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КАФЕДРА ИНОСТРАННЫХ ЯЗЫКОВ

HOW TO ... functions

УЧЕБНО-МЕТОДИЧЕСКОЕ ПОСОБИЕ

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Методические указания

Данное пособие является дополнением к основному учебному пособию English for graduate students и предназначено для овладения или совершенствования отдельных навыков магистрантов. Пособие состоит из 18 функций, которые изучаются студентами на занятиях или самостоятельно. Предполагается, что при изучении каждой темы основного пособия, студенты останавливаются на двух функциях данного учебно-методического пособия. В темах есть указания на те функции, которые рекомендованы в рамках данной темы, однако, преподаватель может выбирать функции в соответствии с потребностями группы. В зависимости от наличия свободного времени, количество заданий можно увеличить за счет дополнительной литературы, или уменьшить, или оставить на самостоятельную работу. По окончании изучения курса английского языка, студенты должны продемонстрировать свои знания и умения в итоговом зачете или экзамене.

В данном пособии также размещены шесть грамматических минимумов. Данный материал направлен на повторение временных форм глаголов английского языка необходимых для построения собственного высказывания на английском языке. Предполагается изучение одного минимума в каждой теме. Преподаватель может увеличить количество заданий по данной грамматике, используя дополнительную литературу.

В конце пособия также есть несколько Приложений в помощь студенту.

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HOW TO ... functions

Function 1. HOW TO translate an English sentence

Чтобы правильно перевести английское предложение, старайтесь придерживаться следующих шагов.

- ❖ Выделите логические группы, а затем атрибутивные группы (**noun groups**) (они обычно ограничены предлогами, артиклями, местоимениями и т.д.). Помните, что в атрибутивной группе главным является последнее существительное

e.g. The external battery / provides / power / using a wireless energy transfer system.

- ❖ Найдите основной глагол – сказуемое. Он имеет одну из **личных форм глагола в активном или пассивном залоге** или используется с модальным глаголом и модальной фразой, или имеет одну из форм глаголов **“to be”** или **“to have”**. Если после глагола стоит предлог, проверяйте значение глагола в словаре вместе с этим предлогом.

e.g. a) The external battery / provides / power / using a wireless energy transfer system. (Present Simple Active)

b) This work / was carried out / by the student / three years ago. (Past Simple Passive)

- ❖ В английском предложении **фиксированный порядок слов**.

Adverbial Modifier + Subject + Predicate + Object + Adverbial Modifier. (обст-во + подлежащее + сказуемое + дополнение + обст-во)
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Главные члены предложения –
подлежащее и сказуемое.

Subject (подлежащее)	Predicate (сказуемое)
<ul style="list-style-type: none">- обычно существительное, местоимение, герундий, или атрибутивная группа- отвечает на вопросы: кто? что?- обычно используется перед сказуемым	<ul style="list-style-type: none">- имеет одну из личных форм глагола в активном или пассивном залоге, или используется вместе с модальным глаголом или модальной фразой- отвечает на вопросы: кто делает? что сделано? и т.д.- обычно используется после подлежащего, перед дополнением

Второстепенные члены предложения –
дополнение, обстоятельство, определение.

Object (дополнение)	Adverbial Modifier (обстоятельство)	Attribute (определение)
-обычно выражено существительным, местоимением, герундием или аттриб. группой	-обычно выражено существительным с предлогом, наречием и т.д. -отвечает на вопросы: как?	-обычно выражено прилагательным, местоимением, числительным,

-отвечает на вопросы: кем? чем?, о ком? о чем? ... -используется между сказуемым и обстоятельством -прямое дополнение (a person) обычно используется перед косвенным (a thing)	когда? где? почему? ... -обычно используется в начале предложения или в конце после дополнения -если есть несколько обстоятельств, порядок следующий: manner, place, time	существительным и т.д. -отвечает на вопросы: какой? какая? чей? -обычно используется перед существительным -если есть несколько определений, порядок следующий: мнение, размер, возраст, форма, цвет, происхождение, материал, предназначение
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e.g. a) The external battery / provides / power / using a wireless energy transfer system.

the external battery – subject

provides – predicate

power – object

using a wireless energy transfer system – adverbial modifier

b) This work / was carried out / by the student / three years ago.

this work - subject

was carried out – predicate

by the student – object

three years ago – adverbial modifier

- ❖ Формальное подлежащее **“it”, “one”, “you”, ...** переводится на русский язык **безличным предложением**.

e.g. a) It is cold. – Холодно.

b) One can solve this problem in a different way. – Можно решить эту проблему по-другому.

c) People say he is a talented scientist. – Говорят, он талантливый ученый.

- ❖ **There + “be”**(в разных формах) очень распространенная структура в английской технической литературе. Она также переводится **безличным предложением** – Есть ..., Было

e.g. a) There are a lot of ways to translate this sentence. – Есть много способов перевести это предложение.

b) There has been a big rise in the sales of CDs. – Произошел большой рост в продаже CD дисков.

- ❖ В профессионально-направленной литературе предложения обычно **сложные**, т.е. имеют несколько частей с **подлежащими и сказуемыми**. Но одна из этих частей обязательно главная, а другие, как правило, придаточные. Эти части соединяются разными словами, в зависимости от типа придаточного предложения.

Linking words (слова-связки)	Types of clauses (типы предложений)
1. That, who, what, which, when, where, ... (в начале предложения)	(Subject) That he was very lazy was obvious from the start. – То, что он ленив, было очевидно с самого начала.
2. That, whether, who, what, how, ... (как правило, после “to be”)	(Predicate) The strict rule is that they can’t wear sunglasses in the classroom. – Существует строгое правило о том, что они не могут носить

	солнцезащитные очки в классе.
3. That, whether, what, which, why, ... (после сказуемого)	(Object) We knew who he was talking about. – Мы знали о ком он говорил.
4. That, which, who, where, when (после определяемого слова)	(Attribute) The article / which we were talking about / was written by Dr Smith. – Статья, о которой мы говорили, была написана Д-р. Смитом.
5. When, although, because, ... (в конце или в начале сложного предложения)	(Adverbial Modifier) When we came in, / he was sleeping. – Когда мы вошли, он спал.
6. Бессоюзное придаточное предложение	(По его месту в предложении) One way atomic energy can help farmers is through the use of atom heat for orchards. – Один способ, которым атомная энергетика может помочь фермерам , заключается в использовании тепла для фруктовых садов. (стоит после существительного, значит является его определением)

Task 1. Name what part of sentences the phrases in bold are and translate the sentences.

1. **An emoticon** is a pictorial representation of a facial expression using punctuation marks and letters, usually written **to express a person's mood**.
2. **In its early stages of development**, television **employed** a combination of optical, mechanical and electronic technologies to capture, transmit and display **a visual image**.
3. Mobile phones **are used** for a variety of purposes, including keeping in touch with **family members, conducting business**, and having access to a telephone **in the event of an emergency**.
4. **The advertisement of controversial products** such as cigarettes is subject to government regulation **in many countries**.
5. Many modern computer games **allow or require** the player to use **a keyboard and a mouse simultaneously**.
6. In many countries, **mobile phones** are used to provide mobile banking services, which may include **the ability to transfer cash payments** by secure SMS text message.

Task 2. Find different clauses in these sentences and say their part. Translate the sentences.

1. Mobile phones that offer loads of features and general computing capabilities are referred to as smartphones.
2. The communication process is complete once the receiver has understood the message of the sender.
3. The BBC, being strictly non-commercial, is not allowed to show advertisements on television in the UK, although it has many advertising-funded channels abroad.
4. The use of emoticons can be traced back to the 19th century, and they were commonly used in casual and humorous writing.
5. While the phone is turned on, the geographical location of a mobile phone can be determined easily.

6. At the turn of the century, there were few career choices for women in business; however, advertising was one of the few.
7. A South Korean publisher has published a textbook that details the meaning and context of use for common Internet slang instances and is targeted at young children who will soon be using the Internet.

Task 3. Translate the following paragraph into Russian.

The most commonly used data application on mobile phones is SMS text messaging. The first SMS text message was sent from a computer to a mobile phone in 1992 in the UK, while the first person-to-person SMS from phone to phone was sent in Finland in 1993.

The first mobile news service, delivered via SMS, was launched in Finland in 2000. Mobile news services are expanding with many organizations providing "on-demand" news services by SMS. Some also provide "instant" news pushed out by SMS.

Function 2. HOW TO distinguish a predicate

Сказуемое (**Predicate**), наряду с подлежащим (**Subject**), являются главными членами предложения. Сказуемое в английском предложении чаще всего состоит из **2-4 слов**: 1-3 вспомогательные глаголы (**Auxiliary verbs**) и основной глагол (**Main verb**). Именно основной глагол несет в себе смысл; вспомогательные глаголы помогают перевести основной глагол в нужной временной форме.

Main verb (основной глагол)
может иметь следующие формы:

№	Form	Tense	Example
1.	<u>Infinitive (without "to")</u> (3м лице ед. числе – окончание “-(e)s”)	Present Simple (настоящее)	1. We often <u>watch</u> news on BBC channel. 2. He never <u>sleeps</u> during the day.
2.	<u>II form / -(e)d ending</u>	Past Simple (прошедшее)	1. My children <u>went</u> to their grandmother in summer. 2. He <u>tried</u> to cook pizza in his new oven.
3.	<u>Participle I (V + -ing)</u>	with aux. “be” – Continuous Tense	1. We <u>are having</u> lunch right now. 2. They <u>were sleeping</u> at that time yesterday.
4.	<u>Participle II (III form / -(e)d ending)</u>	with aux. “have” – Perfect Tense with aux. “be” – Passive Voice	1. They <u>have been</u> to London twice. 2. This computer <u>was built</u> in 1998.

Participle I и **Participle II** без вспомогательных глаголов не являются сказуемыми – они будут переводиться причастием или деепричастием.

Auxiliary verbs (вспомогательные глаголы)

могут иметь следующие формы:

ACTIVE VOICE			PASSIVE VOICE
		SIMPLE	
do/does + Infinitive	Present	am/is/are + Part II	Present
did + infinitive	Past	was/were + Part II	Past
will + Infinitive	Future	will + be + Part II	Future
		CONTINUOUS	
am/is/are + Part I	Present	am/is/are + being + Part II	Present
was/were + Part I	Past	was/were + being + Part II	Past
will + be + Part I	Future		
		PERFECT	
have/has + Part II	Present	have/has + been + Part II	Present
had + Part II	Past	had + been + Part II	Past
will + have + Part II	Future	will + have + been + Part II	Future
		PERFECT CONTINUOUS	
have/has + been + Part I	Present		
had + been + Part I	Past		
will + have + been + Part I	Future		

Функции вспомогательного глагола могут выполнять модальные глаголы:
can, must, may, might, should, ought to, be to.

Общая формула предложения выглядит так:

Positive sentence

SUBJECT + AUX 1 + AUX 2 + MAIN VERB +

Negative sentence

SUBJECT + AUX 1 (NOT) + AUX 2 + MAIN VERB +

Question

QUES.WORD + AUX 1+ SUBJECT + AUX 2 + MAIN VERB ... ?

Task 1. Define a predicate and name a verb tense in the following sentences.

1. Before sending the self-driving car on a road test, Google engineers drive along the route one or more times to gather data about the environment.
2. Some robots can learn by mimicking human actions.
3. Roboticists are nowhere near achieving this level of artificial intelligence, but they have made a lot of progress with more limited AI.
4. The first generation of computer games were often text adventures or interactive fiction, in which the player communicated with the computer by entering commands through a keyboard.
5. Microsoft's DirectX is an API that is widely used by today's computer games to communicate with sound and graphics hardware.
6. With a firewall, a company can pick and choose which Web pages or even entire domains to block.
7. Music video games have also influenced the music industry by significantly raising the number of legal downloads of songs.
8. The software and controls regulate equipment to run at the optimum speed that requires the least energy.

9. Points are normally stored as value-timestamp pairs: a value and the timestamp when it was recorded or calculated.
10. In this article, we'll look at the different levels of Internet censorship, from off-the-shelf Web filters to national policy.

Functions 3. HOW TO deal with modal verbs

Модальные глаголы служат для выражения не самого действия, а отношения говорящего к этому действию.

e.g. a) You study Maths for two years at your university. – Вы изучаете математику два года в вашем университете. (констатация действия)

*b) You **have to** study Maths harder to pass your exam. – Ты **должен** больше заниматься математикой, чтобы сдать экзамен. (говорящий **настоятельно рекомендует** заниматься математикой больше)*

Main English Modal verbs and phrases

Modal verb or phrase	Use	Present/Future	Past
may/might	вежливая просьба	May I borrow your pen?	-
	формальное разрешение (be allowed to)	You may leave the room.	-
	уверенность менее 50%	-Where is John? -He may be at the library.	He may have been at the library.
can	физическая, умственная способность (be able to)	I can run fast.	I couldn't run fast when I was a boy, but I can now.
	неформальное разрешение	You can use my car tomorrow.	-
	неформальная вежливая просьба	Can I borrow your pen?	-
	невозможность	That can't be true!	That can't have been true!
could	способность в прошлом	-	I could run fast when I was a child.
	вежливая просьба	Could you help me?	-
	предложение	- I need help in Maths. - You could talk to your teacher.	You could have talked to your teacher.
	уверенность менее 50%	- Where is John? - He could be at home.	He could have been at home.
	невозможность	That couldn't be true!	That couldn't have been true!
must	настоятельная необходимость	I must go to class today.	I had to go to class today.
	запрет	You mustn't open that door.	-
	уверенность 95%	Mary isn't in class, she must be sick.	Mary wasn't in class yesterday. She must have been sick.

should/ ought to	совет	You should study tonight.	You should have studied last night.
be to	убежденная ожидаемость	You are to be here at 9.00.	You were to be here at 9.00.
have to	долженствование, необходимость	I have to go to class today.	I had to go to class yesterday.
	отсутствие необходимости (needn't)	I don't have to go to class today.	I didn't have to go class yesterday.
need	необходимость	I need to pass my project tomorrow.	I needed to pass my project yesterday.
had better	совет	You had better be on time, or we will leave without you.	-
be supposed to	ожидаемость	Class is supposed to begin at 10.	Class was supposed to begin at 10.

Task 1. Translate the following sentences into Russian.

1. Law-makers should not be law-breakers. 2. Men are not to be measured by inches. 3. The technique of taking Raman spectra cannot be made the subject of detailed discussion. 4. In a conceptual analysis one need only examine the parts. 5. Systems must handle future as well as present. 6. They were not allowed to carry out the experiment. 7. The program or the database does not have to be changed. 8. It may take you twelve hours reading to produce an intellectually honest article of a thousand words.

Task 2. Use a modal or similar expression.

1. It looks like rain. We (shut)... the windows. 2. I returned a book to the library yesterday. It was two weeks overdue, so I (pay)... a fine of \$1.40. I (return) ... the book when it was due. 3. Neither of us knows the way to their house. We (take) ... a map with us or we'll probably get lost. 4. You (not tell) ... Jack about the party. It's a surprise birthday party fro him. 5. In the USA elementary education is compulsory. All children (attend) ... six years of elementary school. 6. There was a long line in front of the theatre. We (wait) ... almost an hour to buy tickets. 7. It's not like Tony to be late. He (be) ... here an hour ago. I hope nothing bad happened. 8. Jane's looking at the test paper the teacher just returned. She's smiling. She (pass) ... the test. 9. - The phone is ringing again. Let's not answer it. Just let it ring. - No, we (answer) ... it. It (be) ... important. 10. (Cash)... you this check for me?

Function 4. HOW TO deal with non-finite forms of the verb

Английское предложение может быть осложнено разными структурами и оборотами с неличными формами глагола – **Инфинитивом (Infinitive), Герундием (Gerund), Причастием (Participle)**. Все эти формы глагола имеют общие черты: 1) они изменяются относительно времени (**неперфектная** форма выражает действие одновременное с действием сказуемого или является будущим по отношению к нему; **перфектная** форма выражает действие предшествовавшее действию выраженное сказуемым); 2) они имеют формы

действительного (Active) и страдательного (Passive) залога; 3) они могут иметь прямое дополнение после себя; 4) они могут определяться наречием.

Participle

Participles	Voice	
	Active	Passive
Participle I	planning	being planned
Participle II	-	planned
Perfect Participle	having planned	having been planned

в предложении может быть определением и обстоятельством.

