruits. Some gymnosperms, such as juniper, have fleshy arils that resemble fruits.

Fig is an example of false fruit.

**Development**

After being fertilized, the ovary begin to expand, the petals fall off quickly, the stamen can stick to the base of the ovary for a while. Ovules develop into seeds. When the ovary becomes fleshy, it is a fruit. It continues to expand until the seeds have matured.

**Variations**

Some fruits have coats covered with spikes or hooked burrs, to prevent themselves from being eaten by animals and/or to stick to the hairs of animals, using them as dispersal agents.

Others fruits are elongated and flattened out naturally and become so thin like wings or helicopter. This is also an evolutionary mechanism to increase disperal distance.

# Herb

An **herb** is a plant grown for culinary or medicinal value. Typically, the green, leafy part of the plant is used. By contrast, spices are the seeds, berries, bark, or other parts of the plant. Herbs are distinguished from vegetables in that they are used in small quantities and provide flavor rather than substance to food.

Botanically, a herb is a plant that does not produce a woody stem.

"The herb" is also a slang term for cannabis.

**3. Read and translate the text in writing:**

# Seed

Technically speaking, a **seed** is the sexually produced gamete fusion of the sperm and ovum of a plant. A seed is the egg from which a new plant will grow under the proper conditions.

Seeds are contained in either a protective seed pod or a fruit while they are developing. Because a plant is unable to move from the spot where it is planted, and because a young plant will have trouble growing under the shade of its larger parent, many plants have evolved ways for their seeds to travel to a new location to grow there and to spread the population. Some seeds are attached to feather-light fibre parachutes that may be blown by the wind. Others have prickly burrs or spikes that will attach themselves to a passing animal's fur so that the animal will carry them away. Seedpods are often designed and shaped so that the seeds are flung away from the parent plant with great force when the seedpod springs open. And lastly, many seeds are contained within a sweet and juicy fruit that invites animals and birds to consume it. These seeds have a tough protective outer-coating so that while the fruit is digested, the seeds will pass through their host's digestive tract intact, and grow wherever they fall.

Some seeds require particular conditions to germinate, such as the heat of a fire (eg.many Australian native plants), or soaking in a body of water for a long period of time (e.g., mangrove and coconut).

The **kernel** is the essential part of a seed; all that is within the seed walls; the edible substance contained in the shell of a nut; hence, anything included in a shell, husk, or integument; as, the kernel of a nut. Also a single seed or grain; as, a kernel of corn.

**ІІІ. Підбиття підсумків заняття.**

1. Узагальнення та систематизація вивченого.

*Give the deffinition of the following: plants, Plantae****,*** *liverworts, hornworts, mosses, club mosses, whisk ferns, horsetails, ferns, cycads, ginkgo tree, conifers, flowering plants.*

1. Оголошення завдання для самостійної роботи.

*Choose a group of plants to prepare a report about its characteristics.*

1. Повідомлення оцінок за роботу на занятті та їх обґрунтування.

**ПРАКТИЧНЕ ЗАНЯТТЯ 15-16**

**I. Організаційна частина.**

1. Повідомлення теми, мети заняття.

**Тема заняття:** Карл Лінней.

**Дидактична мета:**

***Студенти повинні знати:***

* активну лексику за темою, яка вивчається;
* правила побудови, інтонування та вживання загальних питань в англійській мові.

***Студенти повинні вміти:***

* правильно вимовляти, вживати у власному мовленні, сприймати на слух активну лексику за темою, яка вивчається;
* вживати та інтонувати питання спеціального типу в різних часових формах в умовно-комунікативних та комунікативних ситуаціях;
* читати текст з загальним зрозумінням прочитаного, із загальним охопленням змісту, з метою пошуку специфічної інформації;
* пояснювати, обговорювати визначення зоології як підрозділу біології, класифікацію тварин;
* здійснювати усний та письмовий переклад наукового та науково-популярного тексту.

**Виховна мета:**

* формування навичок виконання дій професійної діяльності;
* формування позитивної мотивації до вивчення англійської мови;
* розвиток навичок ділового спілкування;
* розвиток аналітичних навичок.

***Ключові слова:*** animal, **evolutionary history, taxonomу,** segmented worm, snails, slugs, insects, crustaceans.

2. Актуалізація опорних знань і контроль вихідного рівня знань студентів.

*What is the subject matter of Zoology?*

3. Мотивація навчальної діяльності.

*What is the role of animals in ecosystem?*

**II. Зміст основної частини заняття (перелік практичних завдань):**

**1. Read and translate the text:**

**Animali/animals**

All animals are members of the Kingdom Animalia, also called Metazoa. This Kingdom does not contain prokaryotes (Kingdom Monera, includes bacteria, blue-green algae) or protists (Kingdom Protista, includes unicellular eukaryotic organisms). All members of Animalia are multicellular, and all are heterotrophs (that is, they rely directly or indirectly on other organisms for their nourishment). Most ingest food and digest it in an internal cavity.

Animal cells lack the rigid cell walls that characterize plant cells. The bodies of most animals (all except sponges) are made up of cells organized into tissues, each tissue specialized to some degree to perform specific functions. In most, tissues are organized into even more specialized organs. Most animals are capable of complex and relatively rapid movement compared to plants and other organisms. Most reproduce sexually, by means of differentiated eggs and sperm. Most animals are diploid, meaning that the cells of adults contain two copies of the genetic material. The development of most animals is characterized by distinctive stages, including a zygote, formed by the product of the first few division of cells following fertilization; a blastula, which is a hollow ball of cells formed by the developing zygote; and a gastrula, which is formed when the blastula folds in on itself to form a double-walled structure with an opening to the outside, the blastopore.

It is estimated that around 9 or 10 million species of animals inhabit the earth; the exact number is not known and all estimates are rough. Animals range in size from no more than a few cells to organisms weighing many tons, such as blue whales and giant squid. By far most species of animals are insects, with groups such as mollusks, crustaceans, and nematodes also being especially diverse. By this measure our own group, the vertebrates, is relatively inconsequential from a diversity perspective.

Research continues on the evolutionary relationships of the major groups of animals. For the sake of convenience, the Animal Diversity Web follows the system outlined in Hickman and Roberts (1994). For some groups we incorporate the results of current research in our classification and discussion.

**2. Read the text and define the main features of traditional system of classification of animals:**

## Organismal classification - evolutionary relationships and ranks

The diversity of living organisms on earth is truly astounding, almost overwhelming. Humans have come up with ways of organizing, or **classifying**, biological diversity throughout human history. Organisms can be classified according to any number of criteria, including overall similarities, colors, ecological functions, etc. However, it is generally agreed that the most useful way for scientists to organize biological diversity is to group organisms according to shared evolutionary history. This way the grouping not only results in an organized classification, it also contains and conveys information about our understanding of the **evolutionary history** of these groups.

Although our understanding of evolutionary relationships among organisms has greatly improved in the last century, it is by no means complete. Relationships among organisms, and groups of organisms, continues to be revised as new data becomes available. The rate of such revisions has increased in recent years primarily as a result of the huge amount of new molecular data (such as DNA sequences) that has been brought to bear on tests of evolutionary relationships. This means that nearly all **taxonomies** (systems of nomenclature) based on evolutionary relationships among organisms are being revised, sometimes radically so. Traditional ideas about how organisms are related, and in which groups they belong, often prove inaccurate.

Traditional, biological classification schemes included the idea of “ranks,” such as species, genus, family, order, class, etc. In this system (the Linnean system), for example, there is a Class Reptilia and a Class Aves. However, the bulk of evidence supports, and the majority of scientists now agree, that the group Aves belongs within the larger group Reptilia (birds share a most recent common ancestor with crocodiles, which are generally included in the Class Reptilia). Within a traditional, Linnean system of classification this means that either the Class Aves is demoted to something below a class, or that a class (Aves) exists within another class (Reptilia). Problems such as this have prompted many scientists to propose that a system of naming and classification of biological diversity be rank-free. Classification systems then only indicate the hierarchical structure of groups according to the current understanding of their evolutionary history, leaving out rank labels.

**Glossary of terms related to classification and naming of organisms:**

**Classification** – a system of naming objects or entities by common characteristics. In a biological sense, classification is the systematic grouping of organisms based on structural or functional similarities or evolutionary history. A process of establishing, defining, and ranking taxa within hierarchical series of groups.

**Taxonomy** – the classification of organisms into a system that indicates natural relationships (evolutionary relationships); the theory and practice of describing, naming, and classifying organisms.

**Systematics** – the systematic classification of organisms and the evolutionary relationships among them; taxonomy.

**Phylogeny** – the evolutionary history of a group or lineage.

**Nomenclature** – the system of scientific names applied to taxa (groups of organisms).

**3. Read a part of the text and tell your groupmates about the group you read:**

# Segmented worms (Annelida)

The animals in the Annelida are segmented worms. They have no legs, and no hard skeleton. Unlike mollusks, annelid bodies are divided into many little segments, like rings joined together. There are many other kinds of worms, but only annelids are segmented this way. There are three main groups of annelids, the earthworms (and their relatives), the leeches, and a big group that lives in the ocean and are called polychaetes (pol-ee-keets). We only have information about earthworms and leeches in the Critter Catalog.

# Snails and slugs (Gastropoda)

## What do they look like?

The Class Gastropoda includes snails and slugs. Most gastropods have a single, usually spirally coiled shell, but the shell is lost or reduced in some groups. Many snails have an operculum, a plate that closes the gastropod's opening. Shelled gastropods have mantles, while those without shells have reduced to absent mantles.

Gastropods have a muscular foot used for creeping in most species. In some, the foot is modified for swimming or burrowing. Most gastropods have a well-developed head that includes eyes at the end of one to two pairs of tentacles.

## Where in the world do they live?

Gastropods are found worldwide. Gastropods are by far the largest group of molluscs. Their 40,000 species comprise over 80% of living molluscs.

## What kind of habitat do they need?

Gastropods are found in freshwater systems, oceans, and on land wherever there is sufficient moisture.

### These animals are found in the following types of habitat:

temperate; tropical; terrestrial; saltwater or marine; freshwater.

### Terrestrial Biomes:

chaparral; forest; rainforest; scrub forest; mountains.

### Aquatic Biomes:

lakes and ponds; rivers and streams; coastal.

### Wetlands:

marsh; swamp; bog.

## How do they grow?

Gastropods lay eggs. The eggs of some species contain a large yolk. Development of the eggs may be within the body, or the eggs may be expelled to develop externally. Eggs develop into larvae. Those species that will develop a shell start it while larvae. As the animal develops, it adds another curl of shell, ending in an opening from which the head and foot of the animal emerge.

## How do they reproduce?

Gastropods are sexual, and some forms are hermaphroditic, meaning that a single individual can produce both egg and sperm. These individuals will exchange sperm with another individual rather than fertilizing themselves.

## What do they eat?

Gastropods feed on very small things. Most of them scrape or brush particles from surfaces of rocks, seaweeds, animals that don't move, and other objects. For feeding, gastropods use a radula, a hard plate that has teeth.

Gastropod feeding habits are extremely varied, although most species make use of a radula in some aspect of their feeding behavior. Some graze, some browse, some feed on plankton, some are scavengers or detritivores, some are active carnivores.

### Primary Diet: carnivore (eats terrestrial vertebrates, eats non-insect arthropods); herbivore.

# Insects (Insecta)

The **Insects** are the most diverse and important group of animals on land. There are more species of insects than all other land animals put together. Insects live in all habitats and occupy any microhabitat you can imagine. They can be predators, prey, parasites, hosts, herbivores, or decomposers.

Insects are members of a larger group called **arthropods** (which also includes arachnids, myriapods, and crustaceans). All arthropods have a rigid exoskeleton, and legs that are jointed (arthropod means "jointed foot"). In order to grow, arthropods have to shed their whole exoskeleton all at once; this is called "molting." All insects have bodies which are divided into three sections: the head, thorax, and abdomen. In some insects these sections are fused together so they may be hard to tell apart, and some baby insects (called immature) do not have all three sections until they become adults. Nearly all insects have a pair of antennae on their heads. They use their antennae to touch and smell the world around them. Adult insects (and most immatures) have six legs that are attached to the middle section of the body, the thorax. Insects are the only arthropods that have wings, and the wings are always attached to the thorax, like the legs.

All insects lay eggs. There are two ways that insects grow: complete or incomplete metamorphosis. Insects that have **complete metamorphosis** have babies that look very different from the adults and often eat very different foods than adults. Butterflies, beetles, and true flies are some of the groups that have complete metamorphosis. The babies are called larvae. Caterpillars and maggots are examples of insect larvae. Larvae often have soft exoskeletons that stretch so they can grow fast, and they go through a resting stage called a pupa before emerging as an adult. Insects that have **incomplete metamorphosis** have babies that look like small adults with no wings. They usually eat the same kind of food as the adults do. Grasshoppers and cockroaches are two kinds of insects that have incomplete metamorphosis.

# Arachnids (Arachnida)

**Arachnids** are spiders, harvestmen, mites and ticks, and their relatives like scorpions that don't live in Michigan. All arachnids have eight legs, and unlike insects, they don't have antennae. The bodies of arachnids are divided into two sections, the cephalothorax in front and the abdomen behind. Sometimes times small arachnids like mites and harvestmen have the two sections fused close together so you can't see the separation. No arachnids have wings, although some spiders can float on the wind using long strands of silk. Many arachnids use silk, either to catch prey or to help them reproduce. Arachnids lay eggs, and have simple development where babies look like small adults and just get bigger as they grow. Some arachnids, especially the mites, change a lot in different stages of their lives. Arachnids are part of a larger group called **arthropods**, which also includes insects, myriapods, and crustaceans. All arthropods have an exoskeleton and legs that are jointed (arthropod means "jointed foot"). In order to grow, arthropods must shed their whole exoskeleton all at once; this is called "molting."

There are hundreds of thousands of species of arachnids. Arachnids are found in nearly all land habitats, and there are some in aquatic habitats as well. Most arachnids can only eat liquid food, not solid food, so they squirt digestive chemicals into their prey and suck out the juice. Arachnids are predators on insects and other invertebrates, except for many mites, which feed on all kinds of things, like fungus, plants, dead animals, bacteria, and other invertebrates.

# Myriapoda

The Myriapods are centipedes and millipedes, and some small relatives. Centipedes and millipedes look similar to each other; they both look a little like worms with lots of legs. Actually they are arthropods, they have a tough exoskeleton and jointed legs, and they are related to insects and crustaceans. Like insects, myriapods have one pair of antennae, but they have many more legs than insects do. In Michigan, all myriapods have more than 20 legs, and all the other arthropods have fewer legs than that (most have only 6 or 8 legs).

Millipedes usually have round bodies, and have two pairs of legs on each body segment. They move slowly and often tunnel into soil and dead leaves. Nearly all millipede species are decomposers: they eat dead leaves, fungi, and detritus. If another animal threatens them, they may curl up, and some give off smelly toxic chemicals to protect themselves. Myriapods are an ancient group of animals, they were the the very first animals to live on land. Before them the only animals in the world lived in the sea.

Centipedes are usually flattened, and only have one pair of legs per segment. Centipedes are quick predators, eating any small animals they can catch. They have a venomous bite, but no Michigan species are dangerous to people.

Both centipedes and millipedes need a damp environment to survive, and mostly live on or under the ground.

# Crustaceans (Crustacea)

**Crustaceans** are **arthropods**, related to insects and myriapods. They are the most diverse animal group in underwater habitats. Only a few crustacean groups have evolved the ability to live on land, and like amphibians, these terrestrial crustaceans still need water or damp places to live. Like all arthropods, crustaceans have a hard (sometimes very hard!) exoskeleton, and jointed legs. Unlike other arthropods, crustaceans have 2 pair of antennae. Sometimes one pair is very small and hard to see.

There are two main crustacean groups that live on land in Michigan. These are **isopods** and **crayfish**. Terrestrial isopods are sometimes called pillbugs, sowbugs, slaters, or roly-polies. These little animals have oval-shaped bodies with 14 legs and a hard exoskeleton of overlapping plates. The overlapping plates allow the animal to roll into a ball for protection from predators. Isopods feed mainly on dead plant material, and the fungus and micro-organisms that grow there. They can live in many habitats, as long as they can find some moisture and a dark place to hide. Most kinds of isopods live on ocean shores or on the sea bottom, but a few have spread across the land, far from the sea.

Crayfish look like small lobsters and are closely related to lobsters. They have one pair of big claws and 10 walking legs. Most crayfish live in freshwater, though a few species come out of the water at night to look for food or new places to live. Crayfish are omnivores, eating algae, small animals, and scavenging on larger dead animals too.

Both isopods and crayfish lay eggs, and the females carry their eggs under their bodies until they hatch.

**ІІІ. Підбиття підсумків заняття.**

1. Узагальнення та систематизація вивченого.

*Give the deffinition of the following: animal,* ***evolutionary history, taxonomу,*** *segmented worm, snails, slugs, insects, crustaceans.*

1. Оголошення завдання для самостійної роботи.

*Choose a group of animals to prepare a report about its characteristics.*

1. Повідомлення оцінок за роботу на занятті та їх обґрунтування.

**ПРАКТИЧНЕ ЗАНЯТТЯ 17-18-19**

**I. Організаційна частина.**

1. Повідомлення теми, мети заняття.

**Тема заняття:** Історія виникнення мікроскопа.

**Дидактична мета:**

***Студенти повинні знати:***

* активну лексику за темою, яка вивчається;
* форми модальних дієслів та їх еквівалентів та правила їх вживання.

***Студенти повинні вміти:***

* правильно вимовляти, вживати у власному мовленні, сприймати на слух активну лексику за темою, яка вивчається;
* вживати модальні дієслова та їх еквіваленти в різних часових формах в умовно-комунікативних та комунікативних ситуаціях, письмових тексах різних стилів;
* читати науковий текст з загальним зрозумінням прочитаного;
* пояснювати, обговорювати класифікацію живих організмів, давати характеристику виду.

**Виховна мета:**

* формування навичок виконання дій професійної діяльності;
* формування позитивної мотивації до вивчення англійської мови;
* розвиток навичок ділового спілкування;
* розвиток аналітичних навичок.

***Ключові слова:*** Domain - Archea, Eubacteria, Eukaryote, Kingdom - Plants, Animals, Fungi, Protists, Eubacteria (Monera), Archaebacteria, Phylum, Class, Order, Family, Genus, Species.

2. Актуалізація опорних знань і контроль вихідного рівня знань студентів.

*What are the principles by which living organisms are divided into groups?*

3. Мотивація навчальної діяльності.

*Why is classification of living things necessary?*

**II. Зміст основної частини заняття (перелік практичних завдань):**

**1. Study the text, get ready to answer the questions.**

### Classification of Living Things & Naming

With so many flora and fauna on planet Earth, there must be a method to classify each organism to distinguish it from others so it can be correctly identified. Classification does not only apply to biology. For example, supermarkets and grocery stores organise their products by classifying them. Beverages may occupy one aisle, while cleaning supplies may occupy another. In science, the practice of classifying organisms is called **taxonomy** (Taxis means arrangement and nomos means law). The modern taxonomic system was developed by the Swedish botanist Carolus (Carl) Linneaeus (1707-1788). He used simple physical characteristics of organisms to identify and differentiate between different species.

Linneaeus developed a hierarchy of groups for taxonomy. To distinguish different levels of similarity, each classifying group, called **taxon** (pl. taxa) is subdivided into other groups. To remember the order, it is helpful to use a mnemonic device. The taxa in hierarchical order:

* Domain - Archea, Eubacteria, Eukaryote
* Kingdom - Plants, Animals, Fungi, Protists, Eubacteria (Monera), Archaebacteria
* Phylum
* Class
* Order
* Family
* Genus
* Species

The domain is the broadest category, while species is the most specific category available. The taxon Domain was only introduced in 1990 by Carl Woese, as scientists reorganise things based on new discoveries and information. For example, the European Hare would be classified as follows:

Eukaryote --> Animal --> Chordata --> Mammalia --> Lagomorpha --> Leporidae --> Lepus --> *Lepus europaeus*.

**Binomial nomenclature** is used to name an organism, where the first word beginning with a capital is the genus of the organism and the second word beginning with lower-case letter is the species of the organism. The name must be in italics and in Latin, which was the major language of arts and sciences in the 18th century. The scientific name can be also abbreviated, where the genus is shortened to only its first letter followed by a period. In our example, *Lepus europaeus* would become *L. europaeus'.*

Taxonomy and binomial nomenclature are both specific methods of classifying an organism. They help to eliminate problems, such as mistaken identity and false assumptions, caused by common names. An example of the former is the fact that a North American robin is quite different from the English robin. An example of the latter is the comparison between crayfish and catfish, where one might believe that they both are fish when in fact, they are quite different.

Nomenclature is concerned with the assignment of names to taxonomic groups in agreement with published rules.

### Eukaryotes & Prokaryotes

Recall that there are two basic types of cells: **eukaryotes** and **prokaryotes**.

Eukaryotes are more complex in structure, with nuclei and membrane-bound organelles. Some characteristics of eukaryotes are:

* Large (100 - 1000 μm)
* DNA in nucleus, bounded by membrane
* Genome consists of several chromosomes.
* Sexual reproduction common, by mitosis and meiosis
* Mitochondria and other organelles present
* Most forms are multicellular
* Aerobic

Prokaryotes refer to the smallest and simplest type of cells, without a true nucleus and no membrane-bound organelles. Bacteria fall under this category. Some characteristics:

* Small (1-10 μm)
* DNA circular, unbounded
* Genome consists of single chromosome.
* Asexual reproduction common, not by mitosis or meiosis.
* No general organelles
* Most forms are singular
* Anaerobic

### The Three Domains

The three domains are organised based on the difference between eukaryotes and prokaryotes. Today's living prokaryotes are extremely diverse and different from eukaryotes. This fact has been proven by molecular biological studies (e.g. of RNA structure) with modern technology. The three domains are as follows:

**Archea (Archeabacteria)** consists of archeabacteria, bacteria which live in extreme environments. The kingdom Archaea belongs to this domain.

**Eubacteria** consists of more typical bacteria found in everyday life. The kingdom Eubacteria belongs to this domain.

**Eukaryote** encompasses most of the world's visible living things. The kingdoms Protista, Fungi, Plantae, and Animalia fall under this category.

### The Six Kingdoms

Under the three domains are six kingdoms in taxonomy. The first two, **Plants** and **Animals**, are commonly understood and will not be expounded here.

**Protista**, the third kingdom, was introduced by the German biologist Ernst Haeckel in 1866 to classify micro-organisms which are neither animals nor plants. Since protists are quite irregular, this kingdom is the least understood and the genetic similarities between organisms in this kingdom are largely unknown. For example, some protists can exhibit properties of both animals and plants.

**Fungi** are organisms which obtain food by absorbing materials in their bodies. Mushrooms and moulds belong in this kingdom. Originally, they were part of the plant kingdom but were recategorised when they were discovered not to photosynthesise.

**Eubacteria** are bacteria, made up of small cells, which differ in appearance from the organisms in the above kingdoms. They lack a nucleus and cell organelles. They have cell walls made of peptidoglycan.

**Archae (or Archaebacteria)** are bacteria which live in extreme environments, such as salt lakes or hot, acidic springs. These bacteria are in their own category as detailed studies have shown that they have unique properties and features (ex. unusual lipids that are not found in any other organism)which differ them from other bacteria and which allow them to live where they live. Their cell walls lack peptidoglycan.

### Origins of Diversity

The diversity in our planet is attributed to diversity within a species. As the world changed in climate and in geography as time passed, the characteristics of species diverged so much that new species were formed. This process, by which new species evolve, was first described by British naturalist Charles Darwin as **natural selection**.

For an organism to change, genetic mutations must occur. At times, genetic mutations are accidental, as in the case of prokaryotes when they undergo asexual reproduction. For most eukaryotes, genetic mutations occur through sexual reproduction, where meiosis produces haploid gametes from the original parent cells. The fusion of these haploid gametes into a diploid zygote results in genetic variation in each generation. Over time, with enough arrangement of genes and traits, new species are produced. Sexual reproduction creates an immense potential of genetic variety.

One goal of taxonomy is to determine the evolutionary history of organisms. This can be achieved by comparing species living today with species in the past. The comparison in anatomy and structure is based on data from development, physical anatomy, biochemistry, DNA, behaviour, and ecological preferences. The following are examples of how such data is used:

* Anatomy:

Although a horse and a human may look different, there is evidence that their arm structures are quite similar. Their arms' sizes and proportions may be different, but the anatomical structures are quite similar. Such evidence reveals that animals in different taxa may not be that different. Biological features from a common evolutionary origin are known as **homologous**.

* Development
* Biochemistry:

Biochemical analysis of animals similar in appearance have yielded surprising results. For example, although guinea pigs were once considered to be rodents, like mice, biochemistry led them to be in their taxon of their own.

### Phylogeny, Cladistics & Cladogram

Modern taxonomy is based on many hypotheses' of the evolutionary history of organisms, known as **phylogeny**. As with the Scientific Method, scientists develop a hypothesis on the history of an animal and utilise modern science and technology to prove the phylogeny.

**Cladistics** is a classification system which is based on phylogeny. Expanding on phylogeny, cladistics is based on the assumption that each group of related species has one common ancestor and would therefore retain some ancestral characteristics. Moreover, as these related species evolve and diverge from their common ancestor, they would develop unique characteristics. Such characteristics are known as **derived characteristics**

The principles of phylogeny and cladistics can be expressed visually as a **cladogram**, a branching diagram which acts as a family (phylogenetic) tree for similar species. A cladogram can also be used to test alternative hypotheses for an animal's phylogeny. In order to determine the most likely cladogram, the derived characteristics of similar species are matched and analysed.

### Classification of Living Things Practice Questions

1. If taxonomists had to select an existing kingdom to reclassify, which of the six would most likely be chosen? Why?

2. Complete the following without consulting external sources:

a) The species *caudatum* is in the family *Paramecidae*. What would be the binomial name of this organism?

b) Give the abbreviation of the binomial name.

3.

a) Irish moss belongs to the genus *Chondrus*. The name for this species is *crispus*. Give the binomial name.

b) Give the abbreviation of the binomial name.

4. Humans and chimpanzees are alike. Which of the following data would most accurately prove this correct?

a) biochemistry

b) DNA

c) appearance

d) development

e) A, B, C

5. Which of the following is out of order?

a) Kingdom --> Phyllum --> Class

b) Class --> Family --> Order

c) Family --> Order --> Genus

d) Genus --> Species

e) A, C

f) A, B, D

g) B, C

6. A taxonomist discovers Organism A and Organism B and wishes to classify them. Which of the following choices is the most informative?

a) Both organisms are brown.

b) Both organisms have a tail.

c) Both organisms have ears.

d) Both organisms are nocturnal.

7. DNA analysis is usually done using DNA found in a cell's mitochondria, and not in a cell's nucleus. From your knowledge of mitosis, explain why this is so.

1. Arachbacteria 3.a) Chondrus crispus b) C. cripus 4. B 5. G 6. B

**ІІІ. Підбиття підсумків заняття.**

1. Узагальнення та систематизація вивченого.

*Give the deffinition of the following: Domain - Archea, Eubacteria, Eukaryote, Kingdom - Plants, Animals, Fungi, Protists, Eubacteria (Monera), Archaebacteria, Phylum, Class, Order, Family, Genus, Species.*

1. Оголошення завдання для самостійної роботи.

*Choose a living thing to prepare a complete classification.*

1. Повідомлення оцінок за роботу на занятті та їх обґрунтування.

**ПРАКТИЧНЕ ЗАНЯТТЯ 20-21-22**

**I. Організаційна частина.**

1. Повідомлення теми, мети заняття.

**Тема заняття:** Типи мікроскопів.

**Дидактична мета:**

***Студенти повинні знати:***

* активну лексику за темою, яка вивчається;
* способи вираження припущення в англійській мові.

***Студенти повинні вміти:***

* правильно вимовляти, вживати у власному мовленні, сприймати на слух активну лексику за темою, яка вивчається;
* користуватися різними способами вираження припущення в англійській мові в умовно-комунікативних та комунікативних ситуаціях, письмових тексах різних стилів;
* читати науковий текст з загальним зрозумінням прочитаного;
* пояснювати, обговорювати функції живих організмів;
* писати короткий виклад основної інформації за текстом.

**Виховна мета:**

* формування навичок виконання дій професійної діяльності;
* формування позитивної мотивації до вивчення англійської мови;
* розвиток навичок ділового спілкування;
* розвиток аналітичних навичок.

***Ключові слова:*** Respiration, Regulation, Reproduction, Excretion, Growth, Nutrition, Transport, Synthesis.

2. Актуалізація опорних знань і контроль вихідного рівня знань студентів.

*What are the functions of living organisms?*

3. Мотивація навчальної діяльності.

*What are the characeristics of living organisms?*

**II. Зміст основної частини заняття (перелік практичних завдань):**

**1. Study the text, identify the characteristics of living things, write the summary**

**Characteristics of Living Things**

**1. Living things are highly organized, from the smallest part to the largest.**

On the chemical level: [atoms](http://build.tripod.lycos.com/resource/glossary.htm#atom) make up [elements](http://build.tripod.lycos.com/resource/glossary.htm#element). Each element has a specific number of [electrons](http://build.tripod.lycos.com/resource/glossary.htm#electron) that orbit the nucleus. In the center of the element, the nucleus has [protons](http://build.tripod.lycos.com/resource/glossary.htm#proton) and [neutrons](http://build.tripod.lycos.com/resource/glossary.htm#neutron). The number of protons in an element is always equal to the number the electrons. The number of neutrons may vary to make [isotopes](http://build.tripod.lycos.com/resource/glossary.htm#isotope) of that element. Elements come together to give up, accept or equally share electrons to make molecules.

The smallest part of an organism is a cell.

Some single-celled organisms are free-living and contain structures, called organelles, that allow them to be self-sufficient.

More complex organisms are multicellular. In the case of a human, cells are organized into [tissues](http://build.tripod.lycos.com/resource/glossary.htm#tissue). These have a common function like a muscle.

Tissues are organized into [organs](http://build.tripod.lycos.com/resource/glossary.htm#organ) like the heart.

Organs are organized into [organ systems](http://build.tripod.lycos.com/resource/glossary.htm#organ%20system), like the cardiovascular system. Organ systems functioning together make up a living [organism](http://build.tripod.lycos.com/resource/glossary.htm#organism).

A [population](http://build.tripod.lycos.com/resource/glossary.htm#population) is an organization of more than one individual. This is generally all of one [species](http://build.tripod.lycos.com/resource/glossary.htm#species) in a particular area. We could talk about the population of squirrels in our area or dogs or cats.

Enlarging our view, next comes a [community](http://build.tripod.lycos.com/resource/glossary.htm#community). An example of a community is the town or place we live. A more accurate biological description would include all the living things in that area. A community is composed of many species, including plants and animals

An [ecosystem](http://build.tripod.lycos.com/resource/glossary.htm#ecosystem) not only considers the living things in an area, but also the physical environment and the interrelated flow of energy. You may live in a desert ecosystem, a forest ecosystem, or another kind of ecosystem.

Most complex of all is the [biosphere](http://build.tripod.lycos.com/resource/glossary.htm#biosphere). In our case, this includes the all the areas of our planet where living things are found.

**2. All living things have an ability to acquire materials and energy.**

Most of us call this eating! Then we have to be able to convert our food, a form of energy, to chemicals our cells can use through metabolism. Some organisms like plants, [algae](http://build.tripod.lycos.com/resource/glossary.htm#algae), and some [microorganisms](http://build.tripod.lycos.com/resource/glossary.htm#microorganism) are [autotrophs](http://build.tripod.lycos.com/resource/glossary.htm#autotroph). The autotrophs we are most familiar with are the green plants that use [photosynthesis](http://build.tripod.lycos.com/resource/glossary.htm#photosynthesis) to make their own "food." Some bacteria use [chemosynthesis](http://build.tripod.lycos.com/resource/glossary.htm#chemosynthesis) for their energy source. Animals and [fungi](http://build.tripod.lycos.com/resource/glossary.htm#fungi) are [heterotrophs](http://build.tripod.lycos.com/resource/glossary.htm#heterotroph) and capture their food in a variety of ways.

The ability to acquire and use energy is extremely important. Without a constant input of usable energy, organisms would quickly become "disorganized" and die.

In order to survive, organisms must be able to achieve [homeostasis](http://build.tripod.lycos.com/resource/glossary.htm#homeostasis). Each type of organism has a specialized way to stay in balance with its outside and inside environments. A paramecium has a contractile vacuole that pumps excess water out of its cell in order to survive in a fresh water environment. You and I have an internal "thermostat" that helps us maintain a body temperature of about 98.6 degrees Fahrenheit.

**3. All living things have an ability to respond to their environment.**

This often results in movement of the individual toward safety. This helps to ensure survival of the organism. For example, as young children we learned to avoid hot stoves and busy streets.

Plants also have some limited ability to move. They grow up toward the sun, and some have leaves able to turn to follow the sun, allowing them to photosynthesize better. Their roots grow down to search for water and minerals. If a plant doesn't get enough sunlight, water or minerals it will die.

**4. All living things have an ability to reproduce.**

All living things, even the smallest bacteria, have a [chromosome](http://build.tripod.lycos.com/resource/glossary.htm#chromosome) containing [DNA](http://build.tripod.lycos.com/resource/glossary.htm#DNA). [Prokaryotes](http://build.tripod.lycos.com/resource/glossary.htm#prokaryote) like bacteria only have one circular chromosome, called a plasmid. [Eukaryotes](http://build.tripod.lycos.com/resource/glossary.htm#eukaryote), multicellular organisms like plants and humans, have a species-specific number of chromosomes. As humans, we have 46 chromosomes, in 23 pairs. [Genes](http://build.tripod.lycos.com/resource/glossary.htm#gene) on chromosomes contain the instructions for the organism's structure and function.

However, the amazing diversity of organisms on earth have resulted because most organisms [reproduce sexually](http://build.tripod.lycos.com/resource/glossary.htm#sexual%20reproduction). Some, like earthworms are [hermaphrodites](http://build.tripod.lycos.com/resource/glossary.htm#hermaphrodite). Most others have separate sexes, male and female, like marijuana plants, fish, birds, cattle and humans.

In order for two organisms to combine their genetic information without doubling the number of chromosomes given to offspring, Mother Nature came up with a way to reduce the number of chromosomes. Without it, each new generation would have double the number of its parents' chromosomes. This halving is done by [meiosis](http://build.tripod.lycos.com/resource/glossary.htm#meiosis) in the sex organs. In the female, the [ovary](http://build.tripod.lycos.com/resource/glossary.htm#ovary) produces [haploid](http://build.tripod.lycos.com/resource/glossary.htm#haploid) eggs and in the male the [testes](http://build.tripod.lycos.com/resource/glossary.htm#testes) produces haploid sperm. Each of these [gametes](http://build.tripod.lycos.com/resource/glossary.htm#gamete) contains only one chromosome from each of the pairs of chromosomes.

During [fertilization](http://build.tripod.lycos.com/resource/glossary.htm#fertilization), the sperm and egg unite to form a [zygote](http://build.tripod.lycos.com/resource/glossary.htm#zygote), a diploid individual. This new individual is different from either parent, although it contains characteristics from both. This is what gives us the great diversity of life. In living things, we call this genetic [biodiversity](http://build.tripod.lycos.com/resource/glossary.htm#biodiversity).

**5. All living things have an ability to adapt.**

Modifications enable an organism to survive in its environment. [Natural selection](http://build.tripod.lycos.com/resource/glossary.htm#natural%20selection) allows individuals with better adaptations to survive better and reproduce more. Thus, their characteristics are passed into future generations and that makes the [species](http://build.tripod.lycos.com/resource/glossary.htm#species) stronger. However, it is important to note that individuals can only adapt to their environment, and species don’t adapt, they evolve.

All living things:

1. Are comprised of one or more units called cells

2. Reproduce (sexually or asexually)

3. Grow and develop

4. Obtain and use energy

5. Respond to their environment

1) All living things are comprised of cells.

