ФЕДЕРАЛЬНОЕ АГЕНТСТВО ЖЕЛЕЗНОДОРОЖНОГО ТРАНСПОРТА
Федеральное государственное бюджетное образовательное учреждение
высшего образования
«Иркутский государственный университет путей сообщения»
Сибирский колледж транспорта и строительства

МЕТОДИЧЕСКИЕ УКАЗАНИЯ К ПРАКТИЧЕСКИМ ЗАНЯТИЯМ

СГЦ.03 Иностранный язык в профессиональной деятельности

(очной формы)

2 курс

для обучающихся по специальности 09.02.01 Компьютерные системы и комплексы

базовая подготовка

среднего профессионального образования

Иркутск 2024

РАССМОТРЕНО:
Цикловой методической комиссией
гуманитарных дисциплин
Протокол № 13
«11» апреля 2024 г.
Председатель ЦМК: М. В. Очинская

Разработчики: Горовая О. В., Очинская М.В., преподаватели высшей квалификационной категории Сибирского колледжа транспорта и строительства ФГБОУ ВО «Иркутский государственный университет путей сообщения».

СОДЕРЖАНИЕ

Пояснительная записка

Учебное пособие составлено в соответствии с требованиями действующей программы по иностранному языку.
Учебное пособие состоит из основной части и приложения.
Основной курс, включает шесть тем: «Образование», «Охрана окружающей среды», «Средства коммуникации», «Информационно-зависимое общество», «Развитие микроэлектроники», «История компьютеров».
Структура темы. Каждая тема состоит из словаря, лексических и грамматических упражнений, текстов и диалогов и послетекстовых упражнений. Работа над языковым материалом начинается с введения и закрепления лексики, а для её активизации предложены различные типы упражнений.
В разделе Приложения приводятся краткие грамматические таблицы, список неправильных глаголов, подлежащих активному усвоению за курс обучения.

ОК 01. Выбирать способы решения задач профессиональной деятельности применительно к различным контекстам;
ОК 02. Использовать современные средства поиска, анализа и интерпретации информации, и информационные технологии для выполнения задач профессиональной деятельности;
ОК 03. Планировать и реализовывать собственное профессиональное и личностное развитие, предпринимательскую деятельность в профессиональной сфере, использовать знания по финансовой грамотности в различных жизненных ситуациях;
ОК 04. Эффективно взаимодействовать и работать в коллективе и команде;
ОК 05. Осуществлять устную и письменную коммуникацию на государственном языке Российской Федерации с учетом особенностей социального и культурного контекста;
ОК 06. Проявлять гражданско-патриотическую позицию, демонстрировать осознанное поведение на основе традиционных общечеловеческих ценностей, в том числе с учетом гармонизации межнациональных и межрелигиозных отношений, применять стандарты антикоррупционного поведения;
ОК 07. Содействовать сохранению окружающей среды, ресурсосбережению, применять знания об изменении климата, принципы бережливого производства, эффективно действовать в чрезвычайных ситуациях;
ОК 08. Использовать средства физической культуры для сохранения и укрепления здоровья в процессе профессиональной деятельности и поддержания необходимого уровня физической подготовленности;
ОК 09. Пользоваться профессиональной документацией на государственном и иностранном языках.

Методические указания представлены в шести частях:
1. Лексико-грамматические упражнения и тексты по теме «Образование. Education»;
2. Лексико-грамматические упражнения и тексты по теме «Защита окружающей среды. Environment protection»;
3. Лексико-грамматические упражнения и тексты по теме «Средства коммуникации. Means of communication».
4. Лексико-грамматические упражнения и тексты по теме «Информационно-зависимое общество»;
5. Лексико-грамматические упражнения и тексты по теме «Развитие микроэлектроники»;
6. Лексико-грамматические упражнения и тексты по теме «История компьютеров».

Наименование тем	Кол-во часов	Усвоенные компетенции
Образование. Education.	12	ОК 01 ОК 02 ОК 06 ОК 04 ОК 09
Охрана окружающей среды. Environmental protection.	12	ОК 02 ОК06
Средства коммуникации. Means of communication.	12	ОК 02 ОК 04 ОК06

Информационно-зависимое общество. Information-dependent society.	8	ОК 02 ОК 06 ОК 04
Развитие микроэлектроники. Development of microelectronics.	6	ОК 01 ОК 02 ОК 06
История компьютеров. The history of computers.	18	ОК 01 ОК 02 ОК 06 ОК 04 ОК 09

Тема 1. «Образование. Education».

Цель: изучить лексику по теме Образование, повторить грамматический материал.
Содержание работы: тексты для чтения по данной теме, упражнения на усвоение и закрепление лексико-грамматического материала.
Задание: прочитать, перевести тексты, выписать и выучить новые лексические единицы, выполнить ряд предложенных упражнений на закрепление лексики и грамматического материала.

1. Изучите лексический материал по теме:

1. to stay at school	учиться в школе
2. education	образование
3. higher education	высшее образование
4. secondary education	среднее образование
5. educational establishment	учебное заведение
6. academic subject	гуманитарный предмет
7. subject	предмет
8. foreign language	иностранный язык
9. technical course	технический предмет
10. to charge fee	устанавливать плату
11. primary school	начальная школа
12. secondary school	средняя школа
13. private school	частная школа
14. comprehensive school	общеобразовательная школа
15. workshop	мастерская
16. laboratory	лаборатория
17. boarding-school	школа-интернат
18. to get a degree	получить степень
19. graduation	окончание ВУЗа
20. to graduate from	окончить ВУЗ
21. to attend (lectures)	посещать (лекции)
22. college	колледж
23. tutorial	практическое занятие
24. class (lesson)	урок
25. to teach	обучать
26. term	семестр
27. grant, scholarship	стипендия
28. to study	учиться
29. free of charge	бесплатный
30. compulsory	обязательный
31. to pass an examination	сдать экзамен
32. to fail in an examination	не сдать экзамен
33. to take an examination	держать экзамен
34. entrance	поступление, вход
35. to enter	поступать
36. entrance exams	вступительные экзамены
37. department	отделение
38. commercial course	коммерческий курс
39. hostel	общежитие
40. mark	оценка

1. Read international words transcribe and translate them

History, discipline, liberal, discuss, arithmetic, special, physical, organize, social, group

2. Find the definition for each term

1. Term	a) money given to support a student during his/her studies
2. College	b) a speech to a group of people as a method of teaching
3. Tutorial	c) teaching or the training of mind and character
4. Laboratory	d) one of the periods of time, into which the school or university year is divided
5. Test	e) a place of education for children
6. Lecture	f) a school for professional education
7. Timetable	g) a list of the times when school lessons take place
8. School	h) a lesson given to a very small class
9. Education	i) a number of questions to measure someone's knowledge
10. Grant	j) a room equipped for scientific work

1 ___ 2 ___ 3 ___ 4 ___ 5 ___ 6 ___ 7 ___ 8 ___ 9 ____ 10 ___

3. Unscramble the following words

rendlihc _____ lupip _____

toryborala _____ seurco _____

eeegrd_____ argnt _____

verusniyti _____uretcel _____

onsels _____lortnoc _____

4. Translate the sentences

1. My college is a four-storeyed building in the centre of the city.

_____

2. When I come to college, I wipe my feet, take off my coat and go to the cloakroom.

_____

3. It was good to come to the classroom before the bell rang.

_____

4. After a few classes, I went to the canteen and had breakfast.

_____

5. Our college is not only the place where we study, it's also the place where we stay after classes to take part in clubs.

_____

6. When my friends who study in other colleges come to this place, they are surprised when they see that everything is in great order.

_____

7. But I will reveal a secret: this is a merit of not only the board of the college but also our second home and we must take care of it.

_____

8. During the breaks, I like to talk with my friends and read the college newspaper.

_____

9 College life is difficult, but I know it's rewarding!

_____

10 That's why I know that tomorrow I'll come here again!

_____

5. Study the models. Read and translate the words

Model: *основа глагола + tion, -sion, -ion = существительное*

to graduate - _____ graduation - _____
to educate - _____ education - _____
to exam - _____ examination - _____
to direct - _____ direction - _____

Model: *основа глагола+ -er/-or = существительное со значением лица, производящего действия, или орудия действия*

to teach - _____ teacher - _____
to write - _____ writer - _____
to direct - _____ director - _____
to learn - _____ learner - _____

6. Write the following sentences in Future & in Past Simple Tenses

1. Victor is free in the evening. _____
2. All the classrooms are on the first floor.

_____

3. She is at the lecture. _____
4. The classrooms are the same. _____
5. My friend has many interesting books.

_____

6. I have a beautiful picture. _____
7. These students have five examinations.

_____

7. Use verbs *to be, to have* in the correct tense-forms and translate the sentences

1. I know that his father _____ many books in different foreign languages.
   a) has b) are c) is

_____

2. Next year there _____ new equipment in our school laboratory.
   a) will be b) will have c) had

_____

3. Now there _____ an indoor swimming pool in his college.
   a) was b) are c) is

4. Ten years ago there _____ only a primary school in our village.
   a) was b) were c) is

_____

5. We _____ a large library with a lot of books in it.
   a) have b) has c) had

8. Translate the sentences and put into the right form of adjectives

1. Moscow University is (large) University in Europe.
_____
2. Strength of materials is (difficult) than chemistry.
_____
3. Is it (interesting) to study at college than at school?
_____
4. My friend works (hard) at his English than I.
_____
5. This group studies (good) than that one.
_____

9. Translate the sentences into English

1. Какой самый красивый город в России?
2. Я не знаю, какие игры в спорте более популярны?
3. Теннис более популярная игра, чем гольф.
4. Эта книга значительно интереснее, чем та книга.
5. Февраль – самый короткий месяц в году.

10 Give the full answers

1. What is the easiest subject? _____
2. What is the most difficult subject in your opinion?
_____
3. What is the most interesting subject? _____
4. What is the most boring subject for you?
_____
5. Which city is bigger – Sochi or St Petersburg?
_____
6. Is New York a bigger city than London?
_____
7. What language is more difficult English or Chinese?

---

8. Which is the hottest month of the year?

---

11. Fill the blanks with the suitable modal verbs (*can, may, must* or *should*)

1. Alec will have an English lesson tomorrow. He…….... study tonight.
2. Mark is a good student He……..…….... speak English well.
3. There is no ink in my pen. ..... I write with a pencil?
4. My friend gave me an interesting book to read. She said, "You……..……. keep it for seven days."
5. You……... study much if you want to pass the examination well.
6. Carol ……. speak three foreign languages.
7. …… I use your car tonight?
8. You …… take a day off whenever you like.

12. Mark the tense-forms of the verbs and translate the sentences

1. Students asked the lecturer many questions.(_____)

_____

2. Usually a lab assistant shows the equipment to the students.(_____)

_____

3. Students watched the process with great interest. (_____)

_____

4. Tomorrow our teacher will give us a new task. (_____)

_____

5. He asked me to bring a dictionary. (_____)

_____

13. Change following into: a) a general question, b) question with a tag

1. The course of study at the universities lasts about six years.

_____

_____

2. Higher schools have their own computer centres.

_____

_____

3. The dean will send the students to a big plant in summer.

_____

_____

4. The teacher told the students to sign their drawings.

_____

_____

14. Make questions using the words below

1. He will graduate from the University next year.

When_____?

2. Our students took part in the meeting.

What _____?

3. She will teach English at college.

Where_____

The best students receive scholarships.

What _____

4. The seminar will take place on Monday.

When _____
5. The students went to the canteen after the lectures.

How _____

15. Read and translate the text

History of education

As long as we live we continue to learn, and the education we receive when we are young helps us to continue learning. It is thought that schools first started in Egypt 5,000 to 6,000 years ago. Only the sons of nobles attended the first Egyptian schools, which taught reading, physical education and good behavior.

A clear example of the way in which even neighboring peoples produce different types of education comes from ancient Greece. Sparta and Athens were two Greek states. The Spartans, hard and warlike people, gave a purely military education to their children. They were kept under a very strict discipline and were taught hunting, military scouting, swimming and the use of weapons. The Spartans despised literature, and some people think they could not even read.

The Athenians were building what we call a liberal education - one that helps a man to develop all sides of his nature. They thought it is important to educate the body as well as the mind, and had a program of physical training which consisted of running, jumping, wrestling and throwing the discus. As time went on Athenian education paid special attention to reading, writing and literature and these were taught by a special teacher, known as the "grammatist".

Greek philosophers, or thinkers, always discussed what education should try to do and what it should include. Plato wrote a book called "The Republic", which is one of the best books ever written on education. Since those days Greek ideas have influenced European education, especially secondary and university education.

The Romans were very good at organizing, and they were the first people to have schools run by the government free of charge. Throughout their great empire there was a network of these schools which provided for three stages of education: 1) primary schools, where they learned "three R's" (reading, writing, and arithmetic); 2)"grammar" schools to study the Greek and Latin languages and literatures; 3)the schools of rhetoric to be trained in rhetoric, or public speaking.

16. Write English equivalents out of the text

1. Способ, с помощью которого соседствующие народы
_____
2. считали важным тренировать как тело, так и ум
_____
3. впервые появились в Египте _____
4. по всей великой империи существовала сеть
_____
5. мы продолжаем учиться на протяжении всей жизни
_____
6. одна из лучших книг, когда-либо написанных об
_____
7. обучались охоте, военному ориентированию
_____
8. дискутировали о том, что образование должно было пытаться сделать
_____

17. Complete the table containing some information about systems of education in different countries

The name of the country	Who was taught	What was taught

Egypt		
Sparta		
Athens		

18. Make sentences

1. The Slavonic written language came to Rus	a) illiteracy among common people was high.
2. The first university was founded	b) the Constitution and was free of charge and the same throughout the country.
3. In pre-Revolutionary Russia	c) in the 9th century.
4. After 1991 in Russia along with state schools there appeared	d) in 1755 in Moscow on the initiative of M.V. Lomonosov.
5. After the revolution in 1917 education was guaranteed by	e) many private schools, colleges, lyceums, gymnasiums and different courses.

1. _____ 2. _____ 3. _____ 4. _____ 5. _____

19. Read and translate the text. Make a short summary of the text.

The System of Education in Russia

The system of education in Russia has slightly changed for the last decade. Now it is presented by four main stages: pre-school education, school education, specialized secondary education, and higher education. Small children between three and six years old can attend kindergartens, if their parents who have to work are busy during the first half of the day. This helps them in socializing and preparing for school life. These children are prepared for a primary school because along with being involved in different games and activities, they are taught basic literacy and numeracy.