- ❖ как **определение** Participle I переводится причастием с окончанием – **щий**, Participle II – с окончанием – **мый, -тый, -ный** (e.g. **writing** - пишущий, **written** - написанный). Одиночное Participle I, II обычно стоит перед существительным, фразовое Participle I, II – обычно стоит после определяемого слова.

*e.g. a) The **flowing** water is always cool. – Проточная (текущая) вода всегда холодная.*

*b) We read the article **advised** by my best friend. – Мы прочли статью, рекомендованную моим лучшим другом.*

- ❖ как **обстоятельство** Participle I, II, Perfect Participle переводится русским деепричастием (совершенного –**ав** или несовершенного вида –**ая, -ая**). В предложении обычно стоит в начале, перед подлежащим с артиклем, либо в конце предложения и часто отделяется запятой.

*e.g. a) **Working on this theory**, the scientists faced a lot of problems. – Работая над этой теорией, ученые столкнулись с множеством проблем.*

*b) They started experiments, **having prepared all the equipment**. – Они приступили к экспериментам, подготовив все оборудование.*

- ❖ есть множество конструкций с причастием, которые невозможно перевести просто русским причастием или деепричастием. Их нужно переводить целым придаточным предложением.

English language	Russian language
1) независимый причастный оборот (Absolute Participle Construction)	1) нет эквивалента; переводится придаточным обстоятельственным или самостоятельным предложением
The engine being in good order , we could start at once. The professor told about the discoveries in science, his lectures being illustrated by diagrams .	Так как двигатель был в полном порядке , мы смогли отправиться тотчас же. Профессор рассказывал об открытиях в науке, и (причем, при этом) его лекция иллюстрировалась диаграммами .
2) объектный причастный оборот (Complex Object)	2) нет эквивалента; переводится придаточным дополнительным предложением
In her bedroom she could hear her stepmother breathing heavily in the living room. They had their coffee brought in a couple of minutes . Why don't you have your hair dyed ?	В спальне ей было слышно, как в зале тяжело дышит ее мачеха . Им принесли кофе через пару минут. Почему вы не покрасите волосы?
3) субъектный причастный оборот (Complex Subject)	3) нет эквивалента; переводится сложноподчиненным предложением

The car was seen turning round the corner . The girls were heard singing a strange song .	Видно было, машина поворачивает за угол. Слышно было, как девочки пели странную песню.
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Gerund

Gerunds	Voice	
	Active	Passive
Indefinite Gerund	planning	being planned
Perfect Gerund	having planned	having been planned

герундий это **отглагольное существительное**, поэтому совмещает в себе черты и глагола, и существительного. Как глагол он имеет различные формы, как существительное он выполняет роль **подлежащего, дополнения, обстоятельства, именной части сказуемого и может использоваться с предлогом**.

❖ как подлежащее герундий переводится чаще всего отглагольным существительным. Но иногда может переводиться неопределенной формой глагола – инфинитивом.

*e.g. a) **Writing** articles could be quite interesting. - **Написание** статей может быть довольно интересным занятием.*

*b) **Swimming** against the current was rather difficult. – **Плыть** против течения было очень сложно.*

❖ герундий в функции определения используется с предлогом (чаще всего **OF**). Он также переводится существительным или инфинитивом.

*e.g. a) The experiments demonstrated the possibility **of getting** nitric acid from the air. – Эксперименты показали возможность **получения** азотной кислоты из воздуха.*

❖ как дополнение герундий переводится также либо существительным, либо инфинитивом.

*e.g. a) The teacher suggested **watching** the video about Gauss's law. – Учитель предложил **посмотреть** видео про закон Гаусса.*

❖ герундий как обстоятельство зависит от предлога, используемого с ним, и перевод также варьируется: деепричастие, существительное, а иногда и целое придаточное предложение.

*e.g. a) **On meeting** him we went to university. – **Встретив** его (когда мы встретили его, или **при встрече** с ним) мы пошли в университет.*

❖ сложные формы герундия (пассивные и перфектные) чаще всего переводятся придаточным предложением.

*e.g. a) I don't regret **having left** the school. – Я не жалею, **что ушел** из этой школы.*

*b) He was offended by **being called** a lab assistant. – Он обиделся, **что его назвали** лаборантом.*

❖ есть множество оборотов с герундием, которые переводятся придаточным предложением в функциях, которые обычно выполняет герундий.

English language	Russian language
1) Сложный герундиальный оборот в функции подлежащего	1) нет эквивалента; переводится придаточным предложением
Her having been absent at the laboratory work	То, что она отсутствовала на лабораторной

was easily explained.	работе , было легко объяснимо.
2) сложный герундиальный оборот в функции <u>дополнения</u>	2) нет эквивалента; переводится придаточным дополнительным предложением
He knows of my living in Russia , but he doesn't know of my having lived in Europe for 2 years .	Он знает, что я живу в России , но он не знает, что я жил в Европе 2 года .
3) сложный герундиальный оборот в функции <u>определения</u>	3) нет эквивалента; переводится придаточным определятельным предложением
The students understood the importance of this problem being solved in the nearest week . They liked the idea of visiting this exhibition on Sunday .	Студенты поняли важность того, чтобы эта проблема была решена в течение ближайшей недели . Им понравилась идея (чтобы) пойти на эту выставку в воскресенье .
4) сложный герундиальный оборот в функции <u>обстоятельства</u>	4) нет эквивалента; переводится деепричастием или придаточным обстоятельственным предложением
He left without having seen the dean . After his having washed the car , we started.	Он ушел, не повидавшись с деканом . После того как он помыл машину , мы отправились в путь.

Infinitive

Infinitive	Voice	
	Active	Passive
Indefinite Infinitive	to plan	to be planned
Continuous Infinitive	to be planning	-
Perfect Infinitive	to have planned	to have been planned
Perfect Continuous Infinitive	to have been planning	-

инфинитив по своему употреблению очень схож с герундием, т.к. также может быть **подлежащим, дополнением, определением, обстоятельством и частью сказуемого**. Соответственно может переводиться и существительным и неопределенной формой глагола – инфинитивом.

e.g. a) To create new job opportunities is very important for our city. – Создать (создание) новые рабочие места – важно для нашего города. (подлежащее)

b) The aim of his work was to tell about the problems with water supply in the countryside. – Целью его работы было рассказать о проблемах водоснабжения в пригородной местности. (часть сказуемого)

c) With the help of this firm we are planning to open a new multimedia room in our university. – С помощью этой фирмы мы планируем открыть новый мультимедийный зал в нашем университете. (дополнение)

d) To discover this planet, he had to read a lot of ancient and modern books on astronomy. – Чтобы открыть эту планету, ему пришлось прочесть много древних и современных книг по астрономии. (обстоятельство цели)

❖ переводить сложные формы инфинитива (пассивной или перфектной) следует чаще всего придаточным предложением.

e.g. a) He is happy to be invited to their party. – Он рад, что его пригласили на их вечеринку.

b) He was pleased to have been supported by all his colleagues. – Он был рад, что его поддержали все его коллеги.

❖ существует несколько оборотов с Инфинитивом, которые тоже, как правило, переводятся придаточными предложениями.

English language	Russian language
1) объектный инфинитивный оборот	1) нет эквивалента; переводится придаточным дополнительным предложением
She hasn't heard anyone call her . I dislike my friends to talk like that .	Она не слышала, чтобы кто-нибудь ее звал . Я не люблю, когда мои друзья так говорят .
2) субъектный инфинитивный оборот	2) нет эквивалента; переводится частью именного сказуемого или самостоятельным предложением
The car was seen to disappear in the distance. This teacher is thought to be honest and kind. They seemed to have quite forgotten about this incident already.	Видно было, как машина скрылась вдали . Этого преподавателя считают честным и добрым человеком . Они, казалось, уже совершенно забыли об этом инциденте .
3) инфинитив с предлогом FOR	3) нет эквивалента; переводится придаточным или самостоятельным предложением
I sometimes think it is stupid for people to spend so much money on clothes . This was for our group to find out .	Я иногда думаю, что глупо людям тратить так много денег на одежду . Выяснить это должна была наша группа .

Task 1. Decide what forms and parts the words in bold have and translate the sentences.

1. The cars at that time were very small, the engine **being placed** under the seat. 2. They continued **experimenting** with the substance. 3. The language of specialists is often difficult for the layman **to read**. 4. Some molecules are large enough **to be seen** on the electron microscope. 5. Upon **switching off** the current the pressure dropped. 6. At the same time, they created software and hardware that will likely **to form** a type of analog-to-digital converter, **turning** signals **emitted** by the brain into digital signals and vice versa. 7. **Having finished** our part of work, we were able **to go** home. 8. **To construct** an experiment of this kind seems nearly impossible. 9. Cars with internal combustion engines **having appeared**, the automobile industry began **developing** rapidly. 10. The author claimed **to have made** a significant contribution to the problem solution. 11. The movement of these charges, **measured** at 300 meters per second in the lab, causes changes in the rock's magnetic field that propagate to the surface. 12. Two results **obtained** using the protocol showed an interesting effect worth **presenting** and **discussing** here.

Function 5. HOW TO talk about cause and effect

Когда вы читаете научно-технический текст, вы должны понимать связь различной информации между собой. В данном разделе мы останавливаемся на причинно-следственной связи между предложениями. Изучите данные слова и выражения и распределите их по типу предложений, в которых они используются.

to lead to, to cause, because of, because, consequently, to be due to, to bring about, to be the effect of, to be caused by, to be the cause of, to be affected by, affect, to be influenced by,

produce, to be produced by, to be the reason for, therefore,
as a consequence, hence, thus, when, if, influence, ...

Cause (причина)	Phrases <i>e.g. to result in</i>	Effect (результат)
Effect (результат)	Phrases <i>e.g. to result from</i>	Cause (причина)
<i>e.g. As a result of</i>	Cause (причина)	Effect (результат)
<i>e.g. As a result,</i>	Effect (следствие, результат)	-

- e.g. a) Because of the moon's gravitational pull, there are ocean tides.
b) The ocean tides are affected by the moon's gravitational pull.*

Task 1. Read and explain each case of Cause-and-effect relationship.

Good health is affected by a balanced diet. On the other hand, if we do not eat well, this could cause problems and we could become very sick. For instance, if our diet lacks Vitamin A, blindness may result. Many problems affecting the skin and the teeth are due to a lack of Vitamin C. When our diet contains recommended amounts of Vitamin A and C, however, our ability to fight diseases like cancer is greatly affected. So it makes sense to eat well because this results in a longer and healthier life.

Task 2. Mark "C" for Cause sentence, and "E" for Effect sentence. Then rewrite the sentences and use appropriate phrases.

- ___ (a) There is no life on Venus. ___ (b) There is no atmosphere on Venus.
- ___ (a) Solar batteries need to be recharged frequently. ___ (b) Solar batteries are impractical for powering cars on long trips.
- ___ (a) The element silicon melts. ___ (b) The temperature is above 1410°C.
- ___ (a) Daily exercise strengthens the heart. ___ (b) Many people who exercise daily have healthy hearts.
- ___ (a) Cakes and candy are high in sugar. ___ (b) Cakes and candy are bad for the teeth.

Task 3. Complete the sentences with your own ideas.

- I don't have any money. As a result, ...
- Because of a lack of rain in northern Thailand, ...
- The university café is very often crowded at lunchtime. Consequently, ...
- I have to do homework every weekend. For this reason, ...
- Due to ..., I won't have time to go shopping tomorrow.
- Many websites are appropriate for children, so ...
- Because I am so tired, ...

Task 4. Choose a topic from your work and write about it including cause-and-effect relationship.

Function 6. HOW TO find a noun group

1. В научно-технической литературе используется множество терминов, в том числе терминов виде **атрибутивных групп (noun groups)**. Это термины, состоящие из 2 и более слов (существительных, прилагательных, причастий, герундиев). Главным в такой группе является последнее слово, как правило, существительное. При этом остальные являются его атрибутами, описывающими понятие с разных точек зрения – **материала, предназначения, и т.д.** При переводе такой группы следует начинать перевод и анализ фразы с конца.

e.g. information security – безопасность данных

electronic data processing – компьютерная обработка данных

heat pump installation – теплонасосная установка

central computing facility – вычислительный центр

lifestyle management program – программа управления стилем жизни

traffic management – регулирование движения

Иногда стоит применить ваши аналитические способности для адекватного перевода группы.

e.g. the new man cotton collar enterprise (главное слово – *enterprise* “производство”, *collar* – по выпуску воротничков, *man* и *cotton* – относятся к “collar”, т.е. мужские и хлопчатобумажный, *new* – может относиться к *collar* или к *enterprise*) - «**новая фабрика по производству мужских хлопчатобумажных воротничков**» или «**фабрика по производству мужских хлопчатобумажных воротничков нового фасона**».

2. Как определить атрибутивную группу в предложении?

Группа обычно начинается с артикля (**a, the**), притяжательного местоимения (**my, his, ...**), неопределенного местоимения (**any, some, ...**), указательного местоимения (**this, that, ...**), отрицательного местоимения “**no**”, количественного числительного (**one, two, ...**), или предлога (**with, of, ...**).

Группа заканчивается перед новой группой с предлогом, сказуемым, личным местоимением (**I, she, ...**), Причастием или деепричастием, инфинитивом, или союзами.

Task 1. Find noun groups in these sentences and translate them.

1. Mechanical computing devices were in existence in the 1800s, but electronic computers were invented in the 20th century.
2. DARPA network of computer-to-computer connections was intended for military and academic research.
3. In the early 20th century, harvested natural ice was still common, but large industries such as breweries were beginning to use ice-making machines.
4. While the steam engine has been eclipsed by electric and internal combustion engines in the areas of transport and factory power, they're still incredibly important.
5. Gutenberg developed metal printing blocks that were far more durable and easier to make than the hand-carved wooden letters in use previously.

6. Some high-performance military aircraft wouldn't be able to fly without constant computerized adjustments to flight control surfaces.
7. A huge amount of modern technology still depends on the wheel, like centrifuges used in chemistry and medical research, electric motors and combustion engines, jet engines, power plants and countless others.

Task 2. Make noun groups from these definitions.

1. a device that reads magnetic cards
2. a card for buying goods on credit
3. the rate of transmission of data
4. a document for processing images
5. a device that prints using a jet of ink
6. a plant that produces power
7. a type of shopping that you do on the Internet

Task 3. Explain these noun groups.

1. garage door opener
2. medical testing equipment
3. satellite communication
4. wireless technology
5. computer-mediated communication
6. an input device
7. complex visual imagery

Function 7. HOW TO deal with neologisms

В английском языке существует несколько способов образования новых слов.

❖ **Аффиксация** - создание новых слов с помощью словообразовательных средств.

e.g. to brandalise - завешивать городские фасады уродливыми рекламными вывесками. Неологизм *to brandalise* образован из соединения слова **brand** (торговая марка, фирменный знак) и суффикса **-ise**. Одно из значений суффикса **-ise** «подвергать определенному действию или процессу».

❖ **Переосмысление** уже существующих слов.

e.g. twitt; laptop; cloud computing.

❖ **Заимствования** из других языков

e.g. samovar; perestroika; Kalashnikov.

❖ **Сокращения** – новые слова образуются в результате сокращения существующих слов или словосочетаний

e.g. FB (Facebook); ITman; i-phone.

❖ **Конверсия** – в этом случае из уже существующего слова образуется новое, которое относится к другой части речи. Основная форма исходного слова при этом не изменяется.

а) деноминация (denomination) – образование глаголов от имен существительных; такие глаголы называются *отыменными* (*denominative/denominal verb*).

e.g. text (n) – to text (v) (отправлять текстовое сообщение) e.g. My daughter texted me for good luck.

б) субстантивация (substantivation) – образование имен существительных от других частей речи; этот способ словообразования встречается реже.

e.g. a buy (покупка); **a cut; the click back**

the Follow Button – кнопка (в Твиттере), которую нужно нажать, чтобы читать ленту новостей другого пользователя. e.g. The Follow Button is a small widget which allows users to easily follow a Twitter account from any webpage.

❖ **Словосложение:**

а) сложение слов: download; software

б) усечения: the Twittersverse (Twitter + Universe); **twictionary** (Twitter + dictionary); **e-book; e-mail**

❖ Очень часто два способа словообразования используются одновременно: **firewall** (система сетевой защиты) – для образования этого неологизма использованы словосложение и переосмысление слов **fire** и **wall**.

Task 1. How were the neologisms formed? Define the word-formation means type.

1.

defollow – удалить кого-то из ленты друзей

refollow – снова добавить в ленту друзей человека, которого до этого удалили

mistweet – сообщение, об отправке которого, вы жалеете

techless – не имеющий возможности выйти в Твиттер из-за отсутствия доступа к Интернету

Twitterish – связанный с Твиттером, имеющий отношение к Твиттеру

2.

MT (Modified Tweet) - перефразированное сообщение

FB – (Facebook), *fab* (fabulous), *fav* (favourite), *mil* (million), *techie* (infml) от *technician*, *compu* (infml) (*computer*), *docs*(documentation, computer's instruction manual)

3.

twincess (Twitter + princess) – член королевской семьи, зарегистрированный в Твиттере

twipochondria (Twitter + hypochondria) ипохондрия, которая является результатом прочтения информации по данному заболеванию в Твиттере

Task 2. Define the origin of the neologisms.

twitterfam	создать семью
twaddicted	испытывающий непреодолимое влечение к Твиттеру
twibe	обрести друзей-последователей
twake-up	первым делом утром писать сообщение в Твиттере
twerminology	наука, занимающаяся изучением терминологии Твиттера

Task 3. Give the Russian equivalents to the neologisms.

tweachers (Twitter + teachers)	tweet up
twabstinence (Twitter + abstinence)	refollow
Fly-Bye - выход из Твиттера	twitsultant (Twitter + consultant)
tweet out (от sign out)	twitterkend (Twitter + weekend)

Task 4. Find neologisms in the text you study. How are these neologisms formed? What words are they derived from?

Function 8. HOW TO make comparison and contrast

❖ **Speaking about differences**

Making grammatical changes to an adjective	
-er (than) (to short adj.)	<i>This chair is bigger than that one.</i>
more ... (than) (for long adj.)	<i>This chair is more comfortable than that one.</i>
good – better bad – worse etc.	<i>This sofa is better than that one.</i>
much, far, even, a lot + comp. adj.	<i>e.g. ... гораздо (интереснее) ...</i>
not as + adj. + as	<i>... не такой (красивый) как ...</i>
Using different phrases	
but, whereas, while, whilst (to separate the sentences)	<i>e.g. This chair is big whereas that one is more comfortable.</i>
although, even though, though, however	<i>e.g. Although alcohol thermometer are inexpensive, they are not widely used for laboratory work.</i>
(...) in contrast to ... (...) as opposed to ... unlike	<i>e.g. Most Russians are Orthodox, in contrast to Buryats, who are Buddhists.</i>
... be different from ... (to separate the objects)	<i>e.g. His theme is different from mine.</i>
... be not the same as ... (to separate the objects)	<i>e.g. Its properties aren't the same as those of the old model.</i>

❖ **Speaking about similarities**

both ... and ...	<i>e.g. Both planes and trains are kinds of transport.</i>
neither ... nor ...	<i>e.g. Neither Kate nor Nick came to the lecture yesterday.</i>
either ... or ...	<i>e.g. Either copper or aluminium can be used in electric wires.</i>
not only ... but ... as well, not only ... but also ...	<i>e.g. Water is not only colorless, but odorless as well.</i>
... be the same as ...	<i>e.g. This solution is the same as we used in our experiment.</i>
both ...	<i>e.g. He used both methods to solve the problem.</i>
each ...	<i>e.g. Each of them had a calculator.</i>
also, too, like	<i>e.g. She is intelligent and beautiful too.</i>
... as well as ...	<i>e.g. He as well as she study electronics.</i>
Similarly, ...	<i>e.g. Bill Clinton is a former president. Similarly, George Bush senior is a former president.</i>

❖ **Speaking about extremes**

the -est (with short adjectives)	<i>e.g. This institute is the biggest in our city.</i>
the most + adj. (with long adjectives)	<i>e.g. This house is the most beautiful in our city.</i>
good – the best bad – the worst etc.	<i>e.g. It's the best way to do this task.</i>

Task 1. Compare these pairs of objects using the given adjectives.

		<i>modern fast attractive comfortable boring dangerous challenging easy exciting convenient popular useful confusing</i>
		
		
		

Task 2. Complete the sentences with the phrases in the box.

in contrast	like	tend to have radically different	both	in
comparison with		are quite different		

1. ... the Japanese, Americans naturally prefer to do business in their native language.
2. ... Americans and Japanese businesspeople tend to have little experience in dealing with people from other countries.
3. Japanese and American communication patterns The American style is direct, and values discussion. The Japanese style is more vague and emphasizes on non-verbal cues and subtle nuances.

4. American companies tend to be financially oriented, and value individual leadership and autonomy. ... , Japanese companies tend to take a more intuitive approach to management.
5. Americans and Japanese ... assumptions about basic features of the employment relationship, such as compensation, performance evaluation, the pace of advancement, and when it is appropriate to change jobs.
6. ... the American free market for labour, the Japanese tradition for lifetime employment leads to vastly different career patterns.

Task 3. Use the notes after the phrases and make sentences.

e.g. energy – cannot be created, cannot be destroyed (neither ... nor ...)
Energy can be **neither** created **nor** destroyed.

- 1) ions – can be negatively charged, can be positively charged (either ... or ...)
- 2) steel – can be hardened, can be tempered (not only ... but also ...)
- 3) metals – can be ferrous, can be non-ferrous (either ... or ...)
- 4) electricity – can heat a wire, can have a magnetic effect (both ... and ...)
- 5) paper – not strong, not rigid (neither ... nor ...)
- 6) gold – not cheap, not common (not only ... but ... as well)

Task 4. Make your own sentences with these phrases:

1. both ... and ...
2. ... while ...
3. Unlike ...
4. ... as well as ...
5. ... also ...
6. ... not only ... but ... as well

Function 9. HOW TO make a simple translation from Russian into English

- ❖ Русское предложение имеет свободный порядок слов в отличие от английского (См. **Function 1 “HOW TO translate an English sentence”**)
Поэтому при переводе с русского на английский нужно быть очень внимательным.

Adverbial Modifier + Subject + Predicate + Object + Adverbial Modifier.
(обст-во + подлежащее + сказуемое + дополнение + обст-во)

Russian sentences	English variants
Напряжение можно измерить вольтметром.	1)You can measure voltage with a voltmeter. 2)Voltage can be measured with a voltmeter.
На слайде изображена блок-схема простого радио устройства.	1)This slide shows a block diagram of a simple radio. 2)On this slide you can see a block diagram of a simple radio.
В нашем ВУЗе есть все возможности получить хорошее техническое образование.	1)Our university provides opportunities for good technical education. 2)In our university everyone can get a good

	technical education.
В ходе эксперимента нами были получены великолепные результаты.	1) During the experiment, we received splendid results. 2) Great results were received during the experiment.

❖ Используйте следующие этапы при переводе предложения с русского языка на английский.

1.	решите, сколько частей будет в вашем предложении;
2.	определите подлежащее и сказуемое в каждой части предложения;
3.	определите, будет ли ваше подлежащее одним словом или атрибутивной группой;
4.	правильно расставьте слова в атрибутивной группе и проверьте ее значение в словаре;
5.	определите необходимую форму сказуемого и согласуйте ее с подлежащим;
6.	определитесь с второстепенными членами предложения (дополнение, определение, обстоятельство);
7.	определитесь с типом предложения: простое или сложное, используйте правильное связующее слово, не забудьте о пунктуации;
8.	при переводе пользуйтесь несколькими словарями и имеющимися статьями по теме;
9.	убедитесь в единстве терминологии в тексте;
10.	попросите кого-нибудь, хорошо владеющего английским языком, проверить ваш перевод.

Task 1. Match these Russian sentences with the best English variant.

1. К ПК условно можно отнести также и любой другой компьютер, используемый конкретным человеком в качестве своего личного компьютера.
 - a. *To a PC can refer also any other computer, used by a particular person as a personal computer.*
 - b. *To a PC we can also refer any other computer, used by a particular person as a personal computer.*
 - c. *A PC can be referred to any other computer, used by a particular person as a personal computer.*
2. Возникновению электроники предшествовало изобретение радио.
 - a. *The appearance of electronics followed the invention of the radio.*
 - b. *The appearance of electronics preceded the invention of the radio.*
 - c. *The invention of the radio was followed by the appearance of electronics.*
3. Всё более популярными становятся КПК с функциями мобильного телефона.
 - a. *More and more popular become PPCs with the functions of a mobile phone.*
 - b. *More and more popular are becoming PPCs with the functions of a mobile phone.*
 - c. *PPCs with the functions of a mobile phone are becoming more and more popular.*
4. Во многих странах запрещено разговаривать по мобильному телефону во время вождения.
 - a. *In many countries it's forbidden to talk on the phone while driving a car.*
 - b. *In many countries you can't talk on the phone while driving a car.*

- c. *In many countries not allowed to talk on the phone while driving a car.*
5. В качестве дисплея использовался телевизор или монитор, а устройством внешней памяти служил бытовой кассетный магнитофон.
- a. *As a display was used a TV or a monitor, and as an external memory was used a common tape recorder.*
- b. *A TV or a monitor was used as a display, and a common tape recorder was used as an external memory.*
- c. *As a display it had a TV or a monitor, and a common tape recorder served for an external memory.*
6. Спутниковый телефон — мобильный телефон, передающий информацию напрямую через специальный коммуникационный спутник.
- a. *A satellite phone is a mobile phone transmitting data directly via dedicated communication satellite.*
- b. *A satellite phone is being a mobile phone which transmits data directly via dedicated communication satellite.*
- c. *A satellite phone is a mobile phone who transmits data directly via dedicated communication satellite.*

Task 2. In the following Russian sentences find different parts and translate them into English.

1. Чаще всего под ПК понимают настольные ПК, ноутбуки, планшетные и карманные ПК.
2. Практически все цифровые фотоаппараты используют флэш-память, но есть также фотоаппараты, где используются оптические диски в качестве носителя информации.
3. Калькулятор это компьютерная программа, эмулирующая функции калькулятора.
4. Пейджер имеет память, позволяющую записывать принимаемые сообщения и затем просматривать их в любое удобное для пользователя время.
5. Надёжность электронных устройств складывается из надёжности самого устройства и надёжности электроснабжения.
6. В последнее время вычислительная мощность и функциональность ноутбуков не сильно уступают стационарным ПК, а иногда и превосходит их.
7. Коммуникатор — карманный персональный компьютер (КПК) с функциями мобильного телефона.

Task 3. Translate the following paragraph into English

Компьютерная игра — компьютерная программа или часть компьютерной программы, служащая для организации игрового процесса (геймплея), связи с партнёрами по игре, или сама выступающая в качестве партнёра.

Компьютерные игры часто создаются на основе фильмов и книг; есть и обратные случаи. Специальные разработанные игры позволяют использовать игроков в научно-исследовательских работах. По некоторым компьютерным играм проводятся любительские и профессиональные соревнования — такого рода соревнования называются киберспортом.

Function 10. HOW TO say numbers and formulas

Task 1. Read these simple numbers.

- | | | |
|----------|----------------|-------------|
| 1. 25 | 6. 10,813 | 11. 83,569 |
| 2. 96 | 7. 7.809 | 12. 16.403 |
| 3. 105 | 8. 12.144 | 13. 5,763 |
| 4. 767 | 9. 3,000,000 | 14. 888.444 |
| 5. 3,476 | 10. 45,673,901 | 15. 14.8 |

Task 2. Pronounce these dimensions.

(L – long, length; W – wide, width; H – high, height)

- | | |
|---------------|-----------------|
| 1. H=27.53 cm | 7. H=0.987 m |
| 2. W=32.09 cm | 8. W=3,500 m |
| 3. L=77.36 mm | 9. H=2.72 mm |
| 4. W=25.90 cm | 10. W=50.134 cm |
| 5. L=800 m | 11. L=700,000 m |

В профессионально-направленной литературе на английском языке можно встретить невероятно большое количество символов и формул. Если есть необходимость произносить эти формулы и символы – проверьте правильность их произнесения в специальной литературе. Мы остановимся на самых распространенных символах.

Study how to pronounce these symbols

Symbol	Meaning	Example	Spoken
+	addition	$a + b$	a plus b
-	subtraction	$a - b$	a minus b
\pm	plus or minus	$X = \pm 2$	X equals plus or minus 2
\times	multiplication	$a \times b$	a times b
:	division	$a : b$	a divided by b
=	equality	$a + b = c$	a plus b equals c
	identical to	$a = b$	a is identical to b
\neq	non equality	$a \neq b$	a is not equal to b
$\frac{a}{b}$	fraction	$\frac{3}{4}$	three-quarters, 3 by 4, 3 over 4
<	less	$a < b$	a is less than b
>	more	$a > b$	a is more than b
\leq	less or equal	$a \leq b$	a is less or equal to b
\approx	approximation	$a \approx 10$	a is approximately equal to 10
∞	infinity	$X \rightarrow \infty$	x tends to infinity
\propto	proportional to	$x \propto y$	x is proportional to y
x^2	square power	x^2	x squared
x^{n-1}	power	x^{n-1}	x to the power (of) n minus 1
\sqrt{x}	square root	\sqrt{x}	square root of x
$\sqrt[n]{x}$	nth root	$\sqrt[n]{x}$	nth root of x
/	per	km/hr	kilometers per hour
P_3	subscript	P_3	P subscript 3, P sub 3
\int	integral sign	$\int x$	the integral of x
sin	sine of	sin A	sine of A

cos	cosine of	cos A	cosine of A
tan	tangent of	tan A	tangent of A
cot (ctn)	cotangent of	cot A	cotangent of A
sec	secant of	sec A	secant of A
cosec (esc)	cosecant of	cosec A	cosecant of A
()	parentheses		
[]	brackets		
{}	braces		
°	degree	45 °C	forty five degrees Centigrade

e.g.

$$a) \frac{1}{u} + \frac{1}{v} = \frac{1}{f}$$

One over **u** plus one over **v** equals one over **f**
(all small letters)

$$b) F \propto \frac{M_1}{R^2}$$

F is proportional to **M** subscript one over **R**
squared (all capital letters)

$$c) v_1 = \sqrt{\left(\frac{2e}{m} V_2\right)}$$

v subscript one equals the square root of
open brackets, two **e** over **m** times capital **V**
subscript two, close brackets

Task 3. Now pronounce these simple mathematical operations.

- | | |
|---------------------|--------------------|
| 1. $a + b = c$ | 5. $x \leq y$ |
| 2. $a - b = c$ | 6. $x \neq y$ |
| 3. $a \times b = e$ | 7. $\frac{\pi}{2}$ |
| 4. $a / b = f$ | 8. x^2 |

Task 4. Try to read these formulas.

- | | | |
|--------------------------------------|--|----------------------------|
| 1. $x = a + \frac{b}{c}$ | 4. $\frac{x^2}{a^2} + \frac{y^2}{b^2} + \frac{z^2}{c^2} = 1$ | 7. $0 > 90^\circ$ |
| 2. $f = \frac{1}{b} (2\pi\sqrt{LC})$ | 5. $E \leq \pm 0.32$ | 8. $x + y = \frac{a}{a-b}$ |
| 3. $W = \frac{2\pi f}{P}$ | 6. $\mu = 5.3$ | 9. $\int x(1-2x)^3 dx$ |

Task 5. Find some formulas, numbers or equations in your course books and pronounce them.

Function 11. HOW TO describe a thing

- ❖ Если нам нужно описать предмет, мы характеризуем его с разных сторон – размер, форма, материал, цвет, измерения, ощущения предмета на вес и т.д.

Task 1. Divide these words into the groups – size, shape, material, color, dimensions, feeling, and weight.

wooden, long, aluminium, diameter, deep, white, triangular, hollow, wide, radius, rectangular, empty, pointed, rounded, light, brown, metal, tiny, cardboard, huge, oval, cone, pyramid, glass, sharp, strong, thin, large, curved, square, paper, grey, thick, soft, light-weight, rubber, ...

Task 2. Put the words in these questions into correct order and match them with the characteristics above.

1. its what are dimensions ?
2. made what's of it ?
3. is colour it what ?
4. what it feel does like ?
5. big how it is ?
6. weigh does much how it ?
7. shape what is it ?

❖ Вы также можете использовать фразы, приведенные ниже, чтобы описать предмет, сравнивая его с другими предметами.

*It's **the same size as** a matchbox.*

*It **looks like** a watch, but a bit bigger.*

*It's **as small as** a pen.*

*It's **very similar to** a mobile phone, but it has more functions.*

Task 3. Write a description of three of these objects.

e.g.: An eraser is a solid block, which is made of rubber. It is small and rectangular. It is usually about 1 cm high, 3 cm wide and 5 cm long.

stylus, pencil, ruler, calculator, scissors, notebook, glasses,
mouse, whiteboard, CD, ...

Task 4. Translate the following sentences into English.

1. Электронная фоторамка очень похожа на обычную фоторамку, но размер экрана немного меньше.
2. Посудомоечная машина по размеру похожа на стиральную машину.
3. Устройство для чтения электронных книг выглядит как обычная книга, но оно тонкое и легкое.
4. Маркер очень похож на фломастер.
5. Миниатюрные вставные наушники очень похожи на накладные наушники, но гораздо меньше по размеру.

Task 5. Work in pairs. Each of you think of an object from the box, then ask each other questions, answer them and guess the object.

a clipboard PC, a mug, a microscope, a chair, a light bulb, a fuse, a dictionary, a keyboard, a stapler, scissors, earphones, a newspaper, antenna, a stylus, an oscillator, a mouse mat

Task 6. Write the description of three objects which you deal with in your studies.

Function 12. HOW TO define a thing and explain its use and structure

❖ Если вы хотите более расширенно описать предмет, давая ему определение и упоминая о его предназначении и структуре, стоит начать с

отнесения его к более общей группе, к которой он принадлежит (**a device, a thing, a tool, a liquid, a machine** etc.)

is/are is defined as can be defined as denotes	by ... we mean by ... is meant in other words refer to
---	---

- e.g.** a) A vacuum tube **refers to** a device for controlling electric current through a vacuum in a sealed container.
 b) A device with two active elements **is called** a diode, usually used for rectification.
 c) **By Microwaves we mean** radio waves with wavelengths ranging from as long as one meter to as short as one millimeter.

❖ Вы также может дать определение предмету, используя определительные придаточные предложения, начиная со слов **who/that** для людей, **which/that** для предметов и животных, **where** для мест, **when** для периодов времени.

- e.g.** a) An engineer is a professional in engineering **who (that) uses his scientific knowledge, mathematics and ingenuity to develop solutions for technical problems.**
 b) A diagram is a graphic form **which (that) represents some information according to some visualization technique.**
 c) A laboratory is a facility **where researchers and scientists can perform experiments, measurements and research.**

❖ При составлении предложений-определений можно использовать как **активный** так и **пассивный залог**.

- e.g.** a) Microwaves **can be used to** transmit power over long distances. (Passive Voice)
 b) We **use** microwaves to transmit power over long distances. (Active Voice)
 Вместо **“to transmit”** (to Infinitive) мы можем использовать **“for transmitting”** (for Gerund).

❖ При описании структуры предмета можно начинать с его составных частей и после упомянуть предмет, или начать с упоминания предмета, а потом сообщить о его составных частях.

From name to parts	From parts to name
consist of	make up
comprise	form
be comprised of	constitute
be made up of	be classified as
have	
contain	
include	

- e.g.** a) The radio equipment involved in communication systems **includes** a transmitter and a receiver.
 b) The monitor **comprises** the display device, circuitry to generate a picture from electronic signals sent by the computer, and an enclosure or case.
 c) A typical factory **contains** hundreds of industrial robots working on fully automated production lines, with one robot for every ten human workers.

Task 1. Translate the following sentences and say which words or phrases are used and for what purposes.

1. The word "radiation" refers to energy radiating from a source and not to radioactivity.
2. A workstation denotes a high-end personal computer designed for technical or scientific applications.
3. Single unit PCs (also known as all-in-one PCs) is a subtype of desktop computers, which combine the monitor and case of the computer within a single unit.
4. A home theatre PC is connected to a television or a television-sized computer display and is often used as a digital photo, music, video player, TV receiver and digital video recorder.
5. A typical desktop computer consists of a computer case which holds the power supply, motherboard, hard disk and often an optical disc drive.
6. The motherboard, also referred to as system board or mainboard, is the primary circuit board within a personal computer.
7. Computer software is a general term used to describe a collection of computer programs, procedures and documentation that perform some tasks on a computer system.
8. Modern robots are usually used in tightly controlled environments such as on assembly lines because they have difficulty responding to unexpected interference.
9. FRIEND is a semi-autonomous robot designed to support disabled and elderly people in their daily life activities, like preparing and serving a meal.
10. A photon can be defined as an elementary particle, the quantum of light and all other forms of electromagnetic radiation.

Task 2. Complete this text with necessary words.

a thumb keyboard

USB flash drives

an electronic visual display

softkeys

synchronization software

Secure Digital (SD) slot

a portable media player

microSD cards

a palmtop computer

Wireless Wide Area Networks

CompactFlash cards

A personal digital assistant (PDA), also known as 1) ... , or personal data assistant, is a mobile device that functions as a personal information manager. A PDA has 2) ... , enabling it to include a web browser, all current models also have audio capabilities, so they can be used as 3) ... , and also as mobile phones. Most PDAs can access the Internet, intranets or extranets via Wi-Fi or 4) Most PDAs employ touchscreen technology. However, some PDAs have 5) ... , a directional pad, and a numeric keypad or 6) ... for input. Most current devices include either some form of 7) ... or a CompactFlash slot. Secure Digital Input/Output (SDIO) and 8) ... are designed for memory, but are available to provide accessories like Wi-Fi or digital cameras, if the device can support them. Some PDAs also incorporate a USB port,

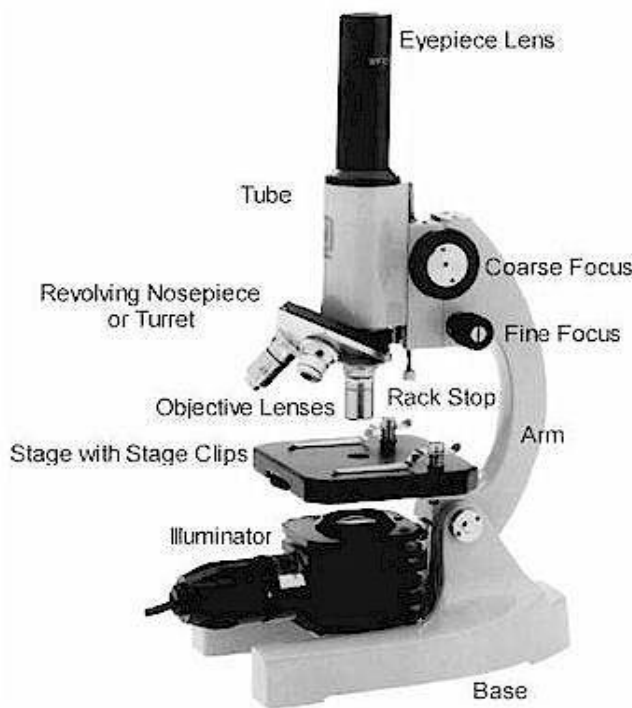
mainly for 9) Some PDAs use 10) ... , which are electronically compatible with SD cards, but have a much smaller physical size.

Most modern PDAs have Bluetooth a popular wireless protocol for mobile devices and come with the ability to synchronize to a computer. This is done through 11) ... provided with the handheld, or sometimes with the computer's operating system.

Task 3. Give definitions to the following words.

- | | | |
|----------------------|-------------------|--------------|
| a university | an experiment | a laptop |
| a dormitory | a graph | a diploma |
| a Master’s Thesis | a presentation | a semester |
| a Scientific Advisor | a multimedia room | an exam |
| a lecturer | a research center | a microscope |

Task 4. Use the notes and write a paragraph about a microscope. Tell about its use and its structure.



- Use:** to enlarge the image
- Eyepiece Lens:** the lens at the top that you look through.
- Tube:** connects the eyepiece to the objective lenses
- Arm:** supports the tube and connects it to the base
- Base:** the bottom of the microscope, used for support
- Illuminator:** a steady light source (110 volts) used in place of a mirror.
- Stage:** the flat platform where you place your slides.
- Revolving Nosepiece or Turret:** this is the part that holds two or more objective lenses and can be rotated to easily change power.
- Objective Lenses:** Usually you will find 3 or 4 objective lenses on a microscope.
- Rack Stop:** this is an adjustment that determines how close the objective lens can get to the slide.

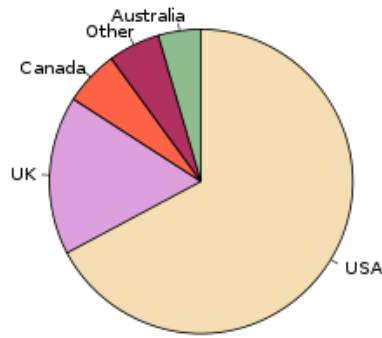
Function 13. HOW TO comment on a visual aid

❖ Виды визуальной информации.

A **flowchart** is a type of diagram that represents an algorithm or process, showing the steps as boxes of various kinds, and their order by connecting these with arrows or lines.



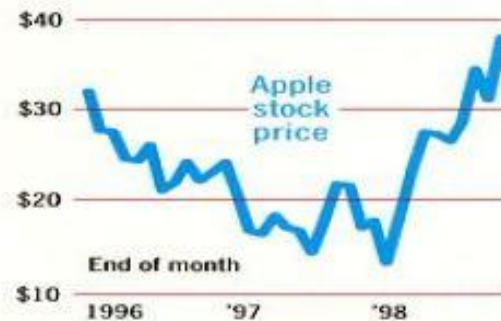
A **pie chart** is a circular chart divided into sectors each of whose length (consequently its central angle and area), is proportional to the quantity it represents.



A **bar chart** or bar graph is a chart with rectangular bars with lengths proportional to the values that they represent. The bars can be plotted vertically or horizontally. A vertical bar chart is sometimes called a **column bar chart**.



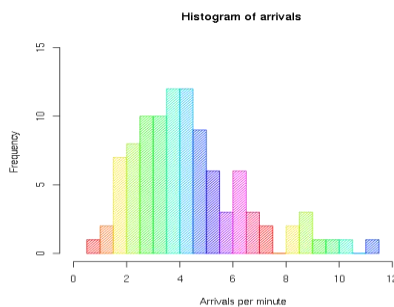
A **line chart** depicts changes over a period of time, showing data and trends in lines or curves



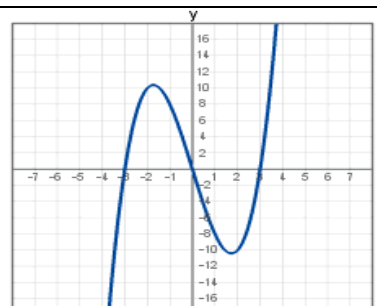
A **table** is a means of arranging data in rows and columns.

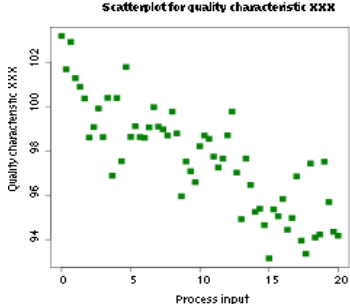
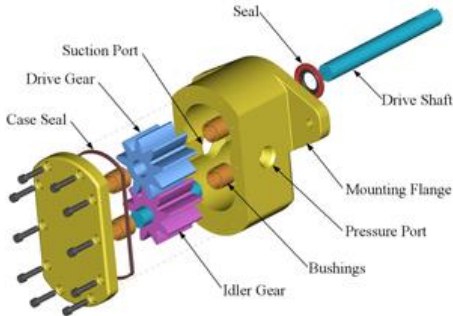
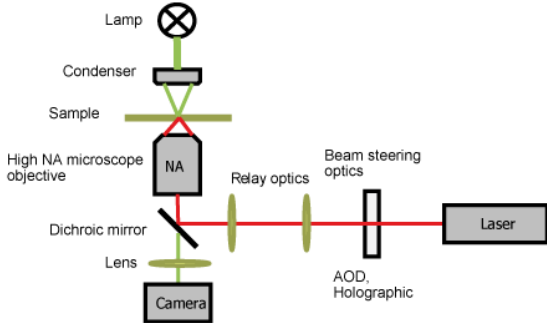
Purchased Equipments (June, 2006)			
Item Num#	Item Picture	Item Description	Price
		Shipping Handling, Installation, etc	Expense
1.		IBM Clone Computer.	\$ 400.00
		Shipping Handling, Installation, etc	\$ 20.00
2.		1GB RAM Module for Computer.	\$ 50.00
		Shipping Handling, Installation, etc	\$ 14.00

A **histogram** is a graphical representation showing a visual impression of the distribution of data.



A **function graph** means the graphical representation of the collection of ordered pairs, in the form of a curve on a Cartesian plane (координатная плоскость), together with Cartesian axes, etc.



<p>A scatter plot or scattergraph is a type of mathematical diagram using Cartesian coordinates to display values for two variables for a set of data which is displayed in a collection of points.</p>	
<p>An exploded view drawing is a diagram, picture or technical drawing of an object, that shows the components of an object slightly separated by distance, or suspended in surrounding space in the case of a three-dimensional exploded diagram.</p>	
<p>A picture or photograph of something. It can show the main parts of an object or some phenomenon. It can also show some setup for an experiment etc.</p>	
<p>Other types (population density map, train diagram, Venn diagram, illustrative drawing etc.)</p>	

❖ Фразы для начала комментария

I'd like you to take a look at this bar chart (histogram, etc), which shows ...
 If you look at this graph/etc., you'll see that ...
 The numbers in this table show how ...
 As you can see from this pie chart ...
 Just have a look at this line chart for a moment ...
 Let's take a closer look at these figures...

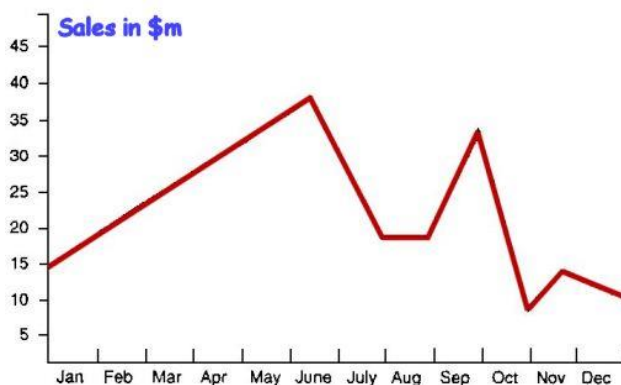
- ❖ Если вам необходимо прокомментировать структуру устройства и рассказать о его составных частях, обратитесь к **Function 11 "HOW TO describe a thing."** Если необходимо прокомментировать процесс, изображенный на рисунке, обратитесь к **Function 14 "HOW TO describe a process."**
- ❖ Если необходимо рассказать об основных тенденциях, изображенных на графиках, есть основные направления – 1) подъем (**rise**), 2) падение (**drop**), 3) неизменность (**steadiness**).