Cell- a collection of living matter enclosed by a barrier that protects it from its surroundings.

**Unicellular organism**- a one-celled organism (e.g. bacteria)

**Multicellular organism**-

an organism made of more

than one cell, starfish, turtle)

2) All living things reproduce

…that is, they produce new individuals similar to themselves. Why is reproduction necessary?

To replace the dead ones.

Two Kinds of Reproduction:

Asexual Reproduction:

· The prefix a- means without, so without sex.

· A single organism reproduces without the aid of another.

- Common among bacteria and other microscopic organisms

- Splitting (bacterial cells) or budding (plants)

Sexual Reproduction:

· two cells from different individuals unite to produce the first cell of a new organism.

· Union of a sperm cell

from male united with

egg cell from female.

\* Some organisms are capable of sexual and asexual reproduction.

3) All living things grow and develop

· Life does not necessarily mean continuous growth

· During growth organisms undergo a cycle of changes called development.

· Bodily maintenance occurs throughout life (requires energy). Aging occurs when an organism loses its ability to maintain itself.

4) All living things obtain and use energy · Energy required for growth and maintenance

· Energy (usually sugars) obtained from the environment

· Anabolism - a process (such as tissue growth) that involves synthesizing, or putting together, complex substances from simpler substances (sugars) (REQUIRES ENERGY)

· Catabolism- final breakdown (digestion) of complex substances into simpler ones, (*RELEASES ENERGY*)

· Metabolism- total sum of all chemical reactions in the body, or the balance between anabolism and catabolism

5) All living things respond to their environment Stimulus (plural stimuli)- anything that causes an organism to react

Irritability- the ability to react

Can plants respond to stimuli? Yes, but normally not as quickly as animals.

Homeostasis- (homeo- similar, -stasis standing) an organism’s ability to maintain the constant or stable conditions necessary for life.

Just as the thermostat automatically cools or warms a room if it deviates from a desired temperature, your body maintains a constant temperature, 98.6 F or 37 C, at which it functions optimally.

**1) Living things are highly ordered.**

**2) Living things are organized into units called cells.**

**3) Living things use energy from their environment**

**4) Living organisms respond to stimuli -**

**5) Living things develop.**

**6) Living things reproduce themselves**

**7) Living things contain genetic information**

**2. Read the text, imagine, how would you explain the subject to children.**

**BIOLOGY** is defined as the study of life. **BIO**-'life' and **LOGY**-'the study of'

If you were to take a large number of living things, you would notice that they all have something in common. However, you would also know that they are different as well.

All living things show **UNITY** (similarities) as well showing a great deal of **DIVERSITY** (differences).

Here is what all living things have in common...

1) All living things are highly organized and contain many complex chemical substances.

2) All living things contain one or more cells.

**UNICELLULAR**- contains just one cell

**MULTICELLULAR**- contains many cells

3) All living things use energy.

4) Living things have a definite form and have a limited size.

5) Living things grow.

6) Living things respond to changes in the environment.

7) Living things can reproduce.

8) Living things eventually die.

Nonliving objects may show one, or even a few of these characteristics but they never show all of them...

We can take these characteristics of life and simplify each...these will make up the 8 life functions.

Scientists classify things as alive if they can carry out these 8 LIFE FUNCTIONS.

**R-Respiration  
R-Regulation  
R-Reproduction  
E-Excretion  
G-Growth  
N-Nutrition  
T-Transport  
S- Synthesis**

**R R R E G N T S**=biology

Here is a look at the 8 life functions in a bit more detail...

**RESPIRATION** - the breakdown of nutrients to yield (or give off) chemical energy.

Тhere are 2 types

1) aerobic respiration - uses oxygen

2) anaerobic respiration - doesn't use oxygen

**REGULATION** - the process where a living thing controls and coordinates its various activities.

in animals

1) nervous system uses nerve cells

2) endocrine system uses hormones

in plants - some parts produce hormones

**REPRODUCTION** - the process by which living things produce new living things of the same kind

there are 2 types

1) asexual reproduction--involves one parent and the offspring are identical to the parent

2) sexual reproduction--involves two parents and the offspring is a combination of both parents

**EXCRETION** - the process by which living things remove waste products produced by cell activities

**GROWTH** - the process by which living things increase in size or cell number

**NUTRITION** - the process by which living things take in materials from its environment for growth and repair;

there are 2 types

1) autotrophic nutrition--where a living thing can make its own food

2) heterotrophic nutrition--where a living thing must ingest (take in) its food

**TRANSPORT** - the process by which usable materials are taken into the living thing (ABSORPTION) and distributed throughout the living thing (CIRCULATION)

**SYNTHESIS** - the process by which smaller, simple substances are combined chemically to form larger, more complex substances

If a living thing has all 8 off these life functions, it is called an **ORGANISM**!

When we refer to all of the life functions of an organism, we are referring to its **METABOLISM**--the total of all the life functions required to sustain life (to stay alive)

**R + R + R + E + G + N + T + S = METABOLISM**

An organism's external (outside) environment is always changing. By keeping the control and regulation of its metabolic activities, an organism can maintain a stable internal (inside) environment. This is called **HOMEOSTASIS**.

**HOMEOSTASIS** - the process by which an organism's metabolic activities are in a state of balance, ex. body temp, blood sugar levels.

**ІІІ. Підбиття підсумків заняття.**

1. Узагальнення та систематизація вивченого.

*Give the deffinition of the following: Respiration, Regulation, Reproduction, Excretion, Growth, Nutrition, Transport, Synthesis.*

1. Оголошення завдання для самостійної роботи.

*Choose one of the functions of living organisms to prepare a complete description.*

1. Повідомлення оцінок за роботу на занятті та їх обґрунтування.

**ПРАКТИЧНЕ ЗАНЯТТЯ 23-24**

**I. Організаційна частина.**

1. Повідомлення теми, мети заняття.

**Тема заняття:** Лабораторія.

**Дидактична мета:**

***Студенти повинні знати:***

* активну лексику за темою, яка вивчається;
* принципи творення та вживання пасивного стану часів групи Simple.

***Студенти повинні вміти:***

* правильно вимовляти, вживати у власному мовленні, сприймати на слух активну лексику за темою, яка вивчається;
* використовувати пасивні конструкції в часових формах Simple в усному та писемному мовленні різних функціональних стилів;
* читати науковий текст з загальним зрозумінням прочитаного;
* пояснювати, обговорювати поняття таксономії та історію її виникнення.

**Виховна мета:**

* формування навичок виконання дій професійної діяльності;
* формування позитивної мотивації до вивчення англійської мови;
* розвиток навичок ділового спілкування;
* розвиток аналітичних навичок.

***Ключові слова:*** naturalist, natural history, application, scientific expedition, nomenclature, species.

2. Актуалізація опорних знань і контроль вихідного рівня знань студентів.

*How was the classification of living things created?*

3. Мотивація навчальної діяльності.

*Did the classification of organisms change since it had appeared?*

**II. Зміст основної частини заняття (перелік практичних завдань):**

* 1. **Read the following words and guess their meaning:**

|  |
| --- |
|  |

**2. Read and translate the text:**

**LINNEAN SYSTEM OF CLASSIFICATION**

Carolus Linneus was born in Sweden in a small wooden, house painted red with a roof of live turf. It was like many other houses in the village. But the house had a garden around it, so that Linneus used to say later that it was a good place for a naturalist to be born.

All the boy's teachers at school thought him stupid. But one of his father's friends observed that Carl took an unusual interest in plants and that he could identify a great many. He suggested sending Carl to study natural history. His father could give him only about forty dollars for his education, but it was thought that he could work his way. So he set off for the University of Lund. After a year he transferred to the University of Uppsala, since Uppsala had a very fine course of botany. His professor there soon grew very fond of him and saw a great promise in his work. After Linneus had finished his studies at the University with his professor's encouragement he made application to the Royal Society of Sweden to send him on a scientific expedition to Lapland. The Royal Society agreed to the commission. So on May 12, 1732 Linneus set out on foot on the, road leading north. He travelled mostly on foot over bad roads and through wild country for nearly a thousand miles. When he got back to Uppsala he gave a careful account of the things he had seen. The main thing among them was his new system of classification for plants and animals which he had worked out on his journey. Three years later this system was published under the title „Systema Naturae". This system has brought: order out of confusion. It was the system of nomenclature that has been used ever since.

According to Linneus system, every plant and every animal was given a double Latin name. The first word whose initial letter was capitalized would indicate to what "genus" or general class it belonged, the second word indicates a particular species. The naming of plants and animals in this way was a fascinating task. Linneus announced that everything in nature should be classified.

So science as orderly classified knowledge was coming into its own. The first edition of "Systema Naturae" was published in 1735. It contained only twelve pages, but its influence was enormous. Linneus is therefore considered the founder of taxonomy – the study of the classification. All the known animal species were grouped into six classes: mammals, birds, reptiles, fishes, insects and worms. The shortcomings were patched up easily enough later on.

This form of binominal nomenclature has given the biologist an international language for life forms that has eliminated incalculable amounts of confusion. He even supplied the human species with an official name; one that it has retained ever since – Homo sapiens.

**Notes to the text:**

to be like smb. – бути схожим на

to come into one's own – виникнути, з’явиться на свет

to take interest in – цікавитися

to identify a great many plants – розпізнавати велику кількість рослин

to set off for the University – відправитися в університет

to set out on foot – відправитися пішки

to be fond of smb., smth. – любити когось, щось; захоплюватися кимось, чимось

to see promise in his work – побачити перспективу в роботі

to agree to a commission – погодитися на відрядження

to give account of smth. – звітувати, розповісти про щось

to work out – розробити

**3. Translate the following words bearing in mind the meaning of the affixes and memorize them:**

nature (n), naturalist (n), natural (adj), unnatural (adj)

to observe (v), observer (n), observation (n)

to suggest (v), suggestion (n), suggestive (adj)

to transfer (v), transference (n)

to apply (v),.application (n), applicant (n)

to identify (v), identification (n), identity (n)

to encourage (v), encouragement (n), courage (n)

to agree (v), agreement (n), agreeable (adj), agreeably(adv)

to lead (v), leader (n), leadership (n)

to announce (v), announcer (n), announcement (n)

**4. Form nouns using the following suffixes and translate them into Ukrainian:**

* er: to publish, to research, to speak;
* or: to invent, to investigate, to translate, to visit;
* ant (ent): to study, to assist;
* ist: natural, special, biology.

**5. Arrange the following in pairs of synonyms:**

vital processes, to estimate, main, country, enormous, to like, village, great, to think, to provide, living processes, to supply, principle, to account, to consider, to be fond of smth.

**6. Put as many questions as possible to the text and be ready to answer them.**

**ІІІ. Підбиття підсумків заняття.**

1. Узагальнення та систематизація вивченого.

*Give the deffinition of the following: naturalist, natural history, application, scientific expedition, nomenclature, species.*

1. Оголошення завдання для самостійної роботи.

*Prepare a report about life and scientific activity of* *Carolus Linneus.*

1. Повідомлення оцінок за роботу на занятті та їх обґрунтування.

**ПРАКТИЧНЕ ЗАНЯТТЯ 25-26**

**I. Організаційна частина.**

1. Повідомлення теми, мети заняття.

**Тема заняття:** Обладнання сучасної лабораторії.

**Дидактична мета:**

***Студенти повинні знати:***

* активну лексику за темою, яка вивчається;
* принципи творення та вживання пасивного стану часів групи Continuous.

***Студенти повинні вміти:***

* правильно вимовляти, вживати у власному мовленні, сприймати на слух активну лексику за темою, яка вивчається;
* використовувати пасивні конструкції в часових формах Continuous в усному та писемному мовленні різних функціональних стилів;
* читати науковий текст з загальним зрозумінням прочитаного;
* пояснювати, обговорювати поняття таксономії та історію її виникнення;
* здійснювати письмовий переклад тексту науково-популярного стилю з англійської мови на українську та з української на англійську;
* писати короткий виклад основної інформації за текстом.

**Виховна мета:**

* формування навичок виконання дій професійної діяльності;
* формування позитивної мотивації до вивчення англійської мови;
* розвиток навичок ділового спілкування;
* розвиток аналітичних навичок.

***Ключові слова:*** systematics, binominal nomenclature, genius, standards, criteria, foundation, morphological features.

2. Актуалізація опорних знань і контроль вихідного рівня знань студентів.

*How was the classification of living things created?*

3. Мотивація навчальної діяльності.

*Did the classification of organisms change since it had appeared?*

**II. Зміст основної частини заняття (перелік практичних завдань):**

**1. State the tense of the following verbs and translate them:**

it is planted, he plants, they are being planted, they are to plant, I have planted, I had to plant, I had planted, it has been planted, he will plant, it will be planted, he is planting

**2. Define the tense and translate the sentences into Ukrainian:**

1. They are planting a new sort of a tree.
2. He is being asked to follow the assistant.
3. He will be given every assistance in his work.
4. We are being waited for downstairs.
5. I am being asked about the system of classification.
6. I am often asked about this system.
7. They were told to go to the laboratory.
8. I was brought a new scientific journal.
9. The children are taught Botany at school.
10. The teacher is listening to the students.
11. The teacher is listened to.
12. We were looking at this picture.
13. We were looked at.
14. The doctor was sent for.
15. The doctor sent for the medicine.
16. We bought new equipment for our laboratory.
17. New equipment was bought for our laboratory.
18. This question must be looked upon from another point of view.

**3. Translate the following sentences into English using the passive constructions:**

**І.**

1. Вчора мені дали цікаву книгу.
2. Нам показали декілька нових приладів.
3. Вам допоможе наш спеціаліст з мікробіології.
4. Йому запропонувати подумати про ваш винахід.
5. На нього зараз чекають в університеті.
6. Їй подякували за цю роботу.
7. На їхнє питання дадуть відповідь.
8. За цим дослідженням послідують інші.
9. Вас зараз попросять відповісти на кілька питань.
10. Вам дадуть відповідь.

**IІ.**

1. Він цікавився рослинами і міг відрізнити їх одне від одного.
2. Він зазвичай прокидався о 6 годині ранку.
3. Він дуже подобався своїм викладачам.
4. Він подав документи до аспірантури.
5. Ми розробили план роботи.
6. Незважаючи на погані погодні умови, вони пішли пішки.
7. Ми зробили все, що від нас залежало.
8. Згідно з його класифікацією, всі живі організми поділяються на дві групи.

**4. Read and translate the text; say what new information about plants and animals you got from it:**

The present-day science of taxonomy or systematics has been recognized as a specialized branch of biology for over 200 years. During the century, a Swedish doctor and botanist Carl von Linneus travelled over most of Western Europe and England, collecting and studying the plants and animals of the region. He had a passion for classification and a genius for minute and accurate observation and for detaching the important from the trivial. His standards for describing and naming plants and animals and the criteria by which he estimated relationships and affinities were innovations for his time. His method of classification and the system he used for the comparatively limited number of organisms that were known to him are the foundations upon which the modern systematic groupings of biological systems have been built.

Linnean system of classification was founded on the concept of a basic natural grouping of like individuals, called species. He conceived of the species as a fixed and unchangeable grouping of similar individuals. He based his comparisons principally on morphological features and species was characterized, named, and filed away as an immutable entity. Such a system is essentially static and does not recognize the possibility of change. With the development of theories of evolution, the concept of species has changed. In the constant change and evolution, a species cannot be regarded as absolutely fixed.

**5. Translate the text into Ukrainian and then back into English, compare your version with the original:**

Living things are all about us. More than a million different kinds of plants and animals inhabit the earth. Some are our friends, others are our enemies. Some are very large and some are very small. Yet each is a distinct organism, and each has its own way of living.

Suppose you were asked to learn the names of all the living things on the earth. Try to do it. No, you couldn't do it; no one could. Fortunately, there are groups of animals and groups of plants that greatly resemble each other. Because of this fact living things may be classified into large groups.

To study living things, it is necessary to sort them into groups. About a million and a half different kinds of plants and animals have already been studied, identified and named. In fact, for people who have not studied biology, the living world is a hopeless conglomeration of individual plants and animals.

**6. Write a report on С. Linneus's life and work using additional literature. Give the main points of all the texts of the lesson and be ready to speak on the topic "The History of the Science of Taxonomy".**

**ІІІ. Підбиття підсумків заняття.**

1. Узагальнення та систематизація вивченого.

*Give the deffinition of the following:* *systematics, binominal nomenclature, genius, standards, criteria, foundation, morphological features.*

1. Оголошення завдання для самостійної роботи.

**Compose short dialogues for the following imaginary situations:**

* 1. You came to a botanical museum and see a portrait of C. Linneus. Ask the guide about this scientist.
  2. You saw a picture of a tiger with a sign "Panthera Tigris". Ask your friend to explain what it means.
  3. You are to prepare a story on the system of classification, but you don't know what sources to use. Ask your friend for advice. What books on Linneus can he recommend?
  4. The teacher points to the tree and asks what it is. One student says that it is a common birch, the other – that it is Betula verrucosa. Each insists that he is right. How will you settle their argument?

1. Повідомлення оцінок за роботу на занятті та їх обґрунтування.

**ПРАКТИЧНЕ ЗАНЯТТЯ 27-28**

**I. Організаційна частина.**

1. Повідомлення теми, мети заняття.

**Тема заняття:** Чарльз Дарвін.

**Дидактична мета:**

***Студенти повинні знати:***

* активну лексику за темою, яка вивчається;
* принципи творення та вживання пасивного стану часів групи Perfect.

***Студенти повинні вміти:***

* правильно вимовляти, вживати у власному мовленні, сприймати на слух активну лексику за темою, яка вивчається;
* використовувати пасивні конструкції в часових формах Perfect в усному та писемному мовленні різних функціональних стилів;
* читати науковий текст з загальним зрозумінням прочитаного;
* пояснювати, обговорювати історію виникнення мікроскопу;
* здійснювати письмовий переклад тексту науково-популярного стилю з англійської мови на українську та з української на англійську;
* писати короткий виклад основної інформації за текстом.