School education is the next stage of the whole system, which comprises three steps of the learning process: primary school, basic school and secondary school. Children in Russia begin attending primary school when they reach the age of six and a half or seven and the learning process lasts four years.

Each academic year starts on the first of September in all cities, towns, and settlements of the country. This has become a great national holiday that is celebrated as the Knowledge day. On this day, all streets and squares are crowded by cheerful, nicely dressed schoolchildren carrying bright bouquets of flowers. Practically, on the first of September there are no classes at school, instead pupils have special meetings, take part in festive concerts or go on interesting excursions. This makes the event unforgettable, especially for those who become first-form pupils.

In the primary school schoolchildren learn how to read and to write and are taught fundamentals of general subjects such as mathematics, Russian, literature; besides, they have physical education classes and learn drawing and music. Second-form pupils begin learning a foreign language.

After four years of studying the schoolchildren are admitted to the next step – basic school where they are taught for five years including the ninth form. During this period they acquire basic knowledge in different sciences: exact, natural and the humanities. After finishing the ninth form the students take examinations in two obligatory subjects (mathematics and Russian) and two other ones chosen by the student. When the schoolchildren pass the examinations, they are given a certificate, stating that they successfully completed the basic secondary school.

Attending classes from the first to the ninth form in Russian schools is compulsory. All school education in our country is free of charge.

After finishing the ninth form students may leave school and begin their working career or they may

continue their education in some specialized secondary educational establishments acquiring different professional skills. Those who stay on at school move to the last step – secondary school and become tenth- and eleventh-form students. The curriculum of the final school years provides for deeper learning the subjects of the previous course and some new disciplines. The learning process is completed with the common state examination in mathematics and Russian and some other subjects at the choice of the student. As a rule, schoolchildren choose those sciences which are necessary for admitting to the University.

20. Here are some proverbs, sayings and quotations about learnings and education. Translate them.

1. Education is a gift that none can take away.

_____

2. If you are not willing to learn, no one can help you; if you are determined to learn, no one can stop you.

_____

3. To know everything is to know nothing.

_____

4. A child without education is like a bird without wings.

_____

5. Educating the mind without educating the heart is no educating at all. (*Aristotle)*

_____

What proverb or quotation would you choose as a motto of your life?

21. Read and translate the text

Beyond Our Dreams!

From my point of view our college is modern and well-designed. It is four-storeyed building with a sports ground behind it. I really think it is the best educational institution in Moscow. We even have an inside swimming pool!

On the ground floor there are the classrooms for the first-year students, workshops and a library. There are all kinds of tools and machines in the workshops. In the library two librarians help students to find the books they need. In the reading room there are laptops which we can use during the breaks and after classes.

Our canteen is spacious, light and clean. We have our meals there.

The physical training lessons take place in the gymnasium and the swimming pool. We like to go there even after the lessons. To the left of the gym there is a hall and a staircase. The staircase leads to the first floor.

The classrooms are well-equipped. Each room has a teacher's table, student's desks, a board, a computer and a multimedia projection unit. There are special classrooms for Chemistry, Physics, Biology, History, Geography, English and Russian. My English classroom is on the second floor. It has three big windows. There are lots of potted plants on the window sills, and we take good care of them. The board in our classroom is magnetic. We write with markers on it and attach our projects to it with magnets. Next to the board there are maps of Russia and Great Britain, various grammar tables and charts. There is a computer in the right-hand corner. We often listen to original English texts, songs and watch films on a big screen which make our lessons interesting.

I like my college. It provides us with everything to help us become good specialists.

22. Are the statements true or false? Correct the false ones.

1. There is an indoor swimming pool in the college.

2. All the classrooms are on the first floor.

3. The classrooms are the same.

4. The classrooms are poor-equipped.

5. We write with chalk on magnetic board.

23. Read and translate the dialogue

Teacher: And here is the programme for the course. The classes are organized in three sessions. Session A starts at 9:00 am and focuses on speaking and listening. At 10:30 we stop for a coffee break and then gather again at 11:00 in this classroom to start session B.
Boris: And what do we do in Session B?
Teacher: We do all sorts of reading and writing activities. We have reading exercises and story-writing workshops.
Boris: When do we have a lunch break?
Teacher: Every day after Session B there is a one-hour lunch break from 12:30 pm. In the afternoons we participate in various other activities: on Mondays we watch films, on Tuesdays we read magazines and newspapers in the library, on Wednesdays we have guided tours round the city, and on Thursdays and Fridays we just gather in the café to talk about interesting topics. Every day we finish at 3 pm.
Boris: And what are we going to do at weekends? Are there any special arrangements? Or are we free to do whatever we want?
Teacher: We usually go on excursions.

24. Find the words with the following meanings:

1. A subject that people talk or write about
2 a meeting, at which people try to improve their skills by discussing their experiences and doing practical exercises
3 things, that people do in order to achieve a practical aim
4 to give special attention
5 a period of time used for a particular activity, especially by a group of people
6 a period of time when you stop working in order to rest, eat etc.
7 plans and preparations
8 a series of actions which are designed to achieve something important

25. Choose questions you could ask to get these answers

a) Is she going to pay for her education? b) Are they going to pay for their education? c) Is she going to pay for their education?	1. No, they have to finance their own studies.
a) Till what age do pupils stay at schools? b) Till what age do students stay at colleges? c) Till what age do students stay at higher schools?	2. It's sixteen, but a lot of children stay on until eighteen.
a) Will you revise this theme tomorrow? b) Are you ready for your exam? c) Have you been working hard last night?	3. Well, I've been up all night revising for an exam.

a) Do you prefer to study at the college or at the university? b) Do you like to study at the college? c) Do you study at the college?	4. There isn't much difference; it's just that the courses are more practical here.
a) Why did not you come at the party last week? b) Why won't you come at the party next week? c) Why will you come at the party next week?	5. Because I was ill.

1. _____ 2. _____ 3. _____ 4. _____ 5. _____

26. Fill in the gaps using the words given below. Use each word only once

your, a fee, compete, higher, charge, students, expensive, varies, universities, grants

- What about _____education the USA? Is it_____ ?
- Rather. Many_____ receive financial support from parents or relatives.
- Can students go to the university free or_____?
- Everyone must pay _____. The amount _____from state to state. However, each university offers a number of _____ to deserving students.
- Are they given only by _____?
- No. Grants come from different sources. You have to _____ to get your grant and show _____academic achievement.

27. Translate the following sentences from Russian into English.

1.Образование можно разделить на два вида: неофициальное и официальное. 2. Люди получают неофициальное образование в течение их повседневной жизни. 3. Иногда люди по своей собственной инициативе учатся различным навыкам или получают информацию о чём-нибудь. 4. Можно также получить неофициальное образование в различных школах, колледжах, университетах. 5. Учащиеся должны регулярно посещать школу, приходить вовремя. 6. Они также должны сдавать экзамены. 7. В большинстве стран система образования включает как общее, так и профессиональное образование. 8. В большинстве стран общее образование можно получить в начальных и средних школах. 9. Целью профессионального образования является подготовка обучающихся к получению профессии.

28. Make a summary of the text using the following phrases.

1. The title of the text is …
2. The text is about….. The text deals with…
3. The text covers such points as….first…..second…..third….
4. It should be underlined that…..
5. In conclusion, I may say that…
6. To my mind……In my opinion…….

Moscow State University

The university was established on January 25, 1755 by a decree of Russian Empress Elizabeth. January 25 is still celebrated as the Students' Day in Russia. Originally it was allocated in the Principal Medicine Store on the Red Square, and then the university was transferred by Catherine the Great to the present neoclassical building on the other side of the Mokhovaya Street. In 1940 the university was renamed in honour of its founder Mikhail Lomonosov.

At present the main faculties are situated on Vorobjevy Gory. The building was designed by architect Lev Vladimirovich Rudnev. The main building of Moscow State University was by far the largest. It was also the tallest building in Europe at that time. The central tower (240m and 36-stories high) was flanked by four huge wings of student and faculty accommodations. It contains a total of 33 kilometers of corridors and 5,000 rooms.

The star on the top is large enough to provide a small room and a viewing platform; it weighs 12 tons.

There are a lot of faculties now, such as Faculty of Mechanics and Mathematics, Faculty of Physics, Faculty of Chemistry, Faculty of Psychology, Faculty of Foreign Languages, etc.

29. Answer the questions

1. What educational institution do you study?
2. When was it founded?
3. Where is it situated?
4. What departments are there in your institution?
5. What will your future profession be?
6. What subjects do you learn?
7. Do you live with your parents or in the hostel?

30. Read and translate the text.

Cambridge

The university is like a federation of colleges. It arranges the courses, the lectures and the examinations, and awards the degrees. The universities of Oxford and Cambridge each have over 10000 full-time students. Oxford is older than Cambridge, more philosophical, classical and theological. Cambridge, on the other hand, is more scientifically based. But in many respects (especially their prestige and wealth) they look very alike; therefore they are often referred to collectively for convenience as Oxbridge. They are sometimes called "two intellectual eyes of Britain". Admission to the universities is based on the old tribal patterns which guide boys from traditional schools to traditional universities. Candidates to Oxford and Cambridge are largely self-selected, much influenced by parents, school-friends and family background.

Cambridge started during the 13th century and grew steadily, until today there are more than twenty colleges. Most of them allow visitors to enter the grounds and courtyards. The most popular place from which to view them is from the Backs, where the college grounds go down to the River Cam.

The oldest college is Peterhouse, which was founded in 1284, and the most recent is Robinson College, which was opened in 1977. The most popular is probably King's, because of its magnificent chapel. Its choir of boys and undergraduates is also very well known.

The University was exclusively for men until 1871 when the first women's college was opened. Another was opened two years later and a third in 1954. In the 1970s, most colleges opened their doors to both men and women. Almost all the colleges are now mixed, but it will be many years before there are equal numbers of both sexes.

Every year, thousands of students come to Cambridge from overseas to study English.

To the North of this ancient city is the modern face of the University – the Cambridge Science Park, which has developed in response to the need for universities to increase their contact with high technology industry. It was established in 1970 by Trinity College, which has a long scientific tradition going back to Sir Isaac Newton. It is now home to more than sixty companies and research institutes.

The ideas of "science" and "parks" may not seem to go together naturally, but the whole area is in fact very attractively designed, with a lot of space between each building. The planners thought that it was important for people to have a pleasant, park-like environment in which one can work.

31. Answer the questions in writing.

How does Oxford differ from Cambridge? What is common?
What is the most popular place to view the grounds and courtyards?
How is the oldest college called?
Why is King's the most popular college?
When did colleges become mixed for men and women?
Why is the Cambridge Science Park so important?
What does the Park contain now?

Тема 2. «Защита окружающей среды. Environment protection».

Цель: изучить лексику по теме **Защита окружающей среды**, повторить грамматический материал.

Содержание работы: тексты для чтения по данной теме, упражнения на усвоение и закрепление лексико-грамматического материала.

Задание: прочитать, перевести тексты, выписать и выучить новые лексические единицы, выполнить ряд предложенных упражнений на закрепление лексики и грамматического материала.

1. Изучите лексический материал по теме:

1. environment	окружающая среда
2. environment protection	защита окружающей среды
3. ecology	экология
4. to be concern about	беспокоиться о чём-либо
5. to protect our planet	защищать нашу планету
6. to pollute	загрязнять
7. air pollution	загрязнение воздуха
8. water pollution	загрязнение воды
9. natural resources	природные ресурсы
10. destruction	разрушение, уничтожение
11. plant	пагубный
12. nuclear waste	ядерные отходы
13. to harm	причинять вред
14. littering	засорение
15. to recycle	перерабатывать
16. to degrade	разрушаться, распадаться
17. litter	мусор
18. acid rain	кислотный дождь
19. species	вид
20. to disappear	исчезать
21. to forecast	предсказывать
22. garbage	отбросы
23. greenhouse effect	парниковый эффект
24. on the brink of extinction	на грани исчезновения
25. to destroy the ozone layer	разрушать озоновый слой
26. global warming	глобальное потепление
27. bad breath	выхлопной газ
28. to put trash into	сбрасывать мусор в
29. to get contaminated	быть отравленным
30. harmful interference	вредное воздействие
31. to absorb smth	поглощать
32. to pump waste gases	выбрасывать отработанные газы
33. to lead to forest damage	привести к повреждениям
34. water shortage	нехватка воды
35. universal concern	всеобщая забота
36. area	область
37. bring about	вызывать
38. circumstances	обстоятельства
39. effort	усилие
40. evident	очевидный

41. growth	рост
42. mankind	человечество
43. purpose	цель, назначение
44. reach	достигать
45. solve	решать
46. success	успех
47. joint efforts	совместные усилия
48. take measures	принимать меры
49. good will	добрая воля
50. community	сообщество
51. worry	беспокоиться
52. suffer	страдать
53. face	лицо, сталкиваться
54. purifying system	очистительная система
55. remote area	отдаленный район
56. to purify	очищать
57. urban	городской
58. carbonic gas	углекислый газ
59. devastate	опустошать
60. diversity	разнообразие
61. ecosystem	экосистема
62. educe	выделять (хим.)
63. evaporation	испарение
64. oxygen	кислород
65. replenish	восполнять
66. transparent	прозрачный
67. fossil	ископаемый
68. carbon dioxide	двуокись углерода, углекислый
69. nitrous oxide	газ
70. halocarbons	окись азота
71. heating effect	хлоруглероды
72. net effect	эффект нагревания
	суммарный эффект

1. Read international words transcribe and translate them

Global, resources, problem, territory, oceanic, situation, atmosphere, process, climate, balance, immune system

2. Unscramble the following words

ortfef _____ gebagar _____

geshtroa _____ tesaw _____

cesresruo _____ lerecyc _____

owthgr _____ astrofce _____

3. Find the definition for each term

1. pollution	**a)** the act of keeping something safe by guarding or covering
2. growth	**b)** the human race, both men and women
3. standpoint	**c)** a group of people living together and or united by shared

4. mankind	interests, religion, nationality, etc.
5. protection	d) the action of making something dangerously impure
6. community	e) a position from which things are seen and opinions formed
	f)increase in numbers or amount

1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____

4. Translate the sentences

1. The bigger the cities are, the greater the pollution is.

_____

_____

2. The more we study nature, the more we know about it.

_____

_____

3. The more automobiles appear in the streets, the worse the air in the cities is.

_____

_____

4. The nearer the earth is, the denser the atmosphere.

_____

_____

5. The quicker we joint our efforts in protecting the environment, the quicker the ecological problems are solved.

_____

6. The stronger the wind, the harder the conditions of work for weather observers.

_____

5 Study the models. Read and translate the words

Model: *глагол + -ment = существительное*

to environ- окружать environment- окружение

to enroll-_____enrolment - _____

to develop - _____development - _____ to achieve - _____achievement _____ to move- _____movement - _____

Model: *префикс - re (повторность действия)*

renew - обновлять, восстанавливать

renewal - восстановление

renewable - восстанавливаемый, восстанавливающийся

rebuild _____ remake _____ reuse _____ reorganize _____

6. Make possible word pairs

1. air	a) rain
2. polluted	b) of nature
3. acid	c) bottle
4. balance	d) water
5. plastic	e) pollution
6. global	f) spills
7. drinking	g) transport
8. public	h) water
9. to protect	i) warming
10. bad	j) breath
11. greenhouse	k) shortage

12. water	l) protection
13. environment	m) effect
14. oil	n) our planet

1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____

8. _____ 9. _____ 10. _____ 11. _____12. _____13. _____14. _____

7. Make pairs of synonyms

1. tremendous	a)	advance
2. epoch	b)	some
3. realize	c)	great
4. several	d)	make it possible
5. work	e)	era
6. progress	f)	area
7. fields	g)	job

1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____

8. Fill in the correct verb from the list:

look after, create, cut down, breathe, improve, causes, hunt.

1. The government should _____ a law to ban cars.
2. Logging companies _____ _____ too many trees.
3. We must _____ _____ our planet before it's too late.
4. We can't _____ without air and water.
5. The government wants to _____ a park where endangered species can live safely.
6. Heavy traffic _____ a lot of air pollution.
7. Many people _____ endangered species for their fur.

9. Give all forms of the verbs below and translate them

Grown _____
Stand _____
Dealing _____
Brought _____
Knew _____
Making _____
Send _____
Found _____
Thought _____
Spending _____

10. Mark the tense-forms of the verbs and translate the sentences

1. Water and air are becoming more and more polluted. (_____)
_____

2. Measures have been taken to save the lake Baikal.(_____)
_____

3. The situation of the lake Baikal remains very serious. (_____)
_____

4. Much attention has been paid at present to the development of international scientific contacts.
(_____)_____
_____

5. Science has become a leading factor in the progress of mankind. (_____)
_____

11. Make the indicated forms

to increase (Present Perfect) _____
to remain (Past Simple) _____
to worry (Present Continuous) _____
to deal with (Future Simple) _____

12. Put the verbs into correct tense-forms

1. If Peter (have) more money, he (buy) a new car.
2. What (you do0 if you (see) a road accident?
3. Where (you live) if you (have) a choice?
4. If Caroline (come) late for dinner, her mother (be) angry.
5. If Nick (study) hard, he (get) good marks.
6. Where (you go) if you (can take) a week's holiday?
7. If Julie (speak) better English, she (find) a better job.
8. If my boss (invite) me to lunch, I (accept).
9. When I (finish) my work, I (tell) you.
10. What (happen) if you (miss) your flight?

13. Translate the sentences and define the tense-forms of the verbs

1. As long as you are working here, we'll have a rest.
2. I'll have a talk with you after I've done my work.
3. They'll come before the dinner starts.
4. The students had been doing translation since the lesson began.
5. What were you doing when I came in?
6. I gave the books to her after I had read them.
7. The porter dropped the box as he was bringing in it.
8. How they managed to do it was not clear.
9. Whether the students can do this work is the main problem.
10. That they have known about the plan seems evident.
11. As soon as I find you things , I''ll let you know.
12. We had already reached the village when it began raining.
13. They went for a walk after they had finished the work.

14. Use the correct tense - forms of verb *to study* according to the circumstances

1. Our government_____ data on the land, the forest and the air on today's meeting.
2. Our government_____ data on the land, the forest and the air every year.
3. Our government_____ data on the land, the forest and the air tomorrow morning.
4. Our government_____ data on the land, the forest and the air last month.
5. Our government_____ data on the land, the forest and the air by this Friday.

15. **Fill in the gaps with the words and word combinations in italics**

Energy-saving, a part of it, air pollution, oxygen, breathe, countryside, movements, take care, extinct and endangered, deforestation.

1. People should live closer to nature because we are ….. .
2. Many people prefer to live in the ….. .

3. The big city is always synonymous with high ….. from vehicles or industry.
4. People can't live without …. .
5. I would never cut down trees, they let us ….. .
6. Seventy per cent of land animals and plants live in forests, and many cannot survive the …. That destroys their homes.
7. Land degradation leads to an increasing number of ….. animals.
8. To save our planet we must …… of it.
9. The least we can do is try and adopt some ….. methods.
10. Our company supports ecological organizations and ……. .

16. Rewrite the sentences in indirect speech (Study the grammar: The Sequence of tenses)

1. The reporter noted: "There is a serious lack of resources available to us now."
_____
_____

2. They admitted: "The earth is now overpolluted."
_____
_____

3. Anna said: "To ride a bike is good for the environment and great for your health"
_____
_____

4. Our teacher explained to us: "Many chemicals destroy the ozone layer because they interact with ozone."
_____
_____

5 A famous ecologist said: "The use of nuclear energy has led to the threat."
_____
_____

6 I asked myself: "What are the ingredients of these cleaning products?"
_____
_____

17. Put the verbs in the correct form.

1. Elena is saying that she _____ (to go) to the country every weekend.
2. She has just told us that they _____ (already, to build) the recycling plant.
3. I remember that you _____ (to promise) to send the invitations by 12 o'clock.
4. We thought they _____ (must) use new farming technologies.
5. Everyone knew that the conference _____ (to start) next Monday.
6. They felt sure they _____ (can) suggest an excellent solution to this problem.
7. From the latest reports we have learned that around 40,000 African elephants _____ (to be) killed each year.
8. The manager didn't know that his boss _____ (to go) on business trip.
9. The seeds grew well because the farmers _____ (to dig) the soil well.
10. Experts said that the effect of global warming _____ (to increase) desert area and _____ (to raise) sea levels.

18. Put the verbs in brackets into the correct form

1. If people _____ (not/drop) litter on beaches, our beaches would be much cleaner.
2. If people _____ (stop) using aerosols, it would help environment.
3. If hunters stopped killing so many tigers, they _____ (not/be) an endangered species.
4. If people _____ (not/use) so much paper, there would be more rainforests.
5. If people shared their cars, there _____ (be) fewer cars on the roads.

19 Put the verbs in brackets in the correct form.

1. If I _____ (not to take) a taxi, I _____ (to miss) the train.
2. If it _____(to be) sunny tomorrow, we _____ (to go) to get a ten.
3. If I _____ (to have) time tonight , I _____ (to finish) reading this book.
4. If you _____ (to work) at the weekend, I _____ (to pay) you well.
5. If you _____ (to ask) me for a help, I _____ (to help) you at once.
6. If he _____ (to finish) the work this week, he _____ (can) go on holiday.
7. You _____ (to pass) the exam unless you _____ (to work) hard.
8. If she _____ (to phone) me, I _____ (to tell) her everything about it.
9. If I _____ (to be) in your shoes, I _____ (to spend) all the time in a gym.
10. If my brother _____ (to come) to visit me on Sunday, we _____ (to go) on a picnic.

20. Make the sentences

1. Mathematics, must, every, is, well, institutes, studied, technological, at all, because, engineer, know, it.

_____

_____

2. Subject, it, article, is, the, interesting, most, on, this.

_____

3. Problems, it, can, has, global, become, evident, that, solved, ecological, be, only, on, the, level.

_____

4. The, to, use, of, the, new, possible, number, equipment, made, it, minimize, the, of, workers.

_____

5. It, that is, situation, industrialization, serious, is, making, ecological, very.

_____

19. Make questions using the words below

1. The British, like many other Europeans, are becoming more and more worried about their environment.
What _____
2. The number of cars and lorries is growing all the time.

How many _____
3. People living near airports suffer from the noise of increasingly larger and more powerful jet airliners taking off and landing.
What _____
4. Water pollution has become a serious problem in many British rivers.
Where_____
5. The air in many towns and cities is being polluted by traffic and industry.

What _____

20. Fill in the gaps with the words in the box.

Greenpeace, oxygen, jungle rain forests, ecology, breathing, nature, wildlife, flora and fauna.

Who can save our planet?

People depend on the planet, on the Sun, on animals and plants around them.
People must take care of the Earth. Our … becomes worse and worse with every new day. People destroy …. and cut down trees to make furniture. They forget that they can't live without trees and plants, because they fill the air with … . Oxygen is necessary for our … . We can't stay indifferent to these problems.

There are a lot of special organizations which are trying to save our nature. One of them is … . Their aim is to help …. To survive, to rescue animals, to save …, which are in danger of destruction. We must find the right way to save our land, people and animals. We must take care of … because we are a part of it.

21. Construct sentences and translate them

1. If I came later	a) he wouldn't have missed the train .
2. If he had known the time-table	b) I had known this before.
3. It would be better	c) I would be late for the lesson.
4. I wish	d) if you learned to drive a car.
5. I would have sent a letter to you	e) if I had known your address.
6. If I had met you yesterday	f) I would have helped you
7. If I were in your place	g) I would have told you about it
8. If I had known that you needn't help	h) I wouldn't buy the tickets beforehand.

1. _____ 2. _____3. _____4. _____ 5. _____ 6. _____7._____8._____

22. Translate the sentences

1. То, что вопрос важен, - ясно каждому.

_____

2. Мы обещаем, что поможем окружающей среде.

_____

3. Он только что сказал, чтобы мы убрали мусор.

_____

4. Придут ли они вовремя, не важно..

_____

5. Вы должны быть внимательны, чтобы не сделать ошибок.

_____

23. Read and translate the text

The Protection of Nature

Nature is the source of Man's life since ancient times. People lived in harmony with environment for thousands of years and thought that natural riches were unlimited. The development of civilization increased man's harmful interference in nature.

Large cities with thousands of smoky industrial enterprises pollute the air we breathe and the water we drink. Every year world industry pollutes the atmosphere with about 1,000 million tons of dust and other harmful substances. Many cities suffer from smog. Beautiful old forests disappear forever. Their disappearance upsets the oxygen balance. As a result some rare species of animals, birds, fish and plants disappear forever, a number of lakes and rivers dry up.

The pollution of air and destruction of the ozone layer are the results of man's attitude towards Nature.

The protection of the environment is a universal concern. We must be very active to create a serious system of ecological security.

24. Answer the questions

1. What is the main reason of ecological problems?
2. What are the main ecological problems?
3. Why should the ecological problems be a universal concern?
4. What steps are taken to fight ecological problems?

25. Read and translate the text

Greenhouse Effect

Greenhouse effect is the term for the role the atmosphere in warming the earth's surface. The atmosphere is largely transparent to incoming short-wave solar radiation, which hits the earth's surface. Much of this radiation is reflected back by gases such as carbon dioxide, methane, nitrous-oxide and ozone in the atmosphere. This heating effect is at the root of the theories concerning global warming.
The amount of carbon dioxide in the atmosphere has been increasing by 0,4 per cent a year because of the use of fossil fuels such as oil, gas, and coal. The cutting of tropical forests has also been a contributing factor in the carbon cycle. Other gases that contribute to the greenhouse effect, such as methane and halocarbons, are increasing even faster. The net effect of these increases could be a worldwide rise in temperature, estimated at 2 to 6 degrees C (4 to 11 degrees F) over the next 100 years. Warming of this magnitude would alter climates throughout the world, affect crop production, and cause sea levels to rise significantly. If this happened, millions of people would be badly affected by flooding.

26. Answer the questions

1. How is the surface of the Earth heated?

_____
_____

2. What gases reflect heat back in the atmosphere?

_____
_____

3. Why is amount of carbon dioxide in the atmosphere increasing?

_____
_____

4. What will be a worldwide rise in temperature in the next 100 years?

_____
_____

27. Translate into English

1. Чтобы облегчить свою жизнь, люди изобретали машины и инструменты.

_____
_____

2. Люди озабочены загрязнением воды и воздуха.

_____
_____

3. Суда, сбрасывая отходы в океан, загрязняют воду.

_____
_____

4. Рыба в загрязненной воде умирает или становится ядовитой.

_____
_____

5. Машины и фабрики загрязняют воздух и разрушают озоновый слой Земли._____
_____

6. Кислотный дождь нарушает баланс в природе.

_____
_____

7. Люди должны научиться защищать землю и воздух от загрязнения.

_____
_____

28. Read and translate the text

Animals in Danger

At present a thousand species are almost extinct because we hunt them or damage their environment. Here are some of the animals in danger. The World Wildlife Fund is fighting to save them.

The French priest, Pierre David, was the first European to see a giant panda in China in 1869. Today the giant panda is one of the rarest species in the world. There are perhaps only 300 of them left. It likes to live in bamboo forests, but these are slowly disappearing.

The giant panda can live for up to 20 years, and a big male can weigh 150 kilograms. A new-born panda weighs only 125 grams and measures less than 15 centimeters. The female panda is 800 times heavier than baby at birth and the baby is 3-4 months old before it can crawl. It is pinkish-white at birth without dark markings and the female black eyes.

Fortunately the Chinese government now protects the panda, so it should survive. The World Wildlife Fund uses the panda as its symbol.

The story of the whale has been another great wildlife tragedy. Some of these are the largest animals that have ever lived. A blue whale can weigh over 125 tonnes. Whales are mammals, not fish and they are highly intelligent. They send messages to each other over very long distances with high-pitched sounds.

Whales are now in great danger because hunters have killed too many of them. Modern ships and machines have made it easy to hunt these animals, and they are often killed in a very painful and cruel way. Some countries have agreed to protect the whale , but others have not and still kill too many.

29. Find the English words and expressions in the text

Один из редких видов в мире _____

медленно исчезают _____

большая панда_____

киты – это млекопитающие _____

отправлять сообщения высокочастотными звуками _____

_____

часто убивают очень жестоким способом _____

сейчас в большой опасности _____

согласились защищать китов _____

Всемирный фонд дикой природы _____

разрушать их окружающую среду _____

30. Are the statements true or false? Correct the false ones.

1. The World Wildlife Fund is an organization fighting to save animals in danger. _____
2. It uses the whale and the panda as its symbols. _____
3. At present about ten hundred species are almost extinct. _____
4. It happens because people hunt them._____
5. Today the panda is one of the rarest species in the world._____
6. Whales and giant pandas are in great rare. _____
7. A whale is a giant fish a blue whale can weigh over 125 tones ._____
8. Whales communicate with each other with high-pitched sounds. _____
9. Fortunately the Chinese government now protects whales.

10. Nevertheless, other countries still kill too many of them.

_____

31. Read and translate the text

Forests – Ecosystems or Green Gold?

The forest is a basis for the existence of many organisms. The forest protects the Earth from erosion, prevents evaporation – in this way it feeds rivers and serves home for animals. The forest is not only trees. Under the branches of higher trees, there are lower trees and then - grass, mushrooms, etc. In this way, the density of organisms and their diversity is very high.

Forests are often called "the lungs of the planet". As we know, when man breathes, he consumes air containing oxygen and gives out air containing carbonic gas. So the amount of carbonic gas increases. This gas is also educed in the process of burning. But there is a way back. During the photosynthesis, carbonic gas turns into oxygen. It's the forests that do the main part of work turning CO2 into O2. This explains their name "the lungs of the planet".

In his activity, man needed timber for building and warming his home and fields for growing crops, That's why for hundreds of centuries forests were disappearing and the ecological balance was being changed.

For the first civilizations of people, it was difficult to realize the possible danger. Recently the paleontologists have found out that ecological crises happened in ancient times. One of the tribes of the South American Indians – Anasasi – abruptly left its place of living with roads and irrigation systems around 1200 AD. It happened because they had destroyed forests so violently that the latter didn't replenish on the devastated areas. Similar problems appeared in the 20th century. The only difference was that people started thinking the situation over. That's when ecology appeared.

It's extremely important to take care of forests. If a forest is destroyed because of commercial interests, there will be little water and the erosion will start on the slopes. Thus, the productivity of planes will decrease. This shows how important forests are. For the sake of life on the Earth there must be large areas of natural ecosystems.

Our country does much to preserve forests. In 1942, the so-called "forests of the first group" were created. It is illegal to cut them. Still, much depends on the people. Because of them forest fires take place. It will take one hundred years to grow the similar forest in the same place. It's our task to save natural resources because we are a part of nature, the most reasonable and responsible part. Only if we take care of the Earth, people who'll live after us will have a clean planet, fit for healthy living.

32. Answer the following questions to the text.

1. What does the forest do for our planet?
2. Does the forest consist only of trees?
3. Why are forests often called "the lungs of the planet"?
4. What was commercial interest in forest? Did nature suffer because of the activity of man?
5. Were there ecological crises in ancient times? Give an example from the text.
6. When did ecology appear?
7. What happens if forests are destroyed?
8. Does our country preserve forests? What is done for their protection?
9. Will our children live on a clean planet if we take care of nature? What will happen in reality, in your opinion?

33. Continue the following statements.

1. The forest protects the Earth from erosion …
2. Under the the branches of higher trees, there are …
3. When man breathes, he …
4. During the photosynthesis …
5. In his activity, man needed timber …
6. Recently scientists have found out that ecological crises …
7. If the forest is destroyed because of commercial interests …
8. Our country protects forests: in 1942 …
9. Only if we take care of Earth …

34. Write an essay on one of of the following topics.

1. The ecology of Russia.
2. The protection of Lake Baikal.
3. Cutting forests: profitable business or danger for the ecosystem?

Тема 3. «Средства коммуникации. Means of communication».

Цель: изучить лексику по теме **Средства коммуникации**, повторить грамматический материал.
Содержание работы: тексты для чтения по данной теме, упражнения на усвоение и закрепление лексико-грамматического материала.
Задание: прочитать, перевести тексты, выписать и выучить новые лексические единицы, выполнить ряд предложенных упражнений на закрепление лексики и грамматического материала.

1. Изучите лексический материал по теме:

1. hardware	аппаратное обеспечение
2. system board	системная плата
3. power	сила, мощность, энергия
4. keyboard	клавиатура
5. mouse	1) мышь 2) мышь (устройство указания)
6. to process	обрабатывать
7. processor	процессор
8. drive	дисковод
9. driver	программа управления устройствами
10. case	случай, коробка, футляр, кожух
11. content	содержание
12. type	печатать
13. key	клавиша
14. manual	справочник, руководство, ручной
15. software	программное обеспечение
16. application	применение
17. slide	скользить
18. remote control	пульт дистанционного управления
19. paste	вставлять, копировать
20. switch	включать
21. screen	экран
22. pointer	указатель, указка
23. button	пуговица, кнопка
24. display	выставлять, показывать
25. character	символ
26. dot	точка
27. sharp	острый, резкий, точный
28. resolution	разрешающая способность
29. plug in	вставлять штепсель в розетку
30. strain	натяжение, напряжение, нагрузка
31. reduce	уменьшать, понижать
32. adjust	приспосабливать(ся)
33. screen saver	режим отключения экрана при паузах в работе
34. drug	перетаскивать
	щелкать

35. click	схема, цепь
36. circuit	устанавливать
37. install	стирать
38. erase	путь
39. path	сотовый телефон
40. cellular phone, mobile phone	сотовая связь
41. cellular communication	сообщение
42. message	оператор сотовой связи
43. mobile network operator	электронное устройство
44. gadget	служба мультимедийных сообщений
45. Multimedia Messaging Service	служба коротких сообщений
46. Short Message Service	

1. Read international words transcribe and translate them

icon, adapter, contract, format, supercomputer, general, photon, graphics, disk

2. Unscramble the following words

cucirit _____ aplisdy _____ tercracha _____ tireonluso _____ numaal _____ llintsa _____

3. Underline the correct spelling

1. устройство – divise, device, divice, divese, dyvice
2. выводить на печать – prynd, prind, print, printe, prinde
3. время – taym, taim, time, tyme
4. дата, число – deit, deyt, dete, date, dat
5. файлы – failz, fails, faylz, files, filez

4. Find the definition for each term

1. application	a) programs, that make a computer work
2. hardware	b) a device used to point or drag some elements on the screen, to start the computer program
3. resolution	c) the putting to use
4. software	d) the characteristics of the monitor
5. mouse	e) machinery which makes up the computer

1. _____ 2. _____ 3. _____ 4. _____ 5. _____

5. Make possible pairs of words

1.	to control	a)	problems
2.	to solve	b)	operations
3.	to insert into	c)	parts
4.	to imagine	d)	information
5.	to connect	e)	data
6.	to remove	f)	calculations

7.	to perform	g)	units
8.	to house	h)	life
9.	to store	i)	machine
10.	to issue	j)	commands

1. _____ 2. _____ 3. _____ 4. _____ 5. _____
6. _____ 7._____8._____9._____10._____

6. Complete the sentences

1. Press	a)	the key
	b)	copied
	c)	copy
2. Insert	a)	prompted
	b)	rename
	c)	the diskette
3. Check	a)	the disk
	b)	enter
	c)	display

1. _____ 2. _____ 3. _____

7. Translate into Russian

1. The computer is already on the desk, but the keyboard has not been unpacked yet._____
_____
2. Usually it takes some time to learn to use a mouse._____
_____
3. Thanks to computers we can process information millions times quicker.
_____
_____
4. How many letter keys are there on computer keyboard?
_____
_____
5. Two manuals came with this computer.
_____
_____
6. This remote control needs 4 batteries to power it
_____
_____

8. Write Tense & Voice and translate the forms below

1. is sliding_____
2. has reduced _____
3. typed_____
4. had processed_____
5. will adjust_____
6. operates_____
7. is provided_____
8. was processed_____
9. will be typed_____
10. were pressed_____

9. Use Modal Verbs instead of their equivalents in the forms below

1. was able to switch_____
2. has to be provided_____
3. is able to adjust_____
4. is to adapt_____
5. were allowed to type_____

10. Translate the following pairs into Russian

1. was to switch – was switching _____
2. will have to display – will display _____
3. is able to install – is installed _____
4. had to slide – slid _____
5. will be to process – will be processed _____

11. Write the correct auxiliary verbs

1. _____ Windows tell your computer what to do? – Yes, it does.
2. _____ you use these programs interchangeably? – Yes, I shall.
3. _____ he pasting portions of one document into another one? – Yes, he is.
4. _____ many application programs written to run with Windows? – Yes, they are.
5. _____ they supply their office with necessary equipment? – Yes, they did.
6. _____ anybody been working on that PC? – Yes, we have.

12. Give the full answer

1. Does the monitor allow you to see the results of your work?
_____
2. Must this information be processed and stored?
_____
3. Is that program called Paintbrush?
_____
4. Were our scientists taking part in the research project?
_____
5. Can some programs be difficult to remember?
_____
6. Have they connected the cables at last?
_____

13. Tick the correct translation

1. Files in target drive will be erased.
   a) Уничтожьте файлы на дискете, на которую ведется записью
   b) Файлы на дискете, на которую ведется запись, были уничтожены.
   c) Файлы на дискете, на которую ведется запись, будут уничтожены.
2. Diskette is write-protected.
   a) На дискете ведется запись.
   b) Дискета защищена от записи.
   c) Защитите дискету от записи.
3. Data on disk will be lost.
   a) Данные на диске потеряны.
   b) Данные на диске будут потеряны.
   c) Данные на диске будут уничтожены.
4. Write not completed.
   a) Не заканчивайте запись.
   b) Запись не закончена.
   c) Незаконченная запись.
5. Path not found.

a) Найдите путь к файлу.
b) Путь к файлу не обнаружен.
c) Необнаруженный путь к файлу.

14. Read and translate the text

The Main Parts of the System

There are many hardware pieces in a computer system. Some are: system board, power supply, keyboard, mouse, hard drive, monitor and video card and its drivers.

The case is the large metal box and is the main part of the computer. The case and its contents (power supply, system board, etc.) are called the system unit. The case protects the delicate electronics inside.

The keyboard. You communicate with your computer with the keyboard. With it, you type instructions and commands for the computer, and information to be processed and stored. The instruction manuals for most software applications contain a section describing the functions of each key or combination of keys.

The mouse works by sliding it around on a flat surface. To use the mouse, slide it until the pointer's point is on something, like a button or an icon. Then:

Click - position the mouse pointer over an element and press and release the left mouse button one time.

Double-click - press the mouse button twice without moving the mouse between clicks. Usually you double-click on an icon to start the program.

Drag - position the mouse pointer over an element, press and hold the left mouse button, and drag the mouse across the screen. The pointer moves, dragging the element

The monitor. Your computer is not complete without the monitor, a TV-like device. The monitor displays text characters and graphics. It allows you to see the results of the work going on inside your system unit. The image that you see is made up of tiny dots called pixels. The sharpness of the picture depends on the number and size of the pixels. The more pixels, the sharper the image is. This is called resolution.

15. Fill in the chart

The part	Its function
Mouse	
Monitor	
Case	
Keyboard	

16. Read and translate the text

Is there an end to the Computer Race?

Today the word "electronics" is in general usage. Millions of people have electron watches. There are a lot of various radio and TV sets and tape-recorders in our houses. In factories and plants we are surrounded with electronically controlled machines and instruments, we are carried by airplanes, ships, trains and cars with built-in electronic devices and satellites circle the globe. In other words, we are living in an electronic world.

And the center of this world is a tiny silicon plate of a few square millimeters, an integrated circuit, or a chip. The integrated circuit is undoubtedly one of the most sophisticated inventions of man, science and technology. It is in the heart of every electronic device and the more tape-recorders, TV sets and computers we need, the more integrated circuits are required.

When we speak about a further development of computers we mean not only quantity, but also high technology and high speed. In the past it took scientists and researchers a whole lifetime to make a few thousand calculations, whereas for a modern computer this task is a matter of a few seconds.

At present computers capable of performing billions of operations a second are required. Supercomputers are different from ordinary computers. The ordinary computer does the computations operation, while the supercomputer operates like a brain: all operations are being done simultaneously. To develop such a computer qualitatively new integrated circuits were required.

17. Answer the questions

1. What is this text about? _____
2. What new things appeared in people's every day life? _____
3. What is at the center of all these things? _____
4. What applications of computers do you know? _____
5. How does a supercomputer operate? _____
6. What is the speed of a new supercomputer? _____

18. Read and translate the text

The Role of Technical Progress

The scientific and technical revolution has changed our lives very much. Computers, mobile phones and other digital devices have entered our everyday life.

The atomic, space and energy age was followed by the age of computers. The tasks which had seemed eternal before have been solved one by one by computers. During the last decade, many fundamental changes occurred because of electronic devices. It is even difficult to imagine social and economic consequences of the microelectronic revolution.

The large use of the computers has influenced our lives in such a way that it was difficult to imagine 15 or 20 years ago. On the one hand, computers have simplified our life greatly. If you typed a text on the typewriter and made a mistake, you had to type the whole page again. Making several copies of the same document used to be a difficult job too. But now it's quite different. Correcting mistakes is easy. Computer also helps us to buy goods, find information, book tickets, make presentations and annual reports, and make difficult calculations. Time is saved for leisure.

Leisure time is also influenced by computer and other periphery devices. You no longer go to music shops – many things are available on the Internet. You needn't write letters to your relatives or friends – you can send an e-mail. And your photo albums are on the computer too.

Computer games are probably also a part of your free time. They became more and more realistic and complicated, and for many people it becomes impossible to tear themselves away. This means that electronic devices such as a computer and TV set are used mostly for entertainment and consume most of the time that could be spent on work, going for a walk and sleeping. Man becomes a slave of the devices which were designed to make him stronger.

Is there a way out? In fact, there is, but many people don't know it and are still slaves. The best decision is not to give these devices a place in your heart. They should do their work. And when you have a rest, prefer real communication to virtual one and living an active life to watching films about crime. Then electronics will be not our lord or enemy but our friend

19. Answer the questions

1. What were the predecessors of the computer age? _____
2. Do computers make our lives easier and simpler? In what way?_____
3. What devices became compatible with the computer during the last year? _____
4. In what way do computer games influence people? _____
5. Is man a slave of the devices which were designed to make him stronger?

20. Insert the missing words, studying the active vocabulary

Atomic, decade, e-mail, periphery, photo album, relative, tear oneself away, typewriter.

1. _____ helps you to send letters quickly.
2. If there is an interesting programme on TV, it's difficult for a person to _____ .
3. During the last two_____, scientific progress and digitization took place.
4. For some people, the computer is an equivalent of the ____: a device for printing and editing documents.
5. Do you have many ___? –Yes, I have parents, grandparents, two sisters and three brothers.
6. I don't buy ___ any more, all my photos are on my computer.
7. The computer is a multifunctional device. So the ___ is that it can be used both for work and for leisure.
8. The ____ age was followed by the microelectronic one.

21. Read, continue and translate the following arguments about computers

1. The atomic, space and energy age was followed by _____
2. It's difficult to imagine social and economic consequences _____
3. Computers have simplified_____
4. The computer helps us to buy goods, find information_____
5. Leisure time is also influenced _____
6. You no longer go to music shops _____
7. You needn't write letters to your relatives _____
8. The computer and TV set are used mostly for entertainment _____
9. The best decision is not to give these devices_____
10. When you have a rest, prefer real communication_____

22. Read the sentences, point out Participle 1 and Participle II. Give the Russian equivalents. If you have some difficulties, use the grammar reference at the end of the book.

1. When entering the Internet, I always find the required information. 2. If compared with the analog computer, digital computers have other functions. 3. When used, voltage represents other physical quantities in analog computers. 4. While dealing with discrete quantities, digital computers count rather than measure. 5. At the moment our computer systems are inputting, storing, processing, controlling, and outputting data. 6. Combined capabilities of both analog and digital computers belong to hybrid computers. 7. Having finished the research, they analyzed the data obtained. 8. Having translated the programme into the machine language, he put it into the computer. 9. Having been well prepared for the test, postgraduates managed to answer all the questions the tutor asked them. 10. When entering data correctly into the computer system, they avoid the need for further adjustment by a person.

23. Make up your own sentences according to the models.

Model A: *When properly programmed, computers don't err.*
Having been properly programmed, computers don't err.

1. When well regulated, the equipment operates well. 2. When documents correctly filled in, they don't need extra checks. 3. When loaded, the numbers are stored on the platform of storage. 4. When loaded with cargo, cars can move between stations. 5. When moved, the ball located on the bottom side of the mouse turns rollers.

Model B: *A smartphone is a mobile phone that offers a more advanced*

computing ability.
A smartphone is a mobile phone offering a more advanced computing ability.

1. A smartbook is a concept of a mobile device that falls between smartphones and netbooks. 2. A smartbook is a gadget that delivers features found in smartphones. 3. BlackBerry is a line of mobile e-mail that functions as a Personal Digital Assistant (PDA). 4. Twitter is a social and micro blogging service that enables users to send and to read other users' messages called tweets. 5.An i-Phone is a camera phone that includes text messages, visual voicemail, a portable media player, and web browsing facilities.

24. Fill in the blanks to streamline the use of the Participle 1 and Participle II. The words in brackets are given to help you.

1. A computer is … numbers and orders into memory (to insert). 2. An electronic digital computer is a system … and … a very large amount of data (to process, to store). 3. The computer is a system … numerical computations (to perform). 4. The computer is a device … instructions with extreme speed (to follow). 5 The numbers and the instructions are … in the computer memory. (to store) 6. The arithmetic-logical unit is a device … circuits … the arithmetic computations (to contain, to perform). 7. The codes … by computer designers are … on number of systems (to use, to base). 8. Having been coded the instruction … … to the central processing init (to be transmitted). 9. …the functions of storage units, we controlled the processing unit (to discuss).

25. Make up sentences according to the models to practice the use of the verbals.

Model: *Вам следовало бы прочитать об удивительных свойствах компьютера раньше.*
You should have read about wonderful features of computers earlier.

1. Вам следовало бы заказать это устройство раньше. 2. Ему следовало бы ввести данные в запоминающее устройство раньше. 3. Вам следовало бы раньше рассмотреть эту систему как крупномасштабную цифровую систему. 4. Вам следовало бы знать об этом устройстве раньше. 5. Мне следовало бы проконтролировать эти данные заранее..

26. Read and translate the text

Application of Computers

The use of computers, playing a prominent role in our life, is becoming widespread today. It regards industry, business, education, medicine, just to name a few. As for industries concerned, versatile computers are able to improve the quality of manufactured products and to increase the productivity of industry. Computers are engaged to the control of power stations, plants and refineries. But computers are being used not only in science and industry. Thanks to them, modern medicine can diagnose diseases faster and more thoroughly, while they are becoming valuable medical diagnostic tools.

Also in banking system computers have become indispensable and irreplaceable. Furthermore, architects, designers, and engineers can't imagine their work without computers. Computers form a part of many military systems including communication and fire control. They are applied for automatic piloting and automatic navigation, space exploration.

Moreover computers are widespread in education. Except their classic tasks such as administration and accountancy they are used in process of learning. Firstly, they store enormous amount of data which helps students receive information. Secondly, thanks to special teaching techniques and programmes they enhance cognitive skills of getting and accumulating knowledge.

These machines are really everywhere and we depend on them. They have become so popular that not knowing how to use those means to be illiterate. Many uses of computers that we cannot imagine at present will become commonplace soon.

Refinery – нефтеперерабатывающий завод;

Disease – заболевание;
Accountancy – бухгалтерский учёт;
To enhance cognitive skills – развивать познавательные навыки;
Illitirate – неграмотный, необразованный;
Commonplace – типичный случай, обычное явление.

27. Agree or disagree with the following statements and add some more information if needed.

1. The role of computers is increasing in our life. 2. Computers are widely used in banking, industry, and medicine. 3. Computers find application in education, providing computer-aided learning environment. 4. Computers can be hardly used in fire control. 5. They are widely used in automatic piloting and navigation. 6. The reach of the computer application is to be increased soon.

28. Make up special questions according to the models, and answer them to streamline your speaking skills.

Model: *That gadget was used as the base for the first computer.*
What was used as the base for the first computer?

1. The electronic device was invented in the 20^{th} century. 2. The first vacuum-tube computer was built at that time. 3. The first vacuum-tube computer was referred to as the first-generation computer. 4. A transistor was used in the second-generation computer. 5. An integrated circuit was used in computers of the first generation.

Model: *Computers can process information.*
What can computers process?

1.Computers can accept information. 2. Computers can perform mathematical and logical operations. 3. The programmer can tell the computers what to do. 4. The programme can also provide the information needed to solve the problem. 5. Computers can keep instructions in their memory.

29. Ask questions and use the words in italics in your answers. The words in brackets will help you.

1. *Electronic computers* are comparatively *modern* invention (what, what kind of). 2. *J. Nepier* devised *a mechanical* way to multiply and divide (who, what kind of). 3. *Most computers* have *circuits* for performing arithmetic operations (what, what). 4. *Integrated circuit technology* was used in computers of the third generation (what kind of, what). *5. Computers* can solve *a series of problems* and make thousands of *logical* decisions. (what, how many, what kind of).

30. Present information on "One of the greatest inventions of the mankind" (Give the full answers)

- the invention you consider to be one of the greatest in the world
- the name of the inventor
- the country this invention was made in
- what the thing was made for
- how it is used now
- how it influenced our life

Тема 4. «Информационно-зависимое общество». Information-dependent society.

Цель: изучить лексику по теме **Информационно-зависимое общество**, повторить грамматический материал.
Содержание работы: тексты для чтения по данной теме, упражнения на усвоение и закрепление лексико-грамматического материала.
Задание: прочитать, перевести тексты, выписать и выучить новые лексические единицы, выполнить ряд предложенных упражнений на закрепление лексики и грамматического материала.

computer literacy	Компьютерная грамотность
problem-solving device	устройство, обеспечивающее решение задачи
be aware of	понимать, сознавать
opportunity	возможность
basics	основы
application	применение; использование
to restate	пересмотреть, переосмыслить
significant	значительный
achievements	достижения
computing	вычисление; счет; работа на компьютере
to embrace	охватывать
dimension	измерение
instruction	команда, инструкция, указание
to direct the operation	направлять работу
to process	обрабатывать
subscription magazine	журнал по подписке
data processing system	система обработки данных
store manager	директор магазина
to have much in common	иметь много общего

COMPUTER LITERACY

Informed citizens of our information-dependent society should be computer-literate, which means that they should be able to use computers as everyday problem-solving devices. They should be aware of the potential of computers to influence the quality of life.
There was a time when only privileged people had an opportunity to learn the basics, called the three R's: reading, writing, and arithmetic's. Now, as we are quickly becoming an information-becoming society, it is time to restate this right as the right to learn reading, writing and computing. There is little doubt that computers and their many applications are among the most significant technical achievements of the century. They bring with them both economic and social changes. "Computing" is a concept that embraces not only the old third R, arithmetic's, but also a new idea — computer literacy.
In an information society a person who is computer-literate need not be an expert on the design of computers. He needn't even know much about how to prepare programs which are the instructions that direct the operations of computers. All of us are already on the way to becoming computer-literate. Just think of your everyday life. If you receive a subscription magazine in the post-office, it is probably addressed to you by a computer. If you buy something with a bank credit card or pay a bill by check, computers help you process the information. When you check out at the counter of your store, a computer assists the checkout clerk and the store manager. When you visit your doctor, your schedules and bills and special services, such as laboratory tests, are prepared by computer. Many actions that you have taken or observed have much in common. Each relates to some aspect

of a data processing system.

1. Просмотрите текст еще раз. Ответьте на вопросы, используя информацию текста.

1. What does "a computer-literate person" mean?
2. Are you aware of the potential of computers to influence your life?
3. What do the people mean by "the basics"?
4. What is the role of computers in our society?
5. What is "computing'?
6. What is a program?
7. Prove that we all are on the way to becoming computer-literate.
8. Give examples of using computers in everyday life.

2. Прочтите, переведите и запомните следующие выражения:

An information-dependent society; a computer-literate citizen; an everyday problem-solving device; to be aware; to influence the quality of life; to have an opportunity; to learn the basics; to learn computing; the most significant technical achievements; to embrace computer literacy; to prepare programs; to direct the operations of a computer; to be on the way of becoming computer-literate; to process information; to have much in common; a data processing system.

3. Вспомните образование и случаи употребления The Past Simple Tense.

А. Назовите три формы следующих неправильных глаголов:

To be; to have; to mean; to learn; to become; to bring; to know; to think; to buy; to pay; to take; to do; to begin; to give; to make; to keep; to get; to read; to show.

Б. Преобразуйте следующие предложения в Bast Simple.

1. Many people have an opportunity to use computers.
2. There is no doubt that computers solve problems very quickly.
3. Instructions direct the operation of a computer.
4. Computers bring with them both economic and social changes.
5. Computing embraces not only arithmetics, but also computer literacy.
6. It is well known that computers prepare laboratory tests.
7. Those persons are computer literate and think of buying a new computer.
8. They receive a subscription magazine once a month.
9. My mother is ill and visits her doctor every other day.
10. Experts know much about how to prepare programs.

4. Ознакомьтесь с терминами текста

intricate— сложный, запутанный
electronic circuit— электронная цепь, схема
to operate switches— приводить в действие переключатели
to store numbers— запоминать числа
to manipulate— управлять; обращаться; преобразовывать
to input / to feed in — вводить (информацию)
to turn on = to switch on — включать
to turn off = to switch off— выключать
to process data— обрабатывать данные
to supply — подавать, вводить, снабжать, обеспечивать
addition — сложение
subtraction— вычитание
division—деление
multiplication— умножение
exponentiation — возведение в степень
user— пользователь
input device— устройство ввода
disk drive— дисковое запоминающее устройство, дисковод

tape drive— запоминающее устройство на магнитной ленте
cathode-ray tube— электроннолучевая трубка
to make decisions — принимать решения
instantaneously— мгновенно, немедленно

5. Прочтите текст и скажите, что такое компьютер и каковы его основные функции.

WHAT IS A COMPUTER?

A computer is a machine with an intricate network of electronic circuits that operate switches or magnetize tiny metal cores. The switches, like the cores, are capable of being in one or two possible states, that is, on or off; magnetized or demagnetized. The machine is capable of storing and manipulating numbers, letters, and characters (symbols).

The basic idea of a computer is that we can make the machine do what we want by inputting signals that turn certain switches on and turn others off, or magnetize or do not magnetize the cores.

The basic job of computers is processing of information. For this reason, computers can be defined as devices which accept information in the form of instructions, called a program, and characters, called data, perform mathematical and / or logical operations on the information, and then supply results of these operations. The program, or part of it, which tells the computers what to do and the data, which provide the information needed to solve the problem, are kept inside the computer in a place called memory.

It is considered that computers have many remarkable powers. However, most computers, whether large or small, have three basic capabilities.

First, computers have circuits for performing arithmetic operations, such as: addition, subtraction, division, multiplication and exponentiation.

Second, computers have a means of communicating with the user. After all, if we couldn't feed information in and get results back, these machines wouldn't be of much use. Some of the most common methods of inputting information are to use terminals, diskettes, disks and magnetic tapes. The computer's input device (a disk drive or tape drive) reads the information into the computer. For outputting information two common devices used are: a printer, printing the new information on paper, and a cathode-ray-tube display, which shows the results on a TV-like screen.

Third, computers have circuits which can make decisions. The kinds of decisions which computer circuits can make are not of the type: "Who would win the war between two countries?" or "Who is the richest person in the world?" Unfortunately, the computer can only decide three things, namely: Is one number less than another? Are two numbers equal? and, Is one number greater than another?

A computer can solve a series of problems and make thousands of logical decisions without becoming tired. It can find the solution to a problem in a fraction of the time it takes a human being to do the job.

A computer can replace people in dull, routine tasks, but it works according to the instructions given to it. There are times when a computer seems to operate like a mechanical 'brain', but its achievements are limited by the minds of human beings. A computer cannot do anything unless a person tells it what to do and gives it the necessary information; but because electric pulses can move at the speed of light, a computer can carry out great numbers of arithmetic-logical operations almost instantaneously. A person can do the same, but in many cases that person would be dead long before the job was finished.

6. Переведите текст. Ответьте на вопросы, используя информацию текста.

1. What is a computer? 2. What are the two possible states of the switches? 3. What are the main functions of a computer? 4. In what way can we make the computer do what we want? 5. What is the basic task of a computer? 6. In what form does a computer accept information? 7. What is a program? 8. What are data? 9. What is memory? 10. What three basic capabilities have computers? 11. What are the ways of inputting information into the computer? 12. What is the function of an input device? 13. What devices are used for outputting information? 14. What decisions can the computer make? 15. What are the computer's achievements limited by?

7. Найдите в тексте английские эквиваленты следующих словосочетаний:

Сложная сеть электронных цепей; управлять (приводить в действие) переключателями; возможные состояния; хранить (запоминать) числа; обрабатывать символы; посредством ввода сигналов; включать; выключать; размагничивать сердечники; обработка информации; информация в виде команд; символы, называемые данными; выполнять математические операции; выдавать результаты; обеспечивать необходимую информацию; иметь замечательные возможности; основные свойства; сложение, вычитание, деление, умножение; возведение в степень; средства для общения с пользователем; устройство ввода; дисковод; считывать информацию; вывод информации; катоднолучевая трубка; принимать решения; выполнять тысячи логических

операций; без устали; находить решение задачи; значительно меньший промежуток времени; человек; нудная рутинная работа; в соответствии с введенной программой; вырабатывать свои суждения; возможности ограничены программой, заложенной в него человеком; дать требуемую информацию; электрические импульсы; со скоростью света; мгновенно производить огромное количество математических операций; человеку может не хватить всей жизни, чтобы закончить работу.