Rise (рост, повышение)		Drop (падение, снижение)		Steadiness (неизменность)	
a noun	a verb	a noun	a verb	a noun	a verb
	climb	decline	decline	no change	not change
upswing	go up	decrease	decrease		remain constant
rise	rise	dip	dip		remain steady
increase	increase	drop	drop		stay the same
lift	lift	fall	fall	stability	keep stable
peak	reach a peak	downswing	go down		hold constant
		plunge	plunge		
		collapse	collapse		

Изменения могут быть большие/резкие или незначительные/слабые

Adjective	Adverb
slight	slightly
gradual	gradually
steady	steadily
steep	steeply
sharp	sharply
sudden	suddenly
fast	fast
rapid	rapidly
dramatic	dramatically
little	a little

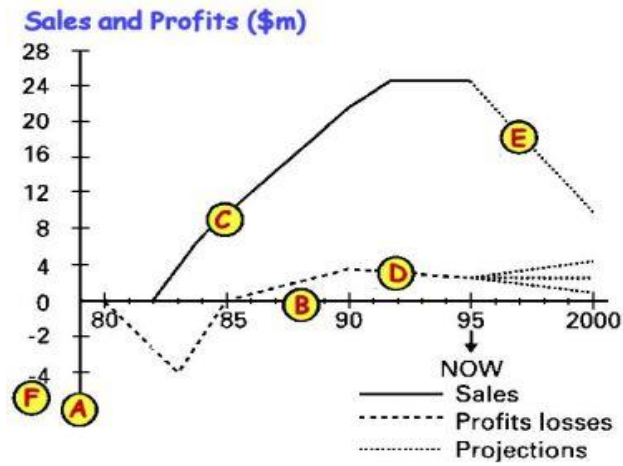
An EXAMPLE COMMENT :



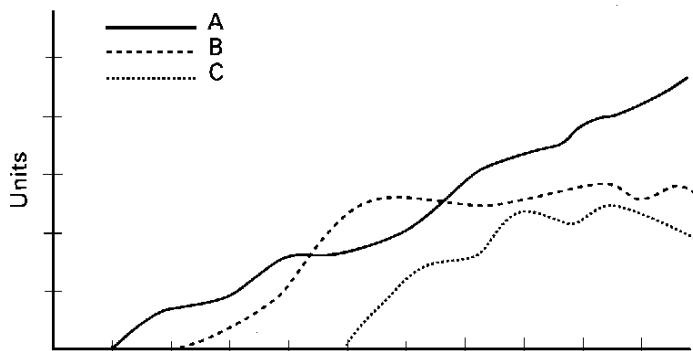
Let's take a closer look at this line chart. The **x axis** of this graph shows the twelve months of the past year while our sales in millions of dollars appear on the **y axis**. It may be seen clearly that sales **rose steadily** in the first half of the year (from January to May) and **reached their peak** in June. Then they **dropped off** in July and **levelled out** in August. After **rising sharply** during September, they suffered a **dramatic fall** in October but then made a **significant recovery** in November. However, the year ended with a **slight downturn**.

Task 1. Match different kinds of lines (1-6) with the letters (A-F).

- | | |
|---|------------------|
| 1) the horizontal axis (or the x axis) | 4) a solid line |
| 2) the vertical axis (or the y axis) | 5) a broken line |
| 3) the scale | 6) a dotted line |

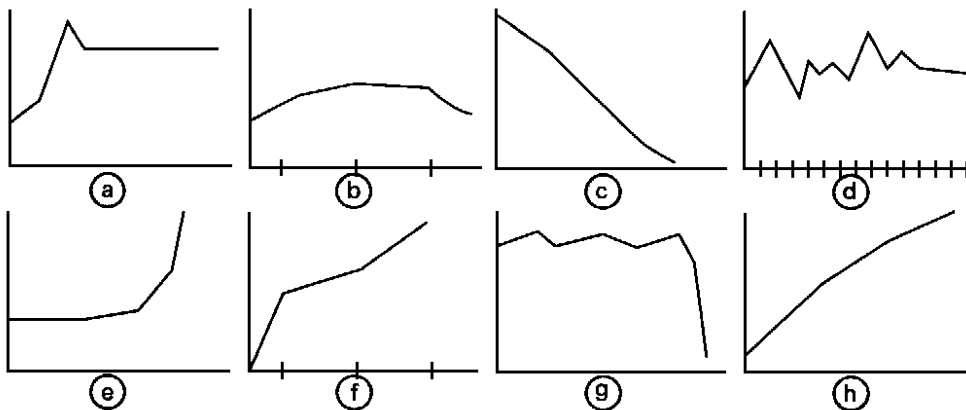


Task 2. Look at the graph below, and then complete the sentences.



1. The compares three products : A, B and C.
2. The shows time over ten years while the shows sales in number of units.
3. As you can see, product A is represented by the
4. The performance of Product B is shown by the
5. And a has been used to show the results of Product C.
6. Clearly, is the most successful product
7. Sales of Product B in recent years while sales of Product C
8. On the contrary, product A has shown a

Task 3. Match the sentences with the graphs.



1. The investment level rose suddenly.
2. The sales of our products fell slightly in the final quarter.
3. The Research and Development budget has stabilized over the past few years.
4. At the end of the first year, sales stood at 50 per cent of the present level.
5. The price reached a peak before falling a little and then holding the same level.
6. There has been a steady increase in costs over several years.
7. The sudden collapse in share prices has surprised everyone.
8. The value of the shares has shown a steady decline.

Task 4. Choose some visual from your studies and comment on it.

Function 14. HOW TO describe a process

Описать процесс или порядок действия можно несколькими способами, в зависимости от аудитории, цели выступления и правилами той дисциплины, в рамках которой вам необходимо это сделать.

- ❖ **Повествование в форме текста**, который описывает последовательность ваших действий (написанный либо в **Past tense/Passive voice** или **Past tense/Active voice**) Этот текст требует использования слов-указателей последовательности (e.g. first, then, after that, etc)

Using Passive Voice	Using Active voice
To successfully replace a flat tire, the driver follows several steps. First the hubcap is removed and then the lug nuts on the wheel are loosened. The second step is to raise the car with a jack. Next , the nuts are removed and the flat tire is taken off. After that , the spare tire is put on, and the nuts are replaced. Then , the car is lowered to the ground. Finally , the nuts are completely tightened and the hubcap is replaced before the car is started.	To successfully replace a flat tire, we followed several steps. First we removed the hubcap and loosened the nuts on the wheel. The second step was to raise the car with a jack. Next , we removed the nuts and detached them from the wheel and then took off the flat tire. After that , we put on the spare tire and replaced the nuts. Then , we lowered the car to the ground. Finally , we made sure the nuts were completely tightened before we started the car.

- ❖ **Пронумерованный набор инструкций**, предназначенный аудитории для дальнейшего исполнения ваших указаний (написанный в **Present tense/Active voice** или повелительном наклонении **Imperative mood**). В повелительном наклонении используется **инфинитив** без частицы “to”, в отрицательных предложениях используется **“Don’t + Infinitive”**.

To successfully replace a flat tire, follow these steps:

1. Remove the hubcap.
2. Loosen the nuts on the wheel.
2. Raise the car with a jack.
3. Remove the nuts.
4. Take off the flat tire.
5. Put on the spare tire.
6. Replace the nuts.
7. Lower the car to the ground and remove the jack.
8. Finally, make sure the nuts are completely tightened before you drive away.

- ❖ **Пронумерованный порядок действий**, который вы исполнили (написанный от первого лица, в **Past tense/Active voice** или **Past tense/Passive voice**).

Active Voice	Passive Voice
<p>To replace the flat tire, we completed the following steps:</p> <ol style="list-style-type: none"> 1. Removed the hubcap. 2. Loosened the nuts on the wheel. 3. Raised the car with a jack. 4. Removed the nuts. 5. Took off the flat tire. 6. Put on the spare tire. 7. Replaced the nuts. 8. Lowered the car to the ground and removed the jack. 9. Made sure the nuts were completely tightened. 	<p>To replace the flat tire, the following steps were completed:</p> <ol style="list-style-type: none"> 1. The hubcap was removed. 2. The nuts on the wheel were loosened. 3. The car was raised with a jack. 4. The nuts were removed. 5. The flat tire was taken off. 6. The spare tire was put on. 7. The nuts were replaced. 8. The car was lowered to the ground and the jack was removed. 9. The nuts were completely tightened.

Task 1. Read this text in a numbered set of instructions and rewrite it in the narrative form.

To e-mail text messages from your computer directly to a mobile phone follow these steps:

1. Open your e-mail program and start a new e-mail message.
2. Enter the mobile phone number in the **To:** box using the format @teleflip.com, where is the phone number of the mobile phone to which you're sending the message. For example, to send a text message to mobile phone 123-456-7890, enter 1234567890@teleflip.com.
3. Type a message of up to 160 characters in the message box and then click **Send**. Your message will shortly appear on the mobile phone. You may want to test it on your own mobile phone to make sure it works.

Task 2. Order the steps of converting MS Word document into a PDF in MS Word 2007.

1. Click **Options** and set the appropriate print options.
2. Type a name for the PDF in the **File Name** box or select one from the list of files.
3. Select **Open file after publishing** to open the new PDF after it has been created and saved. This option is only available if your computer has an installed PDF reader.
4. Move the mouse pointer over the arrow next to the **Save As** button and select **PDF or XPS**.
5. Click **Publish** to start the PDF creation process. If you need to make any corrections or changes to the PDF, make them to the original Word document and then create a new PDF document
6. Click the **Office** button.
7. Click **OK**.
8. Choose PDF in the **Save as type** drop down list.
9. Choose **Standard (publishing online and printing)** or **Minimum size (publishing**

online) under **Optimize for**, depending on whether or not you want better print quality or lower file size, respectively.

Task 3. Read How to make bread and change sentences in Active Voice into Passive Voice.

Bread is eaten in most parts of the world, but not everyone knows how to bake it. I am going to show you how the steps involved in baking bread.

First, measure the correct amount of flour and warm water. Next, mix the flour and water together in a mixing bowl. Add yeast, salt and sugar. Next, knead the mixture until it feels almost dry. Leave the mixture for about an hour in a warm place. It will grow in size. After this, knead the mixture again. Make sure the mixture is not sticky when you touch it. Then leave the dough in a baking tin for about an hour to give it time to rise. Finally, the dough is put into a preheated oven for about forty minutes.

It can be seen that making bread is not difficult as long as the correct procedure is followed. You will love the taste and smell of your freshly-baked bread!

Task 4. Complete the description of stages in the generation of electricity.

First, steam 1) _____ (heat) in a boiler or reactor. Then the steam 2) _____ (pass) into the turbine. There the steam 3) _____ (drive) the turbine shaft. At the same time, the shaft drives the rotor of the generator. After passing through the turbine, the steam 4) _____ (enter) the condenser. After it has left the condenser, it 5) _____ (pump) back to the boiler or reactor. When it re-enters the boiler, it 6) _____ (re-heat). Once it has been generated, it 7) _____ (feed) into the grid system.

Task 5. Write about any process involved in your subject of study.

Function 15. HOW TO describe an experiment

Описание эксперимента дает пошаговое объяснение того, что и как делается или было сделано. Есть несколько способов описания эксперимента, но план описания у всех почти один и тот же.

1. Обозначьте цель эксперимента (**the Aim of your experiment**) четко в начале описания.
2. Опишите требуемые материалы (**the Material required**) точно, чтобы человек мог обеспечить их наличие.
3. Язык инструкций должен быть **простым и легким** для понимания.
4. Опишите этапы эксперимента (**the steps of experiment**) по порядку.
5. Опишите эксперимент в виде инструкций в повелительном наклонении (**Imperative form**). Можно также использовать **Past Simple** для описания исполненных действий, или **Present Simple** для описания действий в настоящем времени, а также **Active** или **Passive voices**.
6. Не забудьте описать **результаты эксперимента** (часто в **Present Perfect**) с последующими выводами, сделанными на основе эксперимента.

Example 1.

The aim of the experiment is to determine whether plants grow better in sand or in soil.

For that we needed the following **materials**.

1 packet of radish seeds, 1 packet of carrot seeds, 1 packet of cucumber seeds, 6 plastic cups, water, soil, sand.

Now, let's turn to **the steps** involved in our experiment.

1. Gather all the materials needed
2. Fill three cups with soil up to a height of 5 cm
3. Fill another three cups with sand up to 1 cm
4. Divide each packet of seeds into six approximately equal parts
5. Place each par in these six cups below the top layer of sand/soil
6. Water the cups every day
7. Remove the plants on the third-fifth day
8. Weigh the plants using a beam balance

As a result, you will find that the plants that grew in soil weigh more.

So we can **make a conclusion** that plants need soil to grow well.

Example 2.

The aim of this experiment was to see if sand and sugar disperse in water under the same conditions.

We **had** two beakers filled with water, some sand, some sugar.

Two beakers are filled with water and into one a quantity of sugar is stirred. A quantity of sand is placed in the other, and the liquid in both beakers is stirred vigorously. We can see that the sugar seems to disappear completely, whereas the sand can still be seen clearly. No matter how vigorously or how long the sand is stirred in the water, it will not disappear, and we stop stirring, the particles of sand start to settle at the bottom of the beaker. In theory, no matter how long the liquid with sugar is left standing, the sugar will not separate out from the liquid. On the other hand, the sand will not dissolve in the water even if this beaker is heated while the mixture is being stirred.

From this demonstration, **it can be seen** that particles of sugar have dispersed throughout the water, and under normal conditions they will remain dispersed in this way. The sugar and water have formed a solution. However, despite vigorous stirring, the sand particles have failed to disperse in the same way. They have remained completely separate and formed a suspension.

Вот слова и выражения, часто используемые в описании эксперимента.

SUBSTANCES	liquids	solution, colloid, emulsion, melt, suspension, oil, liquid crystals, etc.
	solids	crystals, lump, rock, ceramics, minerals, wood, polymers, composite materials, semiconductors, nonmaterial etc.
	gases	steam, vapour, fumes, mixture, etc.
	general	particle, chips, grains, filing, flakes, powder, etc.
APPEARANCE	color	blue, green, ..., colored, colorless, transparent, translucent, opaque, clear, etc.
	smell	fragrant, odorless, malodorous, odoriferous, pungent, etc.
METHODS	nouns – verbs	filtration – to filter, evaporation – to evaporate, sublimation – to sublime, separation – to separate, extraction – to extract, purification – to purify, crystallization – to crystallize, decanting – to decant, dissolving – to dissolve, distillation – to distillate, diluting – to dilute, drying – to dry, heating – to heat,

		hydrolyzation – to hydrolyze, decomposition – to decompose, etc.
ACTIONS	verbs	shape, clean, add, press, weigh, mix, dry, withdraw, push, measure, agitate, wash, release, pull, stir, rinse, lower, fasten, swirl, wet, increase, spread, decrease, seal, heat, etc.
	adverbs	firmly, gently, evenly, accurately, tightly, vigorously, completely, securely, well, slowly, thoroughly, gradually, rapidly, etc.
	nouns	temperature, cork, needle, bottle, mixture, bung, distilled water, acid, test-tube, specimen, painful area, volume, stirring rod, test tube, etc.

Task 1. Complete this experiment account with the words from the box.

suspend add boil submerge pour stir wait

The aim of our experiment is to get sugar crystals on a string.

We need water, sugar, a string, a pencil and a container.

1. _____ about 400 ml of water.
2. _____ about 200 ml of sugar to the water, and _____ the solution well.
3. _____ the solution into the jar. Make sure that the jar you selected can withstand the temperature (a glass should work).
4. _____ the string from a pencil.
5. _____ the string in the solution.
6. _____ for several days.

The sugar crystals will grow slowly on the string over a period of several days.

Task 2. Complete the following experiment with the Past Simple Passive of the verbs in brackets.

The aim of this experiment was to investigate the relationship between the pressure and the temperature of a gas.

The apparatus used in this experiment consisted of a bulb containing air, a three-way tap, a pressure gauge, a beaker with water, a thermometer and a stirrer. The bulb with water 1) _____ (connect) to the pressure gauge by means of a small diameter tube, which 2) _____ (seal) into the bulb. The three-way tap 3) _____ (insert) at a point along the tube. The bulb completely 4) _____ (immerse) in water which was contained in the beaker. The thermometer and the stirrer 5) _____ (place) in the water.

A flask with a large volume 6) _____ (use) so as to minimize the effect of unheated air in the connecting tube and pressure gauge. The pressure indicated by the pressure gauge 7) _____ (note). The temperature of the water 8) _____ (record). The water 10) _____ (heat). Readings of the temperature and pressure 11) _____ (take) at regular intervals throughout the experiment. The values of the temperature and the corresponding values of the pressure 12) _____ (record) in a table. The water 13) _____ (stir) vigorously throughout the experiment. Since the temperature of the water could not be raised above 100°C, the experiment 14) _____ (stop) when the water boiled. A graph of pressure against temperature 15) _____ (plot) from the results.

According to the results of the experiment, we concluded that the pressure and the temperature of a gas of a fixed mass and a constant volume are directly proportional.

Task 3. State the results of different experiments with Present Perfect tense of the appropriate verbs in the right box.