**Виховна мета:**

* формування навичок виконання дій професійної діяльності;
* формування позитивної мотивації до вивчення англійської мови;
* розвиток навичок ділового спілкування;
* розвиток аналітичних навичок.

***Ключові слова:*** microscope, magnify, vision, lens, eyepiece, a beam of light, mirror, base, stage.

2. Актуалізація опорних знань і контроль вихідного рівня знань студентів.

*What types of microscopes are there?*

3. Мотивація навчальної діяльності.

*What types of microscopes have you used for your investigations?*

**II. Зміст основної частини заняття (перелік практичних завдань):**

**1. Read the following words and guess their meaning:**

|  |
| --- |
|  |
|  |

* 1. **Read the following words and guess their meaning:**

**THE MICROSCOPE**

Even the ancients had known that curved mirrors and hollow glass spheres filled with water had a magnifying effect. In the opening decades of the 17th century men began to experiment with lenses in order to increase this magnification as far as possible. In this, they were inspired by the great success of that other lensed instrument, the telescope, first put to astronomical use by Galileo [galə'lāō] in 1609.

Gradually, enlarging instruments, or microscopes (from Greek words meaning "to view the small") came into use. For the first time the science of biology was broadened and extended by device that carried the human sense of vision beyond the limit. It enables naturalists to describe small creatures with detail that would have been impossible without it, and it enabled anatomists to find structures that could not otherwise have been seen.

The first man, who made and used microscope was Anthony van Leeuwenhoek ['lāvən,hook; 'lāyən-]. He was not a professional scientist. In fact, he was a janitor in the city hall in Delft, Holland. He made more than 200 different microscopes, most of which had only one carefully polished lens. With his homemade lenses, he explored all sorts of things and discovered a world never before seen by the eyes of man. He examined milk, water, insects, the thin tail of a tadpole, and many other objects. His discoveries of bacteria, blood capillaries, blood cells, and sperm cells made him famous. In 1675, he wrote the first description of the microscopic animals that live in water. Leeuwenhoek's microscopes were simple. But his great patience and keen powers of observation brought to light many new facts about living things.

THE MODERN MICROSCOPE. The microscopes of today are far more complicated than those of Leeuwenhoek's time. They are called compound microscopes because they contain more than one lens. At the top there is an eyepiece which has two lenses in it. Then there is a long tube with more lenses at the bottom. These are called objectives. You can choose different magnifying powers by swinging different objectives into position. The usual high school microscope has a choice of two powers. With the low power, you can magnify an object about 100 times. The high power objective with the usual eyepiece can enlarge things up to 500 times.

If you wish to examine an object under the microscope you must pass a beam of light through it. As the light passes through the lenses, it is bent in such a way that a magnified image appears. For this reason, anything you wish to see must be very thin. If it is too thick, the light will not go through it. Most microscopes have a mirror at the base. This can be moved in any direction. It reflects light up through the object and the lenses. The object, mounted on a piece of glass, is placed on a flat platform called the stage. Then the microscope is adjusted by moving the tube up or down. This places the objective at the correct height above the object. Unless you focus carefully in this way, you can not get a clear picture.

THE ELECTRON MICROSCOPE. There is a limit to the magnifying power of the compound microscope. The very best of them can enlarge an object up to 4000 times. In recent years a new type of microscope has been invented that does not use light. Instead, beams of electrons are passed through the object and a picture is made on film. The electron microscope can give us an image 25,000 times larger than the object. This development illustrates an important principle of science: when a new instrument is invented, it may speed up discoveries in the laboratory. Already, the electron microscope has made it possible to see things never dreamed of by Leeuwenhoek. We may be sure that in the future it will continue to reveal many new secrets of nature.

**Notes to the text:**

to graduate from – закінчувати вищій навчальний заклад

a graduate – випускник

to a certain extent – до певної міри

to a great extent – в значній мірі

to a full extent – у повній мірі

in all appearance – цілком очевидно

**3. Translate the following words bearing in mind the meaning of the affixes and memorize them:**

to magnify (v), magnifier (n), magnification (n)

to increase (v), increase (n), increasing (adj), increasingly (adv)

to decrease (v), decrease (n)

to inspire (v), inspiration (n)

to graduate ((v), gradual (adj), gradually (adv)

to extend (v), extension (n), extensive (adj), extensively (adv)

to explore (v), explorer (n), exploration (n), explorative (adj)

vision (n), visionary (n) (adj), visibility (n), visible (adj)

to observe (v), observer (n), observatory (n), observant (adj), observance (n)

to complicate (v), complication (n)

to reflect (v), reflector (n), reflection (n), reflective (adj)

to invent (v), inventor (n), invention (n), inventive (adj)

to appear (v), appearance (n)

to disappear (v), disappearance (n)

**4. Underline the prefixes in the following words and translate them:**

to discover, invisible, unknown, to exclude, indifferent, unnatural, to mislead, impossible, independent, irregular, nonliving, disorder; illegal

**5. State to what part of the speech the words belong and translate them into Ukrainian; form the corresponding verbs:**

difference, assimilation, respiration, reproduction, organization, movement, magnification, resemblance, relation

**6. Form the nouns corresponding to the following verbs:**

to discover, to construct, to affect, to know, to develop, to vary, to divide, 'to differ, to resemble, to observe, to suggest, to apply, to encourage, to agree, to magnify, to appear

**ІІІ. Підбиття підсумків заняття.**

* 1. Узагальнення та систематизація вивченого.

*Give the deffinition of the following:* *microscope, magnify, vision, lens, eyepiece, a beam of light, mirror, base, stage.*

* 1. Оголошення завдання для самостійної роботи.

**Compose short dialogues for the following imaginary situations:**

*1. You know that Leeuwenhoek was not a professional scientist. Yet he corresponded with the Royal Society in London, where he sent his descriptions of what he had seen through his microscope. One day he was visited by one of the members of the Royal Academy. Try to imagine the conversation that might have taken place.*

*2. You are a teacher of zoology. This is your first lesson on the use of microscope. Instruct the students in its use.*

* 1. Повідомлення оцінок за роботу на занятті та їх обґрунтування.

**ПРАКТИЧНЕ ЗАНЯТТЯ 29-30**

**I. Організаційна частина.**

1. Повідомлення теми, мети заняття.

**Тема заняття:** Типи мікроскопів.

**Дидактична мета:**

***Студенти повинні знати:***

* активну лексику за темою, яка вивчається;
* правила творення та вживання теперішніх часів в англійській мові.

***Студенти повинні вміти:***

* правильно вимовляти, вживати у власному мовленні, сприймати на слух активну лексику за темою, яка вивчається;
* правильно будувати та доречно використовувати теперішні часи англійської мови в усному та писемному мовленні різних стилів;
* читати науковий текст з загальним зрозумінням прочитаного;
* пояснювати, обговорювати принцип роботи та типи мікроскопів;
* здійснювати письмовий переклад тексту науково-популярного стилю з англійської мови на українську та з української на англійську;
* читати текст з метою пошуку специфічної інформації.

**Виховна мета:**

* формування навичок виконання дій професійної діяльності;
* формування позитивної мотивації до вивчення англійської мови;
* розвиток навичок ділового спілкування;
* розвиток аналітичних навичок.

***Ключові слова:*** microscope, magnify, vision, lens, eyepiece, a beam of light, mirror, base, stage.

2. Актуалізація опорних знань і контроль вихідного рівня знань студентів.

*What types of microscopes are there?*

3. Мотивація навчальної діяльності.

*What are the components a typical microscope consists of?*

**II. Зміст основної частини заняття (перелік практичних завдань):**

**1. Translate the m following sentences into Ukrainian paying attention to the emphatic construction "it is... that";**

1. It was the electron microscope that finally revealed them as objects that could be seen.
2. It is the absence of vitamins that brings on diseases.
3. It is very important to begin the experiment in time.
4. It is the magnifying power of lenses that made it possible to see tiny things.
5. It was Carolous Linneus who suggested the first system of classification of living things.
6. It is necessary to use only very thin objects to see them under the microscope.
7. It was the new method of investigation that helped to finish the work so successfully.
8. Anton von Leeuwenhoek was the first man who penetrated through his lenses into the world of the microscope.

**2. Answer the questions:**

1. Explain how a microscope is used.
2. What kinds of microscope do you know?
3. What is a compound microscope?
4. How does the electron microscope differ from the compound microscope?
5. Why are most compound microscopes more powerful than simple microscopes?
6. How will you examine an object under a compound microscope and an electron microscope? What is the difference?
7. Why can't you see cells or protoplasm when you put your finger under the microscope?

**3. Read the following text and try to retell it word for word:**

By examining water from a lake or stream we will find that it is full of life. If you look carefully, you may find there the simplest animal, the ameba [ə'mēbə]. It is a tiny mass of jelly usually about 1/50 of an inch long. The ameba is surrounded by a very thin cell membrane, which is quite elastic. At times, a part of the membrane will push out, forming a false foot. The rest of the ameba will then flow into it. In this way, the little animal moves slowly about in its watery world.

**4. Read and translate the following text; say what new information about plants and animals you got from it:**

Anton von Leeuwenhoek lived all his life in Delft. He had hardly any education and never learnt Latin, which in those days was the mark of an educated man. He worked when a boy as a clerk in a dry-goods shop. Part of his duty there was to examine textiles with a fine hand lens. Sometimes he placed the lens over other substances besides cloth — the skin of his own hand, the fiber of the wood on the table. Later on in his spare time he used to go to the spectacle makers and he learnt from them how to polish lenses. Afterwards he began making lenses himself.

The lenses he made were precise and beautiful. Altogether he made 247 instruments and some of them would increase the size of a minute object as much as 270 times.

After he had learned something about metalwork he could mount them. When he was about forty he became so interested in everything seen through his lenses, that he spent much of his time looking through his microscopes.

One day he had focused his microscope on a drop of water from a rain barrel and had found in it to his great astonishment "little beastics" as he called them, swimming about, He had found these little creatures not only in rain water, but in pond water, in the secretions of various animals, even in the saliva of his own mouth. Examining different objects he continued to find ail manner of strange little organisms, although he did not realize, that they might have any connection with diseases. Only in the 19th century Louis Pasteur developed and demonstrated by his experiments the germ theory. But it was Anton von Leeuwenhoek's discovery of microbes that started a new field of scientific investigation.

**5. Translate the text into Ukrainian and then back into English, compare your version with the original:**

In science one of the most important discoveries having a great influence on the development of science was the fact that microscope has come into common use among scientists. The microscope gave scientists new power. Now they could see things that had been hidden. The first microscopes were very simple. They had only single lenses, some had double lenses with a tube between them. Anton von Leeuwenhoek was the first man who penetrated through these lenses into the mysterious world of the microbe. No one before his time had guessed that such tiny organisms existed.

**ІІІ. Підбиття підсумків заняття.**

1. Узагальнення та систематизація вивченого.

*Give the deffinition of the following:* *microscope, magnify, vision, lens, eyepiece, a beam of light, mirror, base, stage.*

1. Оголошення завдання для самостійної роботи.

**Compose short dialogues for the following imaginary situations:**

1. Your younger sister comes up to you and asks what a microscope is. Tell her what instrument it is, how it is constructed and what it is used for.
2. You are going to make a report "From Leeuwenhoek to the present". What will you include in it?
3. You are given a microscope without a mirror and asked to examine a leaf of an apple-tree. Will you be able to do it? Discuss it with your friend*.*
4. Повідомлення оцінок за роботу на занятті та їх обґрунтування.

**2. ЗАВДАННЯ ДЛЯ САМОСТІЙНОЇ РОБОТИ СТУДЕНТІВ**

**Самостійна робота 1.**

**ТЕПЕРІШНІЙ ПРОСТИЙ ЧАС**

**THE PRESENT SIMPLE TENSE**

**УТВОРЕННЯ**

*Стверджувальна форма* дієслова в ***Present Simple*** в усіх особах однини і множини, крім третьої особи од­нини, збігається з інфінітивом (неозначеною формою діє­слова) без частки **to**:

|  |  |
| --- | --- |
| *І study*  *we study*  *you study*  *they study* | я навчаюся  ми навчаємося  ви навчаєтеся  вони навчаються |

У третій особі однини до інфінітива без частки to до­дається закінчення **-s** або **-es**:

*to invite – he invit****es****, to teach – she teach****es***

Більшість дієслів у третій особі однини мають закін­чення **-s**. Закінчення **-es** додається в таких випадках:

а) якщо дієслово закінчується на **s, ss, ch, tch, x**:

*to kiss – kiss****es****, to flash – flash****es***

б) якщо дієслово закінчується на у з попередньою приголосною (буква **у** змінюється перед **-es** на **і**):

*to multiply – multipl****ies****, to dry – dr****ies***

*Але:* якщо перед у стоїть голосна, то додається лише закінчення **-s**:

*to say – say****s****, to obey – obey****s***

в) якщо дієслово закінчується на **о**:

*to go – go****es****, to do – do****es***

*Питальна форма* ***Present Simple*** утворюється за допомогою допоміжного дієслова **do** або **does**, яке ста­виться перед підметом:

|  |  |
| --- | --- |
| ***Do*** *I study?*  ***Do*** *we study?* | ***Does*** *he read?*  ***Does*** *she write?* |

**Примітка**. Якщо питальне слово виконує роль підмета або означення до підмета, допоміжне дієслово **do** або **does** у цьому випадку не вживається:

*Who lives there? Whose father lives there?*

*Заперечна форма* ***Present Simple*** утворюється за до­помогою допоміжного дієслова **do** або **does**, заперечної частки **not** та інфінітива основного дієслова без частки **to**:

*І* ***do not*** *study. Не* ***does not*** *study.*

У розмовній мові замість **do** **not** і **does not** вживають­ся скорочені форми **don't** і **doesn't**:

*І* ***don't*** *see you. He* ***doesn't*** *see me.*

Дієслово **to be** в ***Present Simple*** має форми:

|  |  |
| --- | --- |
| *I* ***am***  *he* ***is***  *she* ***is***  *it* ***is*** | *we* ***are***  *you* ***are***  *they* ***are*** |

Питальна та заперечна форми дієслова **to be** утворю­ються без допоміжного дієслова **to do**:

*Are you an engineer? I am not an engineer.*

**ВЖИВАННЯ**

***Present Simple*** вживається для вираження:

1) звичайної, повторюваної дії в теперішньому часі:

*Не goes to see her every day.*

2) дії, яка характеризує підмет постійно:

*Не speaks both French and English.*

3) загальновідомих істин:

*Water is a liquid.*

4) запланованої майбутньої дії в підрядних часу, причини та умови:

*І shall be there till he comes.*

5) запланованої майбутньої дії з дієсловами, що означають рух:

*His train arrives tomorrow morning.*

**ПАСИВНИЙ СТАН**

Пасивний стан ***Present Simple*** утворюється за допо­могою дієслова **to be** та дієприкметника минулого часу *(Past Participle)* основного дієслова:

*Не* ***is*** *interrogat****ed****. І* ***am*** *ask****ed*** *about it.*

**The simple present tense**

*1. Read the following in the third person singular*

1. They wish to speak to you. (He)
2. Buses pass my house every hour.
3. They help their father. (He)
4. We change planes at Heathrow.
5. You watch too much TV. (He)
6. They worry too much. (He)
7. I cash a cheque every month. (He)
8. I always carry an umbrella. (She)
9. They wash the floor every week. (She)
10. His sons go to the local school.
11. These seats cost £10.
12. Elephants never forget.
13. They usually catch the 8.10 bus.
14. They sometimes miss the bus.
15. I mix the ingredients together.
16. The rivers freeze in winter.
17. They fly from London to Edinburgh.
18. The carpets match the curtains.
19. They realize the danger.
20. I use a computer.
21. They do nothing. They lie in bed all day.
22. The boys hurry home after school.
23. They kiss their mother.
24. They dress well.
25. Your children rely on you.
26. You fry everything.
27. The taxes rise every year.
28. They do exercises every morning.
29. Do you like boiled eggs? (He)
30. What do they do on their days off?

*2. Read the following (a) in the negative (b) in the interrogative*

1. You know the answer.
2. He has breakfast at 8.00.
3. He loves her.
4. Some schoolgirls wear uniforms.
5. He trusts you.
6. He tries hard.
7. The park closes at dusk.
8. He misses his mother.
9. The children like sweets.
10. He finishes work at 6.00.
11. He lives beside the sea.
12. He bullies his sisters.
13. This stove heats the water.
14. She has a cooked breakfast.
15. She carries a sleeping bag.
16. He usually believes you.
17. She dances in competitions.
18. You remember the address.
19. She plays chess very well.
20. He worries about her.
21. These thieves work at night.
22. He leaves home at 8.00 every day.
23. Ann arranges everything.
24. She agrees with you.
25. Their dogs bark all night.
26. Their neighbours often complain.
27. Tom enjoys driving at night.
28. He engages new staff every spring.
29. Tom looks very well.
30. They sell fresh grape juice here.
31. She cuts her husband's hair.
32. They pick the apples in October.
33. The last train leaves at midnight.
34. He relaxes at weekends.
35. She refuses to discuss it.

**Самостійна робота 2.**

**МИНУЛИЙ ПРОСТИЙ ЧАС**

**THE PAST SIMPLE TENSE**

**УТВОРЕННЯ**

*Стверджувальна форма* дієслова в ***Past Simple*** в усіх особах однини та множини збігається з другою фор­мою дієслова:

|  |  |
| --- | --- |
| *І worked*  *we worked*  *you worked* | я працював  ми працювали  ви працювали |

В англійській мові дієслова поділяються на правильні та неправильні. ***Past Simple*** правильних дієслів утво­рюється додаванням до інфінітива без частки to закін­чення **-ed**, яке вимовляється як:

**[t]** *–* **після глухих приголосних, крім t:**

*to ask – asked to, like – liked*

**[d]** *–* **після дзвінких приголосних, крім d, та після** **голосних:**

*to clean – cleaned, to live – lived, to answer – answered*

**[id]** *–* **після t, d, te, de:**

*to want – wanted, to defend – defended, to hate – hated, to decide – decided*

**Правопис правильних дієслів у *Past Simple*:**

а) якщо інфінітив закінчується на голосну **e**, то в ***Past Simple*** перед закінченням **-ed** вона не пишеться:

*to love — lov****ed***

б) якщо інфінітив закінчується на голосну **у**, перед якою стоїть приголосна, то перед закінченням **-ed** буква **у** змінюється на **і**:

*to study — stud****ied****, to cry — cr****ied***

в) якщо інфінітив закінчується на одну приголосну, якій передує короткий наголошений голосний звук, то кінцева приголосна подвоюється:

*to stop — sto****pp****ed to permit — permi****tt****ed*

г) кінцева буква **r** подвоюється, якщо останній склад наголошений і не має дифтонга (подвійного голосного звука):

*to prefer — prefe****rr****ed, to occur — occu****rr****ed*

д) кінцева буква **1** подвоюється, якщо їй передує ко­роткий голосний звук (наголошений чи ненаголошений):

*to travel — trave****ll****ed, to fulfil - fulfi****ll****ed*

**Форма *Past Simple* неправильних дієслів утворюється по-різному.**

*Питальна форма* ***Past Simple*** правильних і непра­вильних дієслів утворюється за допомогою допоміжного дієслова **did** та інфінітива основного дієслова без частки **to.** Допоміжне дієслово ставиться перед підметом:

***Did*** *you go to the Institute yesterday? What* ***did*** *he say?*

*Заперечна форма* ***Past Simple*** утворюється за допо­могою допоміжного дієслова **did,** заперечної частки **not** та інфінітива основного дієслова без частки **to.** Допо­міжне дієслово ставиться між підметом і присудком:

*І* ***did not*** *know this. They* ***did not*** *work.*

У розмовній мові замість **did not** вживається скороче­на форма **didn't:**

*І* ***didn't*** *understand you.*

Дієслово **to be** в ***Past Simple*** має форми **was** і **were:**

|  |  |
| --- | --- |
| *I* ***was*** | *we* ***were*** |
| *you* ***were*** | *you* ***were*** |
| *he* ***was***  *she* ***was***  *it* ***was*** | *they* ***were*** |

Питальна та заперечна форми дієслова **to be** утворюються без допоміжного дієслова **did:**

***Were*** *you at home yesterday? I* ***was not*** *at home*

У розмовній мові замість **was not, were not** вжива­ються форми **wasn't, weren't:**

*They* ***weren't*** *afraid of him.*

**ВЖИВАННЯ**

***Past Simple*** вживається для вираження:

1) одноразової або повторюваної дії в минулому. Час минулої дії часто уточнюється обставинами **yesterday, last week, the other day, ago** тощо:

*I saw you in the street yesterday. They lived in London before the war.*

2) ряду послідовних дій у минулому:

*І dressed, went downstairs, had some coffee in the kitchen and went out to the garage.*

3) повторюваної дії у минулому:

*І saw her every day.*

**ПАСИВНИЙ СТАН**

Пасивний стан ***Past Simple*** утворюється за допомо­гою допоміжного дієслова **to be** в ***Past Simple*** і ***Past Participle*** основного дієслова:

|  |  |
| --- | --- |
| *І* ***was*** *examin****ed***  *you* ***were*** *examin****ed***  *he* ***was*** *examin****ed***  *she* ***was*** *examin****ed***  *it* ***was*** *examin****ed*** | *we were examin****ed***  *you were examin****ed***  *they were examin****ed*** |

**The simple past tense**

*3. Put the verbs in the following sentences into the simple past tense.*

1. I go to work by bus.
2. I meet her on Tuesdays.
3. He always wears black.
4. I make cakes every week.
5. She gets up at 6.30.
6. He understands me.
7. He shuts the shop at 6.00.
8. She speaks slowly.
9. He leaves the house at 9.00.
10. I read a chapter every night.
11. You eat too much.
12. I see him every day.
13. He cries when he is hurt.
14. Who knows the answer?
15. I think I know it.
16. He takes the dog out twice a day.
17. We buy them here.
18. I dream every night.
19. He often feels ill.
20. I know what he wants.
21. I usually pay him £5.
22. His dog always bites me.
23. It costs 30p.
24. My back hurts.
25. We drink water.
26. His roses grow well.
27. He rides every day.
28. He often falls off.
29. He puts up his prices every year.
30. He sleeps badly.

*4. Put the verbs in the following sentences into (a) the negative (b) the interrogative*.

1. She saw your brother.
2. We heard a terrible noise.
3. He slept till 10.00.
4. He looked at the picture.
5. They drank all the wine.
6. They set out early enough.
7. She thought about it.
8. The police caught the thief.
9. He hid the letter.
10. She found her watch.
11. His nose bled.
12. My mother chose this hotel.
13. She lent you enough money.
14. Keiko taught Japanese.
15. Tom hurt his foot.
16. He broke his arm.
17. His wife came at 8.00.
18. He lost his wallet.
19. His son wrote a novel.
20. They flew to New York.
21. Ann drew you a map.
22. Tom laid the table.
23. Mr Pitt fell downstairs.
24. She lost her way.
25. He forbade her to leave.
26. I sent it to the laundry.
27. Jack kept the money.
28. He rode slowly.
29. They spent it all.
30. She sold the car.
31. Jean rang the bell.
32. The sun rose at 6.00.
33. The boys ran home.
34. He shook the bottle.
35. He forgave her.

*5. Make the sentences (a) negative and (b) interrogative, using* ***do/does/did****.*

1. They have eggs for breakfast.
2. He needs a new coat.
3. He used to sell fruit.
4. They have to work hard.
5. She does the housework.
6. He needs more money.
7. He had a row with his boss.
8. She had a heart attack.
9. Her hair needed cutting.
10. He does his homework after supper.
11. She has a singing lesson every week.
12. He does his best.
13. He has to get up at six every day.
14. The children have dinner at school.
15. She dared him to climb it.
16. You did it on purpose.
17. He dares to say that!
18. They had a good time.
19. The drink did him good.
20. My watch needs cleaning.
21. He had an accident.
22. You had your house painted.
23. She used to make her own clothes.
24. You do the exercises.
25. He had difficulty (in) getting a job.

**Самостійна робота 3.**

**МАЙБУТНІЙ ПРОСТИЙ ЧАС**

**THE FUTURE SIMPLE TENSE**

**УТВОРЕННЯ**

***Future Simple*** утворюється за допомогою допоміж­них дієслів **shall** і **will** та інфінітива основного дієслова без частки **to.** Допоміжне дієслово **shall** вживається в першій особі однини і множини, **will** – у другій і третій особах:

|  |  |
| --- | --- |
| *І* ***shall/will*** *stand*  *you* ***will*** *stand*  *he* ***will*** *stand*  *she* ***will*** *stand*  *it* ***will*** *stand* | *we* ***shall/will*** *stand*  *you* ***will*** *stand*  *they* ***will*** *stand* |

**Примітка**. У сучасній англійській мові допоміжне дієслово **will** вживається для утворення ***Future Simple*** в усіх особах.

У розмовній мові замість **shall** і **will** звичайно вжива­ється скорочена форма **'ll**, яка на письмі приєднується до підмета:

*I****’ll*** *tell it to you after dinner.Я розкажу Вам про це після обіду.*

*He****’ll*** *be back in an hour. Він повернеться за годину.*

У *питальній формі* допоміжне дієслово ставиться пе­ред підметом:

***Shall*** *we come back here?* Ми повернемося сюди?

*When* ***will*** *he be at home?* Коли він буде вдома?

У *заперечній формі* після допоміжного дієслова вжи­вається заперечна частка **not:**

*We* ***shall not*** *go there.* Ми не підемо туди.

*Не* ***will not*** *stay here.* Він не залишиться тут.

У розмовній мові замість **shall not** і **will not** вжива­ються скорочені форми **shan't** і **won't:**

*І* ***shan't*** *go there.* Я не піду туди.

*She* ***won't*** *go to the theatre.* Вона не піде до театру.

**ВЖИВАННЯ**

***Future Simple*** вживається для вираження однора­зової, постійної або повторюваної дії в майбутньому:

*I'll go there with you.* Я поїду туди з тобою.

*I'll always come back.* Я завжди повертатимусь.

*He'll work at the factory next year.* Наступного року він працюватиме на фабриці.

В англійській мові ***Future Simple*** не вживається в підрядних часу та умови. Для вираження майбутньої дії в таких реченнях вживається ***Present Simple***:

*I'll be here till you* ***come****. Я буду тут, доки ти прийдеш.*

*I'll give it to him when he* ***comes*** *back. Я дам це йому, коли він noвернеться.*

**ПАСИВНИЙ СТАН**

Пасивний стан утворюється за допомогою допоміжно­го дієслова **to be** у ***Future Simple*** і ***Past Participle*** основного дієслова:

*І (we)* ***shall be*** *examin****ed****.*

*He (she, it, you, they)* ***will be*** *examin****ed****.*

**The future simple tense**

*6. Put the verbs in brackets into the future simple.*

1. I (know) the result in a week.
2. You (be) in Rome tonight.
3. You (be) able to drive after another five lessons.
4. Do you think that he (recognize) me?
5. Unless he runs he (not catch) the train.
6. He (lend) it to you if you ask him.
7. I hope I (find) it.
8. He (believe) whatever you tell him.
9. I (remember) this day all my life.
10. Perhaps he (arrive) in time for lunch.
11. If he works well I (pay) him £10.
12. I wonder how many of us still (be) here next year.
13. If you think it over you (see) that I am right.
14. If you learn another language you (get) a better job.
15. I am sure that you (like) our new house.
16. Newspaper announcement: The President (drive) along the High Street in an open carriage.
17. You (need) a visa if you are going to Spain.
18. You (feel) better when you've had a meal.
19. She (have) £1000 a year when she is twenty-one.
20. If you put any more polish on that floor someone (slip) on it.
21. I wonder if he (succeed).
22. I hope he (remember) to buy wine.
23. If you leave your roller skates on the path someone (fall) over them.
24. If they fall over them and hurt themselves they (sue) you.
25. If you want twenty cigarettes you (have) to give me more money.
26. Notice: The management (not be) responsible for articles left on the seats.
27. If I drop this it (explode).
28. You (have) time to help me tomorrow?
29. It (matter) if I don't come home till morning?
30. He (mind) if I bring my dog?

**Самостійна робота 4.**

**ТЕПЕРІШНІЙ ТРИВАЛИЙ ЧАС**

**THE PRESENT CONTINUOUS TENSE**

**ДІЄПРИКМЕТНИК ТЕПЕРІШНЬОГО ЧАСУ**

**THE PRESENT PARTICIPLE**

**УТВОРЕННЯ**

1. ***Present Participle***утворюється за допомогою закін­чення **-ing**, яке додається до інфінітива дієслова без час­тки **to**:

*to read — read****ing***

1. Якщо інфінітив закінчується на німе **e**, то перед за­кінченням **-ing** воно опускається:

*to writ****e*** *— writ****ing***

1. Якщо інфінітив закінчується однією приголосною буквою, якій передує короткий наголошений голосний звук, то перед закінченням кінцева приголосна подвою­ється:

*to sit — si****tt****ing, to begin — begi****nn****ing*

**Примітка.** Кінцева буква **k** після **оо** не подвоюється: *look — looking*

1. Кінцева буква **г** подвоюється, якщо останній склад наголошений і не містить дифтонга:

*to prefer — prefe****rr****ing*

1. Кінцева буква **1** подвоюється, якщо їй передує корот­кий голосний звук (наголошений чи ненаголошений):

*to compel – compe****ll****ing to travel – trave****ll****ing*

1. У дієсловах *to lie, to tie, to die*буквосполучення **іе** перед закінченням **-ing** змінюється на **у**:

*to l****ie*** *— l****y****ing to t****ie*** *— t****y****ing to d****ie*** *— d****y****ing*

**Примітка**.Кінцева буква у перед закінченням **-ing** не змінюється:

*to tr****y****- tr****y****ing*

**ТЕПЕРІШНІЙ ТРИВАЛИЙ ЧАС**

**THE PRESENT CONTINUOUS TENSE**

**УТВОРЕННЯ**

***Present Continuous*** утворюється за допомогою допоміжного дієслова **to be** в ***Present Indefinite*** і дієприкметника теперішнього часу ***(Present Participle)*** основного дієслова.

*Стверджувальна форма* ***Present Continuous****:*

|  |  |
| --- | --- |
| *I* ***am*** *speak****ing*** *(I'm speaking)*  *he* ***is*** *speak****ing*** *(he's speaking)*  *she* ***is*** *speak****ing*** *(she's speaking)*  *it* ***is*** *speak****ing*** *(it's speaking)* | *we* ***are*** *speak****ing*** *(we're speaking)*  *you* ***are*** *speak****ing*** *(you're you speaking)*  *they* ***are*** *speak****ing*** *(they're speaking)* |

У дужках подано скорочені форми, що вживаються в розмовній мові.

У *питальній формі* допоміжне дієслово ставиться пе­ред підметом:

***Are*** *the boys playing chess?*

***Is*** *she working in the garden?*

*What* ***are*** *you doing?*

У *заперечній формі* після допоміжного дієслова вжи­вається заперечна частка not:

*The girls* ***are not*** *singing.*

У розмовній мові замість **is not** i **are not** вживають­ся скорочені форми **isn't** і **aren't**:

*She* ***isn't*** *listening in. Why* ***aren't*** *you working?*

**ВЖИВАННЯ**

***Present Continuous*** вживається для вираження:

1) дії, що відбувається в момент мовлення:

*You are not listening to me.*

2) тривалої дії, що відбувається в певний період тепе­рішнього часу, хоч і не обов'язково в момент мовлення:

*What are you doing here in London? I'm studying at the University.*

3) тривалої дії, що відбувається одночасно з іншою дією, яка належить до теперішнього часу:

*І am only happy when I am working.*

4) запланованої майбутньої дії, особливо з дієслова­ми, що означають рух:

*We are flying to Paris in the morning.*

*When are you coming back?*

*Is he coming tonight?*

5) роздратування мовця щодо дії, яка відбувається постійно (зазвичай із словами *always, constantly, continually)*

*He is always loosing things.*

Дієслово **to go** у ***Present Continuous*** з інфінітивом іншого дієслова означає намір виконати дію в найближ­чому майбутньому або надає відтінку обов'язковості, неминучості виконання дії, позначеної інфінітивом:

*І am* ***going******to speak****.*

*It's* ***going******to rain.***

*He is* ***going to be*** *an engineer.*

**Verbs not normally used in the Continuous Tenses**

**Stative verbs** refer to ‘states’. A state has no beginning and no end. We don’t ‘control’ it

**There are 3 cases of verbs:**

* Dynamicverbs which have simple and continuous forms

*I often* ***listen*** *to music.*

*I’****m listening*** *to music now.*

* Verbs which are always stative

*She* ***loves*** *her baby.*

* Verbs that have stative and dynamic uses

*I’****m weighting*** *myself*

*I* ***weight*** *80 kilos.*

1. Verbs of senses

*hear, see, smell, feel, notice, taste*

1. Verbs of feelings and emotions

*hate, like, dislike, love, need, prefer, want, wish, hope*

1. Verbs of mental activity

*believe, imagine, know, mean, realize, recognize, remember, suppose, understand, seem, expect, agree, doubt, forget, prefer*

1. Verbs of possession and being

*have, be, belong, concern, consist, contain, depend, involve, matter, need, owe, own, possess, cost, weight, come from*

**ПАСИВНИЙ СТАН**

Пасивний стан ***Present Continuous*** утворюється за до­помогою допоміжного дієслова **to be** в ***Present Continuous*** і ***Past Participle*** основного дієслова:

|  |  |
| --- | --- |
| *І am being examined.*  *He (she, it) is being examined.*  *We (you, they) are being examined.* | *Am I being examined?*  *Is he (she, it) being examined?*  *Are we (you, they) being examined?* |

**The present continuous tense**

*7. Put the verbs in brackets into the present continuous tense.*

1. She (not work), she (swim) in the river.
2. He (teach) his boy to ride.
3. The airplane (fly) at 2,000 metres.
4. Mrs Jones (sweep) the steps outside her house.
5. It is a lovely day. The sun (shine) and the birds (sing).
6. We (have) breakfast at 8.00 tomorrow as Tom (catch) an early train.
7. She always (ring) up and (ask) questions.
8. Ann usually does the shopping, but I (do) it today as she isn't well.
9. Mother (rest) now. She always rests after lunch.
10. The children are very quiet. Go and see what they (do). *-* They (cut) up some £5 notes.
11. I can't hear what you (say); the traffic (make) too much noise.
12. She always (lose) her glasses and (ask) me to look for them.
13. Can I borrow your pen or you (use) it at the moment?
14. It (rain)? ~Yes, it (rain) very hard. You can't go out yet.
15. Someone (knock) at the door. Shall I answer it? ~ I (come) in a minute. I just (wash) my hands.
16. You (do) anything this evening? ~ No, I'm not. – Well, I (go) to the cinema. Would you like to come with me?
17. What Tom (do) now? He (clean) his shoes.
18. Why Ann (not wear) her new dress?
19. Why you (mend) that old shirt?
20. You (not tell) the truth. ~ How do you know that I (not tell) the truth?
21. Who (move) the furniture about upstairs? ~ It's Tom. He (paint) the front bedroom.
22. What you (read) now? I (read) *Crime and Punishment.*
23. Why you (make) a cake? Someone (come) to tea?
24. Where is Tom? ~ He (lie) under the car.
25. Why you (type) so fast? You (make) a lot of mistakes.
26. They (dig) an enormous hole just outside my gate. ~ What they (do) that for? ~ I don't know. Perhaps they (look) for oil.
27. What (make) that terrible noise? ~ It's the pneumatic drill. They (repair) the road.
28. What you (wait) for? – I (wait) for my change; the boy just (get) it.
29. Mother: What you (look) at? Something (happen) in the street?
30. Child: Yes. The house opposite is on fire! Come and look.  
    Mother: I can't. I (bath) the babies. Is the Fire Brigade here?
31. Child: Yes. Fire engines (rush) up and the firemen (jump) out and (unroll) their hoses.
32. Smoke (pour) from the windows! People (stop) to watch.  
    A policeman (try) to move them on.
33. An old man (climb) out of a first floor window!  
    A fireman (help) him! Two boys (slide) down a rope!
34. A woman (wave) from the attic and a fireman (go) up a ladder to help her!
35. Now he (come) down again! He (carry) a baby! The crowd (cheer)

**The simple present and the present continuous***8.**Put the verbs in brackets into the simple present or the present continuous tense.*

1. Cuckoos (not build) nests. They (use) the nests of other birds.
2. You can't see Tom now: he (have) a bath.
3. He usually (drink) coffee but today he (drink) tea.
4. What she (do) in the evenings? ~ She usually (play) cards or (watch) TV.
5. I won't go out now as it (rain) and I (not have) an umbrella.
6. The last train (leave) the station at 11.30.
7. He usually (speak) so quickly that I (not understand) him.
8. Ann (make) a dress for herself at the moment. She (make) all her own clothes.
9. Hardly anyone (wear) a hat nowadays.
10. I'm afraid I've broken one of your coffee cups. ~ Don’t worry. I (not like) that set anyway.
11. I (wear) my sunglasses today because the sun is very strong.
12. Tom can't have the newspaper now because his aunt (read) it.
13. I'm busy at the moment. I (redecorate) the sitting room.
14. The kettle (boil) now. Shall I make the tea?
15. You (enjoy) yourself or would you like to leave now? -  
    I (enjoy) myself very much. I (want) to stay to the end.
16. How you (get) to work as a rule? ~ I usually (go) by bus but tomorrow I (go) in Tom's car.
17. Why you (put) on your coat? ~ I (go) for a walk. You (come) with me? -  
    Yes, I'd love to come. You (mind) if I bring my dog?
18. How much you (owe) him? – I (owe) him £5. ~ You (intend) to pay him?
19. Mary usually (learn) languages very quickly but she (not seem) able to learn modern Greek.
20. I always (buy) lottery tickets but I never (win) anything.
21. You (like) this necklace? I (give) it to my daughter for her birthday tomorrow.
22. I won't tell you my secret unless you (promise) not to tell anyone. – I (promise).
23. You always (write) with your left hand?
24. You (love) him? – No, I (like) him very much but I (not love) him.
25. You (dream) at night? – Yes, I always (dream) and if I (eat) too much supper I (have) nightmares.
26. These workmen are never satisfied; they always (complain).
27. We (use) this room today because the window in the other room is broken.
28. This car (make) a very strange noise. You (think) it is all right?-  
    Oh, that noise (not matter). It always (make) a noise like that.
29. What Tom (think) of the Budget? - He (think) it most unfair. ~ I (agree) with him.
30. What this one (cost)? – It (cost) forty pence.
31. You (hear) the wind? It (blow) very strongly tonight.
32. You (see) my car keys anywhere? - No, I (look) for them but I (not see) them.
33. He never (listen) to what you say. He always (think) about something else.
34. You (understand) what the lecturer is saying? ~ No, I (not understand) him at all.
35. What you (have) for breakfast usually? ~ I usually (eat) a carrot and (drink) a glass of cold water.
36. Why you (walk) so fast today? You usually (walk) quite slowly. ~ I (hurry) because I (meet) my mother at 4 o'clock and she (not like) to be kept waiting.
37. You (recognize) that man? ~ I (think) that I have seen him before but I (not remember) his name.
38. Look at that crowd. I (wonder) what they (wait) for.
39. Stop! You (not see) the notice? ~ I (see) it but I can't read it because I (not wear) my glasses.
40. She always (borrow) from me and she never (remember) to pay me back.
41. I (save) up because I (go) abroad in July.
42. I (think) it is a pity you don't take more exercise. You (get) fat.
43. Tom never (do) any work in the garden; he always (work) on his car.
44. That film (come) to the local cinema next week. You (want) to see it?
45. How Peter (get) on at school? ~ Very well. He (seem) to like the life.
46. This story is about a boy who (make) friends with a snake which he (find) in his garden. Then he (go) away but he (not forget) the snake and some years later he (return) and (look) for it. He (find) the snake who (recognize) its old friend and (coil) round him affectionately. But, unfortunately, the snake is by now a full-grown boa-constrictor and its embrace (kill) the poor boy. – The snake (feel) sorry about this? – I (not know). The story (end) there.
47. How you (end) a letter that (begin), 'Dear Sir'? ~ I always (put), 'Yours truly', but Tom (prefer) 'Yours faithfully'.
48. What the word 'catastrophe' (mean)? ~ It (mean) 'disaster'.
49. Who (own) this umbrella? ~ I (not know). Everybody (use) it but nobody (know) who (own) it.
50. You (mind) if I (ask) you a question? ~ That (depend) on the question. ~ It (concern) your brother. ~ I (refuse) to answer any question about my brother.

**Самостійна робота 5-6.**

**МИНУЛИЙ ТРИВАЛИЙ ЧАС**

**THE PAST CONTINUOUS TENSE**

**УТВОРЕННЯ**

*Стверджувальна форма* дієслова в ***Past Continuous*** утворюється за допомогою допоміжного дієслова **to be** в ***Past Simple*** і дієприкметника теперішнього часу ***(Present Participle)*** ос­новного дієслова:

|  |  |
| --- | --- |
| *І* ***was*** *mak****ing***  *you* ***were*** *mak****ing***  *he* ***was*** *mak****ing***  *she* ***was*** *mak****ing***  *it* ***was*** *mak****ing*** | *we* ***were*** *mak****ing***  *you* ***were*** *mak****ing***  *they* ***were*** *mak****ing*** |

У *питальній формі* допоміжне дієслово ставиться пе­ред підметом:

*What* ***were*** *you telling him?*

У *заперечній формі* після допоміжного дієслова вжива­ється заперечна частка **not:**

*І w****as not*** *watching TV in the evening.*

У розмовній мові в заперечній і питально-заперечній формах замість **was not** і **were not** вживаються переваж­но скорочені форми **wasn't** і **weren't:**

*Не* ***wasn't*** *coming.* ***Wasn't*** *he coming?*

*They* ***weren't*** *coming.* ***Weren't*** *they coming?*

**ВЖИВАННЯ**

***Past Continuous*** вживається для вираження:

1) дії, що відбувалася, тривала в певний момент у минулому. На час дії звичайно вказують обставинні сло­ва типу **at two o'clock, at midnight, at that moment** або підрядні з дієсловом присудком у ***Past Simple***:

*Не was working at his English* ***at that time****. She was sitting by the window* ***when he came in.***

2)дії, що тривала протягом якогось часу в минулому:

*In spring he was visiting his old school-fellow.*

**ПАСИВНИЙ СТАН**

Пасивний стан ***Past Continuous*** утворюється за допомогою допоміжного дієслова **to be** в ***Past Continuous*** і ***Past Participle*** основного дієслова:

*І (he, she, it) was being examined. We (you, they) were being examined.*

*Питальна і заперечна форми* утворюються таким чином:

***Was*** *he being taught? He* ***was not*** *being taught.*

***Were*** *they being taught? They* ***were not*** *being taught.*

**The past continuous tense***9. Put the verbs in brackets into the past continuous tense.*

1. Detective: I'm afraid I must ask you both what you (do) yesterday at 10.20 p.m. Mr X: I (play) chess with my wife. Mr Y: I (listen) to a play on the radio.
2. The children were frightened because it (get) dark.
3. It was a fine day and the roads were crowded because a lot of people (rush) to the seaside.
4. He usually wears sandals but when I last saw him he (wear) boots.
5. The house was in great disorder because he (redecorate) it.
6. The director didn't allow the actors to travel by air while they (work) on the film.
7. The car had nobody in it but the engine (run).
8. I was alone in the house at that time because Mr Jones (work) in the garage and Mrs Jones (shop).
9. Are you going to Rome? I thought that you (go) to Milan.
10. My wife and I (talk) about you the other day.
11. When I first met him he (study) painting.
12. There was a strong smell and the sound of frying. Obviously Mrs Jones (cook) fish.
13. Tom ate nothing for lunch because he (diet). He said that he (try) to lose 10 kilos.
14. Who you (talk) to on the telephone as I came in? – I (talk) to Mr Pitt.
15. When I first met him he (work) in a restaurant.
16. He watched the children for a moment. Some of them (bathe) in the sea, others (look) for shells, others (play) in the sand.
17. She (stand) at the bus stop. I asked her what bus she (wait) for.
18. From the sounds it was clear that Mary (practise) the piano.
19. Tom (sit) in a corner with a book. I told him that he (read) in very bad light.
20. The traffic (make) so much noise that I couldn't hear what he (say).

**The simple past and the past continuous**

*10. Put the verbs in brackets into the simple past or the past continuous tense.*

1. I lit the fire at 6.00 and it (burn) brightly when Tom came in at 7.00.
2. When I arrived the lecture had already started and the professor (write) on the overhead projector.
3. I (make) a cake when the light went out. I had to finish it in the dark.
4. Unfortunately when I arrived Ann just (leave), so we only had time for a few words.
5. He (watch) TV when the phone rang. Very unwillingly he (turn) down the sound and (go) to answer it.
6. He was very polite. Whenever his wife entered the room he (stand) up.
7. My dog (walk) along quietly when Mr Pitt's Pekinese attacked him.
8. What you (think) of his last book? ~ I (like) it very much.
9. He suddenly (realize) that he (travel) in the wrong direction.
10. He (play) the guitar outside her house when someone opened the window and (throw) out a bucket of water.
11. I just (open) the letter when the wind (blow) it out of my hand.
12. When I (look) for my passport I (find) this old photograph.
13. The boys (play) cards when they (hear) their father's step. They immediately (hide) the cards and (take) out their lesson books.
14. He (clean) his gun when it accidentally (go) off and (kill) him.
15. As I (cross) the road I (step) on a banana skin and (fall) heavily.
16. I still (lie) on the road when I (see) a lorry approaching.
17. Luckily the driver (see) me and (stop) the lorry in time.
18. When I (hear) his knock I (go) to the door and (open) it, but I (not recognize) him at first because I (not wear) my glasses.
19. While the guests (dance) thieves (break) into the house and (steal) a lot of fur coats.
20. The next day, as they (know) that the police (look) for them, they (hide) the coats in a wood and (go) off in different directions.

**Самостійна робота 7-8.**

**МАЙБУТНІЙ ТРИВАЛИЙ ЧАС**

**THE FUTURE CONTINUOUS TENSE**

**УТВОРЕННЯ**

*Стверджувальна форма* ***Future Continuous*** утворю­ється за допомогою допоміжного дієслова **to be** у ***Future Simple*** та дієприкметника теперішнього часу ***(Present Participle)*** основ­ного дієслова:

|  |  |
| --- | --- |
| *І* ***shall be*** *translat****ing***  *you* ***will be*** *translat****ing***  *he* ***will be*** *translat****ing***  *she* ***will be*** *translat****ing*** | *we* ***shall be*** *translat****ing***  *you* ***will be*** *translat****ing***  *they* ***will be*** *translat****ing*** |

У *питальній формі* допоміжне дієслово **shall** або **will** ставиться перед підметом:

***Will*** *they be studying?* ***Shall*** *we be training?*

У *заперечній формі* після допоміжного дієслова **shall** або **will** вживається заперечна частка **not:**

*They* ***will not*** *be leaving for Kyiv. I* ***shall not*** *be painting.*

У розмовній мові замість **shall** і **will** вживається скорочення **’ll**, а замість **shall not** і **will not — shan’t** і **won't.**

**ВЖИВАННЯ**

***Future Continuous*** вживається для вираження трива­лої дії, що відбуватиметься в якийсь момент або період часу в майбутньому:

**I'll be looking out for you at two o'clock. We'll be playing all morning.**

**The future continuous and the future simple**

*11. Put the verbs in brackets into the future continuous tense.*

1. This time next month I (sit) on a beach.
2. When you arrive I probably (pick) fruit.
3. I'll call for her at eight. *-* No, don't; she still (have) breakfast then.
4. I (wait) for you when you come out.
5. When you next see me I (wear) my new dress.
6. I'll give Jack your message. I can do it easily because I (see) him tomorrow. We go to work on the same train.
7. You (do) geometry next term.
8. I'll look out for you at the parade. - Do, but I (wear) uniform so you may find it hard to recognize me.
9. We have to do night duty here. I (do) mine next week.
10. In a hundred years' time people (go) to Mars for their holidays.
11. He (use) the car this afternoon.
12. I (see) you again.
13. It's a serious injury but he (walk) again in six weeks.
14. I'll come at three o'clock. - Good, I (expect) you.
15. You'd better go back now; your mother (wonder) where you are.
16. In fifty years" time we (live) entirely on pills.
17. What do you think the children (do) when we get home? - I expect they (have) their supper.
18. The garden (look) its best next month.
19. I've just remembered that I left the bathroom taps on. I expect the water (flow) down the stairs by now.
20. You (need) your camera tomorrow or can I borrow it?
21. We've just got to the top in time. The sun (rise) in a minute.
22. Air hostess: We (take off) in a few minutes. Please fasten your safety belts.
23. We'd better go out tomorrow because Mary (practise) the piano all day.
24. Don't ring her up at 6.00; she (put) the children to bed. Ring later.
25. When I get home my dog (sit) at the door waiting for me.

*12. Put the verbs in brackets into the appropriate future form (continuous or simple)*

1. There is going to be a bus strike. Everyone (walk) to work next week.
2. You've just missed the last train! – Never mind, I (walk).
3. I'll ring you tomorrow at six. – No, don't ring at six; I (bath) the baby then. Ring later.
4. Mother: Your face is dirty. – Child: All right, I (wash) it.
5. Will you have lunch with me on the 24th? – I'd love to, but I'm afraid I (do) my exam then.
6. I (work) for Mr Pitt next week as his own secretary will be away.
7. You (have) something to drink, won't you?
8. Why did you take his razor? He (look) for it everywhere tomorrow.
9. I hope you'll do well in the race tomorrow. I (think) of you.
10. Notice on board ship: In the event of an emergency all passengers (assemble) on the boat deck.
11. I don't feel well enough to go to the station to meet him. ~ I (meet) him for you. But how I (recognize) him? – He's small and fair, and he (wear) a black and white school cap.
12. I (leave) these flowers at the hospital for you. I (go) there anyway to visit my cousin.
13. You ought to try to get a ticket for the Spectators' Gallery next week; they (debate) international fishing rights.
14. You've left the light on. – Oh, so I have. I (go) and turn it off.
15. I've just been appointed assistant at the local library. – Then you (work) under my sister. She is head librarian there.
16. I want to post this letter but I don't want to go out in the rain. - I (post) it for you. I (go) out anyway as I have to take the dog for a walk.
17. The prima ballerina is ill so I expect her understudy (dance) instead.
18. This time next Monday I (sit) in a Paris cafe reading *Le Figaro. –* You (not read). You'll be looking at all the pretty girls.
19. Wages have gone up, so I suppose prices (go up) too.
20. It is nearly autumn; soon the leaves (change) colour.
21. Mother (on phone): My son has just burnt his hand very badly. – Doctor: I (come) at once.
22. Customer in restaurant: Waiter, this plate is dirty. – Waiter: I'm sorry, sir, I (bring) you another.
23. In a few years' time we all (live) in houses heated by solar energy.
24. It's beginning to get dark; the street lights (go on) in a few minutes.
25. We (not play) poker at the party tonight; our hostess doesn't approve of cards.
26. Let's wait here; the swing bridge (open) in a minute to let that ship through.
27. Guest: May I use your phone to ring for a taxi? - Hostess: Oh, there's no need for that; my son (drive) you home.
28. Are you nearly ready? Our guests (arrive) any minute.
29. Now that the parking regulations have become stricter, more people (use) public transport and (leave) their cars at home.
30. I'm afraid I've just broken your goldfish bowl. - Never mind, I (put) the goldfish in the bath.

**Самостійна робота 9-10.**

**ТЕПЕРІШНІЙ ЗАВЕРШЕНИЙ ЧАС**

**THE PRESENT PERFECT TENSE**

**УТВОРЕННЯ**

**Present Perfect** утворюється за допомогою допоміжного дієслова **to have** у ***Present Simple*** і дієприкметника минулого часу ***(Past Participle)*** основного дієслова.

***Past Participle*** правильних дієслів утворюється дода­ванням до інфінітива закінчення **-ed**, тобто за формою **Past Participle** правильних дієслів не відрізняється від ***Past Simple***:

*І/we/you/they have discuss****ed***

*He/she has discuss****ed***

У розмовній мові вживаються переважно скорочені форми:

***I've*** *worked.* ***He's*** *worked.* ***We've*** *worked.*

У *питальній формі* допоміжне дієслово ставиться перед підметом:

***Have*** *you ever lived in a village?* ***Has*** *she congratulated him?*

У *заперечній формі* після допоміжного дієслова вживається заперечна частка **not:**

*My friend* ***has not*** *come yet. We* ***have not*** *discussed it.*

У розмовній мові замість **have not** i **has not** вживаються скорочені форми **haven't, hasn't** або **'ve not, 's** **not:**

*I****’ve not*** *done anything. You* ***haven't*** *changed much. He****'s not*** *come yet.*

У питально-заперечних реченнях вживаються скорочені форми **haven't** і **hasn't,** які ставляться перед підметом:

***Hasn'****t he been to Paris? Why* ***haven't*** *you put on your coat?*

**ВЖИВАННЯ**

**Present Perfect** вживається для вираження дії, яка відбулася до моменту мовлення, і результат цієї минулої дії пов'язаний з цим моментом:

*І have locked the door. Have you turned off the gas?*

Час дії, вираженої дієсловом у **Present Perfect**, здебільшого не зазначається, тому що в центрі уваги результат дії, а не час її перебігу:

*What have they done? You have read more than me.*

**Present Perfect** вживається також у реченнях з такими обставинами часу:

а) що означають період часу, який почався в минулому і тривав до моменту мовлення: **up to now, up to the present** – до цього часу; **lately** – нещодавно, останнім часом; **recently** – останнім часом; **so far** – до цього часу; **since** – відтоді; **not yet** – ще не:

*Up to now we have done three exercises.*

*Have you seen them recently?*

*Have you heard from your sister lately?*

б) що означають період часу, який ще не закінчився: **today** – сьогодні; **this week** – цього тижня; **this month** – цього місяця; **this year** – цього року; **this morning** – сьогодні вранці:

*Have you seen her today? Has he visited a dentist this month?*

З цими обставинами часу вживається також Past Indefinite, якщо в реченні є слова, які вказують на дію в минулому:

*A letter came from them today when he was at work.*

в) з прислівниками неозначеного часу і частотності: **ever** – коли-небудь; **never** – ніколи; **often** – часто; **seldom** – рідко; **already** –вже; **just** – щойно:

*Have you ever thought about it? I've often heard him tell the tale. We've just arrived.*

З цими прислівниками вживається також ***Past Simple***:

*I told you already. I never saw him in my life.*

***Present Perfect*** не вживається з обставинними словами та словосполученнями, які уточнюють час минулої дії: **yesterday** – вчора; **last week** – минулого тижня тощо:

*She went yesterday. When did you see him?*

***Present Perfect*** вживається для вираження дії або стану, що триває з якогось моменту в минулому до моменту мовлення. У цьому значенні ***Present Perfect*** вживається переважно з дієсловами, що не мають форми ***Continuous***:

*І have known her for years.*

*I have not seen you for a whole month.*

**ПАСИВНИЙ СТАН**

Пасивний стан ***Present Perfect*** утворюється за допомогою допоміжного дієслова **to be** в ***Present Perfect*** і ***Past Participle*** основного дієслова:

|  |  |
| --- | --- |
| *І have been examined*  *you have been examined*  *he has been examined*  *she has been examined*  *it has been examined* | *we have been examined*  *you have been examined*  *they have been examined* |

**The present perfect tense**

*13. Put the verbs in brackets into the present perfect tense, and fill the spaces by repeating the auxiliary.*

1. Where you (be)? ~ I (be) to the dentist.
2. You (have) breakfast? ~ Yes, I …
3. The post (come)? ~ Yes, it …
4. You (see) my watch anywhere? ~ No, I'm afraid I …
5. I (not finish) my letter yet.
6. He just (go) out.
7. Someone (take) my bicycle.
8. The phone (stop) ringing.
9. You (hear) from her lately? - No, I …
10. I just (wash) that floor.
11. The cat (steal) the fish.
12. There aren't any buses because the drivers (go) on strike.
13. Charles (pass) his exam? ~ Yes, he …
14. How many bottles the milkman (leave)? ~ He (leave) six.
15. I (live) here for ten years.
16. How long you (know) Mr Pitt? ~ I (know) him for ten years.
17. Would you like some coffee? I just (make) some.
18. Mary (water) the tomatoes? ~ Yes, I think she …
19. You ever (leave) a restaurant without paying the bill? ~ No, I …
20. I (ask) him to dinner several times.
21. He always (refuse).
22. You ever (ride) a camel?
23. I (buy) a new carpet. Come and look at it.
24. He (post) the letter?
25. I often (see) him but I never (speak) to him.
26. You ever (eat) caviar? ~ No, I …
27. We just (hear) the most extraordinary news.
28. I (not pay) the telephone bill yet.

**The present perfect and the simple past**

*14.**Put the verbs in brackets into the present perfect or the simple past tense.*

1. This is my house. ~ How long you (live) here? ~ I (live) here since 1990.
2. He (live) in London for two years and then (go) to Edinburgh.
3. Shakespeare (write) a lot of plays.
4. My brother (write) several plays. He just (finish) his second tragedy.
5. I (fly) over Loch Ness last week. ~ You (see) the Loch Ness monster?
6. I (not see) him for three years. I wonder where he is.
7. He (not smoke) for two weeks. He is trying to give it up.
8. When he (arrive)? ~ He (arrive) at 2.00.
9. I can't go out because I (not finish) my work.
10. I never (drink) whisky. ~ Well, have some now.
11. I (write) the letter but I can't find a stamp.
12. The clock is slow. ~ It isn't slow, it (stop).
13. Here are your shoes; I just (clean) them.
14. I (leave) home at 8.00 and (get) here at twelve.
15. I (do) this sort of work when I (be) an apprentice.
16. He just (go) out.
17. He (go) out ten minutes ago.
18. You (have) breakfast yet? ~ Yes, I (have) it at 8.00.
19. I (meet) him last June.
20. You (see) the moon last night?
21. The play just (begin). You are a little late.
22. The newspaper (come)? ~ Yes, Ann is reading it.
23. We (miss) the bus. Now we'll have to walk.
24. Mr Pound is the bank manager. He (be) here for five years.
25. Mr Count (work) as a cashier for twenty-five years. Then he (retire) and (go) to live in the country.

**Самостійна робота 11-12.**

**МИНУЛИЙ ЗАВЕРШЕНИЙ ЧАС**

**THE PAST PERFECT TENSE**

**УТВОРЕННЯ**

***Past Perfect*** утворюється за допомогою допоміжного дієслова **to have** в ***Past Simple*** і дієприкметника минулого часу ***(Past Participle)*** основного дієслова. Дієслова в ***Past Perfect*** не змінюються за особами й числами:

*І (she, he, it, we, you, they)* ***had*** *bak****ed****.*

У розмовній мові замість **had** вживається скороче­на форма **'d**, яка на письмі приєднується до підмета:

*I****'d*** *(he****'d****, she****'d****, we****'d****, you****'d****, they****'d****) cooked.*

У *питальній формі* допоміжне дієслово ставиться перед підметом:

***Had*** *you helped?*

У *заперечній формі* після допоміжного дієслова вживається заперечна частка **not:**

*І had* ***not*** *ordered.*

У розмовній мові в заперечній і питально-заперечній формах вживається скорочена форма **hadn't:**

*Не* ***hadn't*** *required.* ***Hadn't*** *he required?*

**ВЖИВАННЯ**

**Past Perfect** вживається для вираження:

1) дії, яка відбулася раніше іншої минулої дії, позначеної дієсловом у ***Past Simple:***

*І told you I had met her.*

2) минулої дії, що вже закінчилася до певного моменту в минулому. Цей момент позначається такими словосполученнями: **by two o'clock** – до другої години, **by that time** – до того часу тощо:

*І had done my homework by eight o'clock.*

Заперечна форма ***Past Perfect*** вказує на те, що до певного моменту в минулому дія ще не закінчилася:

*І had not read the book by that time.*

3) дії, що почалася до певного моменту в минулому і тривала до цього моменту. У цьому значенні ***Past Perfect*** вживається переважно з дієсловами, які не мають форми ***Continuous***:

*When he came I had been there for an hour.*

**ПАСИВНИЙ СТАН**

Пасивний стан ***Past Perfect*** утворюється за допомогою допоміжного дієслова **to be** в ***Past Perfect*** і ***Past Participle*** основного дієслова:

*І (he, she, it, we, you, they)* ***had been*** *examin****ed****.*

У *питальній формі* допоміжне дієслово ставиться перед підметом:

***Had*** *he been examined?*

У *заперечній формі* після допоміжного дієслова **had** ставиться заперечна частка **not:**

*Не* ***had not*** *been examined.*

Put the verbs in brackets into the correct tense.

1 He (give) me back the book, (thank) me for lending it to him and (say) that he (enjoy) it very much; but I (know) that he (not read) it because most of the pages (be) still uncut.

2 When he (see) his wife off at the station, he (return) home as he (no have) to be at the airport till 9.30.

3 He (not have) to pack, for his wife already (do) that for him and his case (be) ready in the hall.

4 He (not have) to check the doors and windows either, for his *wife* always (do) that before she (leave) the house.

5 All he (have) to do (be) to decide whether or not to take his overcoat with him. In the end he (decide) not to.

6 At 8.30 he (pick) up his case, (go) out of the house and (slam) the door behind him.

7 Then he (feel) in his pockets for the key, for his wife (remind) him to double-lock the front door.

8 When he (search) all his pockets and (find) no key he (remember) where it (be).

9 He (leave) it in his overcoat pocket.

10 Then he (remember) something else; his passport and tickets (be) in his overcoat pocket as well.

11 I (arrive) in England in the middle of July. I (be told) that England (be) shrouded in fog all year round, so I (be) quite surprised to find that it was merely raining.

12 I (ask) another passenger, an Englishman, about the fog and he (say) that there (not be) any since the previous February.

13 If I (want) fog, he said, I (come) at quite the wrong time.

14 However, he (tell) me that I could buy tinned fog at a shop in Shaftesbury Avenue.

15 He (admit) that he never (buy) fog there himself but (assure) me that they (sell) good quality fog and that it (not be) expensive. I suppose he was joking.

16 When the old lady (return) to her flat she (see) at once that burglars (break) in during her absence, because the front door (be) open and everything in the flat (be) upside down.

17 The burglars themselves (be) no longer there, but they probably only just (leave) because a cigarette was still burning on an ornamental table.

18 Probably  
they (hear) the lift coming up and (run) down the fire escape.

19 They (help) themselves to her whisky too but there (be) a little left, so she (pour) herself out a drink.

20 She (wonder) if they (find) her jewellery and rather (hope) that they had.

21 The jewellery (be given) her by her husband, who (die) some years before.

22 Since his death she (not have) the heart to wear it, yet she (not like) to sell it.

23 Now it (seem) that fate (take) the matter out of her hands; and certainly the insurance money would come in handy.

24 I (put) the £5 note into one of my books; but next day it (take) me ages to find it because I (forget) which book I (put) it into.

25 A woman (come) in with a baby, who she (say) just (swallow) a safety pin.

26 I (think) my train (leave) at 14.33, and (be) very disappointed when I (arrive) at 14.30 and (learn) that it just (leave).

27 I (find) later that I (use) an out-of-date timetable.

28 He (park) his car under a No Parking sign and (rush) into the shop.  
When he (come) out of the shop ten minutes later the car (be) no longer there.

29 He (wonder) if someone (steal) it or if the police (drive) it away.

30 It (be) now 6 p.m.; and Jack (be) tired because he (work) hard all day.

31 He (be) also hungry because he (have) nothing to eat since breakfast.

32 His wife usually (bring) him sandwiches at lunch time, but today for some reason she (not come).

33 He (keep) looking at her, wondering where he (see) her before.

34 I (look) out before I (go) to bed and (see) a man standing on the opposite pavement watching the house.

35 When I (get up) the following morning he (be) still there, and I (wonder) whether he (stay) there all night or if he (go) away and (come) back.

36 When I (open) the door I (see) a man on his knees.

37 He clearly (listen) to our conversation and I (wonder) how much he (hear).

38 When I (ask) him what he (do), he (say) that he (drop) a 50p piece outside the door and (look) for it.

39 I (not see) any sign of the money, but I (find) a small notebook and pencil which he probably (drop) when the door (open) suddenly.

40 So he (take) notes of our conversation!

41 The notes (be) written in a foreign language, so I (turn) to the stranger and (ask) him to translate.

42 But he (pull) m hat over my eyes and (run) off down the corridor.

43 By the time I (recover) from the shock he (disappear) round the corner.

44 Curiously enough, when I (move) my foot I (find) that I (stand) on a 50p piece.

45 Perhaps he (tell) the truth after all!

**3.ПИТАННЯ, ЗАВДАННЯ ДЛЯ ПОТОНОГО ТА ПІДСУМКОВОГО КОНТРОЛЮ ЗНАНЬ**

**Variant 1**

### Choose the correct answer

**1. General vocabulary**

1. New Orleans is suffering from strong wind and heavy\_\_\_\_.

1. sun b) moon c) rain d) cloud e) globe

2. Her husband is very\_\_\_. He makes breakfast for children when she is busy.

* + 1. Clever b) intelligent c) handsome d) helpful e) late

3. Women \_\_\_\_the children while men go out to work.

a) encourage b) think c) look after d) develop e) remember

4. There are two types of \_\_\_\_, the African and the Indian, but they both have big ears.

a) lions b) monkeys c) bears d) elephants e) fish

5. Your \_\_\_\_ are cold! You should wear gloves

a) arms b) legs c) hands d) hairs e) eyes

**2. Grammar**

1. It … a lot in Britain.

а) rain b) rains c) is rain d) rainy e) are rain

2. At six o’clock I … for Jennie at the station.

a) waited b) wait c) waites d) was waiting e) had waited

3. They … an electric car.

а) never drive b) never have drive c) have never driven

d) drives never e) never drived

4. This is a school … I used to study

a) whose b) which c) where d) that e) who

5. At the conference we met … people whom we knew well.

a) much b) a few c) little d) a little e) a

**3. Language for Special Purposes**

1. Biology is the science of
2. living things
3. animals
4. plants
5. fungi
6. algae
7. **Physiology** is the study of
8. the **functions of living beings**.
9. the **structure and function of cells**.
10. the **biological processes on a molecular level**.
11. genes formed by segments of DNA and RNA.
12. **the relationship of living beings on the planet with their natural habitat**.
13. **Ecology** is the branch of biology that is responsible for **studying**
14. the **functions of living beings**.
15. the **structure and function of cells**.
16. the **biological processes on a molecular level**.
17. genes formed by segments of DNA and RNA.
18. **the relationship of living beings on the planet with their natural habitat**.
19. The process by which living things produce new living things of the same kind
20. respiration
21. digestion
22. assimilation
23. growth
24. reproduction
25. The process by which smaller, simple substances are combined chemically to form larger, more complex substances
26. synthesis
27. growth
28. reproduction
29. respiration
30. transportation
31. Which of the following would you NOT find in a bacterial cell?
32. DNA
33. cell membrane
34. golgi apparatus
35. ribosomes
36. plasmids
37. What part of the cell makes proteins?
38. ribosomes
39. mitochondria
40. lysosomes
41. vacuole
42. plasmids
43. Which of the following is biotic factor in an ecosystem?
44. bacteria
45. soil
46. temperature
47. rainfall
48. sunlight
49. ***\_\_\_\_\_\_\_\_*** is the way of living that meets the needs of the present without compromising the ability of future generations to meet their own needs.
50. Evolution
51. Global warming
52. Greenhouse effect
53. Climate change
54. Sustainable development
55. Carolus Linneus was born in
56. Sweden
57. England
58. Germany
59. Ukraine
60. France

**Variant 2**

### Choose the correct answer

1. **General vocabulary**
   * 1. The minister has developed a plan to \_\_\_\_ people to have more children.

a) encourage b) invite c) think d) manage e) feel

* + 1. She is very \_\_\_\_\_\_\_. She often works late.

1. hard-working b) noisy c) clever d) easy e) polite
   * 1. A \_\_\_\_\_ is a computer that you can easily carry.
2. chair b) TV c) laptop d) copy-book e) software

4. Humans need to change their lifestyle in order to\_\_\_\_ .

a) consume b) survive c) damage d) plan e) support

5. The \_\_\_\_ is never hungry because he can eat the highest leaves.

a) hare b) giraffe c) tiger d) snake e) human

**2. Grammar**

1. We … David in town a few days ago.

а) did see b) was saw c) did see d) was see e) saw

2. He … when the phone rang.

a) was sleeping b) were sleeping c) sleeped d) slept e) sleeps

3. This is the girl … comes from Spain

a) that b) whose c) who d) what e) which

4. Do you know \_\_\_\_\_\_ good Italian search engine?

a**)** an b) - c) this d) the e) a

5. If you have … spare time, look through this book.

a) many b) a few c) a little d) few e) fewer

**3. Language for Special Purposes**

1. **Cellular biology or cytology** is the branch of biology which studies
2. the **structure and function of cells**.
3. the **biological processes on a molecular level**.
4. the **development of living organisms from birth until death**.
5. genes formed by segments of DNA and RNA.
6. **the relationship of living beings on the planet with their natural habitat**.
7. **Genetics** is a branch of biology that **studies**
8. **biological heritage** which is transmitted from generation to generation.
9. **the relationship of living beings on the planet with their natural habitat**.
10. the **functions of living beings**.
11. **animal life**.
12. the plant world.
13. **Microbiology**, a science or branch of biology that focuses on the **study of**
14. **microorganisms**, which are the smallest living things.
15. **the relationship of living beings on the planet with their natural habitat**.
16. the **functions of living beings**.
17. **animal life**.
18. the plant world.
19. Breaking down food into nutrients, which the body uses for energy, growth, and cell repair.
20. respiration
21. digestion
22. homeostasis
23. growth
24. reproduction
25. Biology is the study of
26. minerals
27. weather
28. life
29. energy
30. soil
31. What part of the cell makes proteins?
32. ribosomes
33. mitochondria
34. lysosomes
35. vacuole
36. plasmids
37. The first man, who made and used microscope was
38. Plato
39. Carolus Linneus
40. Charles Darwin
41. Anthony van Leeuwenhoek
42. Aristotle
43. Nonrenewable resource is
44. biofuel
45. fossil fuels
46. hydropower
47. wind energy
48. sun energy
49. Which of the following does NOT refer to the phylum Mollusca?
50. spider
51. oyster
52. snail
53. squid
54. octopus
55. Which of the following is NOT a meat-eating animal?
56. tiger
57. polar bear
58. eagle
59. wolf
60. panda

**Variant 3**

### Choose the correct answer

1. **General vocabulary**
   1. After two cold, dry winters and \_\_\_\_ summers, the south-east of England is experiencing a serious drought.
   2. black b) hot c) risky d) clever e) blue
   3. You are very \_\_\_\_. Thank you for your help.
      1. busy b) kind c) worried d) shy e) blue
   4. Children cannot stay out late without \_\_\_\_ .

a) permission b) work c) TVset d) plan e) pocket money

4. This person has to use the telephone all the time.

a) teacher b) engineer c) baker d) call-centre worker e) cleaner

5. I look \_\_\_\_\_ my mother; we have the same eyes and nose

a) as b) like c) at d) to e) on

**2. Grammar**

1. Petra started at a factory last week. … factory is very new.

a) a b) an c) the d) - e) these

2. While my son …. for my call, somebody knocked at the door.

a) waits b) was waiting c) waited d) has waited e) wait

3. Your brother … tennis very well.

а) play b) plays c) is play d) are play e) playing

4. I have bought a computer, … is more expensive than this one.

a) who b) which c) what d) where e) whose

5. Sleeping pills are as … as warm milk and honey if you can’t fall asleep at night.

a) better b) good c) best d) gooder e) goodest

**3. Language for Special Purposes**

1. **Molecular biology** is the discipline which studies
2. the **structure and function of cells**.
3. the **biological processes on the molecular level**.
4. the **development of living organisms from birth until death**.
5. genes formed by segments of DNA and RNA.
6. **the relationship of living beings on the planet with their natural habitat**.
7. **Zoology** is the discipline responsible for **study of**
8. **biological heritage** which is transmitted from generation to generation.
9. **the relationship of living beings on the planet with their natural habitat**.
10. the **functions of living beings**.
11. **animal life**.
12. the plant world.
13. **Genetics** is a branch of biology that **studies**
14. the **functions of living beings**.
15. the **structure and function of cells**.
16. the **biological processes on a molecular level**.
17. genes formed by segments of DNA and RNA.
18. **the relationship of living beings on the planet with their natural habitat**.
19. The movement of oxygen from the outside air to the cells within tissues, and the transport of carbon dioxide in the opposite direction.
20. respiration
21. digestion
22. assimilation
23. growth
24. reproduction
25. Carbon can form \_\_\_ separate bonds with other elements.
26. 1
27. 2
28. 3
29. 4
30. 5
31. Which of the following would you NOT find in a bacterial cell?
32. DNA
33. cell membrane
34. golgi apparatus
35. ribosomes
36. plasmids
37. Which of the following does NOT refer to the phylum Mollusca?
38. spider
39. oyster
40. snail
41. squid
42. octopus
43. The current classification system was developed by:
44. Aristotle
45. Plato
46. Carolus Linneus
47. Charles Darwin
48. Anthony van Leeuwenhoek
49. The process in which weather patterns are changing around the world is
50. Global warming
51. Greenhouse effect
52. Climate change
53. Evolution
54. Ice melting
55. The author of "The Origin of Species by Means of Natural Selection" is
56. Aristotle
57. Plato
58. Carolus Linneus
59. Charles Darwin
60. Anthony van Leeuwenhoek

**Variant 4**

### Choose the correct answer

1. **General vocabulary**
   1. In my home city we do not have many days when the \_\_\_\_\_\_ is really nice, sunny and not raining.
   2. planet b) people c) weather d) cloud e) iceberg
   3. He listens to the \_\_\_\_\_ when he is doing other things
      1. computer b) bicycle c) radio d) magazine e) tablet

3. This is a country of amazing \_\_\_\_: blue lakes and lagoons, fast rivers and waterfalls.

a) mountains b) landscapes c) shades d) looks e) plans

4. I feel very \_\_\_\_ with new people.

a) unkind b) uncomfortable c) lucky d) hopeless e) unfair

5. Dan's so \_\_\_\_\_ . He pays for everything when we go out

a) lazy b) mean c) generous d) patient e) shy

**2. Grammar**

1. The film wasn't very good. I … it very much.

а) enjoyed b) wasn’t enjoy c) didn’t enjoyed d) didn’t enjoy e) enjoying

2. Thank you very much for your e-mail … was very interesting

a) what b) whose c) who d) what e) which

3. This armchair is …than that armchair.

a) comfortabler b) most comfortable c) more comfortable

d) the most comfortable e) comfortable

4. She gave him … water to wash his hands and face.

a) many b) few c) a few d) a little e) a

5. When I arrived, they … tennis.

a) were playing b) play c) played d) plays e) would play

**3. Language for Special Purposes**

1. **Developmental biology** is the branch of biology that studies
2. the **structure and function of cells**.
3. the **biological processes on a molecular level**.
4. the **development of living organisms from birth until death**.
5. genes formed by segments of DNA and RNA.
6. **the relationship of living beings on the planet with their natural habitat**.
7. **Botany**, the discipline of biology that deals directly with
8. **biological heritage** which is transmitted from generation to generation.
9. **the relationship of living beings on the planet with their natural habitat**.
10. the **functions of living beings**.
11. **animal life**.
12. the plant world.
13. The process by which living things increase in size or cell number
14. respiration
15. digestion
16. assimilation
17. growth
18. reproduction
19. The process by which an organism's metabolic activities are in a state of balance (body temperature, blood sugar levels etc.)
20. respiration
21. digestion
22. homeostasis
23. growth
24. reproduction
25. The smallest unit capable of carrying out life functions is
26. a cell
27. tissue
28. DNA
29. blood
30. an organ
31. What part of the cell makes proteins?
32. ribosomes
33. mitochondria
34. lysosomes
35. vacuole
36. plasmids
37. Which of the following is biotic factor in an ecosystem?
38. bacteria
39. soil
40. temperature
41. rainfall
42. sunlight
43. A very fast increase in the average temperature of the Earth’s air and oceans is
44. Global warming
45. Greenhouse effect
46. Climate change
47. Evolution
48. Ice melting
49. The scientific theory of evolution was formulated by
50. Aristotle
51. Charles Darwin
52. Plato
53. Carolus Linneus
54. Anthony van Leeuwenhoek
55. Which of the following is NOT a meat-eating animal?
56. tiger
57. polar bear
58. eagle
59. wolf
60. panda

**КОМПЛЕКСНА КОНТРОЛЬНА РОБОТА**

**Контрольна робота для студентів біологічного факультету**

*Варіант І*

1. Оберіть правильну форму дієприкметника теперішнього часу дієслів.

1. to speak – **А** to speaking, **B** speaking, **C** spoken
2. to dress – **A** to dressing, **B** dresing, **C** dressing
3. to take – **A** taking, **B** to taking, **C** takeing
4. to play – **A** plaing, **B** playing, **C** to plaiing
5. to be – **A** been, **B** to bing, **C** being

2. Оберіть правильне допоміжне дієслово.

1) I … have any talent.

**A** am not, **B** doesn’t, **C** don’t

2) He … a good specialist in his subject.

**A** is, **B** do, **C** are

3) She … have any money.

**A** don’t, **B** doesn’t, **C** isn’t

4) I … working from home today.

**A** are, **B** does, **C** am

5) People … worried about climate change.

**A** are, **B** does, **C** is

3. Оберіть правильно побудоване речення

1 a Sally is a nice girl, and I like.

b Sally is a nice girl, and 1 like her.

c Sally is a nice girl, and 1 like him.

2 a Coffee English is horrible.

b English coffee are horrible.

c English coffee is horrible.

1. a Peter works with his father.

b Peter works with he's father.

c Peter works with him father.

4. Оберіть правильну часову форму

1. “Excuse me, ***(you / to speak)*** English?

**A.** do you speak **B.** are you speaking

Конец формы

2. “Where's Andrew?” - “I ***(to know)***.”

**A.** don't know  **B.** am not knowing

Конец формы

3. What ***(you / to laugh at )***?

**A.** do you laugh at **B.** are you laughing at

Конец формы

4. "Where ***(you / to come from)***?" - "Ukraine".

**A.** do you come from **B.** are you coming from

Конец формы

5. Anna is a good golf player but she ***(to play)*** very often.

**A.** doesn't play  **B.** isn't playing

6. ‘Someone ***(to wait)*** for you outside.’ ‘Who is it?’

**A.** waits **B.** is waiting

7. ‘What ***(you / to think)*** of this book?’ ‘I think it’s fantastic!’

**A.** do you think **B.** is you think

**Контрольна робота для студентів біологічного факультету**

*Варіант ІI*

1. Оберіть правильну форму дієприкметника теперішнього часу дієслів.

1. to cry – **A** crying, **B** to crying, **C** criing
2. to research – **A** to researching, **B** researcheing, **C** researching
3. to give – **A** to giving, **B** giving, **C** giveing
4. to get – **A** getting, **B** geting, **C** to geting
5. to stay – **A** to staing, **B** staying, **C** staiing

2. Оберіть правильне допоміжне дієслово.

1) It … too late to change anything now.

**A** is, **B** does, **C** has

2) Why … the climate changing?

**A** does, **B** are, **C** is

3) Satellite pictures … useful for weather forecasters.

**A** is, **B** are, **C** aren’t

4) We … have any ideas how to use this information.

**A** don’t, **B** aren’t, **C** doesn’t

5) She … usually drive in the fog.

**A** doesn’t, **B** don’t , **C** isn’t

3. Оберіть правильно побудоване речення

1. a Sally and Tim live in Madrid. They're flat is lovely.

b Sally and Tim live in Madrid. Their flat is lovely.

с. Sally and Tim live in Madrid. There flat is lovely.

2. a She lives in a house or a flat?

b Does she lives in a house or a flat?

c Does she live in a house or a flat?

3. a. I don't like going to discos.

b I don't like to discos.

c I no like going to discos.

4. Оберіть правильну часову форму

Конец формы

1. I am sorry but I ***(not to understand)***. Can you speak louder?

**A.** don't understand  **B.** am not understanding

Конец формы

2. Listen! Someone ***(to sing)***.

**A.** sings  **B.** is singing

Конец формы

3. You can turn the TV off. I ***(not to watch)*** it.

**A.** don't watch  **B.** am not watching

Конец формы

4. I usually ***(to leave)*** my house at 8 p.m.

**A.** is leaving **B.** leave

Конец формы

5. Misha is tired. He ***(to want)*** to go home now.

**A.** wants **B.** is wanting

6. Tina usually ***(to get up)*** at 7.00.

**A.** is getting up **B.** gets up

7. Kate is busy. She ***(to study)*** for a test.

**A.** is study **B.** is studying

**Контрольна робота для студентів біологічного факультету**

*Варіант ІII*

1. Оберіть правильну форму дієприкметника теперішнього часу дієслів.

1. to run – **A** running, **B** to runing, **C** runing
2. to do – **A** done, **B** to doning, **C** doing
3. to live – **A** living, **B** to liveing, **C** liveing
4. to have – **A** haveing, **B** having, **C** to hading
5. to study – **A** to studiing, **B** studeing, **C** studying

2. Оберіть правильний варіант.

1) They … not going to Jamaica.

**A** do, **B** is, **C** are

2) I … like humid days.

**A** don’t, **B** am not, **C** doesn’t

3) Many things … very important for weather forecasting.

**A** do, **B** are, **C** does

4) It … a lovely day. Let’s go to the beach.

**A** am, **B** does, **C** is

5) I … like rainy days. They are so uncomfortable.

**A** do, **B** don’t, **C** am

3. Оберіть правильно побудоване речення

1. a How many languages you speak?

b How many languages do you speak?

c How many languages does you speak?

2. a My brother work in a bank.

b My brother he works in a bank.

c My brother works in a bank.

3. a Peter works with his father.

b Peter works with he's father.

c Peter works with him father.

4. Оберіть правильну часову форму

1. **A.** I wash my hair.

**B.** I’m washing my hair.

2. **A.** Do you know the answer?

**B.** Are you knowing the answer?

3. **A.** Do you wait for the school bus? You’re in the wrong place!

**B.** Are you waiting for the school bus? You’re in the wrong place!

4. **A.** That bike costs £350.

**B.** That bike is costing £350.

5. **A.** Do you understand?

**B.** Are you understanding?

6. **A.** I do my homework.

**B.** I’m doing my homework.

**7. A.** She always takes her umbrella with her.

**B.** She is always taking her umbrella with her.

**ЗАВДАННЯ ДЛЯ ЗАЛІКІВ**

**І семестр**

**1. Перекладіть речення українською мовою, визначте граматичний час присудка, поставте речення у заперечну форму, поставте 2 типи питань до речення.**

My teacher developed a new plant.

**2. Перекладіть слова, вирази та речення англійською мовою.**

1. Біологія
2. Ботаніка
3. Фізіологія
4. Науковець
5. Знання
6. Захворювання
7. Невидимий
8. принцип
9. температура
10. відмінність
11. рослина
12. дихання
13. свідомий
14. залози
15. Живі істоти
16. Природничі науки
17. Дослідницька лабораторія
18. мікроскопічні елементи
19. реагувати на зміни
20. органи чуття
21. Два великі підрозділи біології називаються ботанікою и зоологією.
22. Рослини також пристосовуються до оточуючого середовища і реагують на зовнішні подразники.
23. Механізм реакції подразнення у рослин сильно відрізняється від тваринного.
24. Незважаючи на всі відмінності, живі організми мають багато спільного.
25. Як рослини, так і тварини залежать одне від одного у підтриманні життєвих функцій.

**3. Складіть власні речення з 5 поданими виразами на вибір.**

* to be of great value
* to have much in common
* no matter
* to make a contribution
* to be acquainted with
* according to
* to be engaged
* to make every effort
* in spite of
* to do one's best
* to prevent errors
* to have an opportunity

**ІІ семестр**

**1. Перекладіть речення українською мовою, визначте граматичний час присудка, поставте речення у заперечну форму, поставте два типи питань до речення.**

These scientists work at a very interesting problem.

**2. Перекладіть слова, вирази та речення англійською мовою.**

1. Біолог
2. Анатомія
3. Підрозділи
4. організм
5. Науковий
6. Предмет (навчальний)
7. Тіло
8. спостерігати
9. градуси
10. клітина
11. матерія
12. травлення
13. аналогічний
14. впливати
15. Дослідницька робота
16. Для неозброєного ока
17. загальні властивості
18. помірний обсяг тепла
19. нервова система
20. хімічна координаці
21. Результати досліджень біологів мають велике значення для розвитку багатьох галузей науки.
22. Визначення сутності життя – одне з провідних завдань загальної біології.
23. Біологія вивчає життєві процеси як у тварин, так і у рослин.
24. Дуже важливий принцип живих організмів – це здатність реагувати на зовнішні подразники.
25. Як рослини, так і тварини не можуть жити без повітря, води, їжі та світла.

**3. Складіть власні речення з 5 поданими виразами на вибір.**

* to be of great value
* to have much in common
* no matter
* to make a contribution
* to be acquainted with
* according to
* to be engaged
* to make every effort
* in spite of
* to do one's best
* to prevent errors
* to have an opportunity

Форми контролю:

* усна (читання та переклад текстів, анотації, завдання з діалогічного та монологічного мовлення)
* письмова (лексичні та граматичні вправи, складання термінологічних словників).

1. ЯК ПРАЦЮВАТИ НАД ТЕМОЮ

Під час опрацювання теми рекомендується працювати за такою схемою:

1. Прочитайте и перекладіть основний текст теми.
2. Випишіть незнайомі слова та словосполучення (попрацюйте зі словником).
3. Виконайте лексичні вправи на ознайомлення та закріплення з новими термінами та термінологічними словосполученнями.
4. Дайте відповіді на запитання до тексту.
5. Прочитайте граматичний матеріал до теми заняття.
6. Виконайте граматичні вправи на автоматизацію дій з новими граматичними структурами.
7. Запишіть свої запитання до викладача, якщо щось залишилося для вас нез’ясованим.
8. ЯК ПРАЦЮВАТИ НАД ЗАВДАННЯМ З ЧИТАННЯ

Під час роботи над завданням з читання рекомендується працювати за такою схемою:

1. Прочитайте перший абзац, значення невідомих термінів спробуйте зрозуміти за контекстом. Якщо потрібно, знайдіть переклад у словнику та запишіть це слово чи словосполучення.
2. Опрацюйте таким чином кожний абзац тексту.
3. Перечитайте ще раз виписані слова.
4. Складіть по одному запитанню до кожного абзацу та дайте відповіді на них.
5. Запишіть свої запитання до викладача, якщо щось залишилося для вас нез’ясованим.
6. ЯК ПІДГОТУВАТИСЯ ДО АНОТАЦІЇ СТАТТІ

Під час роботи над завданням з анотації статті рекомендується працювати за такою схемою:

1. Виберіть статтю, заголовок якої здається вам цікавим.
2. Прочитайте статтю, користуючись словником та виписуючи невідомі слова та словосполучення.
3. Дотримуйтесь зразку для анотації статті.
4. Виберіть цитати з основною інформацією статті.
5. Проанотуйте статтю за зразком, використовуючи вибрані цитати, у письмовій формі.
6. На подальших етапах, після ряду письмових анотацій, ви
7. зможете анотувати статті і в усній формі.

**Зразок для анотації статті:**

1. I have read the article in ... .

2. It is ... (Ukrainian, British, American) ... (newspaper, magazine, journal).

3. The title of the article is ... .

4. The author of the article is ... .

5. The article considers the problem of ... .

6. It gives ... (facts, photos, diagrams, schemes).

7. The author points out that ... .

8. The article draws the readers' attention to the fact that ... .

9. The author stresses that ... .

10. The key problem of the article is ...

11. To my mind, ... .

12. The article is worth reading because the problem discussed in the article is of great interest (informative, of good use …).

**Питання до екзаменаційних білетів**

**Розмовні теми:**

1. Я студент природничого факультету.
2. Біологія у нашому житті.
3. Біологія як наука.
4. Біологія – наука про живі організми.
5. Підрозділи біології.
6. Ботаніка.
7. Види рослин.
8. Зоологія.
9. Види тварин.
10. Класифікація тварин і рослин.
11. Рослини та тварини: спільне і відмінне.
12. Функції живих організмів.
13. Історія виникнення таксономії.
14. Карл Лінней.
15. Історія виникнення мікроскопа.
16. Типи мікроскопів
17. Обладнання сучасної лабораторії.
18. Чарльз Дарвін.
19. Теорія еволюції Дарвіна.
20. Будова клітини.

**Граматичні теми:**

1. Часи групи Simple.
2. Часи групи Continuous.
3. Часи групи Perfect.
4. Система часів англійської мови.
5. Типи питань.
6. Present Perfect Continuous Tense.
7. Past Perfect Continuous Tense.
8. Модальні дієслова.
9. Еквіваленти модальних дієслів.
10. Вираження необхідності.
11. Вираження припущення.
12. Часи групи Simple. Пасивний стан.
13. Часи групи Continuous. Пасивний стан.
14. Часи групи Perfect. Пасивний стан.
15. Узгодження часів.
16. Непряма мова. Розповідне речення.
17. Непряма мова. Питальне речення.
18. Дієприкметник.
19. Інфінітив.
20. Герундій.