8. Составьте пары или группы близких по значению слов из перечня, приведенного ниже.
***Например: A.* to perform, to exercise, to carry out; *B.* a man, a person, a human being;**

Verbs: to turn on, to provide, to type, to accept, to help, to learn, to observe, to call, to tell, to keep, to feed, to solve, to relate, to switch off, to communicate, to receive, to supply, to switch on, to assist, to print, to study, to input, to turn off, to decide, to store, to say, to name, to watch.

Nouns: work, machine, fundamentals, display, application, capabilities, job, storage, screen, state, basics, use, concept, specialist, journal, character, memory, idea, expert, magazine, position, symbol, command, data, solution, device, instruction, powers, information, decision.

Adjectives: basic, tiny, common, small, main, significant, routine, general, remarkable, uninterested, intricate, important, wonderful, complex, little.

Adverbs: rapidly, probably, instantaneously, in a moment, quickly, perhaps.

9. Выполните письменный перевод текста 3 по вариантам.

APPLICATION OF COMPUTERS.

1. At present a great deal of the work force of most countries is engaged in creating, processing, storing, communicating and just working with information. Computers have become commonplace in homes, offices, stores, schools, research institutes, plants.

The use of computers in business, industry and communication services is widespread today. Computer-controlled robots are able to improve the quality of manufactured products and

to increase the productivity of industry. Computers can control the work of power stations, plants and docks. They help in making different decisions and in management of economy.

The work of banks depends upon computer terminals for millions of daily operations. Without these terminals, records of deposits and withdrawals would be difficult to maintain, and it would be impossible to make inquiries about the current status of customer accounts.

Computers form a part of many military systems including communication and fire control. They are applied for automatic piloting and automatic navigation. Space exploration depends on computers for guidance, on-board environment and research.

2. Computers find application in astronomy and upper atmosphere research. Weather forecasting, library information services can benefit from computers too.

It is interesting to note that computers are widely used in medicine. They became valuable medical diagnostic tools. Computers are used for optical scanning and image processing, ranging from pattern recognition to image processing. Technicians can operate computer tomography scanners which combine x-rays with computer technology to give sectional views of the body of patients. The views then can be combined into a single image shown on the screen.

It should be noticed that learning on a computer can be fun. Students spend more time with computer-aided instruction performing the assigned task, as compared with conventional classroom.

At last air traffic control is impossible without computer application. It fully depends upon computer-generated information.

Many other uses of computers that we cannot imagine at present will become commonplace in the transition from an industrial to postindustrial, or information society.

Notes

to maintain records — вести учет
deposits and withdrawal — вклады и изъятие (выемка)
guidance — наведение (на цель); управление; руководство
on-board environment — бортовое окружение pattern recognition — распознавание образов

Тема 5. Развитие микроэлектроники. Development of microelectronics.

applied physics — прикладная физика
generation — создание, формирование, выработка
scientific research— научные исследования
due to the efforts— благодаря усилиям
manipulation— управление; обработка; преобразование
to replace vacuum tubes — заменять электронные лампы
a piece of semiconductor — полупроводниковый кристалл
reduced weight— уменьшенный вес
power consumption — потребление (расход) электроэнергии
to carry out— выполнять; осуществлять
solid body — твердое тело; кристалл; полупроводник
to respond— отвечать; реагировать
at a rate — со скоростью
integrated circuit (1C)— интегральная схема
batch processing— пакетная обработка
to assemble— собирать; монтировать
to lower manufacturing— снизить производительность
to increase reliability— увеличить надежность

DEVELOPMENT OF ELECTRONICS

Electronics is a field of engineering and applied physics dealing with the design and application of electronic circuits. The operation of circuits depends on the flow of electrons for generation, transmission, reception and storage of information.

Today it is difficult to imagine our life without electronics. It surrounds us everywhere. Electronic devices widely used in scientific research and industrial designing, they control the work of plants and power stations, calculate the trajectories of space-ships and help the people discover new phenomena of nature. Automatization of production processes and studies on living organisms became possible due to electronics.

The invention of vacuum tubes at the beginning of the 20th century was, the starting point of the rapid growth of modern electronics. Vacuum tubes assisted in manipulation of signals. The development of a large variety of tubes designed for specialized functions made possible the progress in radio communication technology before the World *War* II and in the creation of early computers during and shortly after the war.

The transistor invented by American scientists W.Shockly, J. Bardeen and W. Brattain in 1948 completely replaced the vacuum tube. The transistor, a small piece of a semiconductor with three electrodes, had great advantages over the best vacuum tubes. It provided the same functions as the vacuum tube but at reduced weight, cost, power consumption, and with high reliability. With the invention of the transistor all essential circuit functions could be carried out inside solid bodies. The aim of creating electronic circuits with entirely solid-state components had finally been realized. Early transistors could respond at a rate of a few million times a second. This was fast enough to serve in radio circuits, but far below the speed needed for highspeed computers or for microwave communication systems.

The progress in semiconductor technology led to the development of the integrated circuit (1C), which was discovered due to the efforts of John Kilby in 1958. There appeared a new field of science — integrated electronics. The essence of it is batch processing. Instead of making, testing and assembling descrete components on a chip one at a time, large groupings of these components together with their interconnections were made all at a time. 1C greatly reduced the size of devices, lowered manufacturing costs and at the same time they provided high speed and increased reliability.

2. Просмотрите текст еще раз. Ответьте на вопросы, используя информацию текста.

1. What is electronics?
2. Can you imagine modern life without electronics?
3. Where are electronic devices used?
4. What was the beginning of electronics development?
5. What made the progress in radio communication technology possible?
6. What is the transistor?
7. When w? s the transistor invented?
8. What aim was realized with the invention of the transistor?
9. When were integrated circuits discovered?
10. What advantages did the transistors have over the vacuum tubes?

3. Догадайтесь о значении следующих интернациональных слов и словосочетаний:

Electronics; electrons; physics; information; microelectronics; industrial design; to calculate trajectories; phenomena of nature; automatization of production processes; organisms; vacuum tubes; specialized functions; progress in radio communication technology; transistor; electrode; components; communication system; technology; descrete components; chip.

4. Найдите в тексте английские эквиваленты следующих словосочетаний:

Прикладная физика; передача и прием информации; поток электронов; трудно представить; научные исследования; промышленное проектирование; вычислять траекторию космических кораблей; обнаруживать явления природы; благодаря электронике; отправная точка; способствовать управлению сигналами; быстрый рост; разнообразие ламп; создание первых компьютеров; полностью заменил; полупроводниковый кристалл; уменьшить вес; сократить стоимость; потребление электроэнергии; высокая надежность; твердотельные компоненты; довольно быстро... но гораздо ниже; высокоскоростной компьютер; микроволновые системы связи; полупроводниковая технология; область науки; интегральная схема; пакетная обработка; сборка дискретных компонентов на кристалле; снизить производственные затраты; обеспечить высокую скорость.

Ознакомьтесь с терминами текста.

performance— рабочая характеристика;
параметры; производительность; быстродействие
to predict— прогнозировать
capability— способность; возможность
branch of science— область науки
to embrace— охватывать

circuit assembly— сборка схемы
film technique— пленочная технология (метод, способ)
invisible to unaided eye — невидимый невооруженному глазу
to react — реагировать
speed of response — скорость реакции (отклика)
advantage / disadvantage— достоинство, преимущество / недостаток
benefit— выгода, польза; помогать, приносить пользу
to result from— возникать, происходить в результате
packing density плотность упаковки
small-scale integrated circuit — малая интегральная схема (МИС)
medium-scale 1C — средняя интегральная схема (СИС)
large-scale 1C — большая интегральная схема (БИС)
very-large-scale 1C — сверхбольшая интегральная схема (СБИС)

fine line— прецизионный; с элементами уменьшенных размеров
transmission line — линия передачи
waveguide— волновод
to emerge— появляться, возникать
to displace — перемещать, смещать
mode — вид, метод, способ; режим работы
pattern — шаблон, образец; образ, изображение
power— мощность, энергия, питание; производительность, быстродействие; способность, возможность.

Прочтите текст и скажите, как вы понимаете термины «микроэлектроника» и «микроминиатюризация». Переведите текст.

MICROELECTRONICS AND MICROMINIATURIZATION.

The intensive effort of electronics to increase the reliability and performance of its products while reducing their size and cost let to the results that hardly anyone could predict. The evolution of electronic technology is sometimes called a revolution: a quantitative change in technology gave rise to qualitative change in human capabilities. There appeared a new branch of science – microelectronics.
Microelectronics embraces electronics connected with the realization of electronic circuits, systems and subsystems from very small electronic devices. Microelectronics is a name for extremely small electronic components and circuit assemblies, made by film of semiconductor techniques. A microelectronic technology reduced transistors and other circuit elements to dimension almost invisible to unaided eye. The point of this extraordinary miniaturization is to make circuits long-lasting, low in cost, and capable of performing electronic functions at extremely high speed. It is known that the speed of response depends on the size of transistor: the smaller the transistor, the faster it is. The smaller the computer, the faster it can work.
One more advantage of microelectronics is that smaller devices consume less power. In space satellites and spaceships this is very important factor.
Another benefit resulting from microelectronics is the reduction of distances between circuit components. Packing density increased with the appearance of small-scale integrated circuit, medium-scale IC, large-scale IC and very-large-scale IC. The change in scale was measured by the number of transistors on a chip. There appeared a new type of integrated circuits, microwave integrated circuit. The evolution of microwave IC began with the development of planar transmission lines. Then new IC components in a fine line transmission line appeared. Other more exotic techniques, such as dielectric waveguide integrated circuits emerged.
Microelectronics technique is continuing to displace other modes. Circuit patterns are being formed with radiation having wavelength shorter than those of light.
Electronics has extended man's intellectual power. Microelectronics extends that power still further.

1. Просмотрите текст еще раз и ответьте на вопросы, используя информацию текста.
1. What would you say about electronics?
2. Why is the development of electronics called a revolution?
3. What is microelectronics?
4. What techniques does microelectronics use?
5. What is the benefit of reducing the size of circuit elements?
6. What do you understand by the term of microminiaturization?
7. What does the speed of the signal response depend on?
8. What advantages of microelectronics do you know?
9. What scales of integration are known to you?
10. How are microelectronics techniques developing?

2. Найдите в тексте английские эквиваленты следующих словосочетаний:
Интенсивные усилия; увеличить надежность; увеличить параметры; уменьшить размер и стоимость;

вряд ли кто-нибудь мог прогнозировать; количественные и качественные изменения; область науки; пленочная технология; полупроводниковый метод; сокращать элементы схемы; суть миниатюризации в том, что; создать схемы с долгим сроком службы; чрезвычайно высокая скорость реакции; чем меньше, тем быстрее; преимущество; расходовать энергию; польза; уменьшение расстояния между элементами схемы; большая интегральная схема; микроволновая интегральная схема; волновод; линия передач; смещать; изображение схем; расширять возможности человека.

3. Переведите следующие слова. Обратите внимание на то, что префиксы dis-, in-, un- non-, ir-придают словам отрицательное значение.

dis-: disadvantage; disconnect; disappear, disclose; discomfort; discontinue; discount; discredit; discriminate; disintegrate.

in-: invisible; inaccurate; inactive; incapable; incompact; insignificant; inhuman; informal; ineffective; indifferent; indecisive; inconsumable; incorrect.

un-; uncontrollable; unbelievable; unable; unchanged; uncomfortable; uncommunicative; undisciplined; unexpected; unfavourable; unforgettable; unkind.

non-: non-effective; non-aggressive; noncomparable; non-computable; nonconstant; noncontrollable; nondigital; nondi-mensional; nonprogrammable; nonusable.

ir-; irregular; irrelative; irresponsive; irrational; irreplaceable; irrecognizable.

4 Вспомните образование страдательного залога — to be (в нужном времени) + 3-я форма глагола.

А. Найдите пять случаев употребления страдательного залога в тексте 1 и четыре случая — в тексте

2. Переведите предложения.

Б. Преобразуйте следующие предложения действительного залога в страдательный по образцу:

People widely use electronic devices-Electronic devices are widely used by people.

1. Electronic devices control the work of power stations.
2. They calculate the trajectories of spaceships.
3. People discover new phenomena of nature due to electronic devices.
4. Scientists designed a variety of tubes for specialized functions.
5. American scientists invented the transistor in 1948.
6. Integrated circuits greatly reduced the size of devices.
7. New types of integrated circuits increased packing density.
8. Electronics has extended man's intellectual power.
9. Scientists are looking for new ways for the improvement of integrated circuits technology.
10. Jack Kilby developed the concept of integrating device and built the first 1C in 1958.

Тема 6. «История компьютеров». History of computers.

1. Ознакомьтесь с терминами текста

calculating device— вычислительное устройство
multiple — кратный
abacus — счеты
slide rule — логарифмическая линейка
logarithm table — логарифмическая таблица
calculus— исчисление; математический анализ
general-purpose — общего назначения, универсальный
to cut out the human being altogether — полностью исключить человека
to manipulate— обрабатывать, преобразовывать; управлять
data processing— обработка данных (информации)
tabulate the census — занести данные по переписи (населения) в таблицу
means of coding— средства кодирования (шифровки)
to punch the holes— пробивать отверстия
punched card— перфокарта
to perform— выполнять, производить (действие); осуществлять;
unit of data— единица информации
keyboard terminals — терминал (вывод) с клавишным управлением
proliferation— размножение, быстрое увеличение

2. Прочтите текст и скажите, о каких первых вычислительных приборах рассказывается в нем.

THE FIRST CALCULATING DEVICES.

Let us take a look at the history of computers that we know today. The very first calculating device used was the ten fingers of a man's hands. This, in fact, is why today we still count in tens and multiples of tens.
Then the abacus was invented. People went on using some form of abacus well into the 16th century, and it is still being used in some parts of the world because it can be understood without knowing how to read.
During the 17th and I8lh centuries many people tried to find easy ways of calculating. J.Napier, a Scotsman, invented a mechanical way of multiplying and dividing, which is now the modern slide rale works. Henry Briggs used Napier's ideas to • produce logarithm tables which all mathematicians use today.
Calculus, another branch of mathematics, was independently invented by both Sir Isaak Newton, an Englishman, and Leibnitz, a German mathematician. The first real calculating machine appeared in 1820 as the result of several people's experiments.
In 1830 Charles Babbage, a gifted English mathematician, proposed to build a general-purpose problem-solving machine that he called "the analytical engine". This machine, which Babbage showed at the Paris Exhibition in 1855, was an attempt to cut out the human being altogether, except for providing the machine with the necessary facts about the problem to be solved. He never finished this work, but many of his ideas were the basis for building today's computers.
By the early part of the twentieth century electromechanical machines had been developed and were used for business data processing. Dr. Herman Hollerith, a young statistician from the US Census Bureau successfully tabulated the 1890 census. Hollerith invented a means of coding the data by punching holes into cards. He built one machine to punch the holes and others — to tabulate the collected data. Later Hollerith left the Census. Bureau and established his own tabulating machine company.
Through a series of merges the company eventually became the IBM Corporation.
Until the middle of the twentieth century machines designed to manipulate punched card data were widely used for business data processing. These early electromechanical data processors were called unit record

machines because each punched card contained a unit of data.
In the mid—1940s electronic computers were developed to perform calculations for military and scientific purposes. By the end of the 1960s commercial models of these computers were widely used for both scientific computation and business data processing. Initially these computers accepted their input data from punched cards. By the late 1970s punched cards had been almost universally replaced by keyboard terminals. Since that time advances in science have led to the proliferation of computers throughout our society, and the past is but the prologue that gives us a glimpse of the nature.

3. Просмотрите текст еще раз. Ответьте на вопросы, используя информацию текста.
1. What was the very first calculating device? 2. What is the abacus? 3. What is the modern slide rule? 4. Who gave the ideas for producing logarithm tables? 5. How did Newton and Leibnitz contribute to the problem of calculation? 6. When did the first calculating machine appear? 7. What was the main idea of . Ch.Babbage's machine? 8. How did electromechanical machines appear and what were they used for? 9. What means of coding the data did Hollerith devise? 10. How were those electromechanical machines called and why? 11. What kind of computers appeared later? 12. What new had the computers of 1970s?

4. Найдите в тексте английские эквиваленты следующих словосочетаний:
Вычислительное устройство; легкий способ вычисления; поэтому (вот почему); кратное десяти; изобрести механический способ умножения и деления; логарифмическая линейка; составить таблицы логарифмов; математический анализ; изобрести независимо (друг от друга); в результате; полностью исключить человека; кроме (за исключением); обработка деловой информации; средство кодирования информации; перфокарты; пробивать отверстия; оформить собранные данные в таблицу; работать с данными на перфокарте; устройство, записывающее информацию блоками; единица информации; выполнять вычисления; для научных целей; клавишный терминал

5.Вспомните значение следующих глаголов и подберите к ним производные.
Например: to calculate — calculating, calculator, calculation.
To compute, to invent, to know, to multiply, to divide, to depend, to solve, to provide, to process, to code, to punch, to collect, to design, to store, to contribute, to use, to manipulate, to assemble, to connect, to consume, to rely, to divide, to multiply, to inform, to instruct, to discover, to operate.
6. Переведите словосочетания, содержащие:
A. Причастие I— Participle I
Computers using vacuum tubes; the machine calculating mathematical problems; the computer keeping instructions in its memory; binary code storing data and instructions; the vacuum tube controlling and amplifying -electronic signals; computers performing computations in milliseconds; electronic. pulses moving at the speed of light; students coding the information by using a binary code; devices printing the information; keyboard terminals replacing vacuum tubes.

1. Read the introductory part of the article and answer the following questions.
1. Have computers made people’s life easier?
2. Are processing characteristics considered to be the main ones? What are they?
3. What other PC characteristics are mentioned in the text?
4. Is storage capacity the most relevant feature of modern computers?
5. How do computers assist you?

LIVING WITH COMPUTERS.

We use computers on daily basis, at school, at home, in the office. Computers have changed the way we work, making it easier. It is important for everyone to have at least basic knowledge of computers. Thanks to the computer, we can go to the library or shop without leaving our house. Generally, they provide people with education, entertainment, business and store valuable data for as long as needed. The following processing characteristics of a PC, which are referred to as the 3 C's, are considered to be the main ones, because the computer performs all processing by calculating, comparing and copying the data stored in its random-access memory (RAM). First of all, the PC is fast. It can perform billions of calculations and

geometric measurements per second. It processes information at extremely high rates matching one set of data with another one by searching, analyzing, copying, editing, displaying and deleting them for countless purposes. Secondly, the PC is accurate. It performs various operations with precise results and no errors. Thirdly, PCs are versatile. They are used in various fields of industry, business and leisure. They can communicate to share files of any sort with any PC at any destination. Storage capacity is another relevant feature of a computer. The storage capacity of a computer is measured in Mega Bytes, Giga Bytes and Tera Bytes. Multitasking is also an important characteristic for PC users. It enables them to accomplish several tasks simultaneously such as downloading files, preparing office documents and participating in video conferences online – all at the same time!

Here are several interesting first-hand computer users' opinions on the value PCs have brought into their lives.

1. My name is Melanie. Computers have made my life absolutely incredible. I am from Canada and I managed to find my partner in Facebook, who lives in Australia. We have been together and happy for 2 years now.
2. I am Katie. Computers have helped my sister Linsey and me to look differently at our job. We are professional photographers and designers and we have never dreamt of all the software facilities available for image editing such as enhancing photos, creating high-quality graphics, and designing websites.
3. I am Mr. Clarks, a writer. And for me, it is so much easier with computers now to make all sorts of editing like spelling mistakes, cutting and pasting instantly rather than using the typewriter for moving paragraphs and correcting mistakes, though the typewriter will never get a virus or need any updates.
4. I am Mrs. Silvia Pears. I am a mother of a 6-year-old boy. My husband works hard and so do I. We hardly have any free time to spend with our son. So, Sony play station, a smart phone and computer in this kind of 8 situation become essential for our son to watch cartoons and play games. I see it is not the healthiest solution but do we have a better choice?
5. We are teaching at Cambridge University. Computer technology has a deep impact on education by facilitating information representation, quick communication between teachers and students and organizing distant learning courses. Students from different countries have access to all the necessary academic materials, get the core knowledge, interact with each other in online forums, download the tests from students' resources, complete them and send the results back for the tutor to check.
6. I am Mr. Flunt, a programmer. Most users, in my view, get upset about the hackers` attacks that destroy their operating systems. In addition to this, it is getting more and more complicated to protect Internet users from unreliable web sites, phishing attacks and violence. I am not sure if computers have improved our lives.
7. We are Mr. and Mrs. Green. With computers and particularly Skype, all the family have an opportunity for communicating with our daughter who's now studying and living away from home in Oxford.
8. I am Mrs. Pot. In my opinion, people have become very much dependent on personal computers and digital mobile devices on the whole. They spend most of their free time offline or online clicking different applications, surfing the Internet and chatting in social networks. They prefer to have hundreds of friends online, get likes for their selfies instead of live communication.
9. I'm Mr. Fleet. Computers have changed my life completely. I work as a chief manager of the Chinese International Trade Company. Thanks to these intellectual devices, I can easily co-work and control my foreign partners at any destination.

3. Mark the sentences as true or false. Correct those which are not right.

1. All computer users are of positive opinion on computers.
2. Melanie has a successful experience of finding a partner in Instagram.
3. Designers and photographers have got wider possibilities with modern computers.
4. The writer thinks of the typewriter as a thing of the past.
5. Mrs. Silvia Pears regards multimedia gadgets as very useful for her son.
6. Teachers appreciate the role of computers in teaching.
7. The Internet is the safest global network.
8. Computers enabled people living in different countries to communicate easily.
9. Computers have made people rather insulated.

10. According to Mr. Fleet it's very convenient for the business partners to cooperate and coordinate the work of each other

4. Which… Like or unlike

1. computer users speak only in favour of computers?
2. computer users are of a negative opinion about computers?
3. computer users see the computer as a beneficial and harmful device?
4. opinion do you find the most disputing?
5. opinion do you consider the most valuable?
6. opinions do you share?
7. opinions do not you support?

TEST 1

2. That was the ---------- educational institution of all.
a) bad; b) worst; c) worse; 1. _____

3. This is the ---------- famous scientist.
a) most; b) more; c) much; 2. _____

4. Would you like ---------- additional information?
a) some; b) any; c) a few; 3. _____

5. She ---------- lecture when the phone rang.
a) is having; b) was having; c) had; 4. _____

6. Stop ----------, please. I can't work.
a) talking; b) to talk; c) talk; 5. _____

7. This is the ---------- book of all.
a) cheap; b) cheaper; c) cheapest; 6. _____

7) Finish you homework and then you -------- watch TV.
a) can; b) must; c) mustn't; 7. _____

8) Yesterday we ---------- to the cinema and saw a great film.
a) go; b) will go; c) went; 8. _____

9) What ---------- in the garden, Mike? I'm learning grammar rules by heart.
a) do you do; b) did you do; c) are you doing; 9. _____

10) What are you doing tonight? " I ------- to prepare for my exam."
a) go; b) am going; c) went; 10. _____

11) I was born in Prague, but I --------in Paris since 1988.
a) live; b) am living; c) have lived; 11. _____

12) When ---------- Rome? Last summer or last winter?
a) did you visit; b) will you visit; c) do you visit; 12. _____

TEST 2

1. Each country has……..system of education. a) its b) it's c) it	1. _____
2. These students……..graduate from the college next year. a) were b) are c) will	2. _____
3. His parents sent…….to the grammar school. a) him b) his c) he	3. _____
4. Children …….secondary education at school. a) has got b) gets c) get	4. _____
5. Many students…….in hostels. a) live b) lives c) to live	5. _____
6. Throughout……. country there is a network of higher educational establishments. a) them b) their c) theirs	6. _____
7. Comprehensive schools……all types of secondary education. a) has combined b) combined c) combines	7. _____
8. The first university…… founded in 1755 in Moscow on the initiative of M.V. Lomonosov. a) to be b) was c) were	8. _____
9. Colleges……. different courses. a) offer b) to offer c) is offering	9. _____
10. Some students failed…….entrance exams. a) ours b) their c) mine	10. _____
11. What departments ……there in your institution? a) are b) is c)were	11. _____
12. Our environment must be…….. a) clean b) dirty c) fast	12. _____
13. Many species of animals live free of danger from man in…… a) homes b) boxes c) national parks	13. _____
14. Cars and factories …… the air. a) pollute b) pollutes c) is polluting	14. _____
15. Progress can be blamed in ……. problems. a) much b) many c) little	15. _____
16. Air and water ……. to all countries. a) belong b) belongs c) belonged	16. _____
17. Our forests can die …… acid rain. a) with b) to c)from	17. _____
18. Most of the …… are valued for their fur. a) animals b) fish c) insects	18. _____
19. Using chemicals may ……. the cause of ecological pollution. a) be b) had c) are	19. _____
20. The construction of purifying systems helps to …….. ecology. a) damage b) improve c) to harm	20. _____

TEST 3

1. You communicate with your computer with……. a) the pencil b) the keyboard c) the ball	1. _____
2. ……the monitor allow to see the results of your work? a) Does b) Is c) Have	2. _____
3. The mouse works by …….. it around on a flat surface. a) sliding b) scratching c) smiling	3. _____
4. Computer technologies save ……. time. a) much b) many c) none	4. _____
5. At present computers capable of performing billions of operations a second ….. required. a) is b) are c) was	5. _____
6. The size of a hard disk is measured in ……. a) centimeters b) megabytes c) volts	6. _____
7. Today the word “electronics” is in ……. usage. a) negative b) rare c) general	7. _____
8. People waste a lot of time …… computer games. a) playing b) to play c) play	8. _____
9. There …….. many hardware pieces in a computer system. a) was b) has c) are	9. _____
10. ……. some programs be difficult to remember? a) Can b) Was c) Is	10. _____
11. Mobile telephone calls …… a wide geographic area. a) cross b) is crossing c) was crossing	11. _____
12. Office clerks …….. and greeted each other after the weekend and discussed the weather. a) meet b) is meeting c) met	12. _____
13…….. secretary is constantly answering phone calls. a) Theirs b) Their c) They	13. _____
14. I …… like to speak to Mr. Smith, please. a) should b) would c) will	14. _____
15. A mobile phone …….telephone calls. a) can make and receive b) can sell c) can’t make and receive	15. _____
16……..is a standard way to send messages that include multimedia content to and from mobile phones. a) SMS b) MMS c) Telephone call	16. _____
17. Does any office have phones? a) No, she doesn’t b) Yes, she does. c) Yes, it does.	17. _____
18. It ……. necessary for a company to have good equipment. a) were b) is c) will	18. _____
19. There are many different models of mobile phones in the world. a) Yes, you are right b) No, I can’t agree c) This is known some specialists only	19. _____

TEST 4

1. обрабатывая информацию a) processing information b) the processed information c) to process information	1. _____
2. могли увидеть результаты a) can see results b) were able to see results c) was able to see results	2. _____
3. принять телефонный звонок a) to receive the call b) receiving the call c) received a call	3. _____
4. копируя текст a) the copied text b) is copying the text c) copying the text	4. _____
5. должен был перезвонить a) must ring b) is to ring c) had to ring	5. _____
6. поприветствовать секретаря a) to greet the secretary b) greeting t he secretary c) greeted the secretary	6. _____
7. отвечая на телефонный звонок a) is answering the call b) to answer the call c) answering the call	7. _____
8. посылая сообщение a) sent the SMS b) sending the SMS c) are sending the SMS	8. _____
9. мог установить программное обеспечение a) will be allowed to install software b) will be able to install software c) was able to install software	9. _____
10. представить компанию a) to represent the company b) represented the company c) representing the company	10. _____
11. сможет установить a) could install b) will be able to install c) is able to install	11. _____
12. играя в компьютерные игры a) are playing computer games b) playing computer games c) was playing computer games	12. _____
13. создать электронное устройство a) to make gadget b) was to make gadget c) making gadget	13. _____
14. должен будет запустить программу a) has to start the program b) will have to start the program c) should start the program	14. _____

TESTS 5.

Вставьте необходимые слова вместо пропусков.

1. Transistors have many __ over vacuum tubes.
   a) patterns; b) advantages; c) scales
2. They ____ very little power.
   a) consume; b) generate; c) embrace
3. An integrated circuit is a group of elements connected together by some circuit___ technique.
   a) processing; b) assembly; c) manipulation
4. The transistor consists of a small piece of a___ with three electrods.
   a) diode; b) conductor; c) semiconductor.
5. Modern ____ began in the early 20th century with the invention of electronic tubes.
   a) miniaturization; b) electronics; c) microelectronics
6. John Fleming was the ____of the first two-electrode vacuum tube.
   a) generator; b) receiver; c) inventor
7. One of the transistor advantages was lower power___ , in comparison with vacuum tubes.
   a) consumption; b) reception; c) transmission.
8. Microelectronics greatly extended man's intellectual _____
   a) subsystems; b) capabilities; c) dimensions

2. Раскройте скобки и выберите глагол в требуемом залоге: действительном или страдательном.

1. Electronic devices (help; are helped) people discover new phenomena of nature. 2. The transistor (replaced; was replaced) by vacuum tubes thanks to its numerous advantages. 3. Due to transistors all circuit functions (carried out; were carried out) inside semiconductors. 4. Electronic devices (use; are used) in scientific research. 5. Before the invention of the transistor its function (performed; was performed) by vacuum tubes. 6. The reliability of electronic systems (connect; is connected) with the number of descrete components. 7. Semiconductor integrated circuits (helped; were helped) to increase reliability of devices. 8. New types of integrated circuits (have developed; have been developed) lately.

TESTS 6

1. Выберите вариант, который лучше всего выражает главную идею текста .

a) Computers are devices that accept information in the form of instructions.
в) The switches are usualy in one of two states: magnetized or demagnetized.
c) Computers are remarkable devices serving for processing and storage the information and for solving problems.

2. Вставьте необходимые слова вместо пропусков.

1. Information is given into the computer in the form of _____
   a) ideas; b) characters; c) rules
2. The basic function of a computer is ___ information.
   a) to switch; b) to keep; c) to process
3. The data needed for solving problems are kept in the _____
   a) memory; b) input device; c) output device
4. Inputting information into the computer is realized by means of ____ .
   a) a printer; b) letters; c) diskettes
5. A computer can carry out arithmetic-logical operations _____
   a) quickly; b) instantaneously; c) during some minutes
6. Computers have become ___in homes, offices, research institutes.
   a) commonwealth; b) commonplace; c) common room
7. Space_____uses computers widely.
   a) information; b) production; c) exploration
8. Computers are used for image ___.
   a) processing; b) operating; c) producing
9. Computers help in ___ of economy.
   a) invironment; b) management; c) government.

TESTS 7

1. Подберите вместо пропусков подходящее **по смыслу слово.**

1. British scientists invented a___ way of multiplying and dividing.
   a) mechanical; b) electrical; c) optical
2. A new branch of mathematics, __ , was invented in England and Germany independently.
   a) mechanics; b) arithmetics; c) calculus
3. A young American clerk invented a means of coding ____ by punched cards.
   a) letters; b) data; c) numbers
4. Soon punched cards were replaced by___terminals.
   a) printer; b) scanner; c) keyboard
5. Mark I was the first ___ computer that could solve mathematical problems.
   a) analog; 1?) digital; c) mechanical
6. J. von Neumann simplified his computer by storing in formation in a ___ code.
   a) analytical; b) numerical; c) binary
7. Vacuum tubes could control and___electric signals.
   a) calculate; b) amplify; c) generate
8. The first generation computers were __and often burned out.
   a) uncomfortable; b) uncommunicative; c) unreliable
9. Computers of the second generation used __which reduced computational time greatly.
   a) transistors; b) integrated circuits; c) vacuum tubes
10. Due to ___ the development of the fourth generation computers became possible.
    a) microelectronics; b) miniaturization; c) microminiaturization

\

Глагол to be в Simple Active

Present	Past	Future
(I) am (he, she, it) is (we, you, they) are	(I, he, she, it) was (ед. ч.) were (мн. ч.)	(I, we) shall be (1-е л.) will be

Глагол to have в Simple Active

Present	Past	Future
have (got) (he, she, it)has (got)	had	(I, we) shall have will have

Оборот there + to be в Simple Active

Present	Past	Future
there is (ед.ч.) there are (мн.ч.)	there was (ед.ч.) there were (мн.ч.)	there will be

Степени сравнения прилагательных

	Положительная	Сравнительная	Превосходная
I	long easy	longer easier	(the) longest (the) easiest
II	interesting	more interesting	(the) most interesting
III	good bad much, many little	better worse more less	(the) best (the) worst (the) most (the) least

Времена группы Simple Passive

to be + Participle II	
Infinitive	to be written, to be translated
Present Past Future	The letter is written/translated. The letter was written/translated. The letter will be written/translated.

Сводная таблица модальных глаголов и их эквивалентов

	Present	Past	Future
Долженствование	I must meet him. I have to meet him. I am to meet him. I **should** meet him.	I **had** to meet him. I **was** to meet him.	I **shall have to** meet him. I'll be to meet him.
Способность или возможность совершения действия	He **can** help you. He is able to help you.	He **could** help you. He was able to help you.	He **will be able to** help you.
Разрешение или возможность (вероятность)	I may use this device. I am allowed to use the device.	I might use this device I was allowed to use the device.	I **shall be allowed to** use the device.

Таблица времен группы Simple Active

Форма	Present Simple	Past Simple	Future Simple
Утвердительная	My friends study French. He speak**s** English.	My friends studi**ed** French at school. He **spoke** English at the conference.	My friends **will study** French at the Institute. The teacher **will speak** about our English exam.
Вопросительная	**Do** your friends study French? **Does** he speak English?	**Did** your friends study French at school? **Did** he speak English at the conference?	**Will** your friends study French at the Institute? **Will** the teacher speak about our English exam?
Отрицательная	My friends **don't** study French. He **doesn't** speak English.	My friends **did not** study French. He **didn't** speak English at the conference.	My friends **won't study** French at the Institute. The teacher **won't speak** about our English exam.

Структура специальных вопросов

Вопроси-тельные слова	Вспомо гатель-ный глагол	Подлежащее и определение к нему	Смысловой глагол в форме инфинитива	Другие члены предложения
What Where When	do did will	you he your sister	do go return	in the evening? yesterday? home?

Таблица времен группы Progressive Active

Форма	**Present Progressive**	**Past Progressive**	**Future Progressive**
Утверди тельная	The **are having** an English class. He **is** still **writing** an exercise.	They **were having** an English class when I came to see them. He **was writing** an exercise from 6 till 8 o'clock.	They **will be having** an English class tomorrow at 9 o'clock. He **will be writing** an exercise from 6
Вопросит ельная	**Are** they **having** an English class? **Is** he still **writing** an exercise?	**Were** they **having** an English class when I came to see them? **Was he writing** an exercise from 6 till 8 o'clock.	**Will** they **be having** an English class tomorrow at 9 o'clock? **Will he be writing** an exercise from 6 till 8 o'clock tomorrow?
Отрицат ельная	They **aren't having** an English class, they are having a Russian class. He **isn't writing** an exercise, he is reading a book.	They **weren't having** an English class when 1 came to see them, they were having a Russian **class.** **He wasn't writing** an exercise from 6 till 8 o'clock, he was reading a book.	They **will not be having** an English class tomorrow at 9 o'clock, they will be having a Russian class. He **won't be writing** an exercise from 6 till 8 o'clock tomorrow, he'll be reading a book.

Таблица времен группы Perfect Active

Форма	Present Perfect	Past Perfect	Future Perfect
Утвердительная	I **have sent** the letter.	I **had** already **sent** the letter by 6 o'clock yesterday.	I **shall have sent** the letter by tomorrow evening.
Вопросительная	**Have** you **sent** the letter?	**Had** you **sent** the letter by 6 o'clock yesterday?	**Will** you **have sent** the letter by tomorrow evening?
Отрицательная	I **have not sent** the letter yet.	I **had not sent** the letter by 6 o'clock yesterday.	I **shall not have sent** the letter by tomorrow evening.

Таблица времен Simple, Progressive, Perfect in Passive Voice

	Simple to be + Participle II	Progressive to be + being + Participle II	Perfect to have + been + Participle II
Present	The letter is translated Is the letter translated? The letter isn't translated	The letter is being translated Is the letter being translated? The letter isn't being translated	The letter has been translated Has the letter been translated? The letter hasn't been translated.
Past	The letter was translated Was the letter translated? The letter wasn't translated.	The letter was being translated Was the letter being translated? The letter wasn't being translated	The letter had been translated Had the letter been translated? The letter hadn't been translated?
Future	The letter will be translated Will the letter be translated? The letter won't be translated	Не употребляются.	The letter will have been Will the letter have been translated? The letter won't have been translated.

Таблица форм причастий

	Participle		Participle II
	Active	Passive	changed 1 Определение: *изменяемый, измененный* 2)обстоятельство: ***когда*** *(его) изменили, так как (его) изменили*
Simple	changing 1) определение: *изменяющий(ся) (вший) (ся)* 2) обстоятельство: *изменяя(съ)*	being changed 1) определение: *изменяющийся, изменяемый* 2) обстоятельство: *будучи измененным*	
Perfect	having changed обстоятельство: *изменив(шись)*	having been changed обстоятельство: *когда (его) изменили, после того как (его) изменили*	

Таблица производных слов от some, any, no, every

Местоимения	+ thing	+body, one	+where	Употребляются
some *некоторый* *какой-то* *какой-нибудь* *несколько*	something *что-то,* *что-нибудь*	somebody someone *кто-то* *кто-нибудь*	somewhere *где-то, куда-то, где-нибудь,* *куда-нибудь*	в утверд. . предл.
any 1 *)всякий любой* *2)какой-нибудь*	anything 1*)всё* *2)что-то* *3)что-нибудь*	anybody anyone *\)всякий,* *2)кто-то, кто-нибудь*	anywhere 1)везде, *2)где-нибудь,* *куда-нидудь*	1)в утверд. 2)в вопросит, предл.
no, not any *никакой + не*	nothing (not anything) *ничто* *+ не ничего*	nobody (not anybody), no one *никто + не*	nowhere not anywhere *нигде,* *никуда + не*	в отрицат. предп.
every *всякий,* *каждый*	everything *всё*	everbody everyone *все*	everywhere *везде,* *повсюду*	в утверд., вопросит, и отрицат. предл.

Словообразовательные аффиксы

Существительные - ion / - sion /-tion - er / -or -ing -ment -ty / -ity -ance / -ence -ness -ure / -ture	 - discussion, transmission, combination - writer, inspector - opening - development - activity - importance, difference - darkness - mixture
Прилагательные -ic -ive -able / -ible -ant / -ent -ous -al -ful -less -un / -in / -ir / -il / -im	 - democratic - progressive - valuable, accessible -resistant, different - dangerous - central - hopeful - hopeless - uncomfortable, indirect, irregular, illogical, impossible
Глагол -ize re-	 - to characterize - to rewrite

Infinitive	Past	Participle II	Translation
arise	arose	arisen	возникать
awake	awoke	awaked	будить, проснуться
be	was, were	been	быть
bear	bore	born	носить, родить
beat	beat	beaten	бить
become	became	become	стать
begin	began	begun	начать
bend	bent	bent	согнуться
bind	bound	bound	связать
bite	bit	bitten	кусать
blow	blew	blown	дуть
break	broke	broken	ломать
bring	brought	brought	приносить
build	built	built	строить
burst	burst	burst	разразиться, взорваться
buy	bought	bought	покупать
catch	caught	caught	ловить, поймать
choose	chose	chosen	выбирать
cut	cut	cut	резать
deal	dealt	dealt	иметь дело
dream	dreamt	dreamt	мечтать
do	did	done	делать
draw	drew	drawn	тащить, рисовать
drink	drank	drunk	пить
drive	drove	driven	ехать
eat	ate	eaten	есть, кушать
fall	fell	fallen	падать
feed	fed	fed	кормить
fight	fought	fought	сражаться
find	found	found	находить
fly	flew	flown	летать
forbid	forbade	- forbidden	запретить
forget	forgot	forgotten	забыть
forgive	forgave	forgiven	прощать

freeze	froze	frozen	замёрзнуть, замораживать
get	got	got	получить
give	gave	given	дать
go	went	gone	идти
grow	grew	grown	расти
hang	hung	hung	висеть, повесить
have	had	had	иметь
hear	heard	heard	слушать
hit	hit	hit	ударить, попасть
hold[1]	held	held	держать
hurt	hurt	hurt	причинять боль
know	knew	known	знать
keep	kept	kept	держать
lay	laid	laid	класть, положить
lead	laid	laid	вести
leap	leapt/leaped	leapt/leaped	прыгать
leave	left	left	оставлять
lend	lent	lent	одолжить
let	let	let	пустить, дать
lie	lay	lain	лежать
lose	lost	lost	терять
make	made	made	делать
meet	met	met	встречать
pay	paid	paid	платить
put	put	put	класть
read	read	read	читать
ride	rode	ridden	ездить верхом
ring	rang	rung	звонить
rise	rose	risen	поднимать
run	ran	run	бежать
say	said	said	говорить, сказать
see	saw	seen	видеть
sell	sold	sold	продавать
send	sent	sent	послать
set	set	set	устанавливать
shake	shook	shaken	трясти

shine	shone	shone	светить, сиять
shoot	shot	shot	стрелять, давать побеги
show	showed	shown/showed	показывать
sing	sang	sung	петь
sink	sank	sunk	опускаться
sit	sat	sat	сидеть
sleep	slept	slept	спать
slide	slid	slid	скользить
speak	spoke	spoken	говорить
spend	spent	spent	тратить
steal	stole	stolen	украсть
stick	stuck	stuck	втолкнуть, приклеить
strike	struck	struck/stricken	ударять, бастовать
swear	swore	sworn	клясться
swim	swam	swum	плавать
take	took	taken	брать
teach	taught	taught	учить
tell	told	told	говорить
think	thought	thought	думать
throw	threw	thrown	бросить
wake	woke	woken	просыпаться, будить
wear	wore	worn	носить
weep	wept	wept	плакать
win	won	won	выигрывать
wind	wound	wound	заводить
write	wrote	written	писать

Основная литература:
Афанасьева О.В. Английский язык: 11 класс: базовый уровень / О.В.Афанасьева, И.В.Михеева, К.М.Баранова. – 8-е изд., стереотип. – М.: Просвещение, 2023. – 199, [1} с.: ил. – (Rainbow English).
30 шт + ЭБС Знаниум
Дополнительная литература:
Анюшенкова, О. Н. Английский язык для телекоммуникационных технологий (English for Telecomm unication Technologies) : учебник / О.Н. Анюшенкова. — Москва : ИНФРА-М, 2024. — 283 с. — (Среднее профессиональное образование) **ЭБС Знаниум**