1. A current ____ through a wire. The wire ____ hot, therefore a heating effect ____.	BE PRODUCED, BE PASSED, BECOME
2. Two powdered solids ____ into a liquid. The solids ____ completely, therefore a solution ____.	DISSOLVE, BE STIRRED, BE FORMED
3. A solution ____ in a cylinder, separated from a beaker of water by a membrane. The solution ____ up the cylinder, therefore a force ____ the water to pass through the membrane.	CAUSE, RISE, BE LEFT
4. A metal block _____. The block ____ larger, therefore expansion ____ place.	BE HEATED, TAKE, BECOME
5. Red litmus paper ____ and ____ over the test-tube. The litmus paper ____ blue, therefore ammonia ____ off during the experiment.	BE GIVEN, BE DAMPENED, HOLD, TURN

Task 4. Write an experiment account involved in your research.

Function 16. HOW TO write an abstract

❖ What is an abstract?

«Abstract» это конспект, краткое изложение, автореферат статьи или книги, не содержащий дополнительных интерпретаций и критики. Абстракт помогает читателям быстро ознакомиться с содержанием статьи, которая представлена далее и тем самым позволяет им либо заинтересоваться этой статьей, либо пропустить ее и не тратить время. При написании абстракта следует придерживаться простых предложений, исключая постороннюю информацию. Однако, абстракт должен быть достаточно информативным, представляя качественную и количественную информацию нижеследующей статьи.

❖ Why do you need it?

Абстракт, во-первых, помогает читателю **ознакомиться с главными вопросами**, поднимаемыми в статье. Во-вторых, абстракт помогает информационным сервисам адекватно **каталогизировать вашу статью** для возможности в дальнейшем извлечь ее из архивов и ознакомиться с ней. К тому же для привлечения внимания иностранных специалистов, необходимо помещать **краткое изложение вашей статьи (абстракт) в международных журналах** на английском языке.

❖ What are the parts of an abstract?

- | | |
|---|--|
| 1. Complete bibliographic information | 1. Полная библиографическая информация |
| 2. A clear statement of the scope and purpose of a work | 2. Четкое изложение области исследования и цели исследования |
| 3. A summary of the contents | 3. Краткое изложение содержания исследования |
| 4. A statement of the conclusion or results | 4. Заключение и результаты исследования |

❖ **How can you make it perfect?**

a) абстракт должен быть точным и достоверным – он должен точно отражать цели и содержание статьи. Не нужно включать информацию, которая не будет рассмотрена в статье. Если статья продолжает или повторяет предыдущие исследования, следует указать это в абстракте, цитируя автора и указывая его имя и даты исследования. Рекомендуется отразить заголовки статьи в содержании абстракта для его большей достоверности, при этом объем каждого пункта должен быть соизмерим с его ролью в тексте статьи

b) краткое изложение должно быть законченным – если в абстракте упоминаются новые термины или сокращения, они должны быть объяснены; если включаются цитаты, они должны иметь полную справочную информацию (имя и инициалы автора, название и даты публикации); если в статье нет списка ключевых слов, их нужно поместить в абстракт, это поможет и при чтении и при индексировании

c) абстракт должен быть лаконичным и конкретным – как можно больше важной информации в как можно меньшем количестве текста. Общий объем абстракта не должен превышать 200 слов (или 3% основного текста), в одном абзаце, если возможно

d) текст абстракта должен быть последовательным и легко читаемым – вот некоторые советы:

- используйте глаголы вместо соответствующих именных фраз
- пишите от третьего лица, а не от первого
- описывайте **результаты в настоящем времени** без упоминания последующей применимости результатов и сделанных выводов
- используйте **прошедшее время при упоминании проведенных экспериментов** и использованных специфических параметров
- не включайте уравнения, таблицы, графики и т.д. в абстракт
- используйте **числительные вместо написания цифр**

e) используйте образцы – при проведении исследования вы обязательно сталкиваетесь с тематическими статьями, используйте их для составления собственных рефератов: терминологию, образцы предложений и т.д. Попросите кого-нибудь проверить вашу работу перед окончательным изданием

❖ **What are most common phrases for abstracts?**

Objectives	The purpose of this study was to investigate... Another aim was to find out... Finally, ... was examined in the study. This article/the book/the document describes/ explores/ presents an
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	overview of... In this work the problem of ... is discussed/ considered ...
Methods	(X) method was applied. (eg. quantitative/qualitative - both/other?) The study /survey / thesis /questionnaire / opinion poll...examined, inspected, focused on, was conducted, carried out, sent out, administered ... Questionnaires were sent out / administered... (X number) of responses were received
Results/ conclusions	The results of the study were that... It was found/discovered that... The results revealed/indicated... The principal conclusion was that... One conclusion was that...

Example abstract 1:

Timsit, M., and N. Bruyere-DeGeyter. "The Function of Anxiety the Structure of Personality in Sports Participation: Use of the Rorschach Test in Comparing Samples of Basketball and Football Players." International Journal of Sport Psychology. 8.2 (1998): 128-139.

Examines the relationship between athletes and the structure of the athletic personality, and more precisely, the importance of the choice of a sport and athletics in general in the development of the personality. Forty 17-21 year olds (20 football players and 20 basketball players) were studied, and the data were compared with those from 17 technical school students of the same age. Data from the sports group were significantly different from the control group: the sports group showed freer expression, more aggression, a more evident state of anxiety, and relatively more effective control mechanisms (kinetic responses). Data for the basketballers were significantly different from those of the footballers: the basketballers had a higher tendency toward static kinetics, and the footballers had a higher anxiety index. Results are discussed in relation to the athletic capacity specifically called for in particular types of sports: location on the court in basketball, and active and direct struggle in football.

Example abstract 2:

Kenneth Tait Andrews, "Freedom is a constant struggle': The dynamics and consequences of the Mississippi Civil Rights Movement, 1960-1984" Ph.D. State University of New York at Stony Brook, 1997 DAI-A 59/02, p. 620, Aug 1998

This dissertation examines the impacts of social movements through a multi-layered study of the Mississippi Civil Rights Movement from its peak in the early 1960s through the early 1980s. By examining this historically important case, I clarify the process by which movements transform social structures and the constraints movements face when they try to do so. The time period studied includes the expansion of voting rights and gains in black political power, the desegregation of public schools and the emergence of white-flight academies, and the rise and fall of federal anti-poverty programs. I use two major research strategies: (1) a quantitative analysis of county-level data and (2) three case studies. Data have been collected from archives, interviews, newspapers, and

published reports. This dissertation challenges the argument that movements are inconsequential. Some view federal agencies, courts, political parties, or economic elites as the agents driving institutional change, but typically these groups acted in response to the leverage brought to bear by the civil rights movement. The Mississippi movement attempted to forge independent structures for sustaining challenges to local inequities and injustices. By propelling change in an array of local institutions, movement infrastructures had an enduring legacy in Mississippi.

Example abstract 3:

Arvinder Singh Chadha, Deyin Zhao, and Weidong Zhou, Comparative study of metallic and dielectric helix photonic metamaterial: Optical Materials Express, Vol. 4, Issue 12, pp. 2460-2467 (2014) <http://dx.doi.org/10.1364/OME.4.002460>

We compare the performance of metallic and dielectric thin film helix photonic metamaterial numerically. The simulated metal helix provides a 4 μm broad band circular dichroism with a polarization suppression ratio of 20:1. The transmission efficiency of the metal helix drops significantly with increasing number of helix turns and angle of incidence. Contraire, the simulated silicon dielectric helix structure provides an extremely high polarization suppression ratio above 2,300:1 with almost 100% transmission over a wide range of incident angles. The results provided highlights the trade-offs between the transmission efficiency and the specular and angular bandwidth for designing practical thin-film circular polarizers.

Task 1. Read example abstracts carefully and analyze them with this table.

№	Aspect	Example 1	Example 2	Example 3
1.	Bibliographic information			
2.	The scope and purpose of work			
3.	Summary of the contents			
4.	Results and conclusions			
5.	Is it self-contained?			
6.	Is it concise?			
7.	What person is it written from?			
8.	Any experiments?			
9.	Any numbers?			
10.	Special phrases?			

Task 2. Write an abstract of one of the texts you have read.

Function 17. HOW TO make a presentation

Один известный человек сказал «Мозг начинает работать как только рождается человек, и не перестает работать пока вы не встаете и не начинаете выступать перед публикой». Это полностью справедливо для любого выступления, и тем более для выступления на иностранном языке, особенно, если вы не уверены в своих знаниях иностранного языка. Но опыт показывает,

что это вполне возможно – достойно выступить перед аудиторией с презентацией на иностранном языке! Конечно, если отнестись к этому серьезно и подготовиться. Вот некоторые советы опытных зарубежных ораторов.

- Talk rather than read.
- Stand up unless you're literally forced to sit, move around, rather than standing still, and use gestures.
- Speak loudly and clearly, facing the audience, vary the pitch of your voice.
- Make eye contact with the audience and try to read their reaction.
- Focus on main arguments, especially if you don't have much time.
- Use visual aids (slides, graphs, devices you are talking about, etc).
- Using PowerPoint, don't overuse special effects and don't include very complicated software.
- Finish your talk within the time limit (practice before the event).
- Summarize your talk at the beginning and again at the end - "Tell them what you're going to tell them; tell them; and tell them what you told them".
- Emulate excellent speakers (find their talks on the Internet or visit live talks).

И, конечно, советы, касающиеся иностранного языка:

- тщательно проверяйте произнесение слов (in the Internet dictionaries);
- попросите кого-либо, кто хорошо владеет языком (или вашего преподавателя) проверить вашу презентацию и ваши слова на грамматику;
- используйте **Presentation Phrases**, чтобы сделать ваше выступление системным, а вашу речь легкой для понимания.

<p>1.Greeting the audience</p> <p>Good morning (afternoon, evening) everyone. I'd like to welcome you all here this morning. Let me introduce myself. My name is ... and I am</p>	<p>2.Stating the purpose</p> <p>The purpose of my talk (...) is to ... In my presentation today (this morning...) I'll be talking about ... (reviewing...) I'm going to talk about ...</p>
<p>3.Outlining your presentation</p> <p>I'll start by ..., the we'll look at Finally, I'll give you ... and show you ... I'll first of all outline ..., then I'll discuss ..., and finally we'll look at I have divided my talk into ... parts: firstly, I'd like to ..., secondly, ... I'll begin with ... then we'll deal with After that we'll look at ... I'll be talking about three (four...) main areas: first of all I'll describe ..., then I'll go on talking about ... Finally I'll tell you about ...</p>	<p>4.Mentioning dealing with questions</p> <p>If you don't mind, I'll deal with questions at the end of my talk. Please, feel free to interrupt at any time if you'd like to ask a question.</p>
<p>5. The main content</p>	
<p>Getting started</p> <p>I'd like to begin by ... Let's begin. OK, let's get started.</p>	<p>Changing to another topic</p> <p>Now I'd like to to/let's/let me start with/ move on to/ turn to/ go back to/ digress/ expand on/ recap on ... So, we've looked at ... and now I'd like to</p>

	consider ... Having looked at ..., let's move on to ... This leads me to the next point which is (the question of) ... So... Now, let's ...
Referring to visuals	Summarizing / Concluding
I'd like you to take a look at this chart, which shows ... If you look at this graph, you'll see ... The figures in this table show ... As you can see from this pie chart ... Just have a look at this chart for a moment ... Let's take a closer look at this figures ...	To sum up then, let me ... To summarize the main points of my talk ... I'd like to run through my main points again ... I'd like to conclude by reminding you of something I said at the beginning of my talk ...
Finishing the talk/inviting questions	Answering questions
I'd like to thank you all for your attention ... Thank you all for listening ... Now, if there are any questions, I'll be pleased to answer them. Now I'm ready to answer your questions. If you have any questions, I'll do my best to answer them. If there are no more questions, thank you for your interest.	Sorry, could you say that again, please? If I've understood your question correctly, you would like me to ... I'm sorry. I didn't hear you. Would you mind repeating your question?

Function 18. HOW TO keep a discussion

- ❖ Ниже приведены общеупотребимые фразы для поддержания беседы или дискуссии. Они разделены по целям высказывания.

Asking for an opinion (просьба высказать мнение)	Giving an opinion (высказывание своего мнения)
What do you think (about it)? What's your opinion/point of view of ...? What would you say to...? Would you like to say something about it?	In my opinion, ... In my view, ... As far as I know, ... As far as I'm concerned, ... As for me, ... The way I see it, ...
Asking to explain (просьба объяснить)	Asking for clarification (просьба разъяснить)
Could you explain it, please? What do you mean? Why? Why not?	What do you mean by saying...? Could you be more specific, please? What are you trying to say?
Adding information (добавление информации)	Explaining and clarifying (объяснение и разъяснение)
In addition to that, ... Moreover, ... I'd like to add that ... Besides, ...	I mean that ... What I'm trying to say is that ... What I wanted to say is that ... In other words, ...

Agreeing (согласие)	Disagreeing (несогласие)
I agree completely/entirely. I couldn't agree more. You're right/That's right. Certainly/Definitely/Sure/Exactly. I suppose so. I think so.	That's not (exactly) true. I'm sorry, but it's not quite right. I'm afraid, I don't (can't) agree. I don't really agree with you on that. To tell you the truth, I have a different opinion.
Doubt (сомнение)	Asking to repeat (просьба повторить)
I'm not quite sure about it. Maybe, but I'm not sure. I have to think about it. I'm not sure that I agree with your argument.	I'm sorry, but could you repeat what you just said? I'm afraid I haven't heard what you said. Can/could you repeat that, please? Sorry? I beg your pardon?

❖ В данном контексте также важно вспомнить, что есть два типа вопросов – прямые и косвенные (**Direct and Indirect**).

*e.g.a) - When **did** you **start** your studies? (Direct question)*

*- Can you tell me when you **started** your studies? (Indirect question)*

*b) - **Has** she ever **seen** this film? (Direct question)*

*- Do you know **if** she **has** ever **seen** this film? (Indirect question)*

Порядок слов в прямом вопросе

Quest.words + aux 1 + subject + aux 2,3 + main verb ... ?

Порядок слов в косвенном вопросе

Can you tell me

Do you know + quest. word.(if) + subject + aux1,2,3 + main verb ...?

Have you any idea

...

Task 1. Make indirect questions from these direct ones.

1. Why did he open this window?
2. How long have they studied philosophy?
3. What sort of music does she listen to?
4. Is your friend tall?
5. Are they going to come tonight?
6. Where do your relatives live?
7. How far is this square?
8. How much is it to start business in your country?
9. How long are they going to stay with you?
10. Who can show him the way to the gym?

Task 2. Use phrases from the box and indirect questions to talk about the following topics:

- Life in 2100
- The role of computers in your life

- Immigrating to another country
- Working as a free lancer
- Using a bicycle instead of car
- Adopting children

Grammar Minimums

Grammar Minimum I *Present Simple and Present Continuous*

	<i>Present Simple</i> (do/does)	<i>Present Continuous</i> (be + Part. I)	<i>Perfect</i> (have + Part.II)
<i>Present</i>	He <u>draws</u> . He <u>doesn't draw</u> . <u>Does</u> he <u>draw</u> ?	He <u>is drawing</u> . He <u>isn't drawing</u> . <u>Is</u> he <u>drawing</u> ?	He <u>has drawn</u> . He <u>hasn't drawn</u> . <u>Has</u> he <u>drawn</u> ?
	- настоящее	- настоящее	- прошедшее - настоящее
<i>Past</i>	He <u>drew</u> . He <u>didn't draw</u> . <u>Did</u> he <u>draw</u> ?	He <u>was drawing</u> . He <u>wasn't drawing</u> . <u>Was</u> he <u>drawing</u> ?	He <u>had drawn</u> . He <u>hadn't drawn</u> . <u>Had</u> he <u>drawn</u> ?
	- прошедшее	- прошедшее	- прошедшее

Present Simple is usually used when we talk about *regular actions, facts and states*. Tense markers are – *usually, always, sometimes, every day, every year, regularly, first, then, etc.*

1. Classes **start** at 8.50 in our university. (*regular action*)
2. The Earth **goes** around the Sun. (*fact*)

Present Continuous is used when we talk about *temporary actions, which are in progress at the moment of speaking or at this period of time*. Tense markers are – *now, at the moment, this term, this week, Listen! Look!, etc.* Besides it's also used to talk about plans for the nearest future.

1. This term we **are studying** Programming. (*at this period of time*)
2. I'm **meeting** the doctor in the evening. (*plans for the nearest future*)

The verbs that are **never used in Continuous** are – *be, have, hear, know, like, love, see, smell, think, want, etc.*

Task1. Complete the sentences. Use Present Simple or Present Continuous.

1. Tomsk ... (have) 6 big universities.
2. Physical Education lesson ... (be) after Maths.
3. When I come home from university, I usually ... (not do) my homework, I relax.
4. My roommate ... (cook) this week and I ... (clean) the room.
5. What time (get up / you) in the mornings?
6. On Monday we ... (study) in the afternoon, but on Tuesday – in the morning.
7. I ... (work) hard now because I want to pass my exams successfully.
8. This month I ... (not go out) a lot, I need to write a course paper.

9. Can you see Mark? He ... (sleep) at the lecture!

10. When (arrive / the plane) ?

Task 2. Complete the sentences. Use Present Simple or Present Continuous.

1. James ... (live) in a little village.
2. He ... (be) in his last year at school.
3. After school, James ... (want) to become a banker.
4. So this week, he ... (do) a practical course in a bank.
5. There ... (be) a bank in a nearby town, but James ... (have) to take the bus to get there.
6. The bus ... (leave) at 5.30 in the morning and ... (return) at 8.15 in the evening.
7. ... (visit / you) Jane in hospital today?
8. James ... (not / like) to spend so much time in town before and after work, waiting for the bus.
9. Therefore, this week he ... (stay) with his aunt, who ... (live) in town.
10. Why ... (cry / she) now?
11. James usually ... (wear) jeans and t-shirts, but while he ... (work) for the bank now, he ... (wear) a suit and a tie.
12. ... (swim / they) in the pool at the moment?

Task 3. Complete the text. Use Present Simple or Present Continuous.

I ... (live) in London. This weekend, I ... (visit) my friends in Brighton. The train to Brighton ... (leave) London at 6.45 in the morning. In the early afternoon, we ... (want) to go on a sightseeing tour. In the evening, we ... (go) to a concert. The concert ... (start) at 8 o'clock. I ... (come) back to London on Sunday. My train ... (arrive) in London at 7.50 in the evening.

Grammar Minimum 2

Past Simple and Present Perfect

	<i>Simple</i> (do/does)	<i>Progressive</i> (be + Part. I)	<i>Present Perfect</i> (have + Part.II)	<i>Perfect Progressive</i> (have been + Part.I)
<i>Present</i>	He <u>draws</u> . He <u>doesn't draw</u> . <u>Does</u> he <u>draw</u> ? - настоящее	He <u>is drawing</u> . He <u>isn't drawing</u> . <u>Is</u> he <u>drawing</u> ? - настоящее	He <u>has drawn</u> . He <u>hasn't drawn</u> . <u>Has</u> he <u>drawn</u> ? - прошедшее - настоящее	He <u>has been drawing</u> . He <u>hasn't been drawing</u> . <u>Has</u> he <u>been drawing</u> ? - прошедшее - настоящее
<i>Past</i>	<u>Past Simple (did)</u> He <u>drew</u> . He <u>didn't draw</u> . <u>Did</u> he <u>draw</u> ? - прошедшее	He <u>was drawing</u> . He <u>wasn't drawing</u> . <u>Was</u> he <u>drawing</u> ? - прошедшее	He <u>had drawn</u> . He <u>hadn't drawn</u> . <u>Had</u> he <u>drawn</u> ? - прошедшее	He <u>had been drawing</u> . He <u>hadn't been drawing</u> . <u>Had</u> he <u>been drawing</u> ? - прошедшее

Past Simple is used when we talk about *actions happened in a definite moment in the past*. Tense markers are – *in 1998, in May, at 3 p.m., yesterday, three days ago, on Monday, etc.*

1. Last year my family **moved** to Moscow where my father **found** a well-paid job.
2. When we **came** home, we **were** so tired that we **went** straight to bed.

Present Perfect is also used to talk about the *past actions, but we are interested in their results and don't mention the definite moment of it*. Tense markers are – *never, ever, before, just, already, still, recently, etc.*

1. We **have never been** to England before.
2. They **have just had** lunch, so they are not hungry.

Task 1. Complete the sentences. Use Past Simple or Present Perfect.

1. I ... (just / finish) my homework.
2. Mary ... (already / write) five letters.
3. Tom ... (move) to this town in 1994.
4. My friend ... (be) in Canada two years ago.
5. I ... (not / be) to Canada so far.
6. But I ... (already / travel) to London a couple of times.
7. Last week, Mary and Paul ... (go) to the cinema.
8. I can't take any pictures because I ... (not / buy) a new film yet.
9. ... (they / spend) their holiday in New Zealand last summer?
10. ... (you / ever / see) a whale?

Task 2. Complete the dialogue. Use Past Simple or Present Perfect.

Mother: I want to prepare dinner. ... (you / wash) the dishes yet?

Daughter: I ... (wash) the dishes yesterday, but I ... (have / not) the time yet to do it today.

M: ... (you / do / already) your homework?

D: No, I ... (come / just) home from school.

M: You ... (come) home from school two hours ago!

D: Well, but my friend Lucy ... (call) when I ... (arrive) and I ... (finish / just) the phone call.

M: ... (you / see / not) Lucy at school in the morning?

D: Yes, but we ... (have / not) time to talk then.

Task 3. Complete the dialogue. Use Past Simple or Present Perfect.

A: ... (you / buy) the tickets for our journey yet?

B: Yes, I ... (go) to the station yesterday and ... (buy) the tickets.

A: What time ... (you / go) there?

B: I ... (take) a friend to the station in the morning. His train ... (leave) at 9:45.

A: ... (you / pack) your bags yet?

B: Of course. And I ... (ask / already) my neighbor to empty my letter box. What about you?

A: I ... (pack) my bags two days ago.

Task 4. Read the text and complete sentences with Past Simple or Present Perfect.

Edinburgh.

Edinburgh is the capital of Scotland. It has a beautiful old city centre and a castle that lies on a hill above the city. In the castle you can see the statues of two Scottish heroes: Robert Bruce and William Wallace (known from the film Braveheart). Several famous people were born in Edinburgh, for example Alexander Graham Bell (who invented the telephone), Tony Blair (Prime Minister) and Arthur Conan Doyle (who wrote the Sherlock Holmes stories). By the way, J. K. Rowling wrote her first Harry Potter book in an Edinburgh coffee-shop.

1. My friend ... (be) to Edinburgh three times.
2. Some years ago he ... (study) English there.
3. Last month he ... (visit) some friends in Edinburgh.
4. Unfortunately, I ... (can / not) go to Edinburgh with him.
5. This is a pity. They are my friends, too, and I ... (see / not) them for ages.

Grammar Minimum 3

Present Simple Passive and Past Simple Passive

	<i>Present Simple</i> (be + Part.II)	<i>Progressive</i> (be + being + Part.II)	<i>Perfect</i> (have + been + Part.II)
<i>Present</i>	It <u>is checked</u> . It <u>isn't checked</u> . <u>Is it checked?</u> - настоящее	It <u>is being checked</u> . It <u>isn't being checked</u> . <u>Is it being checked?</u> - настоящее	It <u>has been checked</u> . It <u>hasn't been checked</u> . <u>Has it been checked?</u> - прошедшее
<i>Past</i>	<i>Past Simple</i> (was/were + Part.II) It <u>was checked</u> . It <u>wasn't checked</u> . <u>Was it checked?</u> - прошедшее	It <u>was being checked</u> . It <u>wasn't being checked</u> . <u>Was it being checked?</u> - прошедшее	It <u>had been checked</u> . It <u>hadn't been checked</u> . <u>Had it been checked?</u> - прошедшее
<i>Future</i>	It <u>will be checked</u> . It <u>won't be checked</u> . <u>Will it be checked?</u> - будущее		

Passive Voice is used when the object of the action is more important than the subject. **Present Simple Passive** is used to talk about present facts; **Past Simple Passive** is used to talk about past actions.

Active Voice

1. G. Bell *invented* the telephone.
2. They *produce* ICs in this company.

Passive Voice

1. The telephone *was invented* by G. Bell.
2. ICs *are produced* in this company

Task 1. Rewrite the sentences in passive voice.

1. They open the building at 7 a.m. 2. She paid a lot of money for this work. 3. I drew a diagram on each page. 4. They wear sport shoes at PE classes. 5. Teachers don't help students at exams. 6. He didn't open the book. 7. My mother doesn't write emails. 8. Does your dad pick you up? 9. Did the police officer catch the thief? 10. Somebody hit him with a hammer.

Task 2. Complete the sentences (Active or Passive Voice). You must either use Simple Present or Simple Past.

The Statue of Liberty ... (give) to the United States by France. It ... (be) a present on the 100th anniversary of the United States. The Statue of Liberty ... (design) by Frederic Auguste Bartholdi. It ... (complete) in France in July 1884. In 350 pieces, the statue then ... (ship) to New York, where it ... (arrive) on 17 June 1885. The pieces ... (put) together and the opening ceremony ... (take) place on 28 October 1886. The Statue of Liberty ... (be) 46 m high (93 m including the base). The statue ... (represent) the goddess of liberty. She ... (hold) a torch in her right hand and a tablet in her left hand. On the tablet you ... (see / can) the date of the Declaration of Independence (July 4, 1776). Every year, the Statue of Liberty ... (visit) by many people from all over the world.

Task 3. Rewrite these Active sentences into Passive.

1. The author of this article chose 25 most significant chips.
2. E.I. used TMC0281 to build its interplanetary communicator.
3. TI sold its speech synthesis chip line to Sensory in 2001.
4. You can find Speak and Spell Units in excellent condition on eBay for just US\$50.
5. IBM chose the 16 bit CPU for its original PC line.
6. Rafi Retter and Dany Star altered the 8086 chip to an 8-bit bus.
7. They first used the 8088 in IBM Model 5150, a monochrome machine.

Grammar Minimum 4

Future Simple and "be going to"

Past	He <u>drew</u> . He <u>didn't draw</u> . <u>Did</u> he <u>draw</u> ? - прошедшее	He <u>was drawing</u> . He <u>wasn't drawing</u> . <u>Was</u> he <u>drawing</u> ? - прошедшее
Future Simple	He <u>will draw</u> . He <u>won't draw</u> . <u>Will</u> he <u>draw</u> ? - будущее	He <u>will be drawing</u> . He <u>won't be drawing</u> . <u>Will</u> he <u>be drawing</u> ? - будущее

Future Simple is usually used *to express opinions, predictions, promises, conditional 1 and decisions made at the moment of speaking*. The marker words here are: *I think, perhaps, in my opinion, possibly etc.*

1. *Perhaps we'll meet again someday. (prediction)*
2. *I think she will do well in her job. (opinion)*
3. *If it rains, we won't go to walk. (cond.I)*

"be going to" is used when we speak about *some definite plans for the future, intentions and decisions made before the moment of speaking*.

1. *They aren't going to launch this project next month. (plans for the future)*
2. *I'm going to the library. Will you come with me? (intention)*
3. *Where are you going to spend your holiday? (plans for the future)*

Task 1. Match the parts of the sentences.

- | | |
|--|---|
| 1. The weather forecast isn't very good | a) The plane will be full. |
| 2. There are lots of people at the check-in. | b) you won't be ready when they arrive. |
| 3. That's far too much. | c) you won't get it until Thursday. |
| 4. Hurry up or | d) It'll rain later. |
| 5. I asked him to do it but | e) They won't pay that price! |

Task 2. Write positive replies with "be going to".

1. Why are they wearing sport suits? - (they / play / squash)
2. Why do you need a map? - (we / walk / in the mountains)
3. Why are you running about with the toothbrush? - (I / brush / my teeth)
4. Why is daddy not coming with us? - (he / repair / the car)
5. Hurry up! - (they / light / the bonfire)
6. Why are all these tapes on the table? - (we / learn / Greek)
7. What do you need the pen for? - (I / write / some postcards)

Task 3. Complete the sentences. Use Future Simple or "be going to".

1. We (not / help) ... you.
2. If you work here, you (earn) ... a lot of money.
3. (take part / she) ... in the contest?
4. I (not / spend) ... my holiday abroad this year.
5. I'm sure, everything (be) ... perfect.
6. But all these things (happen / only) ... if you marry me.
7. I love London. I (probably / go) ... there next year.
8. Hurry up! The conference (begin) ... in 20 minutes.

Task 4. Write questions with Future Simple or "be going to".

1. (you / run / in the race) ... (going to)?
2. (who / drive / us / into town) ... (will)?
3. (the teacher / test / our English) ... (will)?
4. (she / exercise / at the gym / in the afternoon) ... (going to)?
5. (computer / crash) ... (going to)?

Task 5. Write about your plans for the following time frames:

- In five years' time;
- In 20 years' time;
- In 40 years' time;
- When you are retired.

Grammar minimum 5

Reported Speech

	He said ...
Present Simple	Past Simple
Past Simple	Past Perfect
Future Simple	Would + Infinitive
Present Continuous	Past Continuous
Past Continuous	Past Perfect Continuous
Future Continuous	Would + be + Pres. Participle
Present Perfect	Past Perfect
Past Perfect	Past Perfect
Future Perfect	Would + have + Past Participle
Can, may, must ...	Could, might, had to ...

Reported Speech is used to **report what other people say or said**.

1. If we use **"Dr. Morgan says ..."**, i.e. Present Simple Tense, then the verb in the reported sentence isn't changed and can have any form – Present Simple, Past Simple, Present Perfect, Future Continuous etc.

- 1) He **says**, "I **am dancing**." - He **says** (that) he **is dancing**.
- 2) He **says**, "I **was dancing**." - He **says** (that) he **was dancing**.
- 3) He **says**, "I **will be dancing**." - He **says** (that) he **will be dancing**.

2. If we use **"Dr. Morgan said ..."**, i.e. Past Simple tense, then the verb in the reported part should usually be changed to the past – Past Perfect, Past Continuous, Future in the Past etc.

- 1) He **said**, "I **am dancing**." - He **said** (that) he **was dancing**
- 2) He **said**, "I **was dancing**." - He **said** (that) **had been dancing**.
- 3) He **said**, "I **will be dancing**." - He **said** (that) he **would be dancing**.

3. When we report questions, we should also change the Word Order.

- 1) "Where **do you live**?" he asked. – He **asked** where **I lived**.
- 2) "**Have you ever been** to Spain?" – He asked. – He **asked** if I **had ever been** to Spain.

4. Besides all this, we should change pronouns and time references.

- 1) "I went to the cinema **yesterday**", she said. – She said **she** had been to the cinema **the day before**.
- 2) "**We** will probably go there **tomorrow**," she said. – She said **they** would probably go there **the next day**.

Task 1. Rewrite these sentences into Reported Speech

1. He says, "I'm living in the USA now."
2. "My sister is getting married next month," Tom said happily.

3. He said, "Joanna has had a baby."
4. "I saw Sue at the part in July and she seemed a bit nervous," she said.
5. The teacher said, "I haven't seen David for three weeks."
6. "I don't like my job very much," my father said quietly.
7. The man said, "My car was stolen a couple of days ago."
8. "I'll probably go to Helsinki next month," Mary said.

Task 2. Rewrite these sentences into Direct Speech.

1. A 50-year-old business man complained to me that he had never been so unhappy after the deal.
2. Sir Tim Berners-Lee said that the moves by governments to control or spy on the internet "kept him up most at night".
3. The inventor of the World Wide Web warned that the measures were dangerous and should be dropped.
4. Open data could now be considered a basic right of citizens, he added.
5. He said this was of particular importance for developing countries.

Task 3. Complete the questions in Reported Speech.

1. "Where is my umbrella?" she asked. - She asked ...
2. "How are you?" Martin asked us. - Martin asked us ...
3. "Where have you been?" the mother asked her daughter. - The mother asked her daughter ...
4. "Which dress do you like best?" she asked her boyfriend. - She asked her boyfriend ...
5. "Are you going to the cinema?" he asked me. - He wanted to know ...
6. "Did Caron talked to Kevin last night?" my friend asked me. - My friend asked me ...

Task 4. Report what Jonker said.

"Our discovery clears an important hurdle to the development of future semiconductor spintronics devices – that is, devices that rely on manipulating the electron's spin rather than just its charge for low-power, high-speed information processing beyond the traditional size scaling of Moore's law," Jonker says. "These results identify a new route to making low-resistance-area spin-polarized contacts, which are key for semiconductor spintronics devices that rely on two-terminal magneto resistance, including spin-based transistors, logic and memory."

Grammar minimum 6 **Conditional Sentences**

Type	Time	Situation	Structure
O <i>Conditional</i>	e.g. : If the water gets cold, it freezes.		
	present	facts, laws, regular events	If (when) + Present Simple, Present Simple

<i>I Conditional</i>	e.g. : If we <u>don't have</u> any lectures tomorrow, we <u>will go</u> to the river.		
	future	possible situation	If + Present Simple, will + Simple Infinitive
<i>II Conditional</i>	e.g. : If it <u>was</u> summer, we <u>wouldn't</u> study.		
	present, future	imaginary situation	If + Past Simple, would + Simple Infinitive
<i>III Conditional</i>	e.g. : If I <u>hadn't entered</u> this university, I <u>would have found</u> a job.		
	past	imaginary situation	If + Past Perfect, would + Perfect Infinitive

Task 1. Match the parts of sentences and name their type.

- | | |
|--|--|
| 1) If I don't study, | a) if he had read the book carefully. |
| 2) If it wasn't so late, | b) the teacher will give her a low mark. |
| 3) If you had watched the morning news, | c) we would play an online game. |
| 4) His brother would have found more mistakes, | d) I wouldn't correct it. |
| 5) Everybody takes umbrellas, | e) I won't pass the exams. |
| 6) If she forgets her homework, | f) you would have solved the puzzle. |
| 7) If he didn't print the document, | g) If it is raining. |

Task 2. Complete the sentences with the correct forms of the verbs. Sometimes more than one variant is possible.

- Lisa _____ (find) the book, if she _____ (look for) it in the correct section.
- The machine _____ (unlock), if you _____ (press) the right button.
- I _____ (call) the police, if I _____ (be) you.
- If you _____ (multiply) three by four, you _____ (get) twelve.
- If I _____ (not see) the dean today, I _____ (meet) him at the meeting.
- We _____ (visit) the museum, if the weather _____ (be) fine.
- If I _____ (be) younger, I _____ (learn) to skateboard too.
- We _____ (buy) a new microscope for our laboratory, if we _____ (win) that grant.

Task 3. Translate these sentences into English.

- Если бы ты не помог мне, я бы не написал эту статью сам.
- Если 72 разделить на 8, получается 9.
- Мы обязательно позвоним вам, если будут какие-то новости.
- Если ты договоришься с преподавателем, он примет у тебя зачет до экзаменов.
- Если вы не будете практиковать английский регулярно, вы его забудете.
- Если бы вы читали больше литературы на английском языке, у вас был бы более богатый словарный запас.
- Если бы я принял предложение поработать год в Кении, меня бы взяли потом работать в Европу.

Appendices

English Tenses: Active Voice

	Simple (do/does)	Progressive (be + Part. I)	Perfect (have + Part.II)	Perfect Progressive (have been + Part.I)
Present	He <u>draws.</u>	He <u>is drawing.</u>	He <u>has drawn.</u>	He <u>has been drawing.</u>
	He <u>doesn't draw.</u>	He <u>isn't drawing.</u>	He <u>hasn't drawn.</u>	He <u>hasn't been drawing.</u>
	<u>Does</u> he <u>draw?</u>	<u>Is</u> he <u>drawing?</u>	<u>Has</u> he <u>drawn?</u>	<u>Has</u> he <u>been drawing?</u>
	- настоящее несовершенное	- настоящее несовершенное	- прошедшее совершенное - настоящее несовершенное	- прошедшее несовершенное - настоящее совершенное
Past	He <u>drew.</u>	He <u>was drawing.</u>	He <u>had drawn.</u>	He <u>had been drawing.</u>
	He <u>didn't draw.</u>	He <u>wasn't drawing.</u>	He <u>hadn't drawn.</u>	He <u>hadn't been drawing.</u>
	<u>Did</u> he <u>draw?</u>	<u>Was</u> he <u>drawing?</u>	<u>Had</u> he <u>drawn?</u>	<u>Had</u> he <u>been drawing?</u>
	- прошедшее несов/совер.	- прошедшее несовершенное	- прошедшее совершенное	- прошедшее несовершенное
Future	He <u>will draw.</u>	He <u>will be drawing.</u>	He <u>will have drawn.</u>	He <u>will have been drawing.</u>
	He <u>won't draw.</u>	He <u>won't be drawing.</u>	He <u>won't have drawn.</u>	He <u>won't have been drawing.</u>
	<u>Will</u> he <u>draw?</u>	<u>Will</u> he <u>be drawing?</u>	<u>Will</u> he <u>have drawn?</u>	<u>Will</u> he <u>have been drawing?</u>
	- будущее несовершенное	- будущее несовершенное	- будущее совершенное	- будущее несовершенное

English Tenses: Passive Voice

	Simple (be + Part.II)	Progressive (be + being + Part.II)	Perfect (have + been + Part.II)
Present	It <u>is checked.</u>	It <u>is being checked.</u>	It <u>has been checked.</u>
	It <u>isn't checked.</u>	It <u>isn't being checked.</u>	It <u>hasn't been checked.</u>
	<u>Is it checked?</u>	<u>Is it being checked?</u>	<u>Has it been checked?</u>
	- настоящее несовершенное	- настоящее несовершенное	- прошедшее совершенное
Past	It <u>was checked.</u>	It <u>was being checked.</u>	It <u>had been checked.</u>
	It <u>wasn't checked.</u>	It <u>wasn't being checked.</u>	It <u>hadn't been checked.</u>
	<u>Was it checked?</u>	<u>Was it being checked?</u>	<u>Had it been checked?</u>
	- прошедшее совершенное	- прошедшее несовершенное	- прошедшее совершенное
Future	It <u>will be checked.</u>		
	It <u>won't be checked.</u>		
	<u>Will it be checked?</u>		
	- будущее совершенное		

The list of Irregular Verbs

VERB	Participle I (Past Simple)	Participle II	ПЕРЕВОД
be [bi:]	was [wɒz], were [wɜ:]	been [bi:n]	Быть находиться
beat [bi:t]	beat [bi:t]	beaten ['bi:tn]	Бить
become [bi:kʌm]	became [bi:keim]	become [bi:kʌm]	Становиться
begin [bi'gin]	began [bi'gæn]	begun [bi'gʌn]	Начинать
bleed [bli:d]	bled [bled]	bled [bled]	Кровоточить
blow [blou]	blew [blu:]	blown [bloun]	Дуть, взрывать
break [breik]	broke [brɔ:k]	broken ['brɔ:k(e)n]	Ломать, ломаться
bring [brɪŋ]	brought [brɔ:t]	brought [brɔ:t]	Приносить
build [bild]	built [bilt]	built [bilt]	Строить
burn [bɜ:n]	burnt [bɜ:nt]	burnt [bɜ:nt]	Гореть
burst [bɜ:st]	burst [bɜ:st]	burst [bɜ:st]	Разразиться
buy [bai]	bought [bɔ:t]	bought [bɔ:t]	Покупать
catch [kæʃ]	caught [kɔ:t]	caught [kɔ:t]	Ловить, хватать, успеть
choose [tʃu:z]	chose [tʃəuz]	chosen [tʃəuz(ə)n]	Выбирать
come [kʌm]	came [keim]	come [kʌm]	Приходить
cost [kɒst]	cost [kɒst]	cost [kɒst]	Стоить
creep [kri:p]	crept [krept]	crept [krept]	Ползать
cut [kʌt]	cut [kʌt]	cut [kʌt]	Резать
do [du:]	did [did]	done [dʌn]	Делать
draw [drɔ:]	drew [dru:]	drawn [drɔ:n]	Рисовать, тащить
dream [dri:m]	dreamt [dremt]	dreamt [dremt]	Мечтать, дремать
drink [drɪŋk]	drank [dræŋk]	drunk [drʌŋk]	Пить
drive [draɪv]	drove [drouv]	driven ['drɪvn]	Водить
eat [i:t]	ate [et]	eaten ['i:tn]	Есть
fall [fɔ:l]	fell [fel]	fallen ['fɔ:lən]	Падать
feed [fi:d]	fed [fed]	fed [fed]	Кормить, подавать
feel [fi:l]	felt [felt]	felt [felt]	Чувствовать
fight [fait]	fought [fɔ:t]	fought [fɔ:t]	Бороться
find [faɪnd]	found [faʊnd]	found [faʊnd]	Находить
fit [fit]	fit [fit]	fit [fit]	Подходить по размеру
fly [flai]	flew [flu:]	flown [floun]	Летать
forget [fə'get]	forgot [fə'gɒt]	forgotten [fə'gɒt(ə)n]	Забывать
forgive [fo'gɪv]	forgave [fo'geɪv]	forgiven [fo'gɪvn]	Прощать
freeze [fri:z]	froze [frouz]	frozen ['frouzn]	Замерзать
get [get]	got [gɒt]	got [gɒt]	Получать

give [gɪv]	gave [geɪv]	given [gɪvŋ]	Давать
go [ɡəʊ]	went [went]	gone [ɡɒn]	Идти
grow [ɡrəʊ]	grew [gru:]	grown [ɡrəʊn]	Расти
hang [hæŋ]	hung [hʌŋ]	hung [hʌŋ]	Вешать
have [hæv]	had [hæd]	had [hæd]	Иметь
hear [hiə]	heard [hɜ:d]	heard [hɜ:d]	Слышать
hide [haɪd]	hid [hɪd]	hidden ['hɪdn]	Прятать
hit [hɪt]	hit [hɪt]	hit [hɪt]	Ударять
hold [həʊld]	held [held]	held [held]	Держать, проводить
hurt [hɜ:t]	hurt [hɜ:t]	hurt [hɜ:t]	Ушибить, ранить
keep [ki:p]	kept [kept]	kept [kept]	Содержать, держать
kneel [ni:l]	knelt [nelt]	knelt [nelt]	Стоять на коленях
know [nəʊ]	knew [nju:]	known [nəʊn]	Знать
lay [lei]	laid [leɪd]	laid [leɪd]	Класть
lead [li:d]	led [led]	led [led]	Вести
lean [li:n]	leant [lent]	leant [lent]	Наклоняться
learn [lɜ:n]	learnt [lɜ:nt]	learnt [lɜ:nt]	Учить, изучать
leave [li:v]	left [left]	left [left]	Оставлять
lend [lend]	lent [lent]	lent [lent]	Занимать
let [let]	let [let]	let [let]	Позволять
lie [lai]	lay [lei]	lain [leɪn]	Лежать
light [laɪt]	lit [lɪt]	lit [lɪt]	Освещать
lose [lu:z]	lost [lɒst]	lost [lɒst]	Терять, проигрывать
make [meɪk]	made [meɪd]	made [meɪd]	Производить, делать
mean [mi:n]	meant [ment]	meant [ment]	Значить, означать
meet [mi:t]	met [met]	met [met]	Встречать, удовлетворять (требованиям)
mistake [mis'teɪk]	mistook [mis'tuk]	mistaken [mis'teɪk(e)n]	Ошибаться
pay [peɪ]	paid [peɪd]	paid [peɪd]	Платить
prove [pru:v]	proved [pru:vd]	proven [pru:vŋ]	Доказывать
put [put]	put [put]	put [put]	Положить
quit [kwɪt]	quit [kwɪt]	quit [kwɪt]	Выходить
read [ri:d]	read [red]	read [red]	Читать
ride [raɪd]	rode [rəʊd]	ridden ['rɪdn]	Ездить верхом
ring [rɪŋ]	rang [ræŋ]	rung [rʌŋ]	Звенеть
rise [raɪz]	rose [rəʊz]	risen ['rɪzn]	Подниматься, расти
run [rʌŋ]	ran [ræŋ]	run [rʌŋ]	Бежать, проводить
say [sei]	said [sed]	said [sed]	Говорить
see [si:]	saw [sɔ:]	seen [si:n]	Видеть
seek [si:k]	sought [sɔ:t]	sought [sɔ:t]	Искать
sell [sel]	sold [səʊld]	sold [səʊld]	Продавать
send [send]	sent [sent]	sent [sent]	Посылать
set [set]	set [set]	set [set]	Ставить, устанавливать

sew [sou]	sewed [soud]	sewn [soun]	Шить
shake [ʃeɪk]	shook [ʃuk]	shaken [ˈʃeɪk(ə)n]	Встряхивать, трясти
show [ʃəʊ]	showed [ʃəʊd]	shown [ʃəʊn]	Показывать
shrink [ʃrɪŋk]	shrank [ʃræŋk]	shrunk [ʃrʌŋk]	Уменьшать
shut [ʃʌt]	shut [ʃʌt]	shut [ʃʌt]	Закрывать
sing [sɪŋ]	sang [sæŋ]	sung [sʌŋ]	Петь
sink [sɪŋk]	sank [sæŋk], sunk [sʌŋk]	sunk [sʌŋk]	Тонуть
sit [sɪt]	sat [sæt]	sat [sæt]	Сидеть
sleep [sli:p]	slept [slept]	slept [slept]	Спать
slide [slaid]	slid [slɪd]	slid [slɪd]	Скользить
sow [sou]	sowed [soud]	sown [soun]	Сеять
speak [spi:k]	spoke [spouk]	spoken [ˈspouk(e)n]	Говорить
spell [spel]	spelt [spelt]	spelt [spelt]	Произносить по буквам
spend [spend]	spent [spent]	spent [spent]	Тратить, проводить (время)
spill [spɪl]	spilt [spɪlt]	spilt [spɪlt]	Проливать
spoil [spɔɪl]	spoilt [spɔɪlt]	spoilt [spɔɪlt]	Портить
spread [spred]	spread [spred]	spread [spred]	Расстилать, распределять (по поверхности)
spring [sprɪŋ]	sprang [spræŋ]	sprung [sprʌŋ]	Прыгать
stand [stænd]	stood [stu:d]	stood [stu:d]	Стоять
steal [sti:l]	stole [stouɪ]	stolen [ˈstəʊlən]	Красть
stick [stɪk]	stuck [stʌk]	stuck [stʌk]	Колоть, клеить
sting [stɪŋ]	stung [stʌŋ]	stung [stʌŋ]	Жалить
sweep [swi:p]	swept [swept]	swept [swept]	Выметать
swell [swel]	swelled [sweld]	swollen [ˈswɒl(e)n]	Разбухать
swim [swɪm]	swam [swem]	swum [swʌm]	Плывать
swing [swɪŋ]	swung [swʌŋ]	swung [swʌŋ]	Качать
take [teɪk]	took [tuk]	taken [ˈteɪk(ə)n]	Брать, взять, занимать (по времени)
teach [ti:t]	taught [tɔ:t]	taught [tɔ:t]	Учить, обучать
tear [tɛə]	tore [tɔ:]	torn [tɔ:n]	Рвать
tell [tel]	told [tould]	told [tould]	Рассказывать
think [θɪŋk]	thought [θɔ:t]	thought [θɔ:t]	Думать
throw [θrəʊ]	threw [θru:]	thrown [θrəʊn]	Бросать
understand [ʌndə'stænd]	understood [ʌndə'stʊd]	understood [ʌndə'stʊd]	Понимать
wake [weɪk]	woke [wouk]	woken [ˈwouk(e)n]	Просыпаться
wear [weə]	wore [wɔ:]	worn [wɔ:n]	Носить
weep [wi:p]	wept [wept]	wept [wept]	Плакать

wet [wet]	wet [wet]	wet [wet]	Мочить
win [win]	won [wɒn]	won [wɒn]	Выигрывать
wind [waɪnd]	wound [waʊnd]	wound [waʊnd]	Извиваться, наматывать
write [raɪt]	wrote [rəʊt]	written ['rɪtɪn]	Писать

		monophthongs			diphthongs		Phonemic Chart voiced unvoiced		
VOWELS		i:	ɪ	ʊ	u:	eɪ			
		sheep	ship	good	shoot	here	wait		
		e	ə	ɜ:	ɔ:	ʊə	ɔɪ		
		bed	teacher	bird	door	tourist	boy	əʊ show	
æ	ʌ	ɑ:	ɒ	eə	aɪ	au			
cat	up	far	on	hair	my	cow			
CONSONANTS		p	b	t	d	tʃ	k	g	
		pea	boat	tea	dog	cheese	car	go	
		f	v	θ	ð	s	z	ʃ	ʒ
		fly	video	think	this	see	zoo	shall	television
		m	n	ŋ	h	l	r	w	j
		man	now	sing	hat	love	red	wet	ves