

Упражнение 1. Переведите на английский язык

1. Высшее образование играет важную роль в жизни любой страны.
2. Оно готовит профессиональных работников.
3. В развитых странах жизненные стандарты (условия жизни) постоянно меняются.
4. Методы преподавания должны постоянно обновляться (доводиться до современных требований) и улучшаться в нашем быстро меняющемся мире.
5. Увеличение информации тоже надо принимать во внимание.
6. Система дистанционного (заочного) обучения помогает работающим профессиональным специалистам продолжить обучение без отрыва от производства.
7. Первокурсники и второкурсники получают глубокие знания (обучение) по фундаментальным наукам.
8. На третьем курсе студенты слушают курсы лекций по своим основным специальным предметам.
9. Образование – это процесс, благодаря которому сохраняется культура, развиваются знания и навыки, формируются ценности, происходит обмен информацией.

Упражнение 2. Составьте предложения.

1. provides, education, with, specialists, the, higher, country, highly – qualified.
2. system, introduced, system, education, education, is, a, of, new, in, country, this, a, distance, present, at.
3. system, this, learning, has, computer, of courses, from, to, through, video, modern, satellite, videoconferencing, computers, personal.
4. of, have, to, brought, styles, up, be, continuously, teaching, date, to

5. obtain, the, students, thorough, first, second, and, instructions, year, sciences, the, in, fundamental, history, languages, and, foreign, economics, drawing, engineering, computer
6. to, the, is, way, education, success
7. students, year, at, the, third, in, many, major, take, courses, subject, their
8. receive, grants, students, state
9. get, will, a, after, students, degree, bachelor's, years, after
10. they, degree, get, master's, a, in, or, of, study, year, further, two, research and

Text 1B

“Cambridge”

Упражнение 1. Переведите на английский язык

1. Кембридж – один из двух главных университетов Англии.
2. Он расположен на реке Кэм.
3. Он был основан в 12 веке.
4. Университет состоит из 24 колледжей.
5. Глава университета – канцлер, который избирается пожизненно.
6. Кембридж славится своей системой обучения.
7. Каждый студент имеет своего наставника, который руководит им в течение всего курса обучения.
8. Курс обучения длится 4 года.
9. Учебный год делится на 3 семестра.
10. После трех лет обучения студент может получить степень бакалавра, а потом магистра или доктора.
11. Студенты должны носить мантии.
12. Студенты должны платить за обучение, экзамены, книги, лаборатории, университетское общежитие, за пользование библиотекой.
13. Стоимость обучения зависит от колледжа и специальности.
14. Очень мало студентов получают стипендию.

Упражнение 2. Составьте предложения.

1. the, at, is, Cambridge, River, Cam, located, England, in
2. self – governing, college, each, is
3. founded, was, it, in, century, 12th, the
4. is, the, the, of, the, head, chancellor, University
5. of, the, for, including, University, 24, women, colleges, colleges
6. for, is, life, elected, he
7. at, a, of, great, number, scientists, and, Cambridge, writers, scholars, studied
8. for, is, all, Cambridge, system, famous, tutorial, its, world, over, the
9. “tutors”, “don’t”, the, are, teachers, called,
10. years, 4, lasts, the, course, training
11. is, the, year, divided, academic, terms, 3, into
12. guide, tutors, through, the, of, course, studies, students, whole
13. proceed, after, a, of, 3, study, years, a, to, may, student, degree, Bachelor’s, Doctor, master, and, and, the, to, of, later, degrees.

Text

My University

Упражнение 1. Переведите на английский язык

1. В Москве много различных университетов.
2. Обычно в университете несколько факультетов.
3. На каждом факультете есть несколько отделений.
4. Глава университета – ректор.
5. Глава факультета – декан.
6. Учебный курс длится 5-6 лет.
7. Учебный год начинается первого сентября. Он делится на два семестра.
8. Студенты сдают экзамены в конце каждого семестра.
9. Два раза в год у студентов бывают каникулы.
10. Студенты получают стипендию.
11. Каждый факультет имеет свою собственную библиотеку, лаборатории, мастерские, компьютерный центр.
12. Первокурсники и второкурсники изучают общетехнические предметы.

13. Третьекурсники изучают предметы по специальности.

14. На старших курсах студенты работают на различных заводах, в исследовательских институтах, конструкторских бюро нашей страны.

Упражнение 2. Составьте предложения.

1. lasts, years, of, the, studies, course, 5-6
2. of, a, the, is, head, Rector, university
3. in, there, a, several, university, faculties
4. year, the, on, academic, of, the, September, begins, 1-st
5. departments, each, of, a, number, has, is, and, by, dean, headed
6. is, it, into, terms, divided, two
7. grants, can, students, get
8. exams, at, of, the, each, take, students, end, term
9. buildings, has, university, my, several,
10. students, in, in, and, a, two, two, winter, summer, twice, have, year, months, weeks, vacation
11. subjects, the, general, general, first -, second -, study, and, students, engineering
12. library, laboratories, own, specialized, workshops, every, has, centers, computer, its, faculty
13. work, at, the, well-equipped, students, university's, laboratories, offices, various, design, plants, institutes, year

Text 2A

“Environment Protection Must Be Global”

Упражнение 1. Переведите на английский язык

1. Чем больше развивается цивилизация, тем серьезнее становятся экологические проблемы.
2. Чем больше река пересекает стран, тем более она становится загрязненной.
3. Чем больше город, тем сильнее он страдает от загрязнения воздуха.
4. Чем более значительные вложения сделают люди, тем быстрее они решат проблему загрязнения.
5. Чем быстрее люди проявят добрую волю, тем быстрее они устранят загрязнение окружающей среды.
6. Постоянный рост населения медленно, но верно изменяет мировой климат.
7. Именно совместные усилия многих государств могут помочь справиться с проблемой загрязнения.
8. Именно спланированная защита от загрязнения крайне необходима сейчас
9. Именно международная программа по изучению данных о земных, лесных, океанических и атмосферных ресурсах, как возобновляемых, так и не возобновляемых, необходима сейчас.
10. Существенной особенностью в деле защиты окружающей среды является то, что многие проблемы могут быть решены только на уровне международного сообщества.
11. Существенной особенностью загрязнения окружающей среды является то, что в наше время оно достигает огромных размеров.
12. Существенной особенностью загрязнения окружающей среды является то, что общественные и политические обстоятельства могут стоять на пути прогресса в этой области.

Упражнение 2. Составьте предложения.

1. Becoming, the, is, are, the, the, civilization problems, more, developing, problems, ecological, greater.
2. air, pollution, industry, proportion, tremendous, and, water, now, reaching, industry, by, is.

3. it, it, if, is, to, and, that, for, use, purpose, possible, people, will, eliminate, good, investments, make, considerable
4. circumstances, way, field, progress, this, in, of, in, the, and, social, may, political, further, stand
5. population, industrialization, growth, increasing, of, resources, and, use, of, the, the, and, changing, are, global, balance, water, climate
6. efforts, scientists, organizations, is, it, the, of, and, that, joint, many, can, the, the, to, with, deal, take, measures, environment, protect, necessary, problem, public, special

Text 2D

“London, its History and Development”

Упражнение 1. Переведите на английский язык

1. Район вокруг Лондона населяли кельты.
2. Лондон стал столицей Англии при короле Генрихе I.
3. При королеве Елизавете процветали искусство, культура и литература, особенно в Лондоне.
4. При королеве Виктории Лондон достиг высочайшего экономического развития.
5. Одна из причин больших размеров Лондона – это то, что лондонцы любят жить в маленьких домах с садом.
6. Одна из причин экономического развития Англии при королеве Виктории – это индустриализация и расширение международной торговли.
7. Одна из причин посещения Британского музея – это то, что это один из наиболее обширных и ценных музеев Европы.
8. Одна из причин посетить Трафальгарскую площадь – это колона Нельсона.
9. В первую и вторую Мировую войну Лондон был значительно разрушен.
10. Вестминстерское аббатство было построено в 18 веке.
11. Короли и королевы похоронены там.

12. Многие великие государственные деятели, писатели и поэты тоже похоронены там.
13. Парламент был основан в 13 веке.
14. Парламент состоит из двух палат: палата Лордов и палата Общин.
15. Город занимает территорию в 620 кв. метров.
16. Трафальгарская площадь была названа в честь победы Нельсона в Трафальгарской битве.

Упражнение 2. Составьте предложения.

1. inhabited, by, the, was, Celts, area, London, around.
2. London, considerably, in, the, and, was, First, Wars, Second, World, ruined.
3. suffered, Vikings, London, from, and, Danes.
4. became, of, in, the, century, London. capital, the, England, 12th
5. there, later, the, a, camp, military, founded, Romans.
6. live, people, million, London, in, 9.
7. the, of, the, the, Parliament, Family, London, Royal, is, seat.
8. stand, the, the, on, of, the, of Parliament, Houses, Thames, Abbey, at Westminster.
9. in, was, a, built, the, century, Abbey, Westminster, 8th
10. chambers, it, 2, consists, of, of, of, the, the, House, House, Commons, Lords.
11. there, queens, and, of, buried, the England, kings, are.
12. England, the, is, the, of, 10, number, residence, Street, Downing, minister, Prime,
of
13. Trafalgar, Trafalgar, Nelson's, Square, a, in, its, with, monument, center, named,
victory, battle, was, so, in, of, the, to, so, commemorate
14. mention, must, one, Museum, the, British, opera, two, the, large, theatre, and,
theatres, other, houses, National, 50

Упражнение 1. Переведите на английский язык

1. Дома целый спектр (ряд) различных электроприборов экономящих время и труд стал частью нашей повседневной жизни.
2. Электричество стало широко использоваться в конце 19 века.

3. Электричество заменило другие источники света.
4. Невозможно представить нашу цивилизацию без электричества.
5. Невозможно представить нашу цивилизацию без генератора, трансформатора и динамо-машины.
6. С начала 20 века потребление электричества удваивается каждые 10 лет.
7. Одно из самых больших преимуществ электричества – это то, что оно чистое, легко регулируемое и не создает побочных продуктов.
8. Невозможно представить нашу жизнь без домашних бытовых приборов.
9. Одно из самых больших преимуществ домашних бытовых приборов – это то, что они экономят наше время и труд.

Упражнение 2. Составьте предложения.

1. are, there, such, of, as, lighting, thousands, applications, of, electricity, electrochemistry, electrometallurgy
2. workshops, the, was, generator, in, silver, the, in, developed, Paris.
3. our, without, is, to, it, electricity, imagine, civilization, impossible.
4. motor, with, the, electrical, appearance, appliances, everyday, lives, have, a, of, our, part, labour, become, of, whole, time, various, range, and, saving, a, of.
5. energy, electricity, replaced, has, other, of, sources.
6. by, Thomas, electric, came, with, wide, of, the, the, lamp, Edison, electric, into, lighting, use.
7. a, of, and, of, the, of, is, of, an, health, development, nation, economic, consumption, state, electricity, indicator, per capita.
8. up, were, set, lines, and, the, first, electric, networks.

Упражнение 1. Переведите на английский язык

1. Мы узнали, что в каждом доме в развитых странах есть один или более телевизор.
2. Нам сказали, что сотни людей на Международной ярмарке в Нью-Йорке были первыми, кто увидел телевизор в действии.

3. Нас спросили, как быстро распространилась новость о телевидении по всему миру.
4. Я хотела знать, почему фабрики электроники прекратили выпуск телевизоров, когда началась война.
5. Я уверена, что границы времени и пространства исчезли благодаря телевидению.
6. Ученые всегда были уверены, что телевидение имеет огромное влияние на жизнь людей и их образ мыслей.
7. Вы знали, что люди, живущие в различных часовых поясах, могут смотреть телевизионные программы в наиболее удобные часы.
8. Сообщили, что кабельное телевидение впервые появилось в 1949 году как средство передачи телевизионных сигналов в сельских и горных областях.
9. Недавно сообщили, что первый карманный цветной телевизор с жидкокристаллическим дисплеем был разработан.
10. Я спросил, в чем отличие цифрового телевидения от обычного цветного телевизора.
11. Заявили, что разработки в области производства плазменных панелей сделали телевидение высокой четкости коммерчески выгодным.

Упражнение 2. Составьте предложения.

1. Set, popular, the, is, television, most, the, product, electronic, world, the, in.
2. Was, a, tiny, it, box, inch, nine-by-twelve.
3. Countries, all, in, homes, developed, sets, more, one, have, or, TV.
4. II, war, when, world, making, out, stopped, broke, factories, sets, TV.
5. Were, by, of, millions, of, there, them, but, 1958.
6. Before, II, only, war, world, people, owned, few, sets, television.
7. transmitted, were, the, from, pictures, side, the, of, one, Fair, the, to, territory, other.

8. In, to, a, see, 1939, hundreds, were, television, in, set, the, action, people, of, first, to, at, World's, the, New-York, in, Fair.
9. In, cable, 1949, appeared, television.
10. Panel, plasma, makes, HDTV, technology, practicable, commercially.
11. Switch, can, on, it, automatically, or, video-record, programs.
12. Wall, hangs, a, on, digital, TV, set, the.
13. Next, advance, major, television, is, digital, TV, for.
14. TV, uses, cable, for, wires, for, of, programs, television, the, transmission.
15. Has, on influence, people's, television, great, life.
16. Color, replaced, television, rapidly, black-and-white, television, then.
17. Is, TV, at, communication, present, provided, earth, system, of, with, help, a, the, of, artificial, satellites.
18. It, minicomputer, is, a.
19. By, 1980-s, the, has, end, of, television, high-definition, appeared.
20. It's, put, you, programs, a, week, memory, once.
21. Is, several, the, times, sharper, picture.

Text

TELEVISION

JOHN LOGIE BAIRD (1888-1946)



The television is another great invention to come out of Scotland. To all of us who enjoy relaxing in front of the television, we have a Scotsman to thank. John Logie Baird from Helensburgh (near Glasgow) invented this phenomenally successful communication device, with the first ever television broadcast being transmitted by the BBC

in 1929. But the first success took place on 25th October 1925. The first person on television was a boy who worked in the office next to Baird's workroom in London. On 27th January 1926 he demonstrated his invention before an audience of scientists at the Royal Institution in London. In addition, using infrared¹² light, he was able to transmit pictures of people sitting in total darkness. He named it "Noctavision". He moved his experiments to more spacious rooms in Motograph House, near Leicester Square and with two friends he formed "Television Ltd". In 1927 Baird sent pictures from London to Glasgow. In 1928 using a disc with three spirals of holes, each covered with a red, blue, or green filter, he demonstrated colour television in Glasgow. He was also experimenting with, and demonstrating, stereoscopic¹³ television. In the same year, using a short-wave transmitter, he sent a television picture to the USA and to a ship, the "Berengaria" in mid-Atlantic. He

launched "Baird International Television" with a capital of 1 million pounds to exploit television commercially.

Following a number of tests in 1928 the B.B.C. carried out its first experimental transmission in 1928. It was seen by about 30 people in the U.K. who had bought receivers from Baird International. At this time it was difficult to get vision and sound in phase, but this was achieved in 1930 when Grade Fields, the film actress and singer, took part in the first synchronized transmission.

John Logie Baird was determined to achieve a fully electronic colour television receiver. And he did. Using a two colour (blue-green, orange-red) cathode ray system he demonstrated, on 16th August 1944, the television picture of his favourite tailor's dummy¹⁴, dressed in a pink jacket and blue trousers, to a group of journalists in his workshop in London.

Baird died in his sleep, aged 58, on 14th June 1946. He was buried in the little churchyard at Helensburgh, the place of his birth.

Примечания

* transmission [traenz'mifn] *n* - producing a signal by electronic means such as radio waves that can be heard by people elsewhere; a radio or television broadcast;

² stone-deaf *adj* - completely deaf;

³ reverse [n'v3:s] *v* - to make sth the opposite of what it was; to change sth completely; to exchange two positions;

⁴ diaphragm ['daiofrsem] *n* - any thin sheet of material used to separate the parts of a machine;

⁵ coil [kori] *n* - a length of covered wire wound in continuous circles, through which an electric current can pass;

⁶ induce [m'dju:s] *v* - to persuade or influence sb to do sth; to cause sth;

- ⁷ convert [k9n'v3:t] *v* - to change from one form or use to another;
- ⁸ convey [kon'vel] *v* - to take, carry or transmit sb/sth; to transmit sth;
- ⁹ tinker *v* - to try to repair or improve casual way, often to no useful effect;
- ¹⁰ bound [baund] *v* - to run with jumping movements in a specified direction;
- ¹¹ steeple ['sti:pl] *n* - a tall tower with a top, rising above the roof of a church;
- ¹² infrared [ˌɪnfro'red] *adj* - (of electron radiation) having a wavelength just greater than that of the red end of the visible light spectrum but less than that of microwaves;
- ¹³ stereoscopic [ˌstena'skɒpɪk] *adj* - seen three-dimensional picture; capable of seeing this way;
- ¹⁴ dummy ['dʌɪm] *n* - a model of the human figure, used esp. for displaying or fitting clothes;

The positive outlook

- | | |
|--|--|
| <p>1) to utilize <u>laugh tracks</u>;
the alien – fascination motifs</p> <p>2) to pander to the majority
film acting networks –
телевизионные сети
a soap = a soap opera</p> | <p>a sit – com (situation comedy?)
a feature film – художественный
фильм</p> <p>3) to be back in vogue</p> <p>4) to appeal to the Young Urban
Professional's interest in smth.</p> |
|--|--|

the family – oriented viewer

5) to poke fun at smth.

6) to get heavy – handed

7) to bridge the gap between

8) (smth.) to thrive with smb.

9) to target rural audience

10) to develop a cast of characters

11) the primeval hock of the episodes

12) to spice plots with smth.

13) to make guest appearances

14) a catchall for the banalities

15) to delve into behind – the scenes gossip about

celebrated and wealthy, the ultra rich and powerful

16) to eclipse smth. with higher rating

17) a habitu 

18) to exchange “in” jokes

19) to challenge the viewer to think about

20) to be inured to smth.

21) to vie for the share of the audience

22) (cable – cable television) (to reserve television transmission to distribute programming by satellite) (pay cable networks) to subscribe to

to be wired, to wire a city, town

24) to fork out

25) to specialize programming in areas such as:

movies, sports, cultural entertainment, children’s shows

The Attribute

Words in this function modify nouns and sometimes pronouns giving them some kind of characteristic.

Attributes answer the questions:

what }
 what kind of } какой
 which – какой, который
 whose – чей
 how much }

how many СКОЛЬКО

Attributes may be expressed by:

- a numeral,
- cardinal,
- I borrowed,
- two pounds,
- an adjective,
- a new invention ordinal the 1939 World Fair,
- a pronoun,
- air professor's lectures
- a noun/in the genitive or common case/or a noun with a preposition, the building of this institute
- an infinitive,
- an article to translate
- a Gerund,
- a plan of driving, a reading room
- a participle,
- people living indifferent time zones
- a factory Burg in Siberia
- an adverb,
- the then headmaster introduced the rule.

Attributes may precede or follow after the word they modify:

- the first television set,
- books available in the library.

Conjunctive Pronouns:

The pronouns – who (whom), what, which, how much and many, that – serve to connect subordinate clauses with the principal clause.

ex. The man who(m) I spoke to is my neighbor.

The preposition is generally placed at the end of the clause.

Conjunctive pronouns may be used to introduce different kinds of clauses, except adverbial clauses.

ex. What was done cannot be undone (subject clause)

The main purpose of education is that graduates must be able to work with the technology of tomorrow (predicative clause)

I don't know whose handwriting it is (object clause)

Who (whom), whose, which and that may introduce attributive clauses.

These pronouns are also called relative pronouns, because they always refer to some noun in the principal clause (antecedent whom) is used only of persons.

The cosmonauts about whom we heard so much came to our town.

ex. He was a man who meant what he said. He Bell found an assistant who was a specialist in electrical engineering.

whose – is used only of both persons and things.

ex. Newton whose great work is called “Principia” is a great English scientist.

“Principia” whose pages were published in 1687 is known to everybody.

1) “Which” – is used of things

ex. The Russian Chemical society which is named after Mendeleev was organized more than a century ago.

When the antecedent is a collective noun “who” is used when the individual forming the group are meant, a “which” is used when the group as such is meant.

ex. He wanted to interview someone of the team: who were now resting
which was winning

2) “which” is used if the antecedent of the attributive clause is the whole principal clause. The attributive clause is separated by a comma, “which” is ended in Russian in front and it is reflected back, which enables to measure the distance.

3) “of which” is parallel in meaning to “whose”

“that” is used of both persons and things

ex. Morse invented a code that used dots and dashes for letters of the alphabet

Y. Gagarin was the man that made the world’s first space flight on April 12, 1961

“That” (not “who” or “which” or “what”) is used:

a) after most indefinite pronouns and “all”

ex. They wanted to build something that people could use to talk over long distances.

b) after nouns modified by an adjective in the superlative degree as well as by first and last + (little, few, only, much)

ex. Polzunov was the first man that constructed a steam engine.

c) after a noun modified by same

ex. The car’s computer will keep the same speed that you pick up.

d) when the antecedent is both a person and a thing

ex. He talked of the researchers and the experiments that he had observed

attributive clauses fall into two groups:

non – defining and – defining clauses

“who” and “which” are used with both of clauses

Text 5A

“Is there an End to the Computer Race”

1. Сегодня широко используется слово «электроника».
2. Раньше повсеместно использовалось слово «локомотив».
3. В наших домах есть много различных электронных приборов.
4. Крошечная кремниевая пластина, которая более широко известна как интегральная схема, несомненно, является одним из наиболее сложных изобретений человека.
5. Работа интегральной схемы, которую производят на нашем заводе, зависит от чистоты всех материалов.
6. Суперкомпьютер, который нам очень необходим, будет выполнять все операции одновременно.
7. Потребуется еще немного лет, чтобы произвести компьютер, который выполняет 10 миллиардов операций в секунду.
8. Мы близки к тому, что можно рассматривать как настоящий физический предел.
9. Нам сказали, что компьютеры пятого поколения станут доступны в ближайшем будущем.
10. Мы выяснили, что оптический эквивалент транзистора был создан.
11. Новая эра, когда вычисления будут осуществляться с помощью света, заменит все еще молодой электронный век.
12. Нам рассказали, что у света есть ряд преимуществ над электроникой.

1. Ships, built-in, cars, devices, trains, electronic, have, and
2. Present, supercomputers, at, required, are

3. Available, 100, computers, are, performing, operations, the, second, a, fifth-generation, billion, now
4. By, light, will, computations, be, means, done, of
5. In, we, living, electronic, an, are, world
6. In, of, device, a, is, tiny, the, every, plate, heart, electronic, silicon, a, or, chip, circuit, an, integrated
7. Brain, a, operates, the, like, supercomputer
8. Future, computers, the, appear, in, photon, will
9. With, we, surrounded, radio, are, sets, TV, and, players, CD
10. All, materials, at, and, purity, of, the, the, the, cleanness, plant, important, for, of, circuit, are, the, an, production, integrated
11. Simultaneously, all, done, being, are, operations

Text 5D

“Is these an End to the Computer Race”

1. Библиотека Конгресса – национальная библиотека США.
2. Ее основа была заложена президентом Томасом Джефферсоном в 1815 году.
3. Сейчас комплекс Библиотеки Конгресса включает 3 здания.
4. Здание Томаса Джефферсона, которое было построено в стиле Ренессанса, - самое старое из них.
5. Его читальный зал, который вмещает 45 000 справочников, имеет высоту 160 футов.
6. Здание Джона Адамса, которое облицовано белым мрамором, было открыто в 1939 году.
7. Скульптуры, которые украшают его большие бронзовые двери, представляют 12 известных писателей.
8. Здание мемориала Джеймса Мэдисона, о котором нам много рассказывали, содержит коллекцию из 50 миллионов предметов.
9. Здание мемориала Джеймса Мэдисона отделано белым мрамором, что делает его особенно красивым.

1. in, the, the, of, the, is, Library, Library, Nation's, Congress
2. 1980, the, Madison, opened, in, was, marble, James, memorial
3. includes, buildings, now, three, complex, Library, Hill, of, Capital, Congress
4. Building, built, in, the, was, Gefferson, Thomas, style, Italian, in, 1897, Renaissance
5. John, the, simply, Adams, designed, Buildings, was, in, opened, 1939
6. was, 50, it, artists, decorated, American, by
7. large, doors, its, 12, writers, famous, represent
8. its, high, 160, reading, is, feet, room
9. the, of ,Congress, the, richest, is, library, world, in, one, the, of

Text 6A

“Made in space”

1. few, within, a, industrial, years, will, coming, of, be, in, strafed, production, materials, space, various
2. space, the, in, is, valid, no, Archimedes, longer principle
3. can, created, Earth, be, on, seconds, weight, lessees, for, only, few, a
4. qualities, materials, unusual, can, with, be, in, space, obtained
5. various, occur, in, because, convection, of, defects, semiconductors
6. is, 60, to, bring, of, production, in, billion, future, in, materials, space, dollars, the
7. is, no, convection, in, there, gravitational, space
8. possible, crystals, condition, under, grow, the is, it, to, large, grow, protein. zero – gravity
9. materials, platforms, are, space, most, for, producing, suitable

10.theoretical, physics, industry, study, materials, of, weightless, the, basis, state, the, space, for, and, developed, has, basically, been

1. Многочисленные эксперименты, которые были проведены на российской орбитальной станции, проложили путь для промышленного производства новых материалов на борту космического корабля.
2. Невесомость может быть создана на Земле всего на несколько секунд.
3. Принцип Архимеда не действует в космосе.
4. Материалы, которые могут быть получены в условиях невесомости, будут обладать совершенно необычными свойствами.
5. Биохимикам приходится иметь дело с наихудшими аспектами конвекции.
6. Начиная с запуска первой орбитальной станции, специалистам приходится доказывать преимущества нулевой гравитации для производства определенных материалов.
7. Методы математического моделирования гидромеханических процессов в условиях нулевой гравитации могли быть созданы только с помощью компьютеров.
8. Степень ускорения должна быть сведена к минимуму на борту космических кораблей.
9. Может быть, возможно, получать новые материалы в космосе и получать ценные научные данные для новых высокоэффективных технологий на Земле.
10. Следует сказать, что производство материалов в космосе должно, как планируют, принести 60 миллиардов долларов в будущем.

Text 6D

“The British Museum”

1. the, the, of, of, the, Museum, British, Archeology, Library National, consists, and, and, National, Ethnography
2. founded, was, 1753, in, it
3. London, in, is, it, central, situated

4. Museum, famous, is, the, British, Room, circular, Reading, for, its
5. Museum, at, the, many, have, people, famous, used, room, British, Reading
6. ethnography, has, a, the, Museum, department, British, of, of, drawings, maps, prints, medals, clocks, maps, watches, stamps, postage

1. Британский музей следует считать самым большим и богатым музеем такого рода в мире.
2. Британский музей должен был, как планировалось, объединить коллекцию сэра Роберта Коттона.
3. Первое, что поражает посетителя при входе в читальный зал, это его необычная форма.
4. Маркс стал ежедневным посетителем читального зала, где он, бывало, оставался с девяти утра до закрытия.
5. Следует сказать, что Британский музей имеет отдел этнографии, рисунков и гравюр, отдел картографии, монет, медалей и филателии, часов.
6. Те, кто интересуются этими произведениями искусства, могут видеть их в музейной экспозиции.

Text 7A

“Transport for Tomorrow”

1. Чтобы перелететь через Атлантику в Нью-Йорк, потребуется меньше времени, чем чтобы доехать от дома до офиса.
2. Это будет первый электромобиль, который будет использоваться повсеместно.
3. Когда электромобиль будет широко использоваться, мы будем выходить на улицу, выбирать пустую машину и ехать до пункта назначения, а потом оставлять ее для следующего человека, который будет проходить мимо.
4. Когда есть автоматическая система наведения (навигатор), водитель может выбрать ряд, переключиться на автонавигатор и потом расслабиться.
5. Турист, путешествующий в такой машине, не собьется с пути даже в Сахаре с ее непроходимыми дорогами.

6. Чтобы получить наибольшую экономию топлива, компания Дженерал Моторс установила в автомобиле прибор, регулирующий впрыск топлива в карбюратор.
 7. Недавно изобрели радар, который должен быть установлен на грузовиках и автомобилях с целью контроля тормозов во избежание столкновений.
 8. Собрав всю информацию, компьютер отслеживает все возможные опасности и их природу.
 9. Когда японская компания спроектировала машину нового поколения, машина смогла двигаться по диагонали и даже в сторону как краб.
 10. Оставив машину на парковке, водитель может не волноваться, что его машину заблокируют другие, его машина может двигаться под прямым углом к продольной оси.
 11. Разработав новый керамический двигатель, японцы добились, что двигатель не нуждается в системе охлаждения.
1. is, of, the, the, be, must, today, than, it, more, public, future, transport, efficient
 2. with, our, the, to, we, an, for developed, automatic, system, developed, being, cars, car, automatically, address, want, we, will, more, guidance.
 3. electronics, exhaust, intake, sophisticated, the, monitors, fuel, adjusts, present, at.
 4. vehicles, may, some, a, means, become, modern, usual, in, the, of, future, transport.
 5. generation, designing, a, is, of, a, new, Japanese, company.
 6. be, screen, on, will, projected, the, data, most, the, important, wind
 7. move, and, sideways, diagonally, the, will, car, even.
 8. collisions, radar, the, may, to, control, brakes, avoid.
 9. system, engine, the, a, not, does, need, cooling

Participle

Japan, in, a, new, has, engine, been, ceramic, developed.

There are 3 types of Participle in English:

Participle I

Participle II

Perfect Participle

Two of them can be used both in the Active and Passive Voice (Participle I and Perfect Participle)

ex. Being built of reinforced concrete the house will be durable – т.к. дом строится из железобетона, он будет прочным

Participle I + ing

is used in the function of

1) a simple verbal predicate as part of one of the Progressive (Continuous) Tense forms.

ex. He is working now (Present Progressive)

He has been working since 12 o'clock

(Present Perfect Progressive)

When I came in, he was working

(Past Progressive)

2) of an attribute

3) of an adverbial modifier

Participles I and II may be put before the word that they modify and after it.

ex. a moving body

a developed country

the man delivering this lecture is our professor,

the goods delivered

Participle I and II may be put before the word they modify only if they express their permanent property.

ex. Can you see the man climbing on the rock&

I'll never get married. I don't want to spend my life surrounded by dirty washing and screaming children.

Participle I may be included into an attributive clause (relative clause) starting with "that", "those".

ex. We were able to speak to all students except those working in the library.

Мы имеем возможность поговорить со всеми студентами, за исключением тех, которые работали в лаборатории (или ... работавших ...).

Participle I expresses an action simultaneous with the action denoted by the predicate.

Participle I may be used in the function of an adverbial modifier.

Usually it is put at the beginning of the sentence (offer with the conjunctions “when”, “while”).

ex. Studying a foreign language students should learn the words.

While studying a foreign language students should learn new words.

Изучая (при изучении, когда студенты изучают ...)

Participle II expresses an action

1) simultaneous with the action of the predicate

2) prior to it

3) or following after it

Participle II as an attribute can stand before or after the word it determines.

ex. The broken glass – разбитое стекло

The machine designed by him will help us greatly – машина, сконструированная им, очень нам поможет

Participle II in combination should be translated into Russian only with the help of an attributive clause.

ex. The book looked for by us is not yet found. – Книгу, которую мы искали

Participle II in combination with the conjunctions if, unless, when used in the function of an adverbial modifier should be translated into Russian with the help of indefinite clauses (безличные)

ex. When asked he answered at once.

когда его спросили, он тот час же ответил.

Perfect Participle expresses an action preceding the action denoted by the predicate. It usually plays the part

ex. Having finished my work I went home.

Закончив работу, я пошел домой.

Having been translated into many languages the book became known everywhere.

Так как книга была переведена ..., она стала известна повсюду.

Text 8A

“A New Era for Aircraft”

1. Проектировщики предложили использовать вытянутый фюзеляж и горизонтальный стабилизатор в самолете, проект которого был представлен на авиасалоне Лебурже
2. Проектировщики настаивали на том, чтобы суперлайнеры не имели окон.
3. Проектировщики настаивают на том, что один из основных способов сделать самолеты более экономичными – это уменьшить их вес за счет замены обычных металлических сплавов на новые композитные материалы.

4. Летая в стратосфере, суперлайнеры (мешают) не дают обшивке нагреваться до очень высокой температуры.
5. Чтобы сделать такое количество термодинамических вычислений, надо использовать суперкомпьютер.
6. Когда топливо прошло через обшивку самолета, оно ее охладило.
7. Специалистам удалось решить проблему того, что пропеллерные самолеты летают медленнее, чем реактивные.

1. passenger, the, of, this, displayer, the, country, designers, project, a, liner, supersonic, in, Paris.
2. cover, it, the, between, will, distance, Moscow, Tokyo, than, in, hours, less, two.
3. will, lie, routes, mainly, the, airliners, in, stratosphere.
4. looks, a, rocket, it, more, like.
5. has, ventilator, a, been, engine, built
6. materials, new, of, an, use, extensive, by, will, fuel, efficiency, allow, one third, increasing.
7. also, a, will, complicated, hypersonic, require, craft, measures, complicated, cooling.
8. it, in, be, will, experimental, mounted, plane, passenger
9. the, super planes, no, will, future, have, windows
10. is, and, as, both, possibility, liquid, one, hydrogen, coolants, using, propellants

Text 8D

“New York”

1. Нью-Йорк расположен в устье реки Гудзон.
2. Купив в 1626 году остров Манхеттен у индейцев за 24 \$ и бочку рома, голландские колонисты основали первое поселение и назвали его Новый Амстердам
3. Захватив колонию в 1664 году, британцы переименовали его в Нью-Йорк.
4. Нью-Йорк состоит из 5 районов.

5. Манхеттен – самый маленький из 5 районов, но это деловой, политический и культурный центр города.
6. Гарлем тоже в Манхеттене.
7. 60-метровый факел статуи свободы, подаренной Америке Францией в 1886 году, виден ночью не меньше мили.
8. Бронкс и Квинс – это жилые и промышленные районы Нью-Йорка.
9. В них расположены также зоопарк, ботанический сад и 2 аэропорта.
10. В Бруклине расположен самый большой в мире судостроительный центр.
11. Ричмонд – это район пирсов и складов.
12. Население Нью-Йорка насчитывает 16 миллионов.
13. Жители говорят на 75 различных языках.
14. Нью-Йорк – это самый большой морской порт, символ большого бизнеса, ведущий текстильный центр страны, центр издательской промышленности и культурной жизни.

The Gerund

Gerund – is a non – finite form of the verb with some noun features. Formation: the suffix – ing added + the stem of the verb.

The grammatical meaning of the gerund is that of a process.

It has the categories of voice and correlation.

It can be modified by adverbs.

ex. Reading about is useful.

It can function

1) as a subject

ex. Reading is useful.

2) as an object

ex. I like reading technical book.

3) as a predicative

ex. Peter's hobby is suing all new films.

The Gerund serves to denote permanent actions, simultaneous with that of the predicate verb.

It can combine with

- 1) a possessive pronoun and
- 2) a noun in the genitive case denoting the doer of the action expressed by the gerund.

ex. I like her singing

I like your post – graduates making experiments.

When it is

- 4) an attribute or
- 5) an adverbial modifier, a gerund of catching the train

Don't forget to call me up before leaving London.

As an attribute gerund is preceded by a preposition "of" or by some other preposition in the expressions: surprise at, experience in, skill in, apology (excuse) for, objection to.

Axially gerunds modify abstract nouns, but when they modify a concrete noun it is preceded by the preposition "for".

ex. The barometer is an instrument for measuring the pressure of the air.

There exist premodifying gerundial attributes:

ex. a dancing master,

a writing career.

a diving suit,

a reading lamp,

a working method,

a writing career.

Note: Participle I:

ex. a living man = a man who lives the subject of the action

Gerund:

ex. a dancing hall = a hall for dancing

(it has only 1 stress)

The Gerund may be translated into Russian by means of

- 1) a noun

ex. My favorite occupation is reading (чтение)

2) by means of деепричастие

ex. He could repair these parts without using special device

Он смог отремонтировать эти детали, не применяя специального инструмента

3) by means of an infinitive

ex. Mastering this specialty is an indispensable thing, - Овладеть этой

специальностью необходимо

4) can have "of"-phrase attribute

ex. The reading of scientific books is useful

5) Can have adjectival attributes

ex. The regular doing of morning exercises.

These properties are not typical for the gerund.

4) by means of a subordinate clause:

ex. after returning to Moscow he resumed his work – После того, как он вернулся в

Москву, он возобновил работу

The complex forms of the gerund are usually translated with the help of subordinate clauses.

It's necessary to differentiate the Gerund from the Verbal Noun, which is used

1) with the definite article.

ex. The reading is useful

2) can be used in the plural form

ex. The readings of this device are quite correct.

Показания прибора совершенно правильные

The Forms

Simple	Active	Passive
(Indefinite)	writing	being written
Perfect	having written	having been written

The simple (indefinite) gerund denotes events simultaneous with an action expressed by the finite verb or future actions

ex. He tells me of his going on a mission tomorrow

Он говорит о том, что поедет в командировку

He insists on his being sent on a mission

Он настаивает на том, чтобы его послали в командировку.

The Perfect Gerund (Active and Passive) denotes an action prior to the action denoted by the predicate verb.

ex. He went away without having told us the necessary information.

I remember having been helped then – Я помню, то мне помогли тогда.

The non – perfect gerund is to be found

1) after prepositions on, after, by, in, without

ex. On reaching the end of the street we turned towards the river.

2) Verbs of recollection, gratitude, blame, reproach, punishment, reward

ex. Thank you for helping me.

(to forget, remember etc.)

3) after words implying reference to a future event: to intend, insist, object, suggest, look forward to

4) after the preposition “before”

ex. I insist on your straying with us.

We met once more before parting

5) after nouns: plan, intention, hope, prospect.

ex. There is some hope of catching the train.

The lexical meaning of the above mentioned words makes the use of the perfect form redundant (лишний)

The usage of the gerund (in the function of an object) is obligatory: - after the verbs:

to avoid – избегать

Будьте любезны, дайте мне книгу

to enjoy – получать удовольствие

- after the verbs with prepositions (the function of an object):

to excuse – извиняться

to depend on - зависеть от

to mind – возражать

in negative and interrogative sentences

to hear of – слышать о

ex. Do you mind my going away?

to insist on – настаивать на

I don't mind your taking this book.

to persist in – упорствовать в

- after the expression would you mind

to know of – знать о

ex. would you mind giving me the

to object to – возражать

book

to prevent from – мешать

to rely on – полагаться на

to succeed of – удаваться

to think of – думать о

- after word – combinations with
prepositions (also the function of
an object)

to be afraid of – бояться

to be astonished at – изумляться

to be surprised at - удивляться

- after complex prepositions and word combinations (as an adverbial modifier):

because of

on account of

из-за, в виду, следствие

thanks to

due to

owing to благодаря

instead of – вместо того, чтобы

in spite of – несмотря на

for the purpose of

with the object of

with a view to

с целью, для того, чтобы

- after the expressions (the function of the subject)

it is (of) no use

it is useless

it is no good

бесполезно

to be displeased with/at – быть

недовольным

to be famous for – славиться чем

либо

to be fond of – любить

to be glad at – радоваться

to be interested in – интересоваться

to be pleased with – быть довольным

to be proud of – гордиться

it is not worth while – не стоит

what's the good of? – Какой смысл?

I cannot afford – я не могу себе позволить

I cannot help – не могу не

There verbs that can be followed by the Gerund and by the Infinitive as well:

to dislike

to begin

to love

to like

to continue

to permit

to prefer

to forbid

to regret

to remember

to forget

to see

to advise

to go on

to start

to allow

to hate

to stop

to attempt

to hear

to fry

can't bear

to intend

to water

But it is necessary to take into consideration that the choice between the gerund and the infinitive affects the meaning of the sentence.

ex. He stopped smoking. – Он бросил курить

He stopped to smoke. – Он остановился, чтобы подумать

interested (in)

+ ing – the action to the future.

ex. I'm interested in working in Sutherland.

Do you know anybody who could help me?

+ infinitive – the action refers to the past.

ex. I was interested to read in the paper that scientists have found out how the universe began

allow, advise, forbid, permit

+ ing – is used when the object of the action is not mentioned

+ infinitive – is used when the object of the action is mentioned

ex. Sorry, we don't allow smoking in the lecture room

We don't allow people to smoke in the lecture room

see, watch, hear

+ ing – is used when we are the witnesses of only part of the event

ex. When I walked past his house I heard him practicing the violin.

+ infinitive – is used when the whole action or event takes place the Beethoven violin concerts last week

Sorry

+ infinitive – when the action is to take place

ex. Sorry to disturb you. Could I speak to you for a moment

+ Perfect infinitive, gerund or that clause – when the action has already happened.

ex. Sorry to have woken you up yesterday

I'm sorry for waking you up yesterday

I'm sorry that I woke you up yesterday

If we compare the use of the Gerund and Participle I in the functions of an attribute an adverbial modifier, we'll see that the use of a preposition is typical for a gerund in the function of an attribute, but the conjunctions while and when are typical for Participle I in the functional for adverbial modifier.

The Syntactic Functions of Participle I and the Gerund

Function in the sentence	Participle I	Gerund
1) subject	–	working these parts as soon as possible is absolutely necessary
2) object	–	He remembers seeing that drawing
3) part of his simple verbal predicate	He is working His part	–
4) part of Hi compound verbal predicate	–	He began working these parts as soon as possible

He is for working
these parts as soon as
possible

5) part of
the compound nominal
predicate

regret, forget, go on, remember

-ing, - is used when the action preceded the action of the predicate.

Infinitive – is used when the action followed the predicate

ex. I shall always remember meeting you, for the first time. = to keep in our s memory
(память)

Remember to go to the post office.

won't you? – не забудь

I shall never forget seeing the Queen

не забуду

She's always forgetting to give me my letters. Всегда забывает дать...

How long do you intend to go on playing these bloody records?

He welcomed the new students and they went on to explain the college regulations.

I don't regret telling her what I thought, even if it upset her.

Я не жалею, что сказал ей ...

I regret to inform you that we are unable to offer you employment

Сожалею, что должен сообщить вам ...

6) attribute

The man working these
parts is our best worker

The method of working
these parts is the most
modern

7) adverbial modifier

Working these parts he
used the most modern
methods of work

By working these parts
ahead of time he helped

While working these parts
he used the most modern
methods of work

us greatly
On working these parts
ahead of time we over
fulfilled our plan

1. Если бы мечты Жуля Верна осуществились, человечество узнало бы о секретах океана гораздо раньше.
2. Если бы мечты Леонардо да Винчи сбылись, то погружаемый аппарат доставил бы людей на дно Женевского озера значительно раньше.
3. Если был бы разработан одноместный погружаемый аппарат, то он смог бы доставлять исследователей на глубину до 3 300 футов и выполнять сложные подводные задачи с особой точностью.

4. Если бы несущий винт циклоидного типа был установлен в прозрачном сферическом пластмассовом корпусе на металлической платформе, вместо обычного судового гребного винта, то аппарат двигался бы по дну океана как спортивная машина.
 5. Если бы были установлены миниатюрные видеокамеры на запястье манипулятора, а также микрофоны, то погружаемый аппарат получил бы видеть, слышать и выполнять точную научную работу, такую, как сбор образцов минералов со дна океана и морской жизни.
 6. Если бы ученым удалось разработать погружаемый аппарат с человеком на борту с кабиной из титанового сплава, то аппарат приводился бы в движение электрическим мотором на аккумуляторах, работал бы до 9 часов и мог бы записывать изображение с помощью цветного телевидения и стерео камер.
 7. Если бы ученые всего мира объединили бы свои усилия, то они бы смогли решить большинство важных проблем.
1. Geneva, in, 1964, during, took, a, the, National, Lake, Swiss, deep, of, into, submersible, vehicle, Fair, thousands, people.
 2. be, will, cabin, pressure – resistant, in, a, the, submersible, titanium – alloy, of, deepest, world's, manned, capable, to, of, the, beet, submerging, 21 000, depths, of, the, crew.
 3. passenger, soon, one, ship, a, submerging, tested, be, will.
 4. look, like, helicopter, it, underwater, an.
 5. explorers, up to, toke, it, 3 300, will, feet, before, ever, duper, than.
 6. car, a, it, will, more, sports.
 7. craft, this, mechanical, has, a, hand
 8. hand, will, the, be, to, able, and, samples, life, minerals, collect, of, ocean – floor, marine.
 9. scale, are, on, a if, such, large, craft, constructed, pearls, cultivate, grow, plants, sea, fish, and.

1. Гринвич расположен на реке Темзе в 5 милях от центра Лондона.
 2. Если бы вы захотели, то все еще смогли пройти по Римской дороге в «Гринвич» парке.
 3. Если бы не любовь короля Генриха VIII к этому месту, то в Гринвиче не построили две большие верфи.
 4. Если бы моряки имели часы для определения времени в море, то они бы знали, как точно определить свое местонахождение и многие корабли не пропадали бы в море в 16 веке.
 5. Если бы вы могли посетить Гринвич, то увидели бы часы Харрисона, а также 2 известных корабля «Катти Сарк» и «Джипси Мос».
 6. Если бы «Катти Сарк» не был бы самым быстрым кораблем в конце первого десятилетия 19 века, то он бы не смог пройти 25 000 км от Китая до Англии за 100 дней.
 7. Если бы астроном Фламстед не работал в своей обсерватории 20 лет, то Харрисон не смог бы создать свои часы.
 8. Если бы «Джипси Мос» не был бы оборудован новейшими приборами, то сэр Ф. Чичестер не смог бы обойти на нем вокруг земного шара в 1966 году в одиночку.
1. the, Greenwich, Saxons, name, its, gave.
 2. London, Thames, is, the, river, on, Greenwich, the, from, of, five, middle, miles.
 3. at, were, the, the, first, the, best, in, 350, ships, years, world.
 4. sea, museum, Harrison, the, of, clock, can, you, see.
 5. made, an, Harrison, clock, a, astronomer, sea, the, at, time, which, told.
 6. people, a, every, million, year, museums, two, ships, come, to, to, Greenwich, famous, see.
 7. helped, the, to, it, they, where, were, sailors, know.
 8. size, the, its, the, Cutty Sark, ship, was, fastest, of, at, the, end, 1800's, of, the
 9. the, the, is, to, next, Cutty Sark, Gypsy Moth
 10. F. Chichester, by, sir, in, in, the, round, sailed, himself, 1966, Gypsy Moth

Conditional sentences are divided into 3 types:

I			
Sentences of real condition (indicative mood) (we translate them into Russian by means of the Future Tense)	Subordinate clause Present Indefinite (Simple) in used instead of the Future Tense in Russian It he works Если он будет усердно работать	Principal clause Future Indefinite (Simple) he will pass his exam он сдаст экзамен	

II			
sentences of unreal condition referring to the present or future (When translating them into Russian, one must use the particle «бы» - Subjunctive mood	Past Simple (Indefinite) It he worked hard (если бы он работал усердно) (the verb “to be” is used in the form “were” for all persons singular and plural)	should (1 p.s.) would + infinitive (or might, could) without “to” he would pass his exam он сдал бы экзамен	

III			
Sentences of unreal condition referring to the past – Subjunctive mood particle «бы» when we	Past Perfect It he, had worked hard last term, если бы он работал	should (1 p.s.) would Perfect might	} + } infinitive

translate them into	усердно в прошлом	could	without
Russian	семестре	“to”	
		he would have exam	
		он бы сдал экзамен	

Sometimes one can use “should” + infinitive without “to” in the subordinate clause instead of Past Simple (with all the persons)

ex. If the secretary should bring the papers, the manager would sign them

Если бы секретарь принес документы, заведующий подписал бы их

could is also possible instead of should

In scientific literature it’s possible to change the word order in the subordinate clause:

to put the auxiliary verb at the head of the sentence:

ex. should the secretary bring the papers, the manager would sign them

but the translation remains the same as in the sentence above.

Were the engineer here, he would explain everything

(If the engineer were hired, he would explain everything)

Если бы инженер был здесь, он бы все объяснил

Had we applied that method of work we should have had the results desired. – (If we

had applied that method of work we should have had the results desired.)

Если бы мы применили этот метод работы, мы имели бы желаемые результаты

If they could have introduced the safety devices, they wouldn’t have had any troubles with the equipment.

Could they have introduced the safety devices, they wouldn’t have had any troubles with the equipment.

It is possible to find a combination of the Subjunctive and Indicative clauses in scientific literature.

Subordinate clause

Principal clause

should + Infinitive

Indicative mood

(for all persons singular or plural)

or

be + Participle I

It he should come,

Should he come,

Если он придет

If magnetized needle be heated red –

hot

Если нагреть до красна

намагниченную иглу,

I shall ask him to translate this article

я попрошу его перевести статью

it will lose its magnetism completely

она потеряет полностью свои

магнитные свойства.

Instead of the conjunction if it's possible to use: “unless (если не) provided that, provided that”.

in colloquial speech it's possible to use “was” instead of ‘were’ with the singular pronouns and nouns in the sentences of unreal condition, referring to the present and future.

1. В Войне миров Г. Уэллс был первый, кто описал «тепловой меч»
2. Сегодня меч Уэллса воплотился в реальность в лазере.
3. Лазер представляет собой осуществление старейшей идеи человечества – получить световой луч достаточной интенсивности, чтобы испарить самые прочные материалы.
4. Нет материала, не поддающегося лазерной обработке.
5. Существует идея использовать лазер для решения проблемы термоядерной реакции.
6. Интенсивность лазера можно быстро менять для того, чтобы кодировать очень сложные сигналы.
7. Проекты по размещению лазера на борту искусственных спутников Земли еще не были осуществлены из-за больших технологических трудностей, которые надо преодолеть и, следовательно, из-за больших затрат.

1. in, H. Wells, a, told, the, of, worlds, war, story, how, Martians, of, invaded, Earth, our.
2. can, it, any, vaporize, on, earth, the, substance.
3. laser, used, be, can, limitless, to produce, a, source, energy, of.
4. weapon, their, sword, a, heat, was.
5. produces, beam, laser, an, of, light, intensive, colour, very, of, pure, a, single.
6. can, laser, have, a, lot, applications, of, science, and, industry, in.
7. today, heat, the, is, sword, of, called, laser.
8. used, may, be, to, lasers, laser, solar, the, transform, radiation, beams, into.
9. beams, laser, times, a, faster, billion, waves, than, radio, ordinary, vibrate.
10. just, a, of, in, fraction, a, one, second, could, beam, transmit, laser, of, the, the, Britannica, entire, Encyclopedia, text.

11.used, be, lasers, can, energy, stations, space, to, to, transmit, moon, surface, to, the,
or, of, system, in, to, the, planets, solar.

12.beams, with, scientists, are, to, heat, trying, laser, fuel, thermonuclear.

The Infinitive

The Infinitive is a non – finite form of the verb (the same as the Gerund and the Participle). It is a plain verb particle “to”.

ex. to take

Sometimes, an adverb may be inserted between them.

ex. She doesn't even want to see me once more

It's called the split infinitive.

The case where the infinitive loses the particle “to” is called the bare infinitive.

Forms of the Infinitive

the simple form

the continuous form

the perfect form

the perfect continuous Active

to take

to be taking

to have taken

to have been taking Passive

to be taken

–

to have been taken

–

The simple Infinitive expresses an action

1) following

2) simultaneous

3) prior to the action of the finite verb

ex. Scientists expect lasers to solve the

a) problem of controlled thermonuclear reaction

b) When you stand near a working engine you feel it vibrate

c) Making experiments with electronic telegraph Morse was glad to notice a pencil make a wavy line when connected to an electric wire.

The continuous infinitive is generally used to emphasize the idea of duration

A simple infinitive is often possible in the same sentence.

ex. It was pleasant to be driving the car again.

(or to drive)

The perfect infinitive is often used after verbs of mental perception and the verbs “to seem, to happen, to appear”.

The perfect continuous infinitive is mainly found after the verbs as the perfect infinitive. It shows that the action of the infinitive began verb and is still going on. It is translated into Russian using the Present Tense.

ex.

1) We know Morse have been a painter by profession.

2) A system of Earth Satellites appeared to have been solving the problem of transmitting the central T.V. programs to any part of the world for many years. As for the category of Voice of the infinitive it is found only in the common aspect the active form of the non perfect infinitive denotes an action directed towards the subject, that is although active in form it is passive in meaning.

Continuous forms have no Passive Voice forms.

It can be replaced by a corresponding passive form:

ex. He is to blame → He is to be blamed.

The Syntactic Functions of the Infinitive

1) – as subject

ex. To develop a new submersible craft with a manipulation is not an easy task

To err is human, to forgive is divine.

ошибаться

In modern English it is more common to begin the sentence with “it” (preparatory subject) and to put the infinitive later

ex. It is not an easy task to develop a new submersible craft with a manipulator. This pattern can be both declarative and interrogative, while the first can be only declarative.

2) – as predicative

in this function the infinitive is used in compound nominal predicates after the link verb to be. The infinitive is used with the particle “to”. The predicative function is generally performed by the common non-perfect active forms of the infinitive, but sometimes passive forms also occur.

ex. To be piloted automatically in the Sahara, is to be doomed to success.

The subject of sentence may be expressed by:

1) – an infinitive

2) – a noun (action, aim, hope, idea, thing, wish, habit, duty etc.)

ex. The best thing was to agree or: + where, what, whom, now

ex. The problem was how to begin what we want to do is to fight the world.

All he wanted was to be warned.

3) – as predicate

(are found only in spoken English)

It is used in interrogative (affirmative and negative) sentences beginning with “why”.

The infinitive is used without “to”.

ex. Why lose your temper over a little thing like the empty fuel tank of your car – it can be easily eliminated.

4) – as part of a compound verbal predicate

1. after the modal verbs:

can, may, might, must shall, should, will, would + infinitive without the particle “to”

ought

have + to “infinitive”

be

need + to infinitive) as ordinary verbs)

dare + infinitive with act "to" (as modal verbs)

ex. She daren't tell the boss that his car's battery is flat because she doesn't want to make trouble.

How dare you: - Как вы смеете

I dare you to ride your bike with no hands. – Спорим, что ты не проедешь на велосипеде без рук.

2. – after verbs denoting various stages the action: to begin, to come, to state, to continue, to go on, to cease + "to" infinitive

ex. He (A. Bell) began to study the theory of sound.

5)– as an object

ex. He doesn't like to translate articles

There is a long list of verbs and other word combinations that take only an

1) infinitive, there're words that are followed by

2) the Gerund only and there are verbs and etc. followed

3) by the infinitive or by the Gerund depending on their meaning

ex. I enjoy seeing you (2)

I'm glad to see you (1)

Do you mean to say H. Wells' word of heat has come to reality in the laser today? = to intend

or

To cover the capsule with special paint which can be detected by radar means saving the sailors' lives = to signify

1) – as an adverbial modifier :

- of purpose, always + particle "to"

in order, so as, as much as, except to as if, as though + "to" – infinitive

ex. Radar may control the brakes (in order) to avoid collisions with other cars

The infinitive may be placed at the head of the sentence.

ex. To develop the supercomputer, highly developed electronics and new materials were required.

consequence with “to”

a) after adjective + enough

ex. The Voice Warning system for cake requires connection of 18 wires, but it is simple enough to be installed in a car

b) after so + adjective + as

(a polite request)

ex. Would you be so kind as to send us your catalogues?

d) too + adjective/or adverb

ex. at last it was time for the third man to tell his story, but he reposed. The story he had in mind was too terrible to tell.

The ordinary aircraft windows would make the structure too weak to withstand great stresses developed.

- of consequence (+ “to” infinitive)

after: (he) had only to ...

had but to ...

ex. The driver had only to switch over to automatic driving to get an opportunity to read the newspaper

- comparison + with particle to infinitive

without

It is preceded by than

ex. Sofia Kovalevsky was more eager to study mathematics than to spend her life being a housewife.

To, hear him talk; you would think he was a celebrity.

(The predicate verb is used in the form of the Conditional Mood)

- exception (without particle to)

it is preceded by except or but, is generally used in negative or interrogative sentences.

ex. Sofia Kovalevsky could do nothing but leave for Germany.

(after: nothing could be done

he could do nothing

what could he do

he could not help ...

2) – as an attribute

a) noun + to infinitive

ex. One of the ways to keep the war speed steady is to use a computer.

b) an indefinite pronoun + infinitive

Somebody,

nobody,

anybody,

everybody,

no one,

anyone

ex. There remains to be carried out before using the device

c) ordinal numbers (mainly “the first”) and “the last” + to – infinitive

ex. Francis Chichester was the first to sail round the world by himself

d) pronouns and expressions of quantity such as:

much,

little,

enough,

no more,

little more,

a great deal,

a lot,

plenty

ex. You’ve got so much to learn

e) “the one” + to – infinitive

The complicated coding measures for hypersonic aircraft the ones to be required for ordinary jet planes

a) “have” (get, possess, lack) + the + noun + infinitive

ex. Laser has the power to vaporize the hardest and most heat – resistant materials.

b) ex. Laser has got enough power to vaporize any substance on the earth.

enough + noun + to – infinitive

c) too + noun + to – infinitive

ex. This is too mysterious a weapon to exist in reality.

1. by, in, a, was, 1911, discovered, physicist, superconductivity, Dutch, K. Onnes.
2. when, below, cooled, of, a, 4 Kelvin, resistivity, mercury, the, a, electrical, of, wire, disappears, temperature.
3. the, Prize, he, awarded, Nobel, was, research, for, his, low-temperature, 1913, in.
4. explain, of, properties, superconductors, Landau and Ginzburg, 1950, in, the, electromagnetic, tried.
5. was, Prize, the, awarded, to, for, the, Nobel, 1957, in, in, physicists, physics, American, their, theory, superconductivity, of.
6. but, superconductors, scientist, understanding, lack, how, of, a, ceramics, full, become.
7. can, now, material, work, temperature, a, ceramic, of, room.
8. lose, hours, within, superconductors, their, properties, minutes, or.
9. task, this, from getting, laboratory, the, be, production, superconductors, into, will, easy, no.
10. physics, military, prestige, benefits, come, well, nation, economic, and, could, the, to, master, that, of, new, field, will, this.

1. Вероятно, недавние захватывающие открытия в сверхпроводниках приведут человечество на порог новой технологической эры.
2. Когда-то считалось, что суперпроводники физически не возможны
3. К. Оннес выяснил, что электрическое сопротивление ртутного провода исчезает при охлаждении ниже 4 кельвинов.
4. Абсолютный ноль, как известно, это 0 К
5. Оказалось, что сверхпроводящий материал можно вернуть в нормальное состояние либо пропуская достаточно большой ток через него либо прикладывая достаточно сильное магнитное поле.
6. Мы выяснили, что Ландау, Гинзбург, Пол Чу и другие американские ученые внесли большой вклад в развитие теории сверхпроводимости.
7. Казалось, что потенциальное техническое использование сверхпроводимости возможно и практически выгодно.

8. Ученые хотят, чтобы из сверхпроводников легко изготавливалась проволока и они сохраняли свои свойства долго.

Text 11D

“Massachusetts Institute of Technology”

1. Массачусетский технологический институт – это независимый университет, расположенный в районе Бостона.
2. Оказалось, что МТИ был основан в 1861 году выдающимся ученым-естествоиспытателем Вильямом Бартоном Роджерсом.
3. Мы узнали, что МТИ свои первые занятия провел только в 1865 году из-за Гражданской войны.
4. Сообщают, что МТИ имеет около 9 тысяч студентов и 18 преподавателей.
5. Институт, как известно, делится на 5 школ и 22 отделения.
6. Оказывается, что студенты присоединяются к аспирантам и преподавателям в работе над исследовательскими проектами
7. Учебная деятельность, как сообщают, происходит в ряде взаимосвязанных зданий
8. Спортивные площадки, студенческий центр и многие общежития, оказывается, находятся на противоположной стороне улицы.
9. Предполагается, что учебная программа требует 4 года дневного обучения для получения степени бакалавра
10. Очевидно, что основная цель учебных программ в МТИ – это дать студентам возможность усвоения основных принципов, привычку постоянно учиться и уверенность, которая приходит благодаря глубокому и систематическому подходу к учебе.

1. 9700, today, about, has, MIT, student;
2. Area, war, MIT, located, 1961, founded, in, in, Boston, by, William Barton Rogers;
3. Full, time, the, for, the, programs, four, require, academic, year, of, of, science, Bachelor, study;

4. Schools, organized, the, is, into, academic, institute, for, 22, with, department;
5. 1865, were, in, approximately, there, student, 15, enrolled;
6. Throughout, graduate, undergraduates, students, institute, the, staff, faculty, and, join, on, to, work, with, projects, research;
7. Has, athletic, MIT, center, and, the, the, fields, students, of, dormitories, many;

The Complex Object

The Complex object in a syntactic construction which consists of a noun in the common case (nouns have genitive common case) or an indefinite or a personal pronoun in the objective case (there are two cases: nominative and objective) serving as an object in the sentence, and a (objective) predicative which may be expressed by: a noun, an adjective, an adverb, a participle (I or II) and an infinitive (with or without particle “to”)

ex. His humor made him a welcome guest (noun)

When they came they found the house empty (adjective)

Why don't you get somebody to explain it to you? (infinitive)

We know Morse to have been a painter by profession (perfect infinitive)

Bad weather conditions make pilots switch over to automatic control (infinitive without “to”)

I felt him looking at me now the device used.

I had never before seen the device used.

* * *

I

The infinitive as objective Predicative is used after a number of verbs in the Active: to advise, to allow, to ask (разрешать, санкционировать), to authorize, to beg, to believe, to cause, to challenge (бросать вызов, требовать), to command, to compel, to consider, to enable, to encourage, to expect, to find, to forbid, to force, to get, to guess, to hate, to imagine, to impel, to implore, to induce, to inspire, to instruct, to intend, to invite, to know, to lead, to like, to love, to mean, to observe, to order, to permit, to persuade, to prefer, to press, to realize, to recommend, to request, to require, to suppose, to suspect, to

take (= to understand), to teach, to tell, to tempt, to think, to trust, to understand, to urge, to want, to wish.

They are the verbs of emotion and intention (want, like), mental activity (believe, assume), inducement (induce, force, compel).

P.S. want wish desire – are followed by the non – perfect infinitive.

There are a few verbs in English after which the infinitive as objective predicative is used without particle “to”.

a) of sense perception:

to feel, to hear, to see, to water, to observe. to notice.

The Non – perfect infinitive in the Active Voice is. Used after them.

ex. Twice a year people see birds fly south and north, but we don't know how they find their way.

Making experiments with electric telegraph Morse noticed a pencil make a wavy line when connected to an electric wire.

When the verb to see has the meaning of “to understand” (понимать) and the verb to hear means “to find out”, we must use only subordinate clauses (objective) starting with “that”.

ex. I saw that he was convinced.

Я понял, что он убежден

I heard that the representatives of the firm had already arrived.

Я слышал (узнал), что представители фирмы уже прибыли.

After the verbs to see, to notice we use subordinate clauses with the only, construction.

He only had time to notice that the girl was unusually pretty.

b) of inducement:

- to have (= to get, to make)

- to get,

- to make,

- to let.

ex. They made him wait for an hour.

Morse's interest in electricity made him start experimenting with it.

Additional radio transmitters let the pilot make his approach to an airport by watching his flight instruments.

“To let somebody know” – is a set phrase

“to be aware” is followed by “to be” with the particle “to”

“to know”

We all know it to be impossible

“to experience” is generally used in the Present of Past Perfect, and may be followed by the bare infinitive

ex. I had never known Hector behave like this.

“to help” may be used with the infinitive with or without particle “to”.

ex. I was helping him (to) win.

II.

The infinitive as objective predicative is also used after a few verbs taking a prepositional object:

to long for, to look for, to wait for, to watch for, to listen to, to nod to.

P.S. cry wire, shout arrange etc. and some others and which + are not only the preposition for, but with and to.

ex. I know that she telegraphed to Julia to come.

All these verbs take the infinitive with “to”, except for to listen to without “to”

ex. The students were waiting for of a new composite material

He was listening attentively to the chairman speak.

The Complex Subject

This syntactic construction consists of

1) a noun (in the common case), an indefinite pronoun or a personal pronoun in the nominative case (serving as the subject predicative which may be expressed by:

- a noun;
- an adjective;
- an adverb;
- an infinitive;
- a Gerund;
- a participle.

ex. Bob was made the leader of the team.

The door was painted green.

They were expected to agree.

The children were left playing on the floor.

The car was last seen parked at the hotel.

* * *

The infinitive as subject predicative is always preceded by “to”. It follows a number of verbs used in the Passive.

They are:

to advise, to allow, to ask, to authorize, to believe, to command, to compel, to consider, to direct, to expect, to feel, to find, to force, to hear, to impel, to instruct, to intend, to invite, to know, to leave, to let, to make, to mean, to order, to permit, to persuade, to presume, to report, to request, to require, to rum our, to show, to suppose, to teach, to tell, to tempt, to think, to trust, to understand, to watch.

ex. Students of Cambridge are supposed to wear gowns at lectures.

II. The infinitive may follow after some verbs used in the Active:

to prove, to seem, to appear, to happen, to turn out,

to chance – по видимому, случайно, кажется

ex. Our present – day life seems to be quite impossible without telephone, radio and television.

III. The infinitive may follow after some expressions:

to be likely, not likely, вероятно, маловероятно, вряд ли, to be unlikely. to be certain, to be sure – несомненный, верный

When translating such a king of sentences from English into Russian, one used Future Tenses.

ex. Dirigibles are likely to be used for taking tourists to distant and beautiful peaces. – вероятно будут использоваться

IV. Sometimes complex subject maybe found in relative, clauses который, как полагают, оказался

ex. The experiment, which is believed to have proved successful, will be discussed at the conference.

Sometimes “which” is dropped. The experiment, believed to have propped successful, will be discussed at the conference.

For – construction + infinitive is used:

- as part of the sentence with an infinitive used in the function of the subject with the formal “it” as the second part of the subject.

ex. 1) It was rare

good

natural

necessary for him to go out

to dinner

- at the head of the sentence:

ex. For me to hear him was disturbing (also the subject of the sentence)

- an object of both verbs and adjectives after such verbs as:

to wait for,

to manage,

watch for,

to plan,

to long for,

to provide,

to look for,

to shout,

to arrange,

to sign,

to ask,

to wire,

to beckon,

to telegraph + “for”

to cry,

ex. She looked at me and beckoned for me to come over. – Она взглянула на меня и поманила

- predicative (with the link verb to be)

ex. To be together is for us to be at once as free as in solitude, as gay as in company

- attribute

ex. There was no need for him to be economical

- adverbial modifier of purpose and consequence

ex. She paused for him to continue.

1. multi national, up, days, to, the, crew, will, the, occupy, 187, station
2. ISS, be, field, the, will, long, football, as, as, a
3. station, the, Space, be, a, International, will, and, multi – room, facility, hotel, research
4. more, bigger, Venus, only, Moon, the, visible, will, and, be
5. years, 10, life, station, the, expectancy, official, the, of, is
6. will, it, orbit, 90, the, Earth, every, minutes
7. enterprise, are, in, and, this, the, Russians, international, Americans, partners
8. involves, advanced, station, the, the, technologically, nations, most
9. future, the, stations, Russia, will, for, modules, deliver, supply, 12, and
10. more, require, \$40, than, the, billion, implementation, program, the, of would
11. filmmaking, advertising, Hollywood, could, used, be, to, of, the, the, cost, lower, of, station

1. Считают, что международная космическая станция будет постоянным внепланетным продолжением человеческой цивилизации.
2. Необходимо, чтобы Россия и Америка были партнерами в этом международном предприятии.
3. Ожидают, что станция прослужит 10 лет.
4. Предполагается, что некоторые космонавты будут пребывать на станции 187 дней.
5. МКС будет одним из самых больших объектов в ночном небе, как будто летит в небе гигантский конструктор Лего.
6. Существенно, чтобы элементы станции были предоставлены разными странами.
7. Важно, что МКС не могла бы быть реализована без предыдущего широкого опыта в управлении русской станцией Мир.
8. Жаль, что «Мир» больше не будет использоваться для исследования космоса.
9. Нам бы хотелось, чтобы МКС была не только базой для дальнейших путешествий на Марс, но также создавала бы тысячи рабочих мест для высококвалифицированных рабочих и инженеров.

10. Некоторые специалисты предположили, чтобы станция использовалась для рекламы и производства голливудских фильмов.

The Subjunctive Mood

The Subjunctive Mood

There are 3 moods in English:

1) Indicative – it denotes a real action referring to the past, present or future

ex. I go to school every day.

1) Imperative –

it expresses an order or a wish.

Open the door!

2) Subjunctive –

it expresses a supposition or an unreal action.

There are different types of the Subjunctive mood in English:

Subjunctive I (or conditional mood)

(if the sentence refers to the present or future)

should/would + Infinitive (without the particle “to”)

should – for the 1st person

(if the sentence refers to the past)

should/might/may – are also possible instead of should/would

Subjunctive II

Past Simple – for the present and future

ex. It he came ...;

It I were a fish ...

Past Perfect – for the past

ex. It he had come ...

The verb “to be” is used in the plural form – “were” (In colloquial style “was” is also possible) for singular and plural forms.

Subjunctive I is used in

1) conditional sentences in the principal clause.

ex. If you were here, he would come to see you

Если бы ты был здесь, он бы пришел тебя навестить

2) or in the sentences with implied condition

ex. But for luck he would be still alive

Если бы не случайность, он был бы все еще жив

ex. Except for the sound of her breathing I wouldn't have heard anything

Если бы не звук ее дыхания, я бы не слышал ничего

Subjunctive II is used in:

1) subordinate clauses of condition

ex. If he were here, he would help you

Если бы он был здесь

2) subordinate clauses of manner

ex. He spoke as if he were mad

as though

словно он был сумасшедшим

3) object subordinate clauses with "to wish"

ex. I wish he were with us

he had been with us that day

Жаль, что его нет с нами

что его не было с нами в тот день

3) It's time

+ Subjunctive II (Past Simple or were)

It's high time

ex. It's high time you went to bed

Давно пора тебе пойти спать

5) Would rather + Subjunctive II (Past Simple, were)

ex. I'd rather you went now

Я бы предпочел, чтобы вы сейчас ушли

Old Subjunctive

It is an Infinitive without the particle "to"

It is widely used in

1) slogans:

necessary

it is important that ...

desirable

vital etc.

The order

was that ...

suggestion

ex. It is desirable that they take measures immediately

3) in subordinate clauses of purpose after the conjunction lest.

ex. They covered the goods lest they should be damaged.

4) after: so that

in order that

ex. I tell you this so that you may understand everything.

P.S. may, might could + infinitive, are also possible instead of should.

In the 2-d and 3-d cases the old Subjunctive is also possible (in American English and formal British English).

5) Should anything change you will return home.

Если случиться так, что ...

6) How should I know? (Suppositional Mood)

How I know – the Old Subjunctive

Why should you dislike him so much?

(Suppositional Mood)

These types of questions express surprise and astonishment.