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ДЛЯ
ТЕХНИЧЕСКИХ
ВУЗОВ

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Министерством высшего и среднего
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для студентов технических вузов*



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О. И. Тынкова и Э. С. Улановская.

Данный учебник предназначен для студентов I курса технических вузов (преимущественно автотехнического профиля). Цель его, в соответствии с требованиями программы по иностранным языкам для неязыковых вузов, — развить навыки чтения литературы по специальности, а также навыки устной речи в пределах проработанных тем. При отборе текстового материала, лексики и грамматики учтена специфика стиля научно-технической прозы. Материал разделен на 12 уроков-тем. Разнообразные упражнения направлены на закрепление лексико-грамматического материала и на развитие навыков чтения и устной речи. В учебнике имеются краткий грамматический справочник и словарь.

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4И (Англ)

Настоящий учебник предназначен для студентов технических вузов (преимущественно вузов автодорожного профиля), продолжающих изучение английского языка.

Учебник составлен в соответствии с требованиями программы¹ по иностранному языку для неязыковых вузов и рассчитан на 100—110 часов учебного времени, т. е. на I—II семестр при 4 часах аудиторных занятий в неделю.

При конкретизации задач, которые были поставлены в учебнике, авторы ориентировались на выдвигаемую программой конечную цель обучения, предусматривающую развитие навыков чтения литературы по специальности для получения информации, а также навыков устной речи в пределах тем, предусмотренных программой.

Учебник состоит из двух частей. Первая часть (1—6 уроки; I семестр) рассматривается как переходная ступень между школьным и вузовским курсами.

Главной целью работы над первой частью учебника является формирование основных умений и навыков чтения и устной речи, которые являются базой для дальнейшего обучения.

Вторая часть (7—12 уроки) рассчитана на II семестр. Целью работы над второй частью является совершенствование навыков устной речи и чтения в целях подготовки студентов к самостоятельной работе над оригинальной литературой по специальности.

При составлении учебника авторы уделили большое внимание проблеме отбора языкового материала в плане его типичности для стиля научно-технической прозы.

В учебнике активизируется 910 слов и словосочетаний, из которых 344 взяты из словаря-минимума средней школы. Последние представлены как «ядро школьной лексики», отбору которого предшествовала экспериментальная работа². Активизируемая в учебнике лексика относится к разряду так называемой общенаучной лексики.

При выделении активной лексики авторы основывались на словаре-минимуме по английскому языку для студентов технических вузов³.

Поскольку по данным лингвостатистики значительная часть словаря, необходимого для чтения специальной литературы, представлена словами, имеющими словообразовательные элементы, а также интернациональными словами, то одной из задач в области изучения лексики является овладение словообразовательными механизмами и умением пользоваться языковой догадкой для самостоятельного раскрытия значения ранее изученных слов, т. е. для расширения потенциального словаря студента.

При отборе словообразовательных механизмов авторы основывались на исследовании С. М. Зеленецкой, в результате которого было выделено 19 моделей, реализующих не менее 75% всех случаев употребления аффиксальных производных. Эти модели активизируются в текстах и упражнениях учебника.

¹ Программа по английскому языку для неязыковых специальностей высших учебных заведений. М., 1974.

² Берман И. М., Сиявская Е. В. Исследование ядра школьной лексики в плане преемственности обучения в средней школе и в вузе. ИЯВШ, вып. 6, М., 1971.

³ Словарь-минимум по английскому языку. «Высшая школа», М., 1963.

В основу отбора, организации и методической интерпретации грамматических явлений, представленных в учебнике, положены основные принципы, выдвинутые И. М. Берманом в «Краткой практической грамматике английского языка для чтения текстов»¹.

Кроме того учитывались данные лингвостатистических исследований о грамматических явлениях, типичных для стиля научно-технической прозы.

В каждом уроке-теме активизируется определенное грамматическое явление. Однако тексты урока помимо выделенного грамматического материала могут содержать грамматические явления, известные из курса средней школы, активизация которых не предусматривается в данном уроке.

При отборе текстового материала в качестве основного критерия служила информативная ценность текстов и их соответствие интересам студентов начальных курсов технических вузов. Данные о типах текстов, представляющих определенный интерес для студентов, были получены путем анкетирования.

Большинство текстов учебника взято из оригинальной английской и американской литературы, которые в отдельных случаях подвергались адаптации и сокращению. (Напр., Children's Britannica, Oxford Junior Encyclopedia, Reader's Digest, Morning Star и др.)

Учебник содержит 12 уроков-тем. Каждая тема рассчитана на 8 часов аудиторных занятий. Такое же количество часов предусмотрено для выполнения домашних заданий (соотношение 1:1).

В уроке-теме представлено 4 текста, каждый из которых имеет свою методическую задачу. Основной текст «А» предназначен для изучения выделенного лексико-грамматического материала.

Выделенный для запоминания так называемый «активный словарь» представлен в виде словарной разработки к тексту «А», в которой активизируемые слова даны в порядке их появления в тексте. Этот вид работы, также как и работу с интернациональной лексикой, рекомендуется проводить в аудитории. В текстовой материал и упражнения включены слова из «ядра школьной лексики», которые рекомендуется повторить на первых занятиях и в дальнейшем контролировать.

Помимо активизируемых слов, текст «А» содержит в среднем 5—6% незнакомых слов, значение которых может быть выделено из контекста или установлено с помощью словаря при самостоятельной работе.

Во второй части учебника (начиная с 7-го урока) в словарных разработках предусмотрена работа со словарем.

В конце каждого урока дан «контрольный словарь», который может быть использован при текущем контроле проработанной лексики после прохождения каждого урока.

Перед каждым текстом «А» даются предтекстовые упражнения для проработки и закрепления включенных в урок грамматических тем. Эти упражнения составлены на базе лексики предшествующих уроков, что обеспечивает ее повторение. Послетекстовые упражнения на закрепление грамматических явлений даются на базе лексики текста «А».

Текст «В» предназначен для развития навыка «быстрого чтения» и содержит не более 3—4% неизученных слов, перевод которых дан непосредственно после слова, чтобы не прерывать процесс чтения на отыскивание значения слова в словаре. Предусматривается нарастание темпа чтения начиная от 70 слов в минуту в первых уроках до 100 слов в минуту в последних.

Основная задача работы над текстом «В» — это достижение понимания основных фактов, содержащихся в тексте, что проверяется с помощью теста типа «множественного выбора».

Основной задачей работы над текстом «С» является выработка умения «вычитывать» из текста определенную информацию.

Для реализации поставленной задачи текст «С» снабжен предвопросами в каждой части текста. Тексты «В» и «С» рекомендуются для аудиторной работы. Текст

¹ Берман И. М. Краткая практическая грамматика английского языка для чтения текстов. Изд-во «Международ. отношения». М., 1965.

«Д», завершающий тему урока, предназначен также, как и текст «А», для самостоятельной проработки дома. Задачей работы над текстом «Д» является достижение углубленного понимания читаемого, что определяет форму проверки — с помощью вопросов, направленных на выявление глубины понимания прочитанного.

При распределении числа повторений лексического материала учитывались трудности усвоения. Слова общего корня (типа system — система, method — метод) не требуют большого количества повторений для их усвоения. Другие же слова многократно повторяются в текстах и упражнениях.

Дифференцированный подход в зависимости от степени трудности характерен для активизации грамматического материала. В связи с тем, что обучение на первом курсе направлено на выработку определенных автоматизмов, большое место занимает работа с различного вида упражнениями, которые должны проводиться в аудитории в высоком темпе.

Введение грамматического материала производится в аудитории на предтекстовых грамматических упражнениях. Дальнейшая самостоятельная работа над грамматической темой предусматривает использование материала грамматического справочника и выполнение послетекстовых упражнений.

В заданиях к упражнениям на перевод или выделение какой-либо конструкции не указывается форма их выполнения (устная или письменная), поскольку это зависит от уровня подготовки группы.

В учебнике предусмотрена специальная серия словообразовательных упражнений для отработки аффиксальных моделей.

Серия упражнений заканчивается микротекстом, содержащим не изученные ранее производные слова, построенные по отработанным словообразовательным моделям, значение которых студент должен вывести из двух известных ему компонентов — значения основы и обобщенного значения самой модели.

В учебнике имеется краткий грамматический справочник, иллюстрированный примерами и таблицами, в котором представлен материал, изучаемый в уроках учебника. Справочник предназначен для самостоятельной работы над выделенными грамматическими темами.

В приложении даны тексты для дополнительного чтения, которые отражают языковой материал и тематику основных уроков. Дополнительные тексты рекомендуются прорабатывать после прохождения соответствующего урока-темы или в конце каждой части учебника.

В работе с дополнительными текстами рекомендуется использовать виды работ, включенные к заданиям текстов «В», «С», «Д» основных уроков, в зависимости от уровня подготовки группы и интересов отдельных студентов.

В конце учебника дан англо-русский словарь со ссылками на уроки, в которых вводятся слова.

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Lesson 1	9
<i>Грамматика:</i> 1) глагол to be ; 2) глагол to have 3) оборот there + to be ; 4) степени сравнения прилагательных; 5) времена группы Indefinite Active .	
<i>Словообразование:</i> суффиксы -ion/tion/sion ; -er/or .	
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<i>Словообразование:</i> суффиксы -ty ; -ive .	
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<i>Словообразование:</i> суффиксы -ous ; -ance/ence ; -ant/ent .	
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<i>Словообразование:</i> суффикс -ing ; префикс re- .	
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Словообразование: суффикс -ize.	
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LESSON 1 (One)

- Грамматика:** 1. Глагол to be.
2. Глагол to have.
3. Оборот there+to be.
4. Степени сравнения прилагательных.
5. Времена группы Indefinite Active.

Основной текст А: Educaiton in the Soviet Union.

Глагол to be в Indefinite Active

Present	Past	Future
am is are	was were	shall be will be

Упражнение 1. Скажите следующие предложения в прошедшем или будущем времени (*Past, Future Indefinite*), добавив соответствующие обстоятельства времени (*at 5 o'clock, yesterday, tomorrow, next week, last month, next year и т.д.*), если это необходимо.

1. Victor is free in the evening. 2. John is in America. 3. I am very busy. 4. She is at the lecture. 5. The child is 10 years old. 6. This work is interesting. 7. The expedition is in Africa. 8. The new film is long. 9. My mother is at home. 10. The workers are at the factory. 11. The children are at school. 12. The students are at the institute.

Упражнение 2. Ответьте на все вопросы сначала утвердительно, затем отрицательно. Замените подлежащее соответствующим местоимением, если это необходимо.

Образец: Is Kovalev present at the lesson?
Yes, he is. No, he is not.

1. Is Gorky street long? 2. Was last winter cold? 3. Are your friend's sisters beautiful? 4. Is it hot today? 5. Is it Sunday today? 6. Is the clock on the wall? 7. Are you at the lesson? 8. Will you be at home in the evening? 9. Are the trees green now? 10. Is your house in the centre of the city? 11. Will your mother be at home at five o'clock? 12. Were you free yesterday? 13. Is his answer good? 14. Will you be in town on Sunday? 15. Is mathematics difficult? 16. Were your summer plans interesting? 17. Is your institute large?

Глагол to have в Indefinite Active

Present	Past	Future
have has	had	shall have will have

Упражнение 3. Скажите следующие предложения: а) в прошедшем времени (*Past Indefinite*), б) в будущем времени (*Future Indefinite*).

Образец: He has a car.

а) He had a car.

б) He will have a car.

1. They have a big house in the country. 2. My friend has many interesting books. 3. His mother has a nice garden. 4. She has a good map of London. 5. We have a good dog. 6. I have a beautiful picture. 7. These students have five examinations. 8. His parents have a comfortable flat. 9. John has good work. 10. These pupils have four lessons every day.

Оборот there + to be в Indefinite Active

Present	Past	Future
there is there are	there was there were	there will be

Упражнение 4. Скажите следующие предложения: а) в прошедшем времени (*Past Indefinite*), б) в будущем времени (*Future Indefinite*).

Образец: There are many good books in the library.

а) There were many good books in the library.

б) There will be many good books in the library.

1. There is a new film on in our club. 2. There are twelve students in the group. 3. There is a beautiful garden near the house. 4. There is a big blackboard in the classroom. 5. There is a letter for him on the table. 6. There are two lifts in the house. 7. There are 300 pages in the book. 8. There is a new stadium in the town. 9. There is a table in the middle of the room. 10. There is a big hospital in the village.

Степени сравнения прилагательных

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

Упражнение 5. *Переведите следующие прилагательные на русский язык и дайте сравнительную и превосходную степень.*

1. short; 2. large; 3. beautiful; 4. big; 5. high; 6. difficult; 7. new;
8. old; 9. late; 10. comfortable; 11. young; 12. easy; 13. clean; 14. thin;
15. thick; 16. good; 17. much; 18. bad; 19. little; 20. many.

Упражнение 6. *Поставьте прилагательные в следующих предложениях в сравнительную или превосходную степень.*

1. Moscow is (large) than Kiev.
2. John is (short) than William.
3. Henry is (tall) of all.
4. This summer is (hot) than last summer.
5. December 22 is (short) day of the year.
6. This is (beautiful) house in the city.
7. He is (good) student in the group.
8. Which is (large) city in our country?
9. Mathematics is (difficult) for him than physics.
10. The Volga is one of the (long) rivers of the USSR.

Упражнение 7. *Ответьте на следующие вопросы.*

1. Who is the youngest in your group?
2. Which of you is the oldest?
3. Who is the best student?
4. Who studies better than you?
5. Who studies worse than you?
6. Which is the most difficult subject for you?
7. Which is the easiest subject for you?
8. Is mathematics more difficult for you than English?
9. Is English easier for you than physics?
10. Are you as young as your friend?
11. Is chemistry as difficult for you as physics?
12. Who is the tallest in the group?
13. Who is the shortest in the group?
14. Which is the most interesting subject for you?

Времена группы Indefinite Active

Present	Past	Future
I you we they } work he, she works	I you he, she we they } worked went	I we you he, she they } shall work } will work

Упражнение 8. *Скажите или напишите следующие предложения в единственном числе. (Не забудьте изменить форму сказуемого).*

Образец: My sisters work at the factory.
 My sister works at the factory.

1. My friends work in London.
2. These girls go to the theatre in the evening.
3. These apples are very green.
4. My friends do not like fish.
5. His brothers work much all day long.
6. They get new books from the library every week.
7. They have breakfast at eight o'clock.
8. The postmen bring letters three times a day.
9. They want to buy some toys, because their sons have a birthday tomorrow.

Упражнение 9. Скажите следующие предложения: а) в прошедшем времени (*Past Indefinite*), б) в будущем времени (*Future Indefinite*). Предварительно повторите формы неправильных глаголов *come, go, have, read, take, begin, leave, swim, tell, know*.

1. I come to the institute at 9.
2. He goes to the institute by Metro.
3. We have dinner at 3.
4. They read newspapers in the morning.
5. My friend takes books from the library.
6. I know many English words.
7. The lectures begin at 8.30.
8. My mother leaves Leningrad.
9. He swims well.
10. The boy tells us everything.
11. I play tennis in summer.
12. He helps me in my work.

VOCABULARY NOTES

Задание I. Переведите следующие предложения.

1. **education** — образование. He got a good education.
2. **important** — важный. This question is important.
3. **wish** — желание. I have no wish to go there.
4. **to attend** — посещать. All children of the village attend school.
5. **after** — после. After school the boys played tennis.
6. **age** — возраст. What is your father's age?
7. **complete** — полный. It was a complete surprise to me.
to complete — заканчивать. They completed the work on Friday.
8. **secondary school** — средняя школа. He finished a secondary school 10 years ago.
9. **introduction** — введение, вступление. The professor started the lecture with a short introduction.
10. **almost** — почти. She almost finished her home task.
11. **to call** — называть. We call him by his first name.
12. **primary school** — начальная школа. There was only a primary school in the village.
13. **language** — язык. What language does this man speak?
14. **to leave (left, left)** — оставить, уехать. They leave Moscow in summer.
15. **either ... or** — или ... или. Come either today or tomorrow.
16. **shift** — смена. We studied in the first shift at school.
17. **before** — до, перед. Repeat the new words before your English lesson.
18. **to take place (took, taken)** — происходить, случаться. It took place after the war.
19. **entrance** — 1) поступление; 2) вход. 1) Entrance to the college is by examination only. 2) The entrance to the house was blocked up.
to enter — входить, поступать. He entered the institute last year.
20. **between** — между. The letter B comes between A and C.
21. **course** — курс. They will have a course of lectures in construction mechanics.

22. **usually** — обычно. What do you usually do on Sunday?
23. **to last** — продолжаться, длиться. The lesson at school lasts 45 minutes.
24. **foreign** — иностранный. Pupils study different foreign languages at school.
25. **higher** — высший. His parents don't have a higher education.
26. **to graduate from the institute** — окончить институт. We shall graduate from the institute in five years.
27. **to return** — возвращаться. Yesterday he returned home late.
28. **field** — область, сфера деятельности. This man works in the field of literature.
29. **to take an examination** — держать экзамен. Our students took an examination in physics in December.
30. **to pass an examination** — сдать экзамен. The pupils of the 10th form passed all examinations well.
31. **to fail in an examination** — не выдержать экзамен. Physics is very difficult for him, he may fail in it.
32. **subject** — предмет. My friend failed in mathematics. He was not ready for this difficult subject.
33. **note** — заметка, запись. He spoke for an hour without a note.
34. **during** — в течение, во время. We speak English during the lesson.
35. **shop** — цех, мастерская. There are many shops at this factory.
36. **to equip** — оборудовать, оснащать. There are some laboratories in our school. We equip them with new apparatus.
37. **latest** — новейший, последний. What is the latest book by this writer?
38. **to divide** — делить, разделять. If you divide 10 by 2, the answer is 5.
39. **term** — семестр. The first term of a school year lasts 4 months.
40. **to present** — представлять. It presented a new difficulty.
41. **final** — конечный, выпускной. The final examination was mathematics.
42. **state** — государство. Soviet Russia was the first socialist state.
43. **to require** — 1) требовать; 2) нуждаться. 1) They required him to sit still. 2) They require your help.
44. **site** — участок. In summer the students will work at the construction site.
45. **to receive** — получать. Did you receive a letter from your friend yesterday?

Задание II. Прочтите следующие интернациональные слова и догадайтесь об их значении:

class, type, institute, centre, examination, consultation, university, to finish, national, economy, student, lecture, practical, laboratory, apparatus, democratic, system, mathematics, physics, material, specialist, universal, college.

EDUCATION IN THE SOVIET UNION

1. September the 1st is an important day in the Soviet Union. It is the first day of a school year. All the newspapers print good wishes to the children and by 8.30 in the morning the streets are full of boys and girls in school uniforms with flowers in their hands all walking to school. Soviet children must attend the school after they are seven. Education is compulsory for 8 years, from 7 to 15 years of age in the complete secondary school and the introduction of universal compulsory complete ten-year secondary education has been almost accomplished. The first four forms of school are called the primary school. Education is given in 66 languages of the USSR. The children may attend national schools where education is given in their native language or Russian schools according to their parents' wish. Soviet schools are co-educational¹ except for the Suvorov and Nakhimov schools. Pupils who leave school after the 8th form may continue their education in school for working youth. These schools are either evening or shift schools and the students study before or after work. Classes take place three or four days a week.

2. There are three types of universities and institutes in the Soviet Union: day-time, evening and correspondence.²

Entrance to the university or the institute is by competitive³ examination which is open to anyone between the age of 17 to 35 who have finished the secondary school. The complete course at the institutes usually lasts 5 years, in some it may be a little longer or shorter. Many young people from foreign countries come to the USSR to get a higher education and after graduating from the institutes and universities they return to their countries to work there in all fields of national economy.

3. In August applicants⁴ take examinations to different institutes and universities of the country. Some pass them, some fail in this or that subject. Those who pass them become first-year students.

Students have lectures and practical hours. They attend lectures on different subjects: mathematics, physics, chemistry and others, and they must take notes⁵ of them. During practical hours they study the material of the lectures. They have practical hours in the laboratories and shops of the institutes. The laboratories of the institutes are well equipped with the latest apparatus and there is a library at every institute where the students can take text-books as well as books for reading.

The academic year is divided into two terms from September to January and from February to July. Students take examinations at the end of a term or a year. On completion of studies the student presents a graduation thesis⁶ or passes final state examinations. Our country requires more and more specialists with a higher education every year. Many graduates will work at factories, construction sites, hospitals, schools, collective farms, making use⁷ of what they learned during their years of study.

4. The USSR has the most democratic system of education: any citizen can get a secondary and higher education. Schooling all the way through college and university is free of charge⁸ and students receive monthly grants.⁹

NOTES TO THE TEXT

1. **co-educational schools** — школы совместного обучения лиц обоего пола

2. **a correspondence institute** — заочный институт

3. **competitive** — конкурсный

4. **an applicant** — абитуриент

5. **to take notes** — конспектировать

6. **a graduation thesis** — дипломная работа

7. **to make use** — использовать

8. **free of charge** — бесплатно

9. **grants (pl)** — стипендия

Упражнение 10. *Переведите на русский язык следующие словосочетания:*

a primary education, important work, his last wish, not to attend school, before and after the Revolution, school age, a complete course of lectures in history, the introduction to the book, almost late, a foreign language, to leave the country, either here or there, an eight-hour shift, it often takes place, between two hours, the entrance door, the course of the ship, usually in time, to last longer, higher school, to graduate from Leningrad University, to return the book, in the field of physics, during the term, a note in the note-book, big shops of the factory, to equip a laboratory, latest news, to divide the apple, a winter term, the Soviet state, his final answer, a bad site, to receive much money.

Упражнение 11. *Переведите следующие предложения на русский язык, выбрав одно из трех слов, подходящее по смыслу.*

1. Students get a higher (examination, education, question) at the institutes and universities. 2. Students receive a monthly (profession, grant, tradition). 3. After the students (organize, graduate, teach) from the institutes they go to work in all fields of national economy. 4. He did not enter the institute because he (prepared, failed, learned) in mathematics. 5. Students must (return, attend, begin) lectures on different subjects. 6. When did you (receive, make, want) a letter from your parents? 7. He is a good student, he will (come, understand, pass) all the examinations well. 8. As the lectures begin at 9 o'clock, you must come some minutes (after, between, before) 9 o'clock. 9. He didn't answer this question because it was very (difficult, different, easy). 10. (Beautiful, interesting, foreign) delegations from different countries come to visit the USSR. 11. What foreign (newspaper, language, word) can you speak? 12. What was the (latest, high, easy) film that you saw? 13. What was the most difficult (note-book, subject, exercise) for you at school? 14. After graduation from the institute he will work at the construction (corner, site, city) as an engineer. 15. Nobody could remember the de-

tails because it (take place, close, continue) long ago. 16. He (usually, against, during) returned home at 7 o'clock, but yesterday he came very late.

Упражнение 12. *Ответьте на следующие вопросы:*

1. How many students are there in your group? 2. How many boys are there in your group? 3. How many girls are there in your group? 4. How many windows are there in your classroom? 5. How many doors are there in your classroom? 6. How many chairs are there here? 7. Is there a map on the wall of your classroom? 8. Are there pictures on the walls of your classroom? 9. How many pictures are there? 10. Is there a calendar on the wall?

Упражнение 13. *Измените следующие предложения, используя глаголы has, have вместо оборота there+to be.*

Образец: There are no books in his bag.
He has no books in his bag.

1. There is no TV-set in his room. 2. There are no mistakes in his dictation. 3. There is no garden near his house. 4. There are no pictures in her room. 5. There are no French books in her library. 6. There is no English newspaper on her table. 7. There is no coffee in my cup. 8. There is no telephone in my flat. 9. There are no maps on the walls of our classroom. 10. There is no ink in my pen.

Упражнение 14. *Переведите следующие предложения на русский язык, обращая внимание на перевод союзов сравнения:*

as ... as — так же, как
not so ... as — не так, как
the ... the — чем ..., тем
than — чем

1. The day yesterday was not so fine as it is today. 2. I do not get up so early on Sunday as on week-days. 3. Lesson 1 is not so difficult as lesson 3. 4. She does not work at her English as much as she did last year. 5. Chemistry is not so interesting to him as mathematics. 6. as black as coal (уголь). 7. as heavy as lead (свинец). 8. as light as a feather (перо). 9. as wet as a fish; 10. The more we study, the more we know. The more we know, the more we forget. The more we forget, the less we know. The less we know, the less we forget. The less we forget, the more we know. So why study? 11. He knows English better than you. 12. This book is more interesting than yours. 13. English is easier than Russian. 14. This flat is less comfortable than ours.

Упражнение 15. *Составьте вопросы, ответами на которые были бы следующие предложения:*

Образец А. *Ответ:* Yes, they do. They return home at 5.
No, they don't. They don't return home at 5.

Вопрос: Do they return home at 5?

A. 1. Yes, we do. We begin our lessons at 9. 2. Yes, I do. I learn many subjects at the institute. 3. Yes, they do. These students understand English well. 4. No, she doesn't. My mother doesn't teach French. 5. No, I don't. I don't make many mistakes in mathematics. 6. No, they don't. These students don't take books from the library.

Образец Б. *Отвем:* Yes, they did. They returned home at 5.
No, they didn't. They did not return home at 5.

Вопрос: Did they return home at 5?

B. 7. Yes, he did. My friend passed his examinations well. 8. Yes, they did. These pupils studied English at school. 9. Yes, she did. My sister graduated from the institute 2 years ago. 10. No, I didn't. I did not come to the Institute yesterday. 11. No, they didn't. They did not go to the theatre last week. 12. No, she didn't. My sister did not like this film.

Образец В. *Отвем:* Yes, they will. They will return home at 5.

No, they won't. They will not return home at 5.

Вопрос: Will they return home at 5?

C. 13. Yes, we shall. We shall take examinations in winter. 14. Yes, I shall. I shall leave Moscow in summer. 15. Yes, they will. They will play football on Sunday. 16. No, I shan't. I shall not get up at 7 on Sunday. 17. No, they won't. My parents will not leave the village. 18. No, she won't. His sister will not buy this dress.

Упражнение 16. *Выразите несогласие со следующими утверждениями.*

Образец: They came to see me yesterday.
They did not come to see me yesterday.

1. This teacher asks many questions at the examination. 2. My friend often receives money from his parents. 3. My father helps me with my homework. 4. We read newspapers in the evening. 5. I received a letter yesterday. 6. We liked the new film. 7. They left Moscow last summer. 8. These students attended lectures yesterday. 9. My mother will go to Leningrad in July. 10. We shall go to the cinema tomorrow. 11. I shall buy this dictionary. 12. They will return the books to the library on Saturday.

Упражнение 17. *Составьте правильные по смыслу предложения.*

I.	My friend I Victor	took an examination passed an examination failed	in	mathematics physics chemistry Russian literature English History
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Упражнение 18. а) *Повторите предлоги времени, места и направления.* б) *Вставьте подходящие по смыслу предлоги.*

We are students. ... the morning we go ... the institute. Our lectures begin... 9 o'clock. We have no lectures ... Sunday. We take examinations ... January and June. We do not study ... summer. We come ... the classroom and sit down ... the tables. We take our books and notebooks ... the bags and put them ... the table. Our pens are ... the table too. Our bags are usually ... the tables. Sometimes they are ... the table ... the floor. During the lesson we go ... the blackboard and write sentences ... it. When the lessons are over we go ... the classroom and go home. We usually come back ... the institute ... 3 o'clock ... the afternoon.

Упражнение 19. *Расскажите о себе, используя следующие слова и словосочетания:*

to finish a secondary school; to take examinations; to pass examinations; to enter the institute; to be a first-year student; to receive a grant; to attend lectures; to have practical hours; to study different subjects (chemistry, physics, mathematics); to become an engineer.

Упражнение 20. *Ответьте на вопросы по тексту 1А.*

1. At what age do Soviet children begin to study? 2. Is education compulsory in the Soviet Union? 3. What do we call the primary school? 4. Are Suvorov and Nakhimov schools co-educational? 5. What kind of school is a national school? 6. Where may pupils, who leave schools, continue their education? 7. How many times a week do evening students study? 8. What types of institutes are there in the Soviet Union? 9. Can you enter the institute at the age of 25? 10. How long does the course of studies at the institutes usually last? 11. When do applicants take examinations? 12. What subjects did you take examinations in? 13. Where do students take text-books? 14. Must students pay for their education? 15. When do students take examinations? 16. How many terms are there in the academic year? 17. Why do we say the USSR has the most democratic system of education?

РАБОТА НАД СЛОВООБРАЗОВАНИЕМ

Упражнение 21. *Переведите следующие производные слова согласно моделям:*

Модель I: *основа глагола + -tion, -sion, -ion → существительное*

to include — включать

inclusion — включение

to continue — продолжать

continuation

to produce — производить

production

to absorb — поглощать

absorption

to consider — рассматривать

consideration

to determine — определять

determination

to apply — применять	application
to satisfy — удовлетворять	satisfaction
to accumulate — накапливать	accumulation

Модель II: основа глагола + -er/-or → существительное со значением лица производящего действия, или орудия действия

to generate — генерировать	generator — генератор
to distribute — распределять	distributor
to clean — чистить	cleaner
to cool — охлаждать	cooler
to lead — руководить	leader
to mix — смешивать	mixer
to time — регулировать	timer
to govern — управлять	governor
to operate — оперировать	operator

Упражнение 22. Найдите в тексте слова, имеющие общий корень со словами, данными перед текстом, определите части речи, к которым они относятся, переведите их, затем переведите текст.

to converse — разговаривать	to speak — говорить
to hear — слышать	to pronounce — произносить

When you speak the sound waves (звуковые волны) travel through the air at the rate of 1200 feet per second. In a normal conversation the hearer really hear only about 50% of the sounds produced by the speaker. That explains why foreign languages are often easier to speak than to understand. Recording instruments show that no two native speakers of a language pronounce any word or sound of that language alike (одинаково). There is always some difference between your pronunciation and that of another speaker and this enables (давать возможность) us to recognize (узнавать) a person by his pronunciation.

ТЕКСТ 1В

Задание I. Прочтите текст, стараясь понять основное содержание. (Заметьте время начала и окончания чтения. Этот текст нужно прочесть за 6 минут из расчета 70 слов в минуту.)

HISTORY REPEATS ITSELF

If you go on an excursion to the Pavlov Biological Station at Pavlovo near Leningrad, you will see a very interesting monument there. It is a monument to the dog. The dog, as you know, played a very important part (роль) in all Pavlov's experiments. Pavlov wanted to thank the dog, so this monument was set up (установлен).

Then if you go to see Pavlov's room in which the great scientist worked for so many years, you will see another dog, a toy one, standing

on the bookcase. This toy dog has a very interesting history. It comes from Cambridge, one of the oldest universities in the world.

Once a group of students stopped before the window of a toyshop (игрушечный магазин) in Cambridge and looked at the toy dogs there. "There's the thing we want," said one of them, and he pointed to a white dog in the shop window. They entered the shop and soon came out with the big white dog they had seen in the window. Then laughing (смеясь) and talking they went to their professor and showed the dog to him.

The professor did not understand what it was all about until one of the students told him about their plan to give Pavlov the present (подарок) of the toy dog.

"Where did you get the idea from?" asked the professor. "I think it's an excellent (отличная) one."

"We got it from the grandson of Charles Darwin, who is now a student here," they answered, "when Darwin got his doctor's degree (степень) at Cambridge, the students gave him a toy monkey (обезьянка). That was how they showed that they supported (поддерживать) his theory of the origin of man."

The next day was a great holiday at Cambridge. Thousands of students came to the University to see the foreign scientists receive their diplomas. The students watched the ceremony from the gallery.

It was Pavlov's turn (очередь) to receive his diploma. As he was going forward under the gallery, the students let the dog right down into his arms. He looked up, saw all the young smiling faces above him and understood that they wanted to show him that they supported his theory.

As this was taking place, an old professor on the other side of the hall said to his friend: "Look, the students are giving Pavlov a toy dog. Did you see Darwin get his diploma? So you remember (помнить) him standing there with a toy monkey in his hands nearly forty years ago? History repeats itself, doesn't it?"

Задание II. Выберите утверждение, соответствующее содержанию текста.

1. There is a monument to the dog:
 - 1) in Oxford;
 - 2) in Pavlovo;
 - 3) in Cambridge.
2. The toy dog comes from:
 - 1) Moscow;
 - 2) Cambridge;
 - 3) London.
3. Charles Darwin was given:
 - 1) a toy dog;
 - 2) a toy monkey;
 - 3) nothing.
4. The students gave Pavlov a toy dog:
 - 1) in the shop;
 - 2) at the ceremony;

- 3) at the lecture.
5. The students gave Pavlov a toy dog because they:
- 1) liked him;
 - 2) studied together with him;
 - 3) supported his theory.

TEXTIC

Задание I. Прочтите текст, отыскивая в нем ответы на поставленные вопросы.

SCHOOLING IN ENGLAND

How many days a week is school open?

1. Every child in Great Britain between the ages of five and fifteen years must attend school. There are three main types of educational institutions: primary schools, secondary schools, and universities. State schools are free (бесплатный), and attendance is compulsory. Morning school begins at nine o'clock and lasts for three hours until twelve o'clock noon. Afternoon school begins at two o'clock and lasts for two and a half hours until half-past four. School is open five days a week. On Saturdays and Sundays there are no lessons.

What subjects do they teach at the Infant¹ school?

2. The first lesson of the day is usually Bible study, and the second lesson arithmetic. The other lessons are: reading, writing, English language, English literature, English history, geography, physics, chemistry, botany, zoology and others. At 5 the children enter the Infant school. The three R's (reading, writing and arithmetic) are taught there for about 20 minutes a day during the first year, coming up to about 2 hours in their last year.

What kinds of secondary schools are there in Great Britain?

3. At 7 the pupils are transferred (перевести) to the primary school. There, pupils are streamed (разделять), according to their abilities (способность) to learn, into A, B, C and D streams — the best children are in the A stream and the worst in the D stream. Pupils of the different streams are not taught in the same way. Usually more physical activities are given to those of the D and C streams. In this system a pupil never repeats a grade (оставить на второй год) but always studies in his age group. At the end of their fourth year the pupils write their Eleven Plus Examinations² on the results of which they will go the following September either to a Secondary Modern,³ Technical,⁴ Grammar⁵ or Comprehensive School.⁶ Those receiving the highest marks are sent to the Grammar schools, the next best to a Technical school, and the others to the Modern school. The Comprehensive school takes in pupils of these three types of schools.

What kind of education do pupils get at the Secondary Technical school?

4. The Secondary Modern school is attended by about 75% of the pupils of their age-group. The following courses: secretarial, trade and commerce, agriculture, gardening are taught at these schools.

The Secondary Technical school takes in about 5% of the pupils, and it gives a general technical education. It serves those pupils who are more mechanically inclined (склонный).

Are there many Comprehensive schools in England?

5. The Secondary Grammar school takes in about 20% of the children and gives a five-year course leading to the General Certificate of Education⁷ at the ordinary level (общий уровень). On receiving this certificate a pupil may either leave the school or continue his studies for another 2 or 3 years in what is called the "Sixth Form" to receive the same certificate but at the advanced level (продвинутый уровень). The universities usually require from their applicants a few subjects at this level.

The Comprehensive School combines the three types of schools. It is, therefore, a much larger school ranging from 700 to 2,000 pupils. Most schools in England have only from 300 to 500 children. There are only a few of these schools, and they are practically all found in the London area.

NOTES TO THE TEXT

1. an **Infant school** — детская школа, соответствующая у нас старшей группе детского сада

2. **Eleven Plus Examination** — письменный экзамен, который сдают одиннадцатилетние английские дети

3. a **Secondary Modern School** — современная средняя школа

4. a **Secondary Technical School** — средняя техническая школа

5. a **Secondary Grammar School** — средняя грамматическая (гуманитарная) школа

6. a **Secondary Comprehensive School** — средняя общеобразовательная школа

7. the **General Certificate of Education** — аттестат зрелости

Задание II. Прочтите текст С еще раз и выделите в каждой части текста предложения, которые содержат интересные для вас факты.

Задание III. Сделайте сообщения на следующие темы:

1) Primary schools in Great Britain.

2) Streaming in English schools.

3) Secondary schools: a) modern, b) grammar, c) technical, d) comprehensive.

Задание 1. Прочтите текст.

A DAY IN THE LIFE OF SIMON CARROT

1. First of all, I must tell you about myself. I am thirteen and I am in the third class at a Grammar School in Manchester. I have a young sister, called Rosemary, who is very stupid, and I have a dog, called Pal, who is very intelligent.

What a bad day. I got up late and didn't have time to eat my breakfast. I couldn't find my books or my school cap. At last, I found my books—in the bathroom; and at last, I found my cap—my dog, Pal, was playing with it. I had to wait ages for a bus and I was almost late for school. (Wiggy, my class teacher, told me, on Friday, that he would give me five hundred lines if I was late again).

2. But one nice thing took place today. In the Assembly Hall the Headmaster was reading out some news about the girls' hockey team. I was standing next to Jones (he's in my class) who is a very stupid boy, and much bigger than I am. He pulled my hair, so I kicked him and he said "OW" very loudly. Wiggy walked over to him and gave him a hundred lines. "But, sir," said Jones, "Carrot kicked me." "You can write out two hundred lines—for telling tales," said Wiggy. Then we all went to our classroom.

3. The first lesson on Monday morning is maths. What a terrible way to start the week. Mr. Bailey, the maths teacher, collected our homework. Then, he gave us some sums to do. I was sitting next to Jane, who is fat and stupid—but very good at maths. I asked her what the answers were, but she didn't tell me. The next lesson was French. I like French. It's nice to be able to talk to somebody in another language. At last it was eleven o'clock: time for a break. Susan gave me a piece of cake to eat with my milk. She also gave me her Latin homework to copy, because I hadn't done it. I think she likes me, and she's pretty, too.

4. After the break, we had two lessons of Latin. They are always the worst two lessons of the week. I do not like Latin. Mr. Williams gave me a hundred lines for talking to Susan, but I wrote them out in class instead of reading a Latin book. At half past twelve, it was time for lunch. I sat down at the table very happy because the Latin lessons were over. I ate a little and then I went into the playground with my friends, Pete Sharp and John Ford, and we played football. Jones wanted to play with us, but I told him I'd kick him again, so he went away. After lunch we had a history lesson. I don't usually like history, but I liked this lesson very much. We learned about William the Conqueror and the Battle of Hastings, in 1066. We were on holiday in Hastings last summer, and I had seen all the places that the history teacher told us about. I said I'd bring some photographs of our holiday to school next week. At three o'clock it was time for the best "lesson" of the week:

games. We played a very interesting game of football and I scored three goals.

5. After school, at four o'clock, Pete and I bought some sweets and I went to his house to listen to his new Beatles record. It's a good record. I want to buy it, but I haven't got enough money. Pete's parents give him ten shillings a week: I only have five shillings a week. I came home at half past seven and had my supper. I did my French homework—it was easy—but I didn't do my history homework. There was an interesting programme on television. I can do it tomorrow, during the break...

Задание II. *Ответьте на вопросы по тексту. Правильность ответов проверьте в соответствующих частях текста 1D.*

1. Who is Simon Carrot? (1) 2. How old is he? (1) 3. What school does he go to? (1) 4. Did he get up late or early? (1) 5. Where did he find his books and cap? (1) 6. What took place in the Assembly Hall? (2) 7. What did Simon Carrot do during mathematics? (3) 8. What foreign language does Simon Carrot like? (3) 9. What did he eat during the break? (3) 10. How many lessons of Latin did he have? (4) 11. At what time did he have lunch? (4) 12. Where did he spend his holiday last summer? (4) 13. What game did he play with his friends? (4) 14. What record did he listen to? (5) 15. What did he do in the evening? (5)

КОНТРОЛЬНЫЙ СЛОВАРЬ

1. after (*prp*); 2. age (*n*); 3. almost (*adv*); 4. attend (*v*); 5. before (*prp*); 6. between (*prp*); 7. call (*v*); 8. complete (*a, v*); 9. course (*n*); 10. divide (*v*); 11. during (*prp*); 12. education (*n*); 13. either...or; 14. entrance (*n*); 15. equip (*v*); 16. fail (*v*); 17. field (*n*); 18. final (*a*); 19. foreign (*a*); 20. graduate from the institute; 21. higher (*a*); 22. important (*a*); 23. introduction (*n*); 24. language (*n*); 25. last (*v*); 26. late (*a*); 27. leave (*v*); 28. note (*n*); 29. pass an examination; 30. present (*v*); 31. primary school; 32. receive (*v*); 33. require (*v*); 34. return (*v*); 35. secondary school; 36. shift (*n*); 37. shop (*n*); 38. site (*n*); 39. state (*n*); 40. subject (*n*); 41. take an examination; 42. take place; 43. term (*n*); 44. usually (*adv*); 45. wish (*n*).

LESSON 2 (Two)

Грамматика: 1. Времена группы Indefinite Passive.

2. Модальные глаголы can, may, must и их эквиваленты.

Основной текст А: History of Education.

Времена группы Indefinite Passive

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

Упражнение 1. *Переведите следующие предложения на русский язык, обращая внимание на перевод сказуемого в страдательном залоге.*

1. The books were taken from the central library. 2. An interesting problem was discussed at the lecture. 3. The newspapers are usually brought in the morning. 4. When was the Moscow University founded? 5. All the work will be done by automatic machinery. 6. New houses are built everywhere: in cities, towns, and villages. 7. The experiments will be completed by the end of the week. 8. The young workers are trained at the factory how to use the new equipment. 9. Much time is given to the study of the new methods of work. 10. The lectures on mathematics are attended by many students. 11. He was asked many questions at the examination. 12. English sportsmen will be met by the students of the Institute of Physical Culture.

Упражнение 2. *Сравните следующие пары предложений и переведите их на русский язык.*

1. The teacher asks the students many questions. The students are asked many questions. 2. He told them an interesting story. He was told an interesting story. 3. She visited her friends. She was visited by her friends. 4. I shall give you a good book. I shall be given a good book. 5. The rector will receive you at 3 o'clock. You will be received on Wednesday. 7. They will show us a new film tomorrow. They will be shown a new film tomorrow.

Модальные глаголы и их эквиваленты

долженствование	— must, should, to have to, to be to
физическая возможность	— can, to be able to
разрешение	— may, to be allowed to

Упражнение 3. Скажите или напишите следующие предложения:
 а) в *Past Indefinite*; б) в *Future Indefinite*.

Образец А: He must learn the new words regularly.
 He had to learn the new words regularly.
 He will have to learn the new words regularly.

A. 1. We must pass the examination in physics. 2. He must leave in the morning. 3. You must read the text again. 4. They must begin their work at 9 o'clock. 5. She must go there at once.

Образец Б: He can skate well.
 He could skate well.
 He will be able to skate well.

B. 1. He can continue his studies at the evening department. 2. I can meet you at the Metro station. 3. His father can help him in his studies. 4. I can translate this text without a dictionary. 5. She can play tennis after work.

Образец В: You may smoke in the corridor.
 You were allowed to smoke in the corridor.
 You will be allowed to smoke in the corridor.

C. 1. You may go home after classes. 2. They may continue the experiment. 3. The students may use dictionaries at the translation test. 4. He may take books from his father's library. 5. The tourists may attend the sitting of the Parliament.

VOCABULARY NOTES

Задание I. Переведите следующие предложения.

1. **as long as** — пока; до тех пор, пока. You may have this book as long as you want it. We shall stay in the country as long as the weather is fine.

2. **to teach (taught, taught)** — преподавать, обучать, учить. This young woman teaches mathematics at our Institute.

3. **essential** — существенный, важный, необходимый. At every lecture students learn some essential facts from this or that field of science.

4. **to show (showed, shown)** — показывать. The teacher showed a map of England to the first-year students.

5. **so that** — чтобы; для того, чтобы. Take the book home so that you could read it in the evening.

6. **to find (found, found)** — находить. She can't find her book, help her, please.

7. **to find out** — выяснять, обнаружить. I can't find out his new address, nobody knows it.

8. **other** — другой. She bought interesting books, pictures and many other things for her little children.

9. **early** — рано. In summer people usually get up early.

10. **to think (thought, thought)** — думать. First think and then say.

11. **invention** — изобретение. Television is one of the greatest inventions of our age.

12. **necessary** — необходимый, нужный. The secretary will give you all the necessary information.

13. **quite** — вполне, совсем, совершенно. It is quite dark at 5 o'clock in winter.

14. **to use** — пользоваться, применять. If you don't know some words, you may use a dictionary.

15. **possible** — возможный. It is possible to go there by Metro.

16. **knowledge** — знание, знания. He has a good knowledge of English.

17. **to grow (grew, grown)** — 1) расти, выращивать; 2) становиться. 1) Many beautiful flowers grow in our garden. 2) It grew cold.

18. **each** — каждый. The teacher gave each student a dictionary.

19. **therefore** — поэтому. It's very late, therefore I must go home.

20. **to need** — нуждаться в чем-л. I need two more days to finish my work.

21. **only** — только. He came only yesterday.

22. **behaviour** — поведение. The teacher did not like the behaviour of his two pupils—they talked with each other at the lesson.

23. **to decide** — решать. I can't decide which book to take.

24. **until** — до тех пор пока (не), пока (не); до. Wait here until I come. The holiday lasts until September.

25. **according to** — согласно, соответственно. According to the program we shall have this subject next year.

26. **to consist (of)** — состоять (из). Water (H₂O) consists of hydrogen and oxygen.

27. **way** — путь; способ. Which is the shortest way to the University? This is the best way to do it.

28. **even** — даже. It is hot in India even in winter.

29. **to produce** — производить. This factory produces apparatus for our laboratories.

30. **hard** — 1) твердый; 2) трудный, суровый. 1) Glass is harder than wood. 2) Mathematics is a hard subject for him. He had hard times in his childhood.

31. **to send (sent, sent)** — посылать. The child was ill, and his mother sent for the doctor.

32. **to keep (kept, kept)** — держать; сохранять. Where do you keep your books? Can you keep a secret?

33. **to build (built, built)** — строить, создавать. They will build a new school here.

34. **to develop**—развивать. After the October Revolution our country began to develop its industry.

35. **side** — сторона. One side of this box is black.

36. **as well as** — так же как, также. Peter as well as his friend came late for the lecture.

37. **to throw (throw, thrown)** — бросать. The boy threw the ball up in the air.

38. **to pay attention (to)** — обращать внимание на что-либо или на кого-либо. You must pay attention to what the teacher tells you.

39. **always** — всегда. I always come to the Institute in time.

40. **to try** — стараться, пытаться. I don't think I can do it, but I'll try.

41. **to include** — включать. The program includes many theoretical subjects.

42. **to influence** — влиять. Bernard Shaw was greatly influenced by Russian literature.

43. **especially** — особенно, в особенности. It is very pleasant to be near the river especially when it is hot.

44. **to provide (for)** — обеспечивать, снабжать. Everybody in our country is provided for in his old age.

45. **free** — свободный. I have very little free time.

free (of charge) — бесплатный. Education is free in our country.

Задание II. Прочтите следующие интернациональные слова и догадайтесь об их значении.

history, fact, sort, start, special, physical, organize, social, military, group, discipline, liberal, nature, discuss, arithmetic, politics, service, rhetoric, public.

TEXT 2A

HISTORY OF EDUCATION

[Education

1. As long as we live we continue to learn, and the education we receive when we are young helps us to continue learning. We are taught to read and write, and are taught many of the essential facts about the world and shown how to sort them out¹ so that later in life, we shall be able to find out things ourselves and not to ask other people.

The first teachers were fathers and mothers, but very early in the history of man children began to be taught by people other than their fathers and mothers. It is thought that schools first started in Egypt 5,000 to 6,000 years ago, and that it was the invention of writing which made them necessary. Reading and writing were quite different from the skills used in everyday life, and writing made it possible to store up knowledge which grew with each generation. Specially trained people were therefore needed to teach it.

Education in Ancient World

2. Only the sons of nobles² attended the first Egyptian schools, which taught reading, physical education and good behaviour. In ancient India the priestly caste³ decided what should be taught to each of the four castes, or groups, into which people were divided.

Only the priestly caste was allowed to learn the Hindu scriptures. In China, until the 19th century, education was organized according to social classes, and consisted largely of learning the scriptures by heart.

3. A clear example of the way in which even neighbouring people produce different types of education comes from ancient Greece. Sparta and Athens were two Greek states. The Spartans, a hard and warlike people, gave a purely military education. At the age of seven all boys of noble families were taken from their homes and were sent to live in groups. They were kept under a very strict discipline and were taught hunting, military scouting, swimming and the use of weapons. The Spartans despised literature, and some people think they could not even read.

At the very same time also for the nobles only the Athenians were building what we call a liberal education—one that helps a man to develop all sides of his nature, helps him to make and appreciate beautiful things and helps him to find the best way of life. They thought it important to educate the body as well as the mind, and had a programme of physical training which consisted of running, jumping, wrestling and throwing the discus. As time went on Athenian education paid special attention to reading, writing and literature and these were taught by a special teacher, known as the “grammatist”. Common people were not educated, they were trained in craftsmanship, workmanship, trades.

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

4. The Romans were very good at organizing, and they were the first people to have schools run by the government⁴ free of charge. Throughout their great empire there was a network of these schools which provided for three stages of education.

At six or seven all boys (and some girls) went to the primary school, where they learned “three R’s”: reading, writing, and arithmetic. Most children were not taught more than this, but at 12 or 13 boys of the rich families went on to the “grammar” school to study the Greek and Latin languages and their literatures, that is, what had been written in those languages. At 16, young nobles who wanted to enter politics or the service of their country went to the schools of rhetoric to be trained in rhetoric, or public speaking.

5. In Great Britain the first teachers we read about were craftsmen. They taught children to read, write and count, to cook and mend their own shoes. In the early 19th century the main system of teaching was the “Monitor” system.⁵ The teacher could manage a class of 100 or more

by using older pupils or "monitors" to help him. The schools had long desks which were sometimes arranged in tiers so that the teacher could see every child in a large class.

NOTES TO THE TEXT

1. sort out — отбирать, распределять (по сортам)
2. nobles — знать
3. the priestly caste — ['pri:stli' ka:st] привилегированное духовенство
4. schools run by the government — школы, находящиеся в ведении государства
5. the "Monitor" system of teaching — Ланкастерская система образования, при которой старшие ученики следят за младшими

Упражнение 4. *Переведите на русский язык следующие словосочетания:*

an essential part of his work; education is free of charge; to divide into parts; to decide where to go; necessary knowledge; to produce different things; hard day; hard work; hard material; to work hard; the best way of life; to build a new road; to develop national economy; the other side of the street; the shortest way to the centre of the city; to grow fruits; other inventions; quite a child; each day; early in the morning; always ready; to make it possible; according to the plan; to send for a doctor; to show a new film.

Упражнение 5. *Переведите следующие предложения на русский язык, выбрав одно из трех слов, подходящее по смыслу.*

1. You may keep this book (therefore, as well as, as long as) you need it. 2. Experiment is not (beautiful, essential, different) for this work. 3. The students were (divided, called, taught) into smaller groups. 4. They (showed, decided, developed) to complete the experiment in time. 5. He was taught foreign languages when he was (quite, well, always) a child. 6. They are quite (difficult, different, important). She is clever and beautiful but he is not. 7. The new building is on the right (side, river, country) of the street. 8. He (was given, was shown, was called) the shortest way to the river. 9. Her family is small, it (finds, shows, consists of) two persons. 10. He could not (show, find out, throw) the discus at a long distance. 11. They produced different models of cars (according to, so that, as well as) the new plan. 12. He says that (early, even, therefore) children helped them. 13. I like her and do it (quite, early, only) for her. 14. What (other, right, hard) books do you need? 15. He will work (into, until, against) you come.

Упражнение 6 А. *Переведите следующие предложения на русский язык, обращая внимание на время и залог сказуемого.*

1. Usually the students are examined in room 41. 2. At the institute the students are taught many different subjects. 3. The academic year

is divided into two terms. 4. The children of Sparta were given a military education. 5. In Athens special attention was paid to reading, writing and literature. 6. The boy was told to be back at home at 6 o'clock. 7. This road was built last year. 8. The electric lamp was invented by Yablochkov. 9. The telegram will be sent tomorrow. 10. This building will be completed very soon. 11. A new library will be opened in our district next week. 12. The new grammar rule will be asked at the next lesson.

Б. Переведите следующие предложения на русский язык, обращая внимание на глаголы, требующие после себя определенных предлогов:

to look at — смотреть на	to pay attention to — обращать внимание на
to look for — искать что-л., кого-л.	to listen to — слушать что-л.
to look after — присматривать	to speak to smb about smth — говорить с кем-л. о чем-л.
to look through — просматривать	to take care of — заботиться о ком-л.
to work at — работать над	to send for — посылать за
to wait for — ждать кого-л.	to refer to — ссылаться на

1. He was listened to with great pleasure. 2. The documents were sent for a week ago. 3. This poet is much spoken about. 4. The child was looked for everywhere. 5. Her children will be taken care of. 6. You are always waited for. 7. The picture was attentively looked at. 8. This book is often referred to. 9. The work of this student was paid attention to. 10. This plan was carefully worked at. 11. She looked after her little sister, when her mother was at work. 12. He looked through the morning newspapers at breakfast.

Упражнение 7. Переведите следующие предложения, обращая внимание на перевод модальных глаголов и их эквивалентов.

1. Who can translate this sentence? 2. You can go to Leningrad by train or by airplane. 3. Could you speak English a year ago? 4. I hope they will be able to reach the village before it is dark. 5. You may go away now, I shall finish the work myself. 6. Every engineer must know at least one foreign language. 7. Your son must stay in bed because he is still ill. 8. You should take a taxi if you don't want to be late for the concert. 9. Students are not allowed to smoke in the classrooms. 10. He was not allowed to enter the concert hall after the third bell. 11. As he received a bad mark, he had to go over the material again. 12. We were to meet at the station at six. 13. He was to stay at the office until the report was ready. 14. You will have to repeat the material of the lectures before the examination. 15. We were to send his letter of recommendation by air mail. 16. You should try to find out all the essential facts connected with his work in the Antarctic. 17. The team of experts is to study the present situation in the country. 18. Do you know the student who is to make a report at our next meeting? 19. You should

influence your friend. He is not studying the way he should. 20. All the students of our group should be present at the meeting.

Упражнение 8. *Заполните пропуски модальными глаголами can, must, should.*

1. Nina is ill. She ... stay in bed. 2. Drivers ... stop when they see a red light. 3. Betty asked: "... I open the window?" 4. Betty asked her father: "... I go to the concert tonight?" Her father said, "Yes, you ... go." 5. Mary is free tonight. She ... go to the dance. 6. Alec will have an English lesson tomorrow. He ... study tonight. 7. Mark is a good student. He ... speak English well. 8. There is no ink in my pen. ... I write with a pencil? 9. My friend gave me an interesting book to read. She said, "You ... keep it for seven days." 10. You ... do what the doctor says. 11. You ... study much if you want to pass the examination well. 12. You ... not smoke in the dining-room. 13. Little children ... go to bed early. 14. If you are ill, you ... consult a doctor.

Упражнение 9. *Переведите следующие предложения на русский язык:*

1. In this lesson special attention is paid to the translation of passive constructions. 2. I am often helped by my younger brother. 3. The letter will be answered at once. 4. If I am not mistaken this book is often referred to. 5. The secretary was sent for. 6. The students will be shown a new film on the development of automobile industry in our country. 7. They had to wait for the rector. 8. He had much work to do yesterday. 9. You must not cross the street on the red light. 10. The new words should be repeated as often as possible. 11. I shall have to tell him everything. 12. He is to come at 5. 13. You may open the window, it is hot here. 14. They were to meet at the station. 15. The experiment should be finished today. 16. Children under 16 are not allowed to see this film. 17. Can you tell me where she lives? 18. He could not show me the way to the nearest Metro station.

Упражнение 10. *Заполните пропуски конструкцией there is/are в нужном времени.*

1. ... an interesting lecture on political economy yesterday. 2. ... many people in the park yesterday. 3. ... a meeting at our institute tomorrow. 4. ... an old friend of mine at the concert last night. 5. ... much work to do tomorrow. 6. ... three types of educational institutions in the Soviet Union. 7. ... no mistakes in your last exercise. 8. ... many visitors in the museum yesterday. 9. ... 15 students in the group now. 10. ... a new club in the village next year. 11. a beautiful park near my home. 12. ... no one at home when I came.

Упражнение 11. *Поставьте специальные вопросы к числительным.*

Образец: There are thirteen boys in their group.
How many boys are there in their group?

1. There are two tables in the room. 2. There are four windows in the room. 3. There are thirteen chairs in the room. 4. There are six diagrams

on the wall. 5. There are eleven pens on the table. 6. There are five pencils on the desk. 7. There were three men in the library. 8. There will be fourteen students in our group. 9. There were two interesting lectures at the club last week. 10. There will be one new student in their group. 11. There were two hundred people at the meeting. 12. There was only one lecture yesterday. 13. There are thirty-five laboratories at our institute.

Упражнение 12. *Переведите следующие предложения на русский язык, обращая внимание на степени сравнения прилагательных.*

1. It is better to go there by plane, it is much quicker than by train. 2. The physics laboratory of this institute has the best apparatus for the experiment. 3. The road became worse as we went along. 4. The more you experiment, the better. 5. He begins to work much earlier than I do. 6. He was given the most difficult task. 7. The last report at the conference was the most interesting. 8. Edison could work at his experiments for days and weeks. Sometimes he slept less than five hours a day. 9. The work has to be done in the least possible time. 10. It is the least you could do for her.

Упражнение 13. *Ответьте на вопросы по тексту 2А.*

1. Who were the first teachers? 2. When did the first school start? 3. What made the first schools necessary? 4. Who began to teach children after writing was invented? 5. Who attended the first Egyptian schools? 6. What did the Egyptian schools teach? 7. How was education organized in China? 8. What kind of people were the Spartans? 9. What were the Spartans taught? 10. What did the program of physical training in Athens consist of? 11. What did the Grammarist teach? 12. What did Greek philosophers and thinkers discuss? 13. What were the Romans good at? 14. What were the children taught at the primary school? 15. What were the boys taught at the grammar school? 16. How could the teachers in Great Britain manage classes of 100 pupils?

РАБОТА НАД СЛОВООБРАЗОВАНИЕМ

Упражнение 14. *Переведите следующие производные слова согласно моделям.*

Модель I: *основа прилагательного + -ly → наречие*

free — свободный	freely — свободно
possible — возможный	possibly
deep — глубокий	deeply
full — полный	fully
safe — безопасный	safely
easy — легкий	easily
simple — простой	simply
close — близкий	closely
concentrical — концентрический	concentrically

Модель II: *основа существительного + -ic → прилагательное*

cube — куб	cubic — кубический
atmosphere — атмосфера	atmospheric
anode — анод	anodic
history — история	historic
geography — география	geographic
metal — металл	metallic
base — основа	basic
prose — проза	prosaic
atom — атом	atomic
parabola — парабола	parabolic

Модель III: *основа глагола + -ment → существительное*

to attach — прикреплять	attachment — прикрепление
to assess — оценивать	assessment
to move — двигать	movement
to treat — лечить	treatment
to attain — достигать	attainment
to establish — устанавливать	establishment
to align — регулировать	alignment
to replace — заменять	replacement
to punish — наказывать	punishment

Упражнение 15. *Переведите следующие словосочетания:*

to engage — зацеплять	engagement of parts
to manage — руководить	good management
to invest — вносить вклад	large investments
to improve — улучшать	great improvement
to embellish — приукрашивать	embellishment of facts
to displace — смещать	displacement of parts
to align — регулировать	alignment of machine elements
considerable — значительный	to change considerably
correct — правильный	to speak correctly
successful — успешный	to pass an examination successfully
easy — легкий	to find easily
exact — точный	to know exactly
real — реальный	realistic approach (подход)
system — система	systematic work
loud — громкий	to speak loudly
to cut — резать	metal cutter
condition — условие	conditional sentence

Упражнение 16. *Найдите в тексте слова, имеющие общий корень со словами, данными перед текстом, определите части речи, к которым они относятся, переведите их, затем переведите текст.*

to sleep — спать
particular — особенный

The data (данные) show that just as too little sleep is detrimental (вредный) to human organism, too much sleep is detrimental as well, particularly if one sleeps two hours more. People who sleep six hours or less a day are more energetic. Those who require 9 hours are slow movers. The long sleepers are passive. Long sleepers and short sleepers spend about equal amounts of time (равное количество времени) in deep sleep, but the long sleepers dream (видеть сны) much more.

TEXT 2B

Задание I. Прочтите текст, стараясь понять основное содержание. (Заметьте время начала и окончания чтения. Этот текст нужно прочесть за 5 минут, из расчета 70 слов в минуту.)

THE OXFORD AND CAMBRIDGE BOAT RACE

Sporting activities at Oxford and Cambridge are varied and numerous. There are different competitions (соревнование) between the colleges. The most popular sport is rowing (гребля). At the end of the term long, narrow, light boats, rowed by eight men, compete in the races. Boats start at short intervals one after another and try to knock the boat in front. Those who are able to do it move one place in a table (таблица) and the college at the top of the table is known as the "Head of a River".

Rowing has a long history in England. Rowing a boat with eight oars (весло) or with four oars was first started in England in the 18th century. At that time the boats took part in festivals and processions on the River Thames.

In the 19th century people started to use the boats for racing, not only in London on the Thames but also in the universities of Oxford and Cambridge. The first Boat Race between Oxford and Cambridge was held in 1829.

Nearly every year since then there has been a Boat Race between these two universities. It is held in London on the Thames, during the Easter vacation, at the end of March or the beginning of April.

The course, from Putney to Mortlake, is 4 1/4 miles long. It has many turns, and the crews usually row the 4 1/4 miles in 20 minutes.

The crews of the boats, chosen from the members of the college Boat Clubs, train together for twelve weeks before the race, first in Oxford or Cambridge and finally in London. In each boat there are eight oarsmen and a coxswain (рулевой), usually called a "cox". The cox, who is much lighter than the others, sets the speed and the rhythm, and steers.

On Boat Race Saturday the banks and bridges of the Thames are thick with people who have come to watch. Some wear dark blue ribbons (лента) for Oxford, and some wear pale blue ones for Cambridge.

Задание II. Выберите утверждение, соответствующее содержанию текста.

1. The first Boat Race between Oxford and Cambridge was held:
 - 1) in the 16th century;
 - 2) in the 19th century;
 - 3) in the 20th century.
2. The Boat Race between these universities is held:
 - 1) in Oxford;
 - 2) in Cambridge;
 - 3) in London.
3. It is held:
 - 1) in spring;
 - 2) in summer;
 - 3) in autumn.
4. In each boat there are:
 - 1) eight men;
 - 2) nine men;
 - 3) ten men.
5. The "cox" must be:
 - 1) lighter than the others;
 - 2) heavier than the others;
 - 3) of the same weight (вес) as the others.

Задание III. Прочтите текст еще раз и обратите внимание на интересные детали. Ответьте на вопросы.

1. In what country was rowing first started? 2. How many minutes do the crews usually row the 4 1/4 miles? 3. What colour are the ribbons of Oxford fans (болельщик)?

Т Е X T 2С

Задание I. Прочтите текст, отыскивая в нем ответы на поставленные вопросы.

STUDENTS' LIFE

What tradition is popular among the students at Cambridge?

1. In two weeks I shall finish my first year at Cambridge. Let me tell you something about students' life and my impressions of it.

The students are mainly English, but there are many others, particularly so in the block of rooms in which I live, for my neighbours include a Chinese studying law, an Indian studying English, a Canadian studying history and a Frenchman studying science.

The rooms have a pleasant outlook over the College gardens. There is a very small gas-stove on which we make coffee or tea. It is a popular tradition here to invite friends in the afternoon for tea and hot buttered toast¹ and jam. To each room there is a manservant who with a womanservant, known as a "bedder",² keep it clean.

What are students "sconced" (штрафоваться) for?

2. In the old days when Colleges were religious institutions the students were clergymen (священник), and their life was much more strict and disciplined than now. Friendship with young ladies was not allowed and the only women inside the college were washerwomen. The legend is that these had to be "old and ugly" (уродливый).

The students eat their meals in the College dining-hall. At some Colleges there is an interesting tradition. It is known as "sconcing".³ If a student comes late to dinner or he is not correctly dressed, or if he breaks one of the laws (закон) of behaviour, then the senior student orders him to be "sconced".

A large silver cup, known as "sconce cup", filled with beer is brought and placed in front of him and he must drink it in one attempt without taking the cup from his lips (it holds two and a half pints, or 1.5 litres). If he can do it, then the senior student pays for it, if not, the cup is passed round and the student who has been "sconced" must pay for it. In general the discipline is not strict.

What do the so-called "Bulldogs" do if a student whom they come up to runs away?

3. The students can stay out till twelve o'clock. Each evening a Proctor⁴ with two assistants, called "Bulldogs", walks about the town keeping an eye on the students' behaviour. If he sees a student breaking a rule he will come up to him and say, "Are you a member of the University, sir?", and if a student runs away, then the "Bulldogs" run after him, and if they catch him (they are chosen, it is said, because they are good runners), fine (штрафовать) him.

Apart from fines a student may be dismissed (исключать) from the University for one term.

What students' societies are there at Cambridge and which is the most popular one?

4. We attend our lectures in the morning and in the afternoon we are free. I usually work in my room or take part in some sport. The most popular sport is rowing.

There are over a hundred societies and clubs. There are religious societies and society for those who don't believe, political, sporting and dramatic societies. There is even one for people with beards. Perhaps the most popular is the Debating Society at which students debate political and other questions with famous politicians and writers.

The walks into the country, the talks, the games and the work, the traditions and the customs — all are part of the students' life which would be poorer if any of them was lost.

NOTES TO THE TEXT

1. hot buttered toast — нарезанный ломтиками и подрумяненный хлеб с маслом

2. a **bedder** — горничная в университетских общежитиях

3. **scopcing** — штраф, налагаемый на студента за нарушение правил

4. a **Proctor** — административное лицо в университете, в чьи обязанности входит надзор за поведением студентов и наложение дисциплинарных взысканий

Задание II. Прочтите текст еще раз и выделите в каждой части текста предложения, которые содержат интересные для вас факты.

Т Е X Т 2D

Задание I. Прочтите текст.

WHY WE CHOSE THE LUMUMBA FRIENDSHIP UNIVERSITY

1. The People's Friendship University brings together young people of different countries. The University started functioning with a handful of students from Asia, Africa, Latin America and also from the Soviet Union. But each academic year brought new entrants, and now it has more than four thousand students. The number of boys and girls who wish to enter the University is very high. I believe that over eight thousand applications are received for about six hundred vacancies. This shows the University's growing popularity and prestige. Why do so many young men wish to enter this University? Let us try and analyse the reasons and we shall see clearly that this University fully deserves its popularity.

2. I believe everybody knows that education is free in the Soviet Union. Foreign students, too, receive free education here. They pay nothing. Furthermore, every student gets a monthly stipend.

The University is staffed by highly qualified teachers. Professors and lecturers are always ready to give all sort of help not only in the classroom but also outside it. A student may come up to them whenever he is in difficulties. Classes are small. This raises the quality of teaching. Relations between teachers and students are friendly. Students may use the University library. Books are given without charge, and students may keep them till they pass their examinations. The students don't have to buy books, the library has practically all the books they need. It gets magazines and journals from many different countries. It is really a pleasure to see boys and girls from different countries studying together in the comfortable reading-room.

3. Studying science is meaningless without experimental work. For this every department at the University has its own laboratory where students can do their experiments and in this way develop a scientific outlook and initiative.

Students are given practical training at factories and plants. During practical training students learn to do things themselves. For example, a petroleum engineering student, went last year with a group of stu-

dents to the oilfields. He had a month's training there and learnt things that he shall never forget.

4. Free medical care is only a dream in capitalist countries. But here, in the Soviet Union medical care is free for all. It is free for foreigners too. There is a polyclinic at our University for students and all working there. If it is necessary the patient is sent to the hospital.

To help students keep physically fit time is given for outdoor games, sport and physical training. In short, the international institution provides for students' all-round development.

5. Debates and seminars are arranged. At our University club young people from different countries often perform their native songs and dances. By this means we all learn of each other's customs and culture.

The University certainly has a bright future. Here we, the boys and girls of different cultures, races, faith and colour study and live together in a friendly homely atmosphere. It would be fine if there were more such Universities in different parts of the world.

Задание II. *Ответьте на вопросы. Правильность ответов проверьте в соответствующих частях текста.*

1. How many students study at the Lumumba University? (1) 2. From what countries do students come to study there? (1) 3. Do foreign students receive free education in the Soviet Union? (2) 4. What raises the quality of teaching? (2) 5. What are the relations between teachers and students? (2) 6. Where do students receive practical training? (3) 7. What do students learn to do during practical training? (3) 8. Is medical care free for foreign students in the Soviet Union? (4) 9. What helps students to be physically strong? (4) 10. What do the young people do at the university club? (5)

КОНТРОЛЬНЫЙ СЛОВАРЬ

1. according to (*prp*); 2. always (*adv*); 3. as long as (*cj*); 4. as well as (*cj*); 5. behaviour (*n*); 6. build (*v*); 7. consist (of) (*v*); 8. decide (*v*); 9. develop (*v*); 10. each (*prn*); 11. early (*adv*); 12. especially (*adv*); 13. essential (*a*); 14. even (*adv*); 15. find (*v*); 16. find out (*v*); 17. free (*a*); 18. grow (*v*); 19. hard (*a*); 20. include (*v*); 21. influence (*n*); 22. invention (*n*); 23. keep (*v*); 24. knowledge (*n*); 25. necessary (*a*); 26. need (*v*); 27. only (*adv*); 28. other (*a*); 29. pay attention; 30. possible (*a*); 31. produce (*v*); 32. provide (*v*); 33. quite (*adv*); 34. send (*v*); 35. show (*v*); 36. side (*n*); 37. so that (*cj*); 38. teach (*v*); 39. therefore (*adv*); 40. think (*v*); 41. throw (*v*); 42. try (*v*); 43. until (*prp, cj*); 44. use (*v*); 45. way (*n*).

LESSON 3 (Three)

Грамматика: 1. Времена группы Continuous Active and Passive.

2. Усилительная конструкция It is (was)... { who
that
when

3. Числительные.

Основной текст А. London's Underground.

Времена группы Continuous

	Active	Passive
	to be + Participle I	to be + being + Participle II
Present	1. They are discussing a new plan now.	1. A new plan is being discussed now.
Past	2. They were discussing a new plan when we came.	2. A new plan was being discussed when we came.
Future	3. They will be discussing a new plan tomorrow at five o'clock.	3. <i>Время не употребляется.</i>

Упражнение 1. *Переведите следующие предложения на русский язык, обращая внимание на времена.*

She **prepares** her lessons in the evening every day.

She **prepared** her lessons well yesterday.

She is tired, she **will prepare** her lessons tomorrow.

The work **is done** well every day.

The work **was done** two days ago.

The work **will be done** next week.

She **is preparing** her lessons now.

She **was preparing** her lessons when we came to see her.

She **will be preparing** her lessons all the evening tomorrow.

The work **is being done** now and soon it will be finished.

The work **was being done** all the day yesterday.

Время не употребляется.

Упражнение 2. *Замените времена группы Indefinite временами группы Continuous, дополнив предложения обстоятельствами времени now, at five o'clock, from ... to, when you came, где необходимо.*

1. The car went along the street at high speed. 2. We had dinner at home. 3. She prepares her lessons in the library. 4. They will listen to

the records tomorrow. 5. My father smokes a pipe. 6. Tomorrow we shall have a practical hour on mathematics. 7. The student worked in the chemical laboratory the day before yesterday. 8. They will show a very interesting football match. 9. They read your book.

Упражнение 3. *Ответьте на следующие вопросы.*

1. Are you sitting in the laboratory? 2. Are you looking at the black-board? 3. Are you writing notes? 4. Are you thinking about your lesson? 5. What are you thinking about? 6. What are you looking at? 7. Who is sitting to the right of you? 8. Who is sitting to the left of you? 9. What are they writing? 10. Is your friend speaking or writing? 11. Is he reading an English or a Russian book? 12. What are you doing now? 13. Are you taking your exam or having a lesson? 14. Is your friend thinking about his lesson or about going to the cinema? 15. What lesson are you having now?

Упражнение 4. *Скажите или напишите по-английски:*

1) *что вы делали вчера в определенное время;*

Образец: Yesterday I was watching the TV programme in the evening.

2) *что вы собираетесь делать завтра, употребив конструкцию to be going to.*

Образец: I am going to play chess tomorrow at nine o'clock.

Используйте следующие показатели времени:

at ten o'clock	at a quarter past eight
at half past nine	in the morning
at a quarter to eight	in the evening
at ten to nine	in the daytime
at twenty past seven	

Упражнение 5. *Переведите на русский язык следующие предложения.*

1. When I came to Baku in 1962 the first metro line was being built. 2. What questions are being discussed now? 3. They are organizing this kind of work at their laboratory. 4. He was being told the news when I entered the room. 5. I can't understand what he is saying. 6. Professor N. was being listened to with great attention. 7. Who is being examined now? 8. I don't know what books he is reading. 9. Now everything is being done to make life in the Far North of our country easier. 10. The experiments were still being made in some laboratories when the new term began. 11. Can you tell me, who is sitting next to you? 12. All the way home he was being followed by a strange-looking man. 13. A new deep-level tunnel was being completed in London. 14. Numerous questions are being considered by the commission.

Усилительная конструкция

It is (was) ...	}	who that when
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Упражнение 6. Переведите следующие предложения на русский язык.

Образец: It was Popov who invented the radio.
Именно Попов изобрел радио.

1. It is with the help of the radio that we receive most of the information from the satellites. 2. It was in 1869 that Mendeleev published his Periodic Table. 3. It was the Russian scientist Lodygin who invented the electric lamp. 4. It was the Soviet Union that liberated the peoples of Europe from fascism during World War II. 5. It was in April when the equipment was brought to the laboratory. 6. It was his brother who brought me the letter yesterday. 7. It was yesterday when we discussed the plan of the work at the International club. 8. It was Yuri Gagarin, a citizen of the Soviet Union, who started the era of cosmic flights. 9. It is in the compass that magnetism first found its practical use. 10. It is the gravitation that makes the satellites move round the Earth.

Числительные

Числа	23 — twenty-three 247 — two hundred and forty-seven 3,200 — three thousand two hundred 2,045,328 — two million forty-five thousand three hundred and twenty-eight
Даты	in 1972 — in nineteen seventy-two May 9, 1945 — May the ninth, nineteen forty-five in 1905 — in nineteen o [ou] five
Дроби	1/2 kilometre — half a kilometre 1/3 ton — one third of a ton 0.5 — point five 3.152 — three point one five two

Упражнение 7. Прочтите по-английски:

а) 5, 15, 3, 13, 30, 51, 18, 11, 12, 20, 74, 112, 201, 946, 698; 10,575; 576,276; 7,000,000; 1,022; 0.85; 5.3; 1/2; 1/4; 2/3; 1 1/2; 2 5/6;

б) 1,005 magazines; 506 students; 4,790 specialists; 5,400,000 books; 6.75 miles; 1,431 kilometres; 627 roubles; on page 733; by bus 9; by tram 27; in room 218; on the 12th day;

в) on the 1st of May; on January 18th, 1967; on November 7th, 1947; at the end of 1789; October 25, 1917; 1903; at the beginning of 1970;

г) 5.3 tons; 2/3 kilometres; 0.2 mile; 2.75 tons.

VOCABULARY NOTES

Задание I. Переведите следующие предложения.

1. **achievement** — достижение, успешное выполнение. Television is one of the greatest achievements of our time. He spoke about the achievements in the national economy of our country.

2. **railway** — железная дорога. There is a railway between the two cities.

3. **world** — мир, вселенная. All the world knows about Popov's great invention.

4. **to carry** — нести, перевозить. Schoolchildren and students carry their books and copy-books in bags. In the Metro people are carried up and down by escalators.

5. **total** — целый, полный. The total sum is very small.

6. **to drive (drove, driven)** — 1) приводить в движение; 2) водить машину. 1) Electricity is used to drive machinery. 2) He drives the car well.

7. **steam** — пар. Steam can be used to drive machinery.

8. **to burn (burnt, burnt)** — гореть, сжигать. Wood burns easily.

9. **coal** — уголь. Coal is burnt to warm the houses.

10. **to consider** — считать, полагать, рассматривать. Everybody considers this book interesting. They had to consider a very important problem.

11. **outside** — снаружи. The box is red inside and black outside.

12. **dry** — сухой. That summer was dry and hot.

13. **air** — воздух. In summer he always sleeps in the open air.

14. **deep** — глубокий. Lake Baikal is the deepest lake in the world.

15. **level** — уровень. This city is 1,500 metres above the sea level.

16. **tube** — 1) труба; 2) метрополитен в Лондоне. 1) They had to use a metal tube to complete the experiments. 2) The London's tube was built in 1863.

17. **to tunnel** — прокладывать туннель. They tunnelled a tube under the river.

18. **through** — через, сквозь. They were constructing a tunnel through the mountain.

19. **clay** — глина. Bricks (кирпичи) are made of clay.

20. **sand** — песок. Never build anything on sand.

21. **easy** — легкий. He says that the task was easy.

22. **experience** — опыт (жизненный). We know much by experience.

23. **to bring (brought, brought)** — приносить, привозить. Bring me a cup of tea, please. Father brought me a very interesting book from Leningrad.

24. **another** — другой, еще один. Give me another book, I don't like books about animals.

25. **numerous** — многочисленный. There are numerous ways of doing it.

26. **traffic** — движение, транспорт. Street traffic was stopped.

27. **to move** — двигать(ся), передвигаться. The moon moves around the Earth.

28. **to install** — устанавливать. A new apparatus was installed in our laboratory last month.

29. **speed** — скорость. The speed of the car is very high.

30. **foot** (*pl.* feet) — 1) фут; 2) нога. 1) One foot is about 30.5 centimetres. 2) The shoes were large for his feet.

31. **to change** — менять(ся). The plan must be completely changed.
changeable — переменный. The weather is changeable in autumn.

32. **full** — полный. The garden is full of flowers.

33. **empty** — пустой. The box is empty, there is nothing in it.

34. **safety** — безопасность. Road safety is very important for traffic.

35. **main** — основной, главный. What is the main problem of road safety?

36. **in spite of** — несмотря на. In spite of the bad weather we went for a walk.

37. **often** — часто. He often returns home late.

38. **to follow** — следовать за, идти за. I'll go first and you'll follow me. Lesson one is followed by lesson two.

39. **accident** — несчастный случай, катастрофа. There was an accident in our street—a taxi ran into a trolley-bus.

40. **to happen** — происходить, случаться. It happened ten years ago.

41. **weakness** — слабость. He has a weakness for detective stories.

42. **entirely** — всецело, совершенно. Entirely new machinery was installed at the factory.

43. **to test** — испытывать. Automatic driving will be tested.

44. **to maintain** — 1) поддерживать; 2) осуществлять технический уход. 1) This road is well maintained. 2) Where is your car maintained?

45. **degree** — градус; степень. Water boils at 100 degrees C. The degree of safety is high.

Задание II. Прочтите следующие интернациональные слова и догадайтесь об их значении.

flag, gentleman, second (*n*), distance, mile, historic, million, locomotive, atmosphere ['ætməʃiə], electric, tunnel, method, escalator ['eskəleɪtə], maximum, transport, signal, automatic, programme, machine [məʃi:n], control, impulse, temperature, platform

TEXT 3A

LONDON'S UNDERGROUND

Bands were playing and the gentlemen in hats were preparing to make speeches about their great achievement. They made the first underground railway travel in the world—a distance of almost four miles.

It was the year 1863 and on that first historic day 30,000 Londoners used this new and strange way of travel. Now a hundred years later the London Underground carries two million passengers every day over

its 273 stations. Five hundred trains carry a total of 675 million passengers each year.

2. In the early days the trains were driven by steam locomotives which burnt coal.

It is said that the train staff and porters asked permission to grow beards and moustaches—as an early form of smog mask.

Now the atmosphere “underground” is considered even better than that outside as germs cannot grow in the dry air—and the trains, of course, are electric.

3. The deep-level tubes came later, in 1890. Tunnelling a tube through miles of clay, and sometimes sand and gravel, is no easy task, and it was James Henry Greathead who developed the method which was to make most of London’s tube tunnels possible.

London transport’s experience with tunnels brought them another record. The longest continuous railway tunnel in the world is the 17 1/2 mile tunnel in the Northern line.

4. There are numerous escalators which help to keep the traffic moving. The first was installed in 1911. Now there are 188 and they can carry 10,000 passengers an hour at a maximum speed. The longest at Leicester Square is over 80 feet in length. On long escalators the speed is changeable. The “up” escalator runs at full speed when carrying passengers, but when empty it runs at half speed.

5. Safety was always one of the main concerns of London transport. In spite of the fact that trains often follow each other within seconds, it is said that the London Underground is the safest form of transport in the world. Automatic signalling is operated by the trains themselves. A programme machine controls routes: if changes are necessary, they are made automatically and with lightning speed. No accidents can happen through human weakness.

6. An entirely automatic driving system is now being tested. The driver will be in charge¹ starting the trains at stations, but speed and safety signalling will be controlled by coded electrical impulses.

The air in the Underground is changed every quarter of an hour, and the temperature all the year round is maintained at 69-79 degrees by Fahrenheit.

7. The system of the Underground is a complicated one, and you may have to change trains. At stations where this is necessary you will see if you are going to one of the main line stations from which long-distance trains² run, a notice telling you to follow the green light or red. If you follow the green or red lights you will come to the right platform without difficulty.

NOTES TO THE TEXT

1. to be in charge of — отвечать за

2. long-distance trains — поезда дальнего следования

Упражнение 8. Переведите на русский язык следующие группы слов:

underground railway; in a different way; through the forest; the tube under the river; according to a total sum; youth of the world; steam

and electricity; dry sand; great achievements; to achieve good results; the open air; cold air; high level; inside the house; outside the college; to burn coal; to drive a car; dry air; to use clay and sand; deep knowledge; to carry a child; to carry passengers; to consider a problem; a distance of almost 25 miles; three thousand two hundred and twenty; a total of four million roubles; three hundred and fifty-six passengers; almost seven thousand and five hundred kilometers; to use numerous ways; at full speed; in spite of the fact; essential changes; to maintain the railway; to pass an easy examination; traffic safety; a car accident; two feet long; to install new equipment; ten degrees above zero; an empty box; an entirely automatic signal; changeable speed; no accident can happen; to test a system; to change the plan; to bring good results; to bring another record; to move at a maximum speed; three metres in length.

Упражнение 9. *Переведите следующие предложения на русский язык, выбрав одно из трех слов, подходящее по смыслу.*

1. The underground (field, river, railway) in Moscow is called the Metro. 2. It is (complete, easy, secondary) for me to do. 3. This student is (often, here, near) late for his lessons. 4. It is (different, complete, safe) to cross the street here. 5. We can use this (sea, sand, wind) for construction. 6. The world is (final, important, full) of changes. 7. He can (divide, drive, decide) a car well. 8. This is an old railway but it is well (maintained, received, produced). 9. There were (higher, numerous, free) changes in the plan of the building. 10. In spite of all the difficulties the people were (developed, thrown, saved). 11. The shortest way there is (through, therefore, quite) the forest. 12. Many (sides, tubes, houses) of a different diameter will be necessary for the building of this factory. 13. (according to, as well as, in spite of) the rain the people continued their work. 14. A car (follows, carries, moves) faster than a tractor. 15. After the (accident, achievement, movement) in the skating-rink the boy had to stay in bed as his foot was broken. 16. Is this room (easy, empty, deep)? No, there are many students there. 17. It is cold (inside, outside, around). You must put on warm things if you want to go for a walk. 18. In this part of our country the weather is (changeable, considerable, possible). 19. They burnt (clay, sand, coal) to warm the house. 20. The new equipment (was attended, was decided, was installed) in our laboratory. 21. The city is 20 metres above sea (line, level, degree). 22. The newspapers (are brought, are burnt, are considered) early in the morning. 23. They went for a walk (because of, as well as, in spite of) bad weather. 24. I'll (carry, drive, move) the bag myself, it is not heavy. 25. August was hot and (long, possible, dry).

Упражнение 10. *Переведите следующие предложения на русский язык, обращая внимание на время и залог сказуемого.*

1. a) The work on the apparatus is almost finished.
- б) The work on the apparatus is being finished.
- в) The staff of the laboratory is finishing the work on the apparatus.

2. a) The plans are usually discussed at the beginning of the year.
- б) They are discussing the plans of the next year.
- в) The plans of the next year are being discussed at the meeting.
3. a) While he was having dinner, his car was being cleaned. (to clean — чистить)
- б) Do you know who was cleaning the car?
- в) Was your car cleaned well?
4. a) The problems were worked at.
- б) The groups of experts were working at the problems.
- в) These important problems are being worked at in numerous research institutes.

Упражнение 11. *Переведите следующие предложения на русский язык.*

1. New metro lines are being built in Moscow in different parts of the city. 2. The article will be translated at the lesson. 3. You mustn't cross the street on the red light. 4. They were studying the subject when I joined them. 5. I am given English magazines every week. 6. You will have to find out where he is now. 7. They were to prepare all necessary information by Friday. 8. The document was looked for everywhere. 9. John had to drive all the time at the speed of 90 km per hour. 10. Ted doesn't like when he is asked about his work. 11. It was the Soviet Union that liberated the peoples of Europe from fascism during World War II. 12. On Thursdays the foreign students were being shown lecture halls and laboratories of the Moscow University. 13. Children under 16 are not allowed to see the film. 14. You can keep the books as long as you need it. 15. He couldn't bring me the magazine on Monday. 16. The report will be followed by a discussion. 17. The temperature in the Underground is maintained at 70°F. 18. A totally new safety system is being installed. 19. You will be able to get a grant if you pass all your exams well. 20. It was on April 26, 1755 that the opening of the Moscow University took place.

Упражнение 12. *Переведите на английский язык:*

а) 9 мая 1945 года; 23 февраля 1917 года; 12 февраля 1962; к 31 января 1971; в ноябре 1957; к 7 ноября 1947; 9 января 1905; в 1812; 1941;
 б) 25 км; 175 тыс. рублей; 20 миллионов людей; 3.500 студентов; 8.750 книг; 375.285 машин; 17 слов; 75 портфелей; 13 лошадей; 30 часов; 19 комнат; 90 страниц; 3,5 мили; 3/4 пути; 0,5 кг.

Упражнение 13. *Выразите свое согласие или несогласие со следующими утверждениями, основываясь на информации, полученной из текста 3А. Свое согласие выразите, начиная предложения словами That's right ..., а несогласие, начиная словами That's wrong*

Образец: 1) If changes are necessary, they are made automatically with lightning speed.

That's right, according to the text if changes are necessary they are made automatically with lightning speed.

2) Safety signalling will be controlled by the drivers themselves.

That's wrong, according to the text safety signalling will be controlled by coded electrical impulses.

1. It was fifty years ago that Londoners used a new way of travel. 2. The first underground travel in the world took place in 1863 in London. 3. The London Underground is not a very safe form of transport. 4. People who made the first underground travel did not consider it a great achievement. 5. In the early days the trains were driven by electricity. 6. The first escalator was installed 30 years ago. 7. The first trains were driven by steam locomotives. 8. The first escalator was installed in 1911. 9. The temperature in the underground is very changeable. 10. The deep-level tubes came in 1890. 11. On long escalators the speed is not changeable. 12. Now the escalators can carry 10,000 passengers a day. 13. The trains follow each other within seconds. 14. The temperature is maintained at 40 degrees by Fahrenheit. 15. The air in the Underground is changed every two hours. 16. The air in the Underground is changed every quarter of an hour. 17. An entirely automatic driving system was being tested in 1911. 18. If you follow the green or red lights, you will get to the right platform without difficulty.

Упражнение 14. *Расскажите, что вы (ваш друг)*

A. 1) *делаете обычно; 2) делаете сейчас.*

Используйте следующие слова: to sit, to listen to, to speak, to look at, to write, to read, to think about.

B. 1) *Что вы (ваш друг) делали вчера.*

Используйте следующие словосочетания:

to return home
to have dinner
to read a book
to rest on the sofa
to play the piano

to go for a walk
to prepare the lessons
to watch a TV programme
to write a letter to a friend
to play chess

V. *Что вы (ваш друг) собираетесь делать в воскресенье в указанное время.*

Употребите конструкцию to be going to и следующие указания времени.

at 9 o'clock
at 10 o'clock
at 12 o'clock
at 2 o'clock

at 4 o'clock
at 6 o'clock
at 9 o'clock
at 11 o'clock

Упражнение 15. *Расскажите, что вы видите на улице, используя следующие слова и словосочетания.*

cars
trams
buses
trolley-buses

to move
to carry passengers
to go at full speed
not to go at full speed
to go at maximum speed

Упражнение 16. Дайте характеристику следующим средствам передвижения; используйте данные ниже слова:

Образец: The underground is the safest.

the tram, the bus, the trolley-bus, the underground, the car, the bicycle, the train, the airplane, the helicopter.

the oldest	the most widely used
the fastest	the most popular
the most modern	the least comfortable
the most comfortable	

Упражнение 17. Сравните скорость следующих средств передвижения:

Образец: An airplane is faster than a ship.
A ship is not so fast as an airplane.

1. an airplane and a train; 2. a ship and a train; 3. a bus and a tram; 4. a trolley-bus and a car; 5. a bicycle and a car.

РАБОТА НАД СЛОВООБРАЗОВАНИЕМ

Упражнение 18. Переведите следующие производные слова согласно моделям.

Модель I: основа прилагательного + -(i)ty → существительное

regular — регулярный	regularity — регулярность
similar — сходный	similarity
popular — популярный	popularity
viscose — вязкий	viscosity
stable — устойчивый	stability
simple — простой	simplicity
elastic — эластичный	elasticity
plastic — пластичный	plasticity
responsible — ответственный	responsibility

Модель II: основа глагола + -ive → прилагательное

to communicate — общаться	communicative — общительный
to imitate — подражать	imitative
to regulate — регулировать	regulative
to illustrate — иллюстрировать	illustrative
to demonstrate — демонстрировать	demonstrative
to attract — привлекать	attractive

to correct — исправлять	corrective
to predict — предсказывать	predictive
to persuade — убеждать	persuasive
to execute — выполнять	executive

Упражнение 19. Переведите следующие словосочетания:

necessity of education; to leave no possibility; complete safety; decisive influence; productive forces; progressive people; preparative work.

to prevent — предотвращать	preventive measure
cruel — жестокий	cruelty of war
curious — любопытный	to show no curiosity
to defend — обороняться	defensive forces
region — область, район	regional centre
to use — пользоваться	users of the road
to lecture — читать лекцию	lecturer on mathematics

Упражнение 20. Найдите в тексте слова, имеющие общий корень со словами, данными перед текстом, определите части речи, к которым они относятся, переведите их, затем переведите текст.

evidence — очевидность	probable — возможный
distinctly — явно	to operate — работать
possible — возможный	to act — действовать
entire — целый	to drive — водить поезд, машину
automation — автоматизация	

It is evident that trains without drivers are a distinct possibility in the future. For a year there has been a railway deep down under London which is worked entirely by the trains without drivers. Above ground London Transport has been experimenting with a train which has been carrying a driver but has been making its stops by automatic control. The success of the experiment has been such that in all probability the trains on the new Victoria Tube will have the same automatic operation without active drivers.

Т Е X Т 3 В

Задание I. Прочтите текст, стараясь понять основное содержание. (Заметьте время начала и окончания чтения. Этот текст нужно прочесть за 6 минут, из расчета 70 слов в минуту.)

MOSCOW'S METRO

The capital is a city of quick tempo, and of people with tight time schedules (запланированное время). A hurrying Muscovite wants a fast and reliable (надежный) means of transport. In our days the Metro is the answer. The construction of Moscow's Metro began in 1932. The first line of 11.6 km went into operation in May 1935. It had 13 stations,

and its daily carrying capacity (пропускная способность) was close on 180,000 passengers. The construction of the Metro did not stop, not even during the Great Patriotic War, when the enemy was at Moscow's walls. The Novokuznetskaya, Paveletskaya, and Avtozavodskaya stations were opened in 1943.

Today Moscow's Metro has 97 stations. The total length of underground lines is almost 150.8 km.

In intensity of traffic and volume (зд. количество) of passengers carried the Metro in Moscow holds first place in the world. Every day 7,500 trains run, carrying more than 5 million passengers. It has been estimated (подсчитано) that Moscow's Metro has carried almost 35,000 million passengers since it went into operation.

During rush hours (часы пик) the Metro in the capital transports more than 300,000 passengers. The daily load (нагрузка) per km of track is 30-35,000 passengers, which is several times more than that of the New York subway, the London Underground or the Paris Metro.

Metro trains run in keeping with a strict timetable (точно по расписанию) at 80 sec intervals. The speed is 75 km per hour, reaching 90 km over some sections.

Moscow's Metro has carriages (пассажирские вагоны) of metal-welded (сварной) structure. Each contains 44 seats, and with those standing accommodates 250 passengers. Lighter and more comfortable carriages are now being designed (проектируются). Their rated speed will reach 120 km per hour.

A 5-kopek coin takes the passenger to any station and he may even make a tour of the entire route (весь маршрут) reaching almost 10 km. Electric diagrams of the Metro lines help the passengers select (выбирать) the shortest route, there are automatic coin-changing machines, automatic stiles and escalators with a total length of about 35 km. A passenger on the Metro in Moscow does not feel that he is underground. This is due to the unique architecture and the artistic design of the stations, which more resemble (напоминает) palaces. The air in the Metro is completely changed three or four times an hour. The ventilation plants along the route daily change 400 million cubic metres of air. This helps maintain a winter-time temperature of not below +5°C, and a temperature not above 25°C in summer. The Metro is kept impeccably clean. In keeping with Moscow's Master Development Plan, the construction of the Metro in the capital will continue. The total length of Metro lines by 1990 will exceed 320 km,

(Moscow News, 1973)

Задание II. Выберите утверждение, соответствующее содержанию текста.

1. The first line of Moscow's Metro went into operation:
 - 1) in 1932;
 - 2) in 1935;
 - 3) during the Great Patriotic War.
2. The total length of underground lines is:
 - 1) almost 96 km;

2) almost 100 km;

3) almost 150 km.

3. The carriages which are now being designed are:

1) larger and faster;

2) lighter and more comfortable;

3) lighter and less comfortable.

4. The speed of the new carriages will reach:

1) 75 km per hour;

2) 120 km per hour;

3) 150 km per hour.

5. What helps the passenger select the shortest route?

1) electric diagrams;

2) automatic coin-changing machines;

3) escalators.

Задание III. Прочтите текст еще раз и обратите внимание на интересные для вас факты.

ТЕКСТ

Задание I. Прочтите текст, отыскивая в нем ответы на поставленные вопросы.

TOMORROW'S TRANSPORT

Will the strips move at the same or at different speeds?

1. What will cities of the future look like? Town planners are thinking of new methods of construction and transportation.

What will city transport be like in 20 or 30 years? The moving pavement is one possibility. It consists of several strips (полоса) moving along at different speeds. Imagine three strips of parallel horizontal escalators moving at the speed of 20, 40 and 60 km/hr respectively. These escalators are moving in both directions along all streets. On reaching his destination (место назначения) the passenger steps over the slower strip and there to terra firma (неподвижная земля).

For convenience these moving pavements may be supplied with chairs, benches, vending machines selling soft drinks, ice-cream, candy and so on.

What kind of transport will be forced out?

2. The first lines of such moving pavements should appear in the streets which have the heaviest traffic and are the most dangerous for pedestrians (пешеходы). In the beginning they will replace the older forms of city traffic only in certain streets, but then they will appear in a single system serving the centre of the city. Buses, trolley-buses and motor-cars will be forced out as the trams are forced out of the centre of many cities now.

What kind of cars shall we have in future?

3. What will the car of the future be like? It probably won't be red. Our response to colours isn't always the same. If you want people to stop when they see a car in front of them, yellow is probably the best. When you go for a drive in the car of tomorrow you will certainly know more about the road in front of you. Your car radio will tell you about the next corner before you can see it. It will pick this up from a wire under the road. When you stop quickly, the light that tells the man behind you to be careful will spread across the car. At the same time a bag in front of you will fill up with air to stop you hitting your head on the window. What will the car of the future run on? Not petrol, which is dirty and noisy. In future we'll probably have electric cars. At the moment the electric car can only make a short journey before going back to the garage. Or steam cars. That too would be quiet and clean. But in England there is a farmer who has already invented a car that runs on manure (навоз) and he drives to London in it every week.

What are the advantages (преимущества) of a tube system?

4. Trains of the Future. What about long-distance travel? Consider the "tube-train" suspended (подвешенный) and propelled by compressed air. It may some day carry passengers on trips at 350 miles an hour. This idea is materialised in a 12 foot long model of a strange new aluminium torpedo train. The full-size train will run through an 18 foot-diameter metal tube, while big propellers pump the air from the front to the rear. A tube system has many advantages: a tube train makes little noise (шум); the tube can be suspended, buried (эд. подземный) or even run through buildings; maintenance cost of this train will be low and passengers will be protected from weather.

Задание II. Прочтите текст еще раз и выделите в каждой части текста предложения, которые содержат интересные для вас факты.

Задание III. Расскажите о городском транспорте наших дней и будущего, используя следующие слова и словосочетания:

city transport; buses; trolley-buses; trams; motor cars; moving pavements; electric cars; steam cars; quiet; clean; to plan; construction; consist of; several; strips; to move; at a speed of; different; passenger; to reach destination; to step over; heavy traffic; to force out; tube-trains; to make little noise; to run through buildings; to carry passengers at 350 miles an hour.

TEXT 3D

Задание I. Прочтите текст.

ROAD SAFETY

1. According to police records at least one person is killed daily on Delhi roads in India. Every year several thousand people are killed on the roads in Great Britain. Every year between one and two hundred

thousand people are injured. These people are killed or injured in road accidents.

2. If you are in England and if you listen to the 8 o'clock news from the radio, you will often hear news of road accidents. You may hear something like this:

"On Monday evening, at about twenty minutes to ten a cyclist was knocked down by a car in High Street. The cyclist has since died from his injuries. Will anyone who saw the accident please telephone New Scotland Yard."

3. Great attention is being paid to the problem of road safety in all countries. Accidents often happen if people don't obey the rules, that help to make the road safe. If everybody obeys the rules, the roads will be much safer. How can we make the roads safer? Here are some examples of how accidents happened.

4. The young woman was out shopping. She had a shopping basket on her left arm. She was ready to go home. She saw her bus stopping on the other side of the street. She forgot the safety rules. She was in a hurry so she ran out into the street. She wanted to get across quickly and catch her bus. At that moment the car hit her and knocked her down. The woman was taken to hospital. The doctors did everything that was possible, but she died three hours later. It was the woman's fault. She did not obey the traffic rules.

5. The next story is about the boy who was riding a bicycle. Today he has only one leg and he will never ride a bicycle again. This accident took place in a busy shopping centre. The boy was riding a bicycle carrying a heavy box under his right arm. It was wrong thing to do. The boy had only one hand with which to control his bicycle. The boy was not killed, he was taken to hospital and the doctors had to cut his right leg off. It was the boy's fault. It was not the fault of the driver of the car.

6. In Great Britain traffic keeps to the left: cars, motor-vans, buses and cyclists must all keep to the left side of the road. In the USSR as well as in most countries traffic keeps to the right.

7. Before crossing the road, stop and look both ways. Then if you consider that the road is clear, that there is nothing coming it is safe to cross the road. If you see that small children or very old people are waiting to cross the road, you are to help them to cross the road in safety. We must teach children to cross the road safely. We must always give them a good example. Small children must not play in the streets.

8. There are many things that drivers can do to make the road safe. But unfortunately they do not always obey the traffic rules. For example in Delhi it is quite normal for a driver at night to see a car going along the wrong side of a divided road straight at him. The taxi-drivers often horrify people passing at full speed turning into another road seconds before an oncoming bus. Most cyclists in Delhi do not obey the traffic rules. Very often they pass the red traffic lights as if they did not see them at all. When a driver goes past such a cyclist he shouts at him: "Did you say good-bye to your wife this morning for good?" Another asks: "What do you think this is your father's road?"

9. The drivers must obey traffic rules. They must be careful at cross-roads. They must drive slowly when turning into another road. A driver must not drive if he is tired or ill. A man who drives after drinking beer or wine is usually a dangerous driver. His own and the life of others may be in danger. So if you are a driver or going to become one, do not forget about all these things.

Задание II. Ответьте на вопросы по тексту D. Правильность ответов проверьте в соответствующих частях текста.

1. Are many or few people killed in road accidents? (1) 2. What news will you often hear over the English radio at 8 o'clock? (2) 3. What problem is paid great attention to in many countries? (3) 4. Why do so many accidents happen? (3) 5. Whose fault was it that the woman was knocked down? (4) 6. Why was it difficult for the boy to control his bicycle? (5) 7. What happened to the boy? (5) 8. To which side of the road does the traffic keep in Great Britain and to which in the USSR? (6) 9. What must you do before crossing the road? (7) 10. Who must you help to cross the road? (7) 11. What must the driver do to make the roads safe? (8) 12. Do all the cyclists in Delhi obey the traffic rules? (8) 13. Where must the drivers be especially careful? (9)

КОНТРОЛЬНЫЙ СЛОВАРЬ

1. accident (*n*); 2. achievement (*n*); 3. air (*n*); 4. another (*pron*); 5. bring (*v*); 6. burn (*v*); 7. carry (*v*); 8. change (*v*); 9. clay (*n*); 10. coal (*n*); 11. consider (*v*); 12. deep (*a*); 13. degree (*n*); 14. drive (*v*); 15. dry (*a*); 16. easy (*a*); 17. empty (*a*); 18. entirely (*adv*); 19. experience (*n*); 20. follow (*v*); 21. foot (feet) (*n*); 22. full (*a*); 23. happen (*v*); 24. install (*v*); 25. level (*n*); 26. main (*a*); 27. maintain (*v*); 28. move (*v*); 29. numerous (*a*); 30. often (*adv*); 31. outside (*adv*); 32. railway (*n*); 33. safety (*n*); 34. sand (*n*); 35. speed (*n*); 36. in spite of; 37. steam (*n*); 38. test (*v*); 39. through (*prep*); 40. total (*a*); 41. tube (*n*); 42. traffic (*n*); 43. tunnel (*v*); 44. weakness (*n*); 45. world (*n*).

LESSON 4 (Four)

Грамматика: Времена группы Perfect Active and Passive.
Основной текст А: Marie Curie and the Discovery of Radium.

Времена группы Perfect

Active	Passive
to have + Participle II	to have + been + Participle II
Present He has received a letter. Past He had received a letter by the evening yesterday. Future He will have received a letter by the evening tomorrow.	The letter has been received. The letter had been received by the evening yesterday. The letter will have been received by the evening tomorrow.

Упражнение 1. *Переведите следующие предложения на русский язык, обращая внимание на употребление времён.*

He came by car yesterday.
 They did not go to Kiev last year.
 I knew him in 1970.
 They were learning the new English words when I came into the room.
 We shall finish the work tomorrow.
 The experiment was completed two days ago.
 Her plans are changed every day.

He has just come by car.
 They have never been to Kiev.
 I have known him since 1970.
 They had already learnt the new English words when I came into the room.
 We shall have finished the work tomorrow by 5 o'clock.
 The experiment had been completed by the end of the month.
 Her plans have been already changed.

Упражнение 2. а) *Повторите основные формы следующих глаголов.*

to write, wrote, written
 to speak, spoke, spoken
 to go, went, gone
 to see, saw, seen
 to be, was (were), been

to give, gave, given
 to leave, left, left
 to read, read, read
 to meet, met, met

б) *Поставьте следующие предложения в Present Perfect Tense, употребляя соответствующие обстоятельства времени.*

Образец: I am writing a letter. (*already*)
I have already written a letter.

1. John spoke to me. (*already*) 2. He was reading a book. (*already*)
3. They will go home. (*just*) 4. I saw him. (*just*)

Образец: I was in Kiev last year. (*never*)
I have never been to Kiev.

5. He is in Leningrad. (*never*) 6. They gave me the book. (*never*)
7. I saw this film. (*never*) 8. She was in Siberia. (*never*)

Образец: I lived in Moscow in 1972. (*since*)
I have lived in Moscow since 1972.

9. I met you in Moscow in 1970. (*since*) 10. They did not speak
English last year. (*since*) 11. I did not see her there in September.
(*since*) 12. She did not read this book in her childhood. (*since*)

Образец: Nick is trying to learn driving. (*this year*)
Nick has tried to learn driving this year.

13. Your friends are writing a letter to you. (*this week*) 14. He is
leaving for Minsk. (*this month*) 15. I am learning grammar rules.
(*today*) 16. They are finishing their work. (*this year*)

Упражнение 3. *Переведите следующие предложения на русский язык, обращая внимание на время, в котором стоит сказуемое.*

1. I have attended the lecture on history since May. 2. I attended the lecture on history in May. 3. I had attended all the lectures by the end of the year. 4. He has entered the Institute this year. 5. He entered the Institute last year. 6. Have you passed your examination? 7. Did you pass your examination on Friday well? 8. He has already returned to Moscow. 9. He returned to Moscow five days ago. 10. They haven't received any good results. 11. They didn't receive any good results when they worked with this type of equipment. 12. The temperature has been maintained at the point of 20 degrees since the beginning of the experiment. 13. During the experiment the temperature was maintained at the point of 20 degrees. 14. Has the new apparatus been already installed in the laboratory? 15. When was the new apparatus installed in the laboratory? 16. The new apparatus had already been installed when the delegation arrived.

Упражнение 4. *Ответьте на следующие вопросы.*

1. Have you ever got a bad mark at the examination? 2. Have you ever been to Siberia? 3. Have you ever drunk coca-cola? 4. Have you ever gone travelling? 5. Have you ever read an English book in the original? 6. Have you ever failed in an examination? 7. Have you ever heard Paul Robson singing? 8. Have you ever skated? 9. Have you ever studied French? 10. How many times have you used the laboratory this week? 11. Have you seen your friend today? 12. What cities of our country have you visited? 13. What films have you seen this month? 14. How many times have you travelled outside Moscow?

VOCABULARY NOTES

Задание I. *Переведите следующие предложения.*

1. **science** — наука. Lomonosov gave all his life to the development of Russian science.

2. **land** — земля, страна. He visited many lands and saw different peoples.

3. **simple** — простой. The book is written in simple English.

4. **to determine** — 1) определять; 2) решать. 1) He had to determine the temperature of the air in the container. 2) They determined to continue their work.

5. **twice** — два раза, дважды. Read this story twice. I am twice as old as you are.

6. **ordinary** — обычный. It was an ordinary experiment.

7. **scarcely** — едва, с трудом. He is ten, but he can scarcely read.

8. **enough** — достаточно, достаточное количество. I have not enough time to do this work. Sedov had scarcely enough money to organize the expedition.

9. **to furnish** — 1) обставлять мебелью; 2) снабжать. 1) At the hotel they were given two rooms which were furnished well. 2) The expedition was furnished with all the necessary equipment.

10. **steadily** — непрерывно. He worked steadily for hours.

11. **though** — хотя. Though he tried to enter the institute again he could not do it, because he failed in chemistry.

12. **to turn** — повернуть(ся). He turned his head and looked back.

13. **among** — среди, между. He knew that he was among friends. They spoke French among themselves.

14. **to meet (met, met)** — встречать. I met him in the street.

15. **throughout** — повсюду, везде. Tolstoy's books are read throughout the world.

16. **discovery** — открытие. 1492 is the date of the discovery of America.

to discover — открывать. Who discovered America?

17. **to refuse** — отказывать(ся). He refused to help her.

18. **research** — исследование. He did his research with the help of electronic machines.

19. **both** — оба. They are both good engineers.

20. **else** — еще. What else can you say?

21. **soon** — скоро, вскоре. Soon we shall have to take examinations.

22. **close** — близкий, тесный. He is a close friend of mine. They worked in a close contact.

23. **to obtain** — получать, доставлять. He obtained his knowledge studying hard.

24. **to offer** — предлагать. They are offered help.

25. **to add** — прибавлять, добавлять. If you add ten to twenty you get thirty. Add some milk to your coffee.

26. **to be interested in** — интересоваться чем-л. He is interested in mathematics.

27. **ray** — луч. The rays of the sun come in through the window.

28. **mark** — 1) отметка; 2) оценка. 1) Who made those pencil marks in your new book? 2) What mark have you got in physics?

29. **to cause** — вызывать, являться причиной. What caused his death?

30. **strong** — сильный; прочный. A strong wind was blowing all day yesterday.

31. **to carry out** — выполнять. The research has been carried out by the engineers of the factory.

32. **to store** — хранить, запастись. Some animals store food for the winter.

33. **proper** — надлежащий, правильный. The roads must be maintained in a proper way.

34. **space** — пространство; место. The piano takes up too much space.

35. **substance** — вещество. The new substance was produced in the laboratory after many years of hard work.

36. **similar** — подобный, похожий. They obtained similar results in all the experiments.

37. **once** — однажды; один раз. We have the lecture on physics once a week.

38. **powerful** — мощный. Ancient Greece was a powerful state.

39. **yet** — еще. He has not finished his work yet.

40. **so far as** — поскольку. So far as he attended a special English school he was trained for the Institute of foreign languages.

41. **to split** — расщеплять(ся), разделять(ся). This kind of wood splits easily.

42. **to contain** — содержать, вмещать. What does this book contain?

43. **to point out** — указывать. The teacher pointed out our mistakes in the test.

44. **explanation** — объяснение. Not much explanation will be necessary.

45. **property** — свойство. The chemical and physical properties of uranium are well known now.

Задание II. Прочтите следующие интернациональные слова и догадайтесь об их значении.

doctor, magnetism, France, constant, problem, metal, uranium, photographic [fəʊtə'græfɪk], **apparatus, chemical** ['kemɪkəl], **experiment, mineral, element, radioactivity, radium, tragical.**

TEXT 4A

MARIE CURIE AND THE DISCOVERY OF RADIUM

1. Madame Curie was born in Warsaw on 7 November, 1867. Her father was a teacher of science and mathematics in a school in the town, and from him little Marya Sklodovska—which was her Polish name—learned her first lessons in science. Marya's wish was to study at the Sorbonne in Paris, and after many years of waiting she finally left her native land in 1891.

2. In Paris Marya began a course of hard study and simple living. She determined to work for two Master's degrees—one in Physics, the other in Mathematics. Thus she had to work twice as hard as the ordinary student. Yet she had scarcely enough money to live on. She lived in the poorest quarter of Paris. Night after night, after her hard day's work at the University, she got to her poorly furnished room and worked at her books steadily for hours. Sometimes she had no more than a bag of cherries. Though she was often weak and ill, she worked in this way for four years. She had chosen her course and nothing could turn her from it.

3. Among the many scientists Marya met and worked with in Paris was Pierre Curie. Pierre Curie, born in 1859 in Paris, was the son of a doctor, and from early childhood he had been fascinated by science.

At sixteen he was a Bachelor of Science, and he took his Master's degree in Physics when he was eighteen. When he met Marya Sklodovska he was thirty-five years old and was famous throughout Europe for his discoveries in magnetism. But in spite of the honour he had brought to France by his discoveries, the French Government could only give him a very little salary as a reward, and the University of Paris refused him a laboratory of his own for his researches.

4. Pierre Curie and Marya Sklodovska, both of whom loved science more than anything else, very soon became the closest friends. They worked together constantly and discussed the many problems of their researches. After little more than a year they fell in love with each other, and in 1895 Marya Sklodovska became Mme Curie. Theirs was not only to be a very happy marriage but also one of the greatest scientific partnerships.

Marie has been the greatest woman scientist of her day but she was a mother too, a very loving one. There were their two little girls Irene and Eve.

5. By this time Mme Curie had obtained her Master's degree in Physics and Mathematics, and was busy with researches on steel. She now wished to obtain a Doctor's degree. For this it was necessary to offer to the examiners a special study, called a thesis, which would add to the world's scientific knowledge.

6. For some time Pierre and Marie Curie had been interested in the work of a French scientist named Becquerel. There is a rare metal called uranium which, Becquerel discovered, emits rays very much like X-rays. These rays made marks on a photographic plate when it was wrapped in black paper. The Curies kept wondering¹ about these rays of uranium. What caused them? How strong were they? There were many such questions that puzzled Marie Curie and her husband. Here, they decided, was the very subject for Marie's Doctor's thesis.

7. The research was carried out under great difficulty. Mme Curie had to use an old stored-room at the University as her laboratory—she was refused a better room. It was cold, there was no proper apparatus and very little space for research work. Soon she discovered that the rays of uranium were like no other known rays.

8. Marie Curie began to wonder if other chemical substances might

not emit similar rays. So she began to examine every known chemical body. Once after repeating her experiments time after time she found that a mineral called pitchblende² emitted much more powerful rays than any she had yet found.

9. Now, an element is a chemical substance which so far as is known cannot be split up into other substances. As Mme Curie had examined every known chemical element and none of them had emitted such powerful rays as pitchblende, she could only decide that this mineral must contain some new element.

Scientists had declared that every element was already known to them. But all Mme Curie's experiments pointed one way. Pitchblende must contain some new and unknown element. There was no other explanation for the powerful rays which it emitted.

Scientists call the property of giving out such rays "radioactivity", and Mme Curie decided to call the new element "radium", because it was more strongly radioactive than any known metal.

In 1903 Marie and Pierre together with Henry Becquerel were awarded the Nobel Prize in Physics.

In 1911 Marie received the Nobel Prize in Chemistry. But the second prize went to her alone for in 1906 Pierre had died tragically in a traffic accident.

NOTES TO THE TEXT

1. the Curies kept wondering... — *зд. супруги Кюри продолжали интересоваться...*

2. pitchblende — уранит (урановая смола)

Упражнение 5. *Переведите на русский язык следующие словосочетания.*

to carry out research; to have proper knowledge for research work; a famous scientist; Russian science; scientific achievement; scientific discovery; twice a week; throughout the country; to obtain food results; to refuse help; to offer help; to return soon; to be close friends; among friends; ordinary work; simple question; in simple English; both ends; to have enough money; to have more than enough; he could scarcely read; what else; add ten to twenty; to meet each other friendly; to cause rays to be strong enough; chemical substance; to split into parts; powerful state; similar elements; to find explanation; a space of ten feet; spaceman.

Упражнение 6. *Переведите следующие предложения на русский язык, выбрав одно из трех слов, подходящее по смыслу.*

1. He was so (absent, interested, essential) in the T.V. programme that nothing could turn him from it. 2. War was over and peace was (included, contained, declared). 3. (though, usually, especially) it is very late I shall be able to stay a few minutes. 4. There are numerous similar (rays, properties, sides) of these metals. 5. Can you understand this word without (education, invention, explanation)? 6. Steel is a (easy, safe, strong) metal. 7. We saw a horse with a white (map, mark, cap).

8. Sometimes it's easy to make plans but difficult (to find, to show, to carry out) them. 9. Molecules can be (changed, splitted, taken place) into atoms. 10. Could you (throw, cause, point out) the most beautiful pictures of your collection? 11. We didn't know which way (to leave, to divide, to turn) to the railway. 12. What (built, caused, consisted) this accident? 13. It was like a (side, ray, field) of hope. 14. A new (subject, invention, substance) is usually much worked at the laboratories until its properties are well studied. 15. The atlas (found, contained, translated) forty maps, including three of the USSR. 16. This factory will be equipped with new (possible, difficult, powerful) machinery. 17. Do you know the (difficult, proper, bad) use of the apparatus? 18. Young Marie Curie wanted to study in Paris, therefore she left her native (duty, wish, land).

Упражнение 7. *Переведите следующие предложения, обращая внимание на различные функции глаголов to be и to have.*

1. The plan has been carried out. 2. The plan has to be carried out. 3. Your group will have to carry out the plan. 4. The group will have carried out the plan by the 1st of November. 5. The plan will be carried out by the 1st of December. 6. According to the information we have the plan is being carried out successfully. 7. The plan was to be carried out by a group of specially trained men. 8. I think that the group of specially trained men will be able to carry out the plan. 9. The plan is to be carried out in June. 10. They have carried out the plan successfully.

Упражнение 8. *Переведите следующие предложения.*

1. He has been interested in history since his childhood. 2. The positive results hadn't been obtained until a more powerful apparatus was installed. 3. They have already determined the main properties of the substance. 4. The explanation of these strange facts hasn't been furnished yet. 5. He has been offered a very interesting job at that institute. 6. I was very busy with my work so I had to refuse to take part in the expedition. 7. All necessary information is being stored in the computer. 8. What substance must be added to the solution? 9. The discovery of these rays may cause great changes in modern technology. 10. After careful consideration of your report we shall be able to point out to you all the defects it contains. 11. The problem of the future of human civilization on the Earth is being steadily researched by the scientists throughout the world.

Упражнение 9. *Ответьте на вопросы по тексту 4А.*

1. In what country was Marie born? 2. Who was her first teacher in science? 3. How old was Marie when she left her native land? 4. In what country did she study when a student? 5. How did she work? 6. How old was Marie when she met Pierre Curie? 7. How many years was Pierre older? 8. What can you tell about Pierre's youth? 9. What was he famous for? 10. What was Marie interested in? 11. What did Becquerel discover? 12. What was the subject for Marie's Doctor's thesis? 13. What did the scientists declare? 14. Why did Marie call the new element "ra-

dium"? 15. How old was Pierre when he tragically died? 16. How many children did the Curies have?

Упражнение 10 *Расскажите: а) биографию Мари Кюри; б) биографию Пьера Кюри; в) биографию известного ученого, писателя. Используйте следующие слова и словосочетания.*

to be born, to wish to study, to leave for, to work steadily, to be interested in, to enter the university, to graduate from the university, to research, to be busy with, a special study, to carry out research with great difficulty, to be famous for.

РАБОТА НАД СЛОВООБРАЗОВАНИЕМ

Упражнение 11. *Переведите следующие производные слова согласно моделям.*

Модель I: un-, in-, ir-, il-, im- + основа прилагательного → прилагательное с отрицательным значением

know — известный	unknown — неизвестный
common — частый	uncommon
dependent — зависимый	independent
accessible — доступный	inaccessible
regular — регулярный	irregular
legal — законный	illegal
legible — четкий	illegible
permeable — проницаемый	impermeable
practicable — осуществимый	impracticable

Модель II: основа глагола + -able, -ible → прилагательное со значением возможности совершения действия, обозначаемого глаголом

to reproduce — воспроизводить	reproducible — то, что можно воспроизвести, воспроизводимый
to permit — разрешать	permissible
to interchange — заменять	interchangeable
to break — ломать	breakable
to bear — выносить	bearable
to profit — приносить пользу	profitable
to adjust — регулировать	adjustable
to compare — сравнивать	comparable
to imagine — представлять. воображать	imaginable

Упражнение 12. *Переведите следующие словосочетания.*

to accept — принимать	acceptable conditions
	inacceptable conditions
to eat	eatable fruit
to drink	drinkable water
to recommend	recommendable methods
to change	changeable conditions
to solve	solvable problem

incomplete group, unimportant problem, unnecessary work, impossible task, inordinary person, improper behavior, irresponsible person.

Упражнение 13. *Найдите в тексте слова, имеющие общий корень со словами, данными перед текстом, определите части речи, к которым они относятся, переведите их, затем переведите текст.*

to foresee — предвидеть
to research — исследовать
to achieve — достигать

to profit — приносить пользу
orbit — орбита

In the foreseeable future we may have long term (долгосрочный) orbital stations and laboratories with researchers. Passenger rockets will be different from present-day Spaceships (космический корабль). At present passenger rockets carrying people to the other side of the globe are still a dream (мечта). It might happen that the achievement of supersonic (сверхзвуковой) aviation will make the passenger rocket unprofitable and only mail and cargo rockets will be used on the Earth routes but these rockets will be used when travelling to orbital laboratories and stations on other planets.

ТЕХТ 4В

Задание 1. *Прочтите текст, стараясь понять основное содержание. (Заметьте время начала и окончания чтения. Этот текст нужно прочесть за 3 минуты, из расчета 80 слов в минуту.)*

THE TWO GENERATIONS OF THE CURIES

In 1967 it was exactly 100 years since the birth of Marie Sklodowska-Curie, the outstanding Polish Scientist whose discoveries in physics and chemistry began the era of the utilization of atomic energy...

Marie lived to see her story repeated. Her daughter Irene grew into a woman with the same interests as her mother's and she was deeply interested in her mother's work. From Marie she learned all about radiology and chose science for her career. At twenty-nine she married Frederic Joliot, a brilliant scientist at the Institute of Radium, which her parents had founded. Joliot Frederic was born in Paris on March 1900 and first studied engineering and then chemistry. In his experiments on artificial (искусственный) radioactive elements, there were obtained three more radioactive elements that did not occur naturally.

Together the Joliot-Curies carried on the research work that Irene's mother had began. In 1935 madam Curie-Joliot and her husband won the Nobel Prize for their discovery of artificial radioactivity.

So, Marie lived to see the completion of the great work, but she died on the eve (накануне) of the award.

In 1946 Joliot was appointed scientific adviser to the International Atomic Energy Commission of the United Nations.

Our respect for the two generations of the Curies is all the greater because of their moral courage. Marie and Pierre provided an example

of deep dedication (посвящение) to science. Marie, her daughter Irene and Irene's husband Frederic all died from radiation sickness, the result of long years of work with radioactive substances. Finally, Frederic Joliot-Curie was not only a famous scientist, but also a famous leader of the progressive movement.

There is no parallel in the records of science to the dynasty of the Curies.

Задание II. Выберите утверждение, соответствующее содержанию текста.

1. On November 7, 1967 it was 100 years since:
 - 1) the discovery of radioactivity;
 - 2) Marie Curie's birth;
 - 3) Marie Curie's death.
2. Joliot Frederic:
 - 1) founded the Institute of radium;
 - 2) worked at the Institute of radium;
 - 3) graduated from the Institute of radium.
3. In 1935 the Nobel Prize was awarded to:
 - 1) Marie Curie;
 - 2) Frederic alone;
 - 3) Irene and Frederic.
4. Marie, Irene and Joliot died:
 - 1) from radiation;
 - 2) from the epidemic;
 - 3) in a road accident.
5. Frederic was also:
 - 1) a progressive writer;
 - 2) a famous journalist;
 - 3) a leader of the progressive movement.

TEXT 4C

Задание I. Прочтите текст, отыскивая в нем ответы на поставленные вопросы.

MINER'S DREAM OF HOME AND FAMILY UNITES MOTHER AND SON

(after P. Tempest)

Where did the Povarovs write their letters to?

1. This is a fantastic, true story of how a mother found her son who was lost without trace during the war.

The Povarovs, a miner's family did everything they could to find their son, who was deported to Germany by the fascists on September 12, 1942.

"The fascists sent him away together with many other local boys. We saw him for the last time when they were all being driven to the railway station," said the mother, Yelena Povarova.

"After the war we wrote numerous letters to the Red Cross and to other Soviet search organizations and always got the same answer 'Lost without trace'," she added.

What two things were discovered?

2. Earlier this year a Hungarian miner, Sandor Molnar, had a dream in which he saw the village where he was born—a white Ukrainian cottage. In the morning he also remembered that he had lived somewhere near Lugansk, that his mother was called Dunya and that his own name was Alexander.

Molnar had come to Hungary from Germany. He had been in a camp together with other children where the nazis had done everything possible to make all the children forget their country, language and who they were. He didn't know where he first came from or who he was.

Molnar wrote a letter about his dream to a Hungarian magazine. Piroska Czimes, a journalist played an important role in Molnar's life. So did Dr. Stolar, a Hungarian neuropathologist, who grew interested in Molnar and put him under Hypnosis to help him remember his past. Two things were discovered—the name of a mine, the "Lenin pit" and the name of a village—"Olkhovka".

What was Molnar's real name?

3. In April the Soviet Sunday newspaper Nedelya printed an article about the search headed "Sandor Looks for His Native Village! Lugansk People, Help Him!"

In July other details were given to readers, who now had a map of the village as Molnar remembered it. The local militia joined in the search and all the local newspapers reprinted the Nedelya articles.

Thousands of people were interviewed and documents were studied in archives before the right family was found.

It was discovered that Molnar's real name was not Alexander but Vladimir and his mother's name not "Dunya" but Yelena.

Molnar came to the Soviet Union together with his Hungarian wife and was united with his family.

What did Molnar say in Russian?

4. His sister Taissiya recognized him without difficulty. When his mother saw the birthmark on his chest and the deep scar on his forehead caused by a fall in his childhood she knew it was her Volodya.

"Volodya, my dear boy!" she cried. "I'm happy to be back home again," Molnar said slowly in Russian to his new friends, the local miners. "I spent my childhood here and I love my country which I haven't forgotten all these years, and which the fascists wanted to take away from me."

The Soviet newspaper Nedelya points out that the Molnar story shows what results can be achieved if different organizations and individuals join in the search of people lost in the war years.

“Let each one of us do all he can. It’s the duty of every man and woman to make people happy.”

Задание II. *Прочтите текст еще раз; расположите данные ниже предложения в том порядке, в каком они следуют в тексте.*

1. A Hungarian miner had a dream...
2. Molnar wrote a letter about his dream to a Hungarian magazine.
3. The Povarovs got the answer that their boy had been lost without trace.
4. Molnar came to his native town with his wife.
5. The newspaper Nedelya printed an article about Molnar’s dream.
6. After the war the Povarovs did everything they could to find their boy.
7. Molnar said that he was happy to be back home.
8. Molnar had been in a fascist camp.
9. It was discovered that Molnar’s real name was Vladimir.

TEXT 4D

Задание I. *Прочтите текст.*

PYOTR KAPITSA

1. Pyotr Leonidovich Kapitsa made his appearance in physics when this science was going through hard times. At the turn of the century it seemed to many scientists that physics held no greater promise than arithmetics in the sense that all its laws had been discovered and all its phenomena studied. All it needed, they thought, was just a few finishing touches, after which the necessary results could be obtained by substituting figures for ready formulas. In those years, Russia had a total of no more than a hundred professional physicists. Even some of the most accomplished physicists seriously considered a change of speciality.

2. Nevertheless, Petya Kapitsa—the son of a general, a prominent military engineer who had built the renowned Kronstadt fortress—was keenly interested in physics while still at a technical high school (he had been expelled from the Kronstadt classic school for poor academic progress). The expulsion from the classic school may have been a stroke of good luck for Kapitsa. Technical high school graduates had no right to enter a university. As a result, Kapitsa became a student of the electromechanical faculty of Petersburg’s Peter the Great Polytechnical Institute—perhaps the best technical educational establishment in Russia at the time.

One of the most prominent features of Kapitsa’s creative method had steadily manifested itself throughout his student years. This feature, as L. D. Landau pointed out many years later, was his “inexhaustible curiosity plus boundless ingenuity”.

3. In 1921, three of our most prominent scientists were sent abroad on Lenin’s instructions to renew scientific contacts. These scientists

were: Ioffe, Academician Krylov and Kapitsa, then a mere twenty-seven.

In those times, the wildest rumours had been spread in Britain about Soviet Russia, and the young Russian physicist drew universal attention at the world-famous Cavendish Laboratory headed by Ernest Rutherford, the founder of experimental nuclear physics. Before very long, this attention was richly rewarded. Kapitsa established an unusual, almost incredible record—he completed the laboratory course in two weeks instead of the usual two years. After that, Rutherford took personal interest in him and Kapitsa became his favourite pupil.

4. In 1934 Pyotr Kapitsa returned home. The building of the Institute of Physical Problems was built in a Moscow suburb, according to a plan which had been drawn up by Kapitsa himself. He was appointed Director of the Institute.

It was here that the outstanding scientist concentrated on the research of superlow temperatures. Kapitsa made one of his major discoveries in that sphere. He discovered that at temperatures of slightly over two degrees short of the absolute zero, helium practically loses its viscosity and becomes superfluid.

The war interrupted Kapitsa's work on superfluidity. In the war years, Kapitsa devoted all his talent of a scientist and an engineer to the cause of the country's defence.

5. After the war, Kapitsa ventured into an entirely new field of science and technology—high-power electronics.

It is common knowledge nowadays that electronics means small currents. Electronic devices—radio valves, for instance,—operate on electrons, particles possessing a negligible mass and a very high mobility. It was believed beyond any doubt that to transmit vast amounts of power over great distances by means of electronics was utterly impossible. This was not the only "axiomatic truth" to be disproved by Kapitsa. He offered a convincing mathematical substantiation of the fact that the electrons are capable of transmitting kilowatts—thousands and millions of kilowatts—rather than mere watts.

Today Kapitsa's high-power electronics has already become firmly established. It has a fantastic future ahead of it, when rivers of electric power will flow, practically without loss, across the country along endless "pipes"—waveguides. Using the waveguides it will be possible to pour electric power directly into blast and open-hearth furnaces, to "pump" it into boreholes for melting rock, to send it in pencilled beams to Earth satellites and orbital stations in space.

It is not necessary to list all Pyotr Kapitsa's academic titles, because his name speaks for itself. In the history of physics there are few names that can be placed next to his.

Задание II. *Ответьте на вопросы. Правильность ответов проверьте в соответствующих частях текста.*

1. What did many scientists think about physics at the turn of the century? (1) 2. How many professional physicists were there in Russia in those years? (1) 3. What was young Kapitsa interested in? (2) 4. Why

did Pyotr Kapitsa not enter the university? (2) 5. What was one of Kapitsa's most prominent features? (2) 6. How long did it take Kapitsa to complete his laboratory course? (3) 7. Who took a personal interest in the young Russian student? (3) 8. What did the scientist concentrate on when he returned home? (4) 9. How did the war influence Kapitsa's work? (4) 10. What did he prove electrons capable of doing? (5) 11. What "axiomatic truth" did the scientist disprove? (5)

КОНТРОЛЬНЫЙ СЛОВАРЬ

1. add (*v*); 2. among (*prep*); 3. both (*pron*); 4. carry out (*v*); 5. cause (*v, n*); 6. close (*a*); 7. contain (*v*); 8. determine (*v*); 9. discovery (*n*); 10. else (*adv*); 11. enough (*adv*); 12. explanation (*n*); 13. furnish (*v*); 14. be interested (*v*); 15. land (*n*); 16. mark (*n*); 17. meet (*v*); 18. obtain (*v*); 19. offer (*v*); 20. once (*adv*); 21. ordinary (*a*); 22. point out (*v*); 23. powerful (*a*); 24. proper (*a*); 25. property (*n*); 26. ray (*n*); 27. refuse (*v*); 28. research (*n*); 29. scarcely (*adv*); 30. science (*n*); 31. similar (*a*); 32. simple (*a*); 33. so far as (*cf*); 34. soon (*adv*); 35. space (*n*); 36. split (*v*); 37. steadily (*adv*); 38. store (*v*); 39. strong (*a*); 40. substance (*n*); 41. though (*cf*); 42. throughout (*adv*); 43. turn (*v, n*); 44. twice (*adv*); 45. yet (*adv*).

LESSON 5 (Five)

- Грамматика:** 1. Согласование времен (Sequence of Tenses).
2. Неопределенные местоимения **some, any**, отрицательное местоимение **no** и их производные.
- Основной текст А:** Live with Lightning (*an extract*).

Согласование времен

He says 1) that he works hard. 2) that he worked hard. 3) that he will work hard.	He said 1) that he worked hard. 2) that he had worked hard. 3) that he would work hard.
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Упражнение 1. *Переведите следующие предложения, обращая внимание на согласование времен.*

A. He says that he knows your friend.

She **thinks** that you **passed** your examination in physics.

They **know** you **will graduate** from the institute next year.

The teacher asks if you **can** write English.

She **wants** to know whether you **completed** your work yesterday.

She **says** she **has seen** that magazine in our library.

We **know** that the young writer is **working** at a novel.

He **said** that he **knew** your friend.

She **thought** that you **had passed** your examination in physics.

They **knew** you **would graduate** from the institute the next year.

The teacher **asked** if you **could** write English.

She **wanted** to know whether you **had completed** your work the day before yesterday.

She **said** she **had seen** that magazine in our library.

We **knew** that the young writer **was working** at a novel.

B. 1. He asked if the baby had been called Marie. 2. I did not know that my friend's son had failed in chemistry. 3. They thought I could drive a car. 4. The boy said he had scarcely enough money to return home. 5. I know he was experimenting steadily for hours. 6. They said that they had chosen their course and nothing could turn them from it. 7. We considered that she had already obtained her Master's degree in

mathematics. 8. The student said that he could not translate the article without a dictionary. 9. I did not think that she would be refused a better room for her research. 10. He asks if he may keep this book as long as he needs it. 11. They wanted to know whether the new building was on the left side of the street. 12. They told the child that the weather was fine and he could have a walk for two hours. 13. He asked how normal temperature was maintained in the underground. 14. He asked if in the early days the trains had been driven by locomotives which burnt coal. 15. He said that entirely automatic driving would be developed.

Неопределенные местоимения *some, any*,
отрицательное местоимение *no* и их производные

some, somebody (someone), something; any, anybody (anyone), anything; no, nobody (no one), nothing
--

Упражнение 2. *Переведите следующие предложения на русский язык, обращая внимание на неопределенные местоимения и их производные.*

1. **Something** important took place there. 2. **Nobody** failed in this examination yesterday. 3. I wasn't shown **any** interesting photographs. 4. Have you **any** questions? 5. Can **anybody** show me the way to the station? 6. He didn't try to do **anything**. 7. The commission has found **nothing** wrong. 8. They made **no** changes in the working plan. 9. **Nothing** interesting happened while I was away. 10. **No** traffic was allowed along the street because of the accident. 11. He could think of **nothing** really interesting. 12. **Some** new safety rules were considered by the committee. 13. I couldn't understand **anything** from his letter. 14. The old man didn't get **any** education.

VOCABULARY NOTES

Задание I. *Переведите следующие предложения.*

1. **admission** — 1) вход, допуск; 2) признание. 1) He was given admission to the secret information. 2) It was an open admission that he was wrong.

2. **to shake (shook, shaken)** — трясти. Have you read the book by J. Reed "Ten Days That Shook the World"? **to shake hands** — пожать руки друг другу. He entered the room, shook hands with everybody present and sat down.

3. **back** — назад, обратно. He looked back and saw his dog running after him.

4. **care** — любить, заботиться. He has cared for mathematics since he was a boy of 7.

5. **time** — 1) раз; 2) время. 1) Pete telephoned his friend many times, but he was out all the time. 2) I don't have much time for sports.

6. **piece** — кусок, клочок. I've lost the piece of paper on which I wrote down his telephone number.

7. **wrong** — неправильный, не тот. He came to the meeting place at the wrong time.

8. **behind** — сзади, позади. The sun is behind the clouds.

9. **about** — 1) вокруг; 2) приблизительно, около; 3) относительно. 1) There was nobody about. 2) What's the time? — It's about five. 3) He told us about his research work.

10. **to wear (wore, worn)** — носить. What dress shall I wear tonight?

11. **to rise (rose, risen)** — подниматься. The level of the water in the river rose some feet.

12. **then** — затем, тогда. First they studied traffic conditions in the town and then made necessary recommendations.

13. **excellent** — отличный, превосходный. This student passed all the examinations with excellent marks.

14. **every** — каждый. I see my brother every day.

15. **opportunity** — благоприятная возможность. I shall try to find an opportunity to thank her.

16. **to justify** — оправдывать. I think you will justify all our hopes.

17. **while** — пока (в то время как); время (некоторое время). I'll finish my work while you are playing chess. I'm busy now, but if you wait a while, I'll help you.

18. **own** — собственный. He refused to give his own explanation of this fact.

19. **towards** — по направлению к. First they were moving towards the north but then changed their direction.

20. **probably** — вероятно. She will probably be here today.

21. **complicated** — сложный, запутанный. It was a very complicated problem.

22. **schedule** — расписание, график. The students must work in the laboratory according to the schedule.

23. **to believe** — верить, полагать. I don't believe what he says. I believe you are right.

24. **really** — действительно. He is really interested in this powerful machine.

25. **light** — освещение, свет. There was no light in the windows of his friend's flat.

26. **to clear** — очищать. The town was cleared of the ruins.

27. **plenty (of)** — изобилие, множество. They will require plenty of sand for building the road.

28. **to go on** — идти дальше; продолжать. We went on and on but saw no bridge. Go on! I am listening to you.

29. **to choose (chose, chosen)** — выбирать. There are some English books on the table. You may choose any book you like.

30. **adviser** — советчик; руководитель. If a student does some research work he may need a scientific adviser.

31. **in the meantime** — тем временем. In the meantime new essential achievements have been made in the field of biochemistry.

32. **member** — член. My father and mother are members of the Communist Party.

33. **to expect** — ожидать, ждать. They are expecting a telegram from their mother. I expected you yesterday.

34. **to win (won, won)** — 1) победить; 2) выиграть, получить (приз). 1) It's known all over the world that the Soviet people won a great victory in 1945. 2) She won first prize at the figure-skating contest.

35. **suddenly** — вдруг, внезапно. This accident suddenly changed our numerous plans.

36. **to make (made, made)** — 1) заставлять; 2) делать. 1) What makes you think so? 2) He likes to make things with his own hands.

37. **nuclear** — ядерный. He studies nuclear physics at the University.

38. **to master** — овладеть, изучить. A polyglot is a person who has mastered many foreign languages.

39. **too** — 1) тоже, также; 2) слишком. 1) He was at the meeting, too. 2) These boots are too small for him.

40. **that is why** — поэтому. I was very tired that's why I couldn't come to see you.

41. **to occur** — 1) случаться, происходить; 2) приходить на ум. 1) The car accident occurred in the centre of the town. 2) It never occurred to him that this accident had been caused by his weakness.

42. **no matter (how, what)** — как бы ни, что бы ни, какой бы ни. No matter how busy he was, he always remembered to send me a telegram. No matter what he was doing he was thinking about his work.

43. **kind** — род, сорт, вид. There are different kinds of books at our institute library.

44. **job** — работа. I was offered a very interesting job.

45. **used to** — имел обыкновение, бывало. He used to drive to the country every weekend.

Задание II. Прочтите следующие интернациональные слова и догадайтесь о их значении.

prize, theory ['θiəri], detail, stereotype, professor, ignore, secretary, assistant, recommendation, interest, mechanics, thermodynamics, electricity, address, president, profession, information, personal, stop.

TEXT 5A

LIVE WITH LIGHTNING

(an extract from the novel)

(after M. Wilson)

1. Earle Fox was fifty-four. And he felt old and disappointed. After twenty-seven years of research he was out of love with his science. All his life there had been no other career for him but science and no other science but physics.

Now he listened with sadness to the younger men, as they discussed differences in theory and the details of each other's experiments. He was listening to them and found himself asking, "Who cares?"¹ It was an open admission that his curiosity was dead. Fox longed for an earthquake to shake him back to life. He wanted to be made to care again, but each night he took up his briefcase and walked home to dinner. All his life had become a stereotype. For many years he had been chairman of the Physics Department.

* * *

2. Professor Earle Fox ignored for the second time the signal from his secretary. He sat staring blindly at a piece of paper in front of him covered with formulas and figures, trying for the thousandth time to find the reasons why his life had gone wrong.

The door of his office opened, and he heard his secretary say: "Professor Fox, Eric Gorin is here to see you." Behind his secretary Fox saw a young man about twenty-one, tall, slender, and wearing not very good clothes. Fox rose to shake hands, and then asked the young man to sit down.

"We are very glad to have you here, Mr. Gorin," he said gently. "This year we've taken only one new assistant. You've come with excellent recommendations, and you'll have every opportunity to justify them. As you know, you'll be teaching freshmen² physics lab,³ while you take your own courses towards your own doctorate.⁴ You'll probably find the first year rather complicated between the two schedules, but I believe things will become easier for you after a while." He asked Eric if there was any field of physics in which he was especially interested so far. "No," said Eric. He explained that he really didn't know enough about any of them yet, because all he had had as a student were the usual courses in mechanics, light, thermodynamics, and electricity.

3. Eric had to clear his throat before answering, and Fox felt sorry for him and thought, that the boy was scared, and probably hungry, but still wanted to set the world on fire.⁵

"You'll have plenty of time to make your decision," Fox said, "and there are a number of researches going on at our department which will help you to choose. Professor Cameron will be your adviser in your graduate work. In the meantime leave your address with the secretary." He told Eric that each year just before the term started, Mrs. Fox and he invited all the members of the staff so that the new men could meet their colleagues and that they would expect Eric.

4. Eric sat thinking: "Here I am, talking to Earle Fox, a scientist who won the Nobel Prize." He thought of all the people Fox had shaken hands with—the President of the United States, the King of Denmark, every living scientist whose name was famous, probably Planck, Rutherford, Einstein.

5. "Tell me," he suddenly heard Fox's voice. "What makes you want to be a physicist?"

Gorin stared at him. Fox smiled. "It isn't a stupid question. I should like to know what makes a young man choose, of all professions,

one in nuclear physics. In the first place, there's always the fight to master your science, so that you can get some more information from Nature. Then there's your personal life—twenty-four hours a day for science aren't enough, but that's an impossible way to live. And that's why I'm wondering what makes the career worth anything at all in the very strength of your life⁶.”

“I don't know,” Eric said with sincerity. “It just never occurred to me to think of anything else. No matter what was happening, no matter what kind of job I had, I used to say to myself, I'm really a physicist.” He stopped for a moment. “I can call myself a physicist, can't I?”

“Yes,” said Fox after a moment. “You're a physicist.”

NOTES TO THE TEXT

1. Who cares? — Не все ли равно?
2. a freshman — студент первого курса
3. physics lab — лабораторные работы по физике
4. doctorate — ученая степень доктора наук
5. to set the world on fire — *эд.* совершить, что-то необыкновенное
6. I'm wondering what makes the career worth anything at all in the very strength of your life. — Интересно, что делает эту карьеру такой привлекательной в самом расцвете сил.

Упражнение 3. *Переведите на русский язык следующие словосочетания:*

according to the schedule; to have an excellent opportunity; to move towards the city; to believe in progress; to go on with one's work; to consist of five members; to have plenty of free time; to be a really good doctor; to achieve excellent results; to shake hands with friends; to shake with cold; to see something with one's own eyes; to come back late; to expect visitors; it occurred to him; to leave suddenly; to be of the same age; the same road; the same person; while he was translating the article; admission to the hospital; to care for children; three times; wrong address; behind the tree; to wear good dresses; every member of the group; to justify one's expectations; a complicated programme; to see a light; to clear the ground; to choose between right and wrong answers; an excellent adviser; to win a victory; to make him study; nuclear energetics; to master a language; a piece of bread; no matter how difficult; this kind of research; an important job; he used to attend lectures.

Упражнение 4. *Переведите следующие предложения на русский язык, выбрав одно из трех слов, подходящее по смыслу.*

1. The (admission, proportion, achievement) to the meeting was by students' cards only. 2. The garage is (between, behind, almost) the house. 3. They were going (towards, against, in) the railway station to meet their friends. 4. The man could hardly (follow, rise, achieve) to his feet. 5. You must use every (property, opportunity, explanation)

to speak English. 6. Are these your (possible, own, wrong) books? 7. This was (really, very, usually) an essential achievement in natural science. 8. Eric Gorin was (carrying, maintaining, shaking) hands with the people in the room. 9. He made some mistakes in his calculations and he got (wrong, excellent, deep) results. 10. The study was a big room with plenty of (speed, ray, light) and air. 11. The theory was so (easy, essential, complicated) that very few people in the world could understand it at that time. 12. This railway accident (installed, occurred, consisted) many years ago. 13. The car (greatly, suddenly, deeply) stopped at full speed at the side of the road. 14. She received (difficult, sudden, excellent) knowledge of some foreign languages at the institute.

Упражнение 5. *Поставьте сказуемое главного предложения в Past Indefinite и произведите соответствующие изменения в придаточных предложениях.*

1. He says he will drive a car himself. 2. She thinks that they will speak about great achievements in nuclear physics. 3. He asks whether you can read English. 4. They ask if he is expecting any visitors. 5. We consider that great changes have been made in modern industry. 6. They think that no accident can happen through human weakness. 7. The teacher considers that the level of his students' knowledge is high enough. 8. We know that safety is one of the main concerns of transportation. 9. We believe that they will be given every opportunity to go on with their experiments. 10. The mother asks the teacher if her child studied properly. 11. Nobody knows how this accident occurred. 12. We believe that she will win the first prize at the figure-skating competition. 13. He says his brother is taking his exam now. 14. He asks if the plan is being changed. 15. The teacher cannot understand how the boys have solved that complicated problem in such a short time.

Упражнение 6. *Переведите следующие предложения на русский язык, обращая внимание на согласование времен.*

1. He said he didn't expect anybody to come in the evening. 2. He asked me if I knew who was performing at the theatre on Saturday. 3. We asked him if such minerals occurred in the Pamirs. 4. The head of the research laboratory said that he was not completely satisfied with the results achieved. 5. When I was leaving Moscow my adviser asked me whether I would have any opportunity to go on with my work. 6. I always believed that one day the explanation of the fact would be found. 7. We were told that we should have to consult the schedule. 8. It was decided that every member of the club would attend all the meetings. 9. He said he would return home about 3 o'clock. 10. We asked him whether it was possible to master a foreign language in such a short time. 11. The professor asked him why he had chosen, of all professions, one in nuclear physics. 12. The professor asked Eric whether he had had any experience in physics research.

Упражнение 7. *Ответьте на следующие вопросы.*

1. Is there anything to the right of you? 2. Is there anything to the

left of you? 3. Do you have any English books at home? 4. Will you go anywhere tomorrow evening? 5. Can you see anything through the window? 6. Will you bring any English newspaper tomorrow? 7. Do you know any French words? 8. Is there any picture in your room? 9. Are you expecting anybody to come to your place? 10. Did anybody advise you to enter this institute? 11. Is there anything in the right corner of the room? 12. Is there anybody behind you?

Упражнение 8. *Спросите своего товарища, умеет ли он играть в шахматы, любит ли он ходить в кино и т.д., используя следующие словосочетания.*

Образец А: to play chess

Teacher: Ask your friend if (whether) he (she) can play chess.

Student I: Can you play chess?

Student II: Yes, I can. (No, I can't.)

to keep a secret; to play the piano; to skate; to play football; to drive a car; to speak English a little; to speak French.

Образец Б: to attend today's meeting

T: Ask your friend if (whether) he (she) must attend today's meeting.

St. I: Must you attend today's meeting?

St. II: Yes, I must. (No, I needn't.)

to return home early; to prepare lessons every day; to write a letter; to help his (her) mother; to visit his (her) friend; to study two foreign languages; to do research work.

Образец В: to see a new film

T: Ask your friend if (whether) he (she) has seen a new film.

St. I: Have you seen a new film?

St. II: Yes, I have. (No, I haven't.)

to get a letter; to complete the laboratory work; to come by the underground; to read the morning newspaper; to take an English book from the library; to make a report; to receive much money.

Образец Г: to go to the cinema every Sunday

T: Ask your friend if (whether) he (she) goes to the cinema every Sunday.

St. I: Do you go to the cinema every Sunday?

St. II: Yes, I do. (No, I don't.)

to work much; to come home after three; to have plenty of free time; to have enough time to prepare for the exams; to go home by the underground; to have coffee in the morning; to do research in nuclear physics.

Упражнение 9. *Переведите следующие предложения на русский язык.*

1. He has no experience in this field. 2. Something interesting occurred to him. 3. You can take any bus from here to the station. 4. Have you got any Russian-English dictionary? 5. There aren't any institutes in this town. 6. Although it was December there was no ice on the rivers. 7. Has anybody made mistakes in this sentence? 8. Nobody was interested in the problem then. 9. No construction was going on at that period. 10. I couldn't find the explanation of this fact anywhere. 11. Any number of people can be included in the experiment. 12. Such a scale of construction has been achieved nowhere else. 13. He asked if he would be given admission to the sitting of the committee. 14. He said that he had tried to telephone him several times, but nobody had answered the telephone in his office. 15. He explained that they hadn't come to the meeting place in time because they had been shown a wrong way. 16. He asked me whether I could wait for him while he was looking through the papers which his secretary had put on his table. 17. He explained that the task was very complicated and asked me if I would be able to carry it out. 18. In the interview with the students the head of the department tried to find out what had made them choose this profession.

Упражнение 10. *Выразите свое согласие или несогласие со следующими утверждениями, основываясь на информации, полученной из текста 5А. Свое согласие выразите, начиная словами That's right..., а несогласие, начиная словами That's wrong... .*

1. Earle Fox was in love with his profession to the very last day of his life. 2. When Eric Gorin was first introduced to professor Fox Gorin was already a well-known physicist. 3. Eric Gorin was proud to have the opportunity to talk to professor Fox. 4. Professor Fox spoke to Gorin in a friendly way. 5. Eric Gorin came to Fox with excellent recommendations. 6. At the University he was to take his own courses towards his doctorate. 7. When Eric Gorin came to Fox he knew exactly in what field of physics he would like to work. 8. Professor Fox was going to be his adviser. 9. Professor Fox invited Eric to the traditional party held at his place every year before the beginning of the term. 10. Professor Fox did not invite all the members of the staff, but only those whom he liked best. 11. Professor Fox wondered why young men chose, of all professions, one in nuclear physics. 12. Eric Gorin believed that he could call himself a physicist.

РАБОТА НАД СЛОВООБРАЗОВАНИЕМ

Упражнение 11. *Переведите следующие производные слова согласно моделям.*

Модель I: *основа существительного + -ous → прилагательное*

monotony — монотонность

monotonous — монотонный

nerve — нервы

nervous

danger — опасность

dangerous

ceremony — церемония

ceremonious

religion — религия
glory — слава
harmony — гармония

religious
glorious
harmonious

Модель II: основа глагола + -ance/-ence → существительное
— " — + -ant/-ent → прилагательное

to differ — различаться

difference — различие, different
— различный

to insist — настаивать

insistence, insistent

to depend — зависеть

dependence, dependent

to correspond — соответствовать

correspondence, correspondent

to resist — сопротивляться

resistance, resistant

to assist — помогать

assistance, assistant

Упражнение 12. Переведите следующие предложения и словосочетания.

absence — отсутствие

John is absent.

confident — уверенный

I have no confidence in you.

competence — компетентность

a competent specialist

prudent — осторожный

an incompetent person

ignorance — невежество

necessary prudence

to coexist — сосуществовать

an ignorant person

conscience — совесть

peaceful coexistence

contempt — презрение

coexistent countries

curiosity — любопытство, ред-
кость

a conscientious person

access — доступ

a contemptuous smile

acute — острый

a curious person

to accept — принимать

a curious thing

stable — устойчивый

an accessible mountain

to depend — зависеть

accessibility of the mountain

common — обычный

acuity of hearing

to suit — годиться, соответство-
вать

acceptable terms (условия)

Упражнение 13. Найдите в тексте слова, имеющие общий корень со словами, данными перед текстом, определите части речи, к которым они относятся, переведите их, затем переведите текст.

to equip

acceptability of terms

proper

an unstable balance

improvement — усовершенствовани-
е

instability of balance

to assist — помогать

dependent countries

independent countries

an uncommon word

suitable terms

unsuitable terms

to execute — исполнять

entire — весь, целый

to contribute — вносить вклад

able — способный

to differ — отличаться

UNICEF

UNICEF, the United Nations International Children's Fund, is an international organization which was established in 1946. Its primary function is to improve the health and living conditions of the children of those countries which ask for UNICEF assistance. It is governed (управлять) by the executive board (совет) of 30 nations and financed entirely by contribution from both governments and individuals. UNICEF provides equipment and medicine (лекарство). It provides for children who are unable to obtain the vital (необходимый) food. It teaches mothers how to care properly for the children.

In 1956 alone, UNICEF assistance was given to over 31,000,000 children and mothers. In 1957, UNICEF gave assistance to 319 different health and food programs in 102 countries.

TEXT 5B

Задание I. Прочтите текст, стараясь понять основное содержание. (Заметьте время начала и окончания чтения. Этот текст нужно прочесть за 4 минуты, из расчета 80 слов в минуту.)

ELECTRIC FISHES

There are several kinds of fishes which are able to generate electricity strong enough to light a small bulb (лампочка) or even to run an electric motor.

Perhaps the best known are the Electric Rays (скар) or Torpedoes of which several kinds are found in the warm seas. It spends most of its time lying hidden on the seabed. The Electric Ray is able to give an electric shock by means of special organs behind the head on each side. The shock can stun (оглушать) the fishes on which Torpedo feeds and may knock a man down if he steps on it in water. The electricity produced by a young fish will light a pocket lamp, while that of a grown-up fish is strong enough to run a small electric motor.

Another well-known electric fish is the Electric Eel (угорь) found in the Amazon and Orinoco rivers in South America. It has a long eel-like body and may grow to eight feet in length, and the electric organs are on each side of the long tail (хвост). Its shock can paralyze a horse and man riding through the water.

These electric organs are found in several other fishes. The Electric Catfish (сом) of African lakes and rivers, among them the Nile, gives out its electricity from the organs, lying under the skin. The Electric Catfish is fat, slow and lazy. It grows to about three feet long and is sometimes eaten by Arabs.

The power for producing electricity may serve these fishes both for defence and attack. If a large enemy attacks them, it will get a shock that will drive it away, but the Catfish uses electricity most often against smaller fishes paralyzing them.

No electric fishes can keep on giving shocks, for they soon become exhausted (*истощать*) and have to rest, before they can produce electricity again.

Задание II. Выберите утверждение, соответствующее содержанию текста.

1. The Electric Ray or Torpedo has powerful electric organs:
 - 1) in its tail;
 - 2) behind its head;
 - 3) in the middle of the body.
2. The electric shock of the Torpedo:
 - 1) cannot light even a pocket lamp;
 - 2) cannot stun fishes;
 - 3) can knock a man down.
3. The Electric Eel lives in:
 - 1) seas;
 - 2) oceans;
 - 3) rivers.
4. The Electric Catfish is:
 - 1) fat and lazy;
 - 2) thin and energetic;
 - 3) very quick.
5. The electric fishes can give electric shocks:
 - 1) constantly;
 - 2) once in their life;
 - 3) for some time, and then have to rest before they can produce them again.

Задание III. Прочтите текст еще раз и обратите внимание на интересные детали. Ответьте на вопросы.

1. Where does the Electric Ray or Torpedo spend most of its time?
2. Can the electric current of grown-up fish run a small electric motor?
3. Which of the electric fishes can paralyze a horse and a man on it?
4. In what continent does the Electric Catfish live?

Т Е X T 5С

Задание I. Прочтите текст, отыскивая в нем ответы на поставленные вопросы.

LITTLE-KNOWN FACTS ABOUT WELL-KNOWN PEOPLE

Was Einstein a capable or a backward (умственно отсталый) child?

1. Albert Einstein is one of the greatest scientists of our age, yet in his childhood he was slow, shy and backward. He found it extremely difficult to learn even to talk.

What kind of life did Einstein lead?

2. Later he became one of the most famous men in the world. The Theory of Relativity brought him fame on five continents. Yet, he led a very simple sort of life, went around in old clothes, and seldom wore a hat. He said that he did not care for fame or riches. The captain of a transatlantic ship once offered Einstein the most expensive rooms on the ship; Einstein refused and said he would rather travel on deck than accept any special favours (привилегия).

What brought Einstein more joy than anything else?

3. Einstein impressed everybody as being a very happy man. He said he was happy because he didn't want anything from anybody. He didn't want money or titles or praise. He made his own happiness out of such simple things as his work, his violin and his boat. Einstein's violin brought him more joy than anything else in life. He said he often thought in music.

By what illustration did Einstein explain his theory of relativity?

4. Einstein's Theory of Relativity, which seemed a flight of imagination (полет воображения) to many at first, is now the cornerstone of modern physics. Many physical phenomena could never be explained without the Theory of Relativity.

Einstein said that there were only twelve people living who understood his Theory of Relativity, although more than nine hundred books have been written trying to explain it.

He himself explained Relativity by this very simple illustration: "When you sit with a nice girl for an hour, you think it is only a minute; but when you sit on a hot stove for a minute, you think it is an hour. Well, well—so that's relativity. It sounds all right to me; but if you don't believe me and would like to try it out (хотели бы проверить), I'll be glad to sit with the girl if you'll sit on the stove."

What two rules of conduct did Einstein have?

5. Einstein was married twice. He had two sons by his first marriage, both brilliant boys.

Mrs. Einstein said that even she didn't understand the Theory of Relativity; but she understood something that is more important for a wife; she understood her husband.

Mrs. Einstein said that her husband liked order in his thinking, but he didn't like it in his living. He did whatever he wanted to, whenever he wanted to; he had only two rules of conduct (поведение). The first was: don't have any rules whatever. And the second was: be independent of the opinions (мнение) of others.

What did the conductor say to Einstein?

6. Once, while riding on a tram-car in Berlin Einstein told the conductor that he hadn't given him the right change (сдача). The conduc-

- tor counted the change again and found it to be correct, so he handed it back to Einstein saying: "The trouble with you is, you can't count!"

Задание II. Прочтите текст еще раз; назовите номера частей текста, в которых встречаются следующие предложения.

1. He made his own happiness out of such simple things as his work, his violin and his boat. 2. Many physical phenomena could never be explained without the Theory of Relativity. 3. He found it extremely difficult to learn even to talk. 4. He said that he did not care for fame or riches. 5. The conductor counted the change again and found it to be correct, so he handed it back to Einstein saying: "The trouble with you is, you can't count!" 6. He said he was happy because he didn't want anything from anybody. 7. Einstein said that there were only twelve people living who understood his Theory of Relativity. 8. "When you sit with a nice girl for an hour, you think it is only a minute; but when you sit on a hot stove for a minute, you think it is an hour." 9. Yet, he led a very simple sort of life, went around in old clothes, and seldom wore a hat. 10. Mrs. Einstein said that her husband liked order in his thinking, but he didn't like it in his living.

TEXT 5D

Задание I. Прочтите текст.

THE WATCH

(after Gerome K. Gerome)

1. George said that the same kind of thing only worse had happened to him some eighteen months ago when he was lodging by himself in the house of a certain Mrs. Gippeings. He said his watch went wrong one evening and stopped at a quarter past eight. He didn't know this at the time because for some reason or other he forgot to wind it up when he went to bed.

2. It was in the winter when this happened, very near the shortest day, so the fact that it was still very dark when George woke up in the morning was no guide to him as to the time. He looked at his watch. It was a quarter past eight. "I have got to be in the city by nine!" exclaimed George. "Why didn't somebody wake me up? Oh, what a shame!" He sprang out of bed, had a cold bath, washed and dressed himself, shaved in cold water because there was no time to wait for the hot, and then rushed and had another look at the watch.

3. Whether the shaking it had received had started the watch, or how it happened, George couldn't say, but he was certain that from a quarter past eight it had begun to go, and now pointed at twenty minutes to nine. George snatched it up, and rushed downstairs.

4. In the sitting-room all was dark and silent, there was no fire, no breakfast. George said it was shame of Mrs. Gippeings and he made up his mind to tell her what he thought of her when he came home in the evening. Then he made for the front door. The door was not even unbolted. George thought it was very strange that people couldn't get up at a decent respectable time, unlocked and unbolted the door, and ran out.

5. He ran hard for a quarter of a mile, and at the end of the distance it struck him as a strange and curious thing, that there were so few people about and that there were no shops open.

6. At length he reached Holbork. There were three men in sight, one of whom was a policeman. George pulled out his watch and looked at it: it was five minutes to nine. He stood still and counted his pulse. He stopped down and felt his legs. Then, with his watch still in hand, he went up to the policeman and asked him if he knew what time it was.

7. "The time?" said the man. "Why, if you listen you will hear it strike." George listened, and a neighbouring clock immediately began to strike.

"But it's only three!" said George.

"Well, and what did you expect it to be?" asked the policeman.

"Why, nine," said George showing his watch.

The policeman asked George if he knew where he lived. George thought a moment and gave the address.

"Oh, that's where it is," replied the man. Then he told George to take his advice and go home quietly. "Take that watch of yours with you," he added, "and don't use it any more." George went home and let himself in.

8. At first, when he got in, he determined to undress and go to bed again, but when he thought of re-dressing, and re-washing, he determined he would not, but would sit up and go to sleep in the easy chair. But he couldn't go to sleep, he never felt more wakeful in his life. He thought he would light a fire and make himself some breakfast, but he was in mortal fear that it would wake Mrs. Gippeings and that she would think it was burglars and call the police. So he sat in the easy chair till Mrs. Gippeings came down at half past seven. He said he had never got up too early since that morning.

Задание II. Ответьте на вопросы по тексту D. Правильность ответов проверьте в соответствующих частях текста.

1. Did George live with his family? (1) 2. Why couldn't George understand whether it was night or day when he woke up? (2) 3. Why did George shave in cold water? (2) 4. When did George leave the house by his watch? (3) 5. Why did George leave the house without breakfast? (4) 6. Did George see many people as he was running? (5) 7. What question did George ask the policeman? (6) 8. What time was it by George's watch? (7) 9. What time did the clock strike? (7) 10. What did the policeman advise George to do? (7) 11. Why did George sleep in the easy chair? (8) 12. Why didn't George make breakfast for himself? (8).

КОНТРОЛЬНЫЙ СЛОВАРЬ

1. about (*adv, prp*); 2. admission (*n*); 3. adviser (*n*); 4. back (*adv*); 5. behind (*prp*); 6. believe (*v*); 7. care (*v*); 8. choose (*v*); 9. clear (*v*); 10. complicated (*a*); 11. every (*a*); 12. excellent (*a*); 13. expect (*v*); 14. go on (*v*); 15. job (*n*); 16. justify (*v*); 17. kind (*n*); 18. light (*n*); 19. make (*v*); 20. master (*v*); 21. no matter; 22. in the meantime; 23. member (*n*); 24. nuclear (*a*); 25. occur (*v*); 26. opportunity (*n*); 27. own (*a*); 28. piece (*n*); 29. plenty of; 30. probably (*adv*); 31. really (*adv*); 32. rise (*v*); 33. schedule (*n*); 34. shake (*v*); 35. suddenly (*adv*); 36. that is why; 37. then (*adv*); 38. time (*n*); 39. too (*adv*); 40. towards (*prp*); 41. used to; 42. wear (*v*); 43. while (*conj*); 44. win (*v*); 45. wrong (*a*).

LESSON 6 (Six)

Грамматика: 1. Причастие I и II (Participle I, II).

2. Независимый причастный оборот.

Основной текст А: Moscow, the Heart of the USSR.

Причастие

Participle I			Participle II	
Indefinite	Active	Passive	1. основа стандартного глагола + -ed	asked
	asking	being asked		
Perfect	having asked	having been asked	2. особая форма для нестандартных глаголов	gone

Упражнение 1. а) *Образуйте Participle I (Indefinite, Active) от следующих глаголов и переведите их на русский язык.*

to build, to grow, to think, to bring, to determine, to follow, to move, to refuse, to obtain, to contain, to produce, to use, to include, to offer, to enter, to get, to happen, to carry, to teach, to tell, to make, to begin, to keep, to divide, to return, to develop, to save.

б) *Образуйте Participle II от следующих глаголов и переведите их на русский язык.*

to find, to send, to throw, to add, to change, to keep, to take, to save, to maintain, to install, to consider, to burn, to achieve, to show, to develop, to decide, to receive, to leave, to equip, to divide, to return, to write, to read, to make, to do, to give, to see, to say, to speak.

Упражнение 2. *Прочтите и переведите на русский язык следующие словосочетания, обращая внимание на причастия.*

а) the student attending all the lectures; the plan containing many details; the workers building a new house; the engineer using a new method; the car developing the speed of 80 km; the plant producing machinery; the growing population of the country; the student studying foreign languages; the young man entering the institute; the engineer carrying out the research

б) using new methods; constructing new machines; achieving good results; dividing into ten parts; discovering new lands; using new equip-

ment; refusing to give an explanation; receiving important information; constructing new roads; moving at high speed; leaving the town; graduating from the institute

c) having entered the institute; having calculated the distance; having developed the speed of 120 km; having introduced new methods of work; having decided to leave the city; having divided into ten parts; having installed a new equipment; having obtained the necessary information; having found the new way; having changed his behavior; having offered her his help; having passed all his examinations; having returned home

d) the achieved results; all developed countries; the apple divided into three parts; the information obtained recently; the railway built between the two towns; the boy saved by his dog; the methods offered by the young specialist; the lecture read by a well-known professor; the research made in the laboratory; the film shown to the students; the letter sent to his parents; the books left on the table; the news brought by him; the land discovered by Columbus.

Независимый причастный оборот

I	подлежащее + причастие	подлежащее + сказуемое
	The work being finished,	they went home.
II	подлежащее + сказуемое	подлежащее + причастие
	The new method was tried,	better results being obtained.

Упражнение 3. *Переведите следующие предложения на русский язык, обращая внимание на независимый причастный оборот.*

1. Some hydroelectric stations having been built on big rivers of the USSR, many villages and towns were electrified. 2. The working day being over, the city transport was overcrowded. 3. They all went away, he remaining at home. 4. All the problems having been solved, they stopped the discussion. 5. Nobody being on the highway, he was driving his car very fast. 6. The experiment having been made, everybody was interested in the results.

VOCABULARY NOTES

Задание 1. *Переведите следующие предложения.*

1. **to found** — основывать. By whom was Kiev founded?
2. **seat** — место, местоположение. Where is the seat of the USA Government?
to seat — вмещать. The new theatre seats 800 people.
3. **permanent** — постоянный. John could not get permanent work for a long time.
4. **number** — число, количество. He has a great number of old books.

5. **carefully** — 1) осторожно; 2) тщательно. 1) He got into an automobile accident because he did not drive his car carefully. 2) They made an analysis of a new substance very carefully.

6. **capital** — столица. Moscow is the capital of the USSR.

7. **scale** — масштаб. This map has a scale of one centimetre to a thousand kilometres.

8. **construction** — строительство, сооружение. The construction of a new factory was started last year.

9. **to perform** — делать. The doctor performed a difficult operation.

10. **recent** — недавний. He has recently returned from the expedition to the Pamirs.

11. **to calculate** — вычислять. How was the distance to Mars calculated?

12. **successful** — удачный. Was your experiment with the new machinery successful?

13. **attention** — внимание. Great attention is given to this discovery.

14. **major** — главный, крупный. Do you know all major cities in Great Britain?

15. **feature** — особенность, характерная черта. What is the main feature of your friend's character?

16. **branch** — 1) отрасль; 2) ветвь, ветка. 1) What branches of industry are being developed in the Urals? 2) The child hid (спрятаться) among the branches of the high tree.

17. **quality** — качество. We have recently received instruments of high quality.

18. **establishment** — создание. The establishment of the information centre will help to carry out important research.

19. **to exist** — существовать. Such substance doesn't exist on the Earth.

20. **increase** [ˈɪnkriːs] — увеличение. There was an increase in the number of road accidents in the USA.

to increase [ɪnˈkriːs] — увеличивать(ся). The interest to the achievements of the Soviet Union is steadily increasing in the countries throughout the world.

21. **facilities** (pl) — 1) оборудование; 2) удобства. 1) Our laboratory is equipped with all modern facilities. 2) It was a new house with all facilities.

22. **previous** — предыдущий. Great attention was given to this problem in his previous article.

23. **to facilitate** — облегчать. The calculations were facilitated by the use of a computer.

24. **rapid** — быстрый. There was a rapid increase in traffic in all major cities of the country.

25. **channel** — канал. The construction of the Volga-Don channel was successfully completed in 1957.

26. **to solve** — решать. This problem has been solved at last.

27. **although** — хотя. Although I don't know for sure, but I believe that he is in Kiev.

28. **to expand** — расширять(ся). Metals expand under heat.
29. **considerable** — значительный. We have received considerable information on the properties of this substance.
30. **population** — население. The population of this country has grown considerably in recent years.
31. **district** — район. He lives in a new district of the city.
32. **reason** — причина. What reasons do you have to think so?
33. **improvement** — улучшение, усовершенствование. This method still needs improvement.
34. **convenient** — удобный. The bus service is convenient here.
35. **means** — 1) средство; 2) способ(ы). 1) What means of communication exist in the modern world? 2) It is the only means of doing it.
36. **length** — длина. The length of the room is 3.5 metres.
37. **route** — маршрут. The length of the route of bus 55 has been increased by 3 km recently.
38. **to link** — соединять. The first railway in Russia linked Moscow and Petersburg.
- link** — связь. The telephone link with the mountain village was broken.
39. **several** — несколько. He has several important reasons to refuse to come.
40. **instead of** — вместо. What do you want instead of this book?
41. **to unite** — объединять. The USSR unites 15 national Soviet Socialist Republics.
42. **within** — внутри, в пределах. Motor cars maintained the speed of 60 km within the city limits.
43. **significance** — значение. Mendeleev's table of metals is of great significance to science.
44. **valuable** — ценный. He gave us valuable information.
45. **to remain** — оставаться. Road safety remains one of the most important problems in the modern world.

Задание II. Прочтите следующие интернациональные слова и догадайтесь об их значении.

political, administrative, economic, culture, cultural, international, academy, museum, theatre, club, architecture, architectural, monument, congress, factor, model, communist, balance, industry, municipal, aspect, industrial, instrument, electronics, production, zone, base, plan, section, communal, sports, territory, migration, effective, trolley-bus, comfortable, reconstruct, modern, traditional, complex, form, public, structure, comfort, polycentric, monocentric.

TEXT 6A

MOSCOW, THE HEART OF THE USSR

1. Founded in 1147 by Prince Yury Dolgoruky, Moscow has become the largest political, administrative, economic and cultural centre, the railway, highway and international airway crossroads. Moscow is the

seat of the Soviet Government, one of the world's cultural, scientific and art centres, the seat of the Academy of the Sciences of the USSR, with its numerous institutes, laboratories and other research institutions, the home of more than 80 institutes of higher education, of thousands of libraries, museums and permanent exhibition halls, of hundreds of theatres, clubs, houses and palaces of culture. Moscow has a great number of historical and architectural monuments carefully preserved.

2. Moscow is more than 800 years old, but never before has our capital seen such a scope and scale of construction as has been performed in recent years. The 24th CPSU Congress set the task of turning Moscow into a model communist city. A general plan for its development calculated for 25-30 years has been endorsed. The plan was worked out with an eye to¹ the city's future growth, work being started on a large scale. The plan guarantees a comprehensive, well-balanced development of the capital, and its successful implementation will be an important milestone on the road to turning Moscow into a model communist city. This plan is of great importance for the country's economy, as much primary attention is given to the further development of industry, which is the major factor in the construction.

3. A feature of Moscow's development is the building up of the industries requiring highly-skilled labour²—precision engineering,³ instrument making, radioengineering, electronics and the branches producing high-quality consumer goods.⁴ The plan provides for the establishment of 65 production zones in the city, based on the existing groups of industrial projects, so as to achieve a better and more rational siting of plants and factories.

The increase in housing is given a special place in the plan for the capital. Tens of thousands of families have already obtained better housing facilities. Present-day housing projects are essentially different from those of previous years. Moscow today has an adequate building materials industry, which facilitates rapid building and the use of new prefabricated section assembly methods.⁵

4. Alongside housing, much is to be done in the next years for the further development of cultural and educational institutions, health services, trade, communal and other services.

The capital will have new sports facilities—the construction of a rowing channel has been completed; there will be a unique roofed stadium,⁶ seating 35,000-40,000 spectators, as well as other sports centres.

5. Transport is a serious problem for all large cities in the world. The capitals of the major capitalist states are often unable to solve this problem. Moscow also has a transport problem, although it is not quite so serious. The territory of the capital has expanded considerably in the last few years and with it came the large-scale migration of the population. Every year about 500,000 Muscovites move from one district to another, when they get new flats, and for other reasons. All that calls for the further development and improvement of the city's transport services.

The plan provides for the further development of the Metro, which is the most convenient and effective means of transport. The total length

of trolley-bus and bus routes being increased, a considerable number of comfortable trolley-buses and buses are to be added to the capital's passenger service.

Roads constitute another aspect of the transport problem. Having taken the decision to reconstruct many of the existing streets and build new roads we have already started the construction of a new circular road, which will link several of the city's districts between the Moscow Circular Highway and the Sadovoye Ring Road.

6. The General Plan provides for polycentric planning for the modern capital instead of the traditional monocentric system. We plan to set up in Moscow 8 complex zones united by a system of the general city centre.

One of the main tasks in the development of Moscow in the next few years is the reconstruction of the city's centre around the Kremlin. The territory within Sadovoye Ring Road will retain its significance as the city's historic-revolutionary, cultural, educational and administrative public centre. All the valuable architectural monuments and many of the old streets with their unique structure will remain untouched.

Our aim is to turn Moscow into a city which will provide the people with every comfort and facilities for labour and rest.

NOTES TO THE TEXT

1. with an eye to — *зд.* с учетом
2. highly-skilled labour — высококвалифицированный труд
3. precision engineering — точная механика
4. consumer goods — товары народного потребления
5. prefabricated section assembly methods — методы сборки готовых деталей
6. a unique roofed stadium — уникальный крытый стадион

Упражнение 4. *Переведите следующие словосочетания:*

to found a city; a great number of pictures; room number 14; to study the materials carefully; the capital of a country; construction work on a large scale; recent years; to turn Moscow into a model communist city; to carry out necessary work; successful research; to give much attention to education; further achievements; major invention; similar features; major branches of industry; existing states; the increase of speed; to facilitate the construction; rapid development; numerous channels; to solve the question; although it was late; the population has grown considerably; important reason; to improve the system of education; a convenient way; a safe means of transport; the length of the river; to link several countries; to use electricity instead of steam; to unite peoples; main discovery; within the traffic system; valuable knowledge.

Упражнение 5. *Вставьте глаголы, подходящие по смыслу, в соответствующей грамматической форме.*

to increase, to expand, to remain, to exist, to solve, to calculate, to found, to perform, to link, to seat

1. Moscow University was ... in 1755. 2. We cannot ... without air. 3. The new road will ... several districts. 4. The theatre ... two thousand people. 5. A child did not want to ... at home without his mother. 6. Nothing ... of the house, it was completely ruined. (to ruin — разрушать) 7. Many significant problems in transport have been ... since 1970. 8. Our country ... cultural links with other countries. 9. He ... how much a travel to France would cost. 10. The professor ... an operation for two hours. 11. The cultural exchanges are being ... from year to year.

Упражнение 6. *Вставьте существительные, подходящие по смыслу.*

scale, feature, attention, length, branches, establishment, reason, facilities, quality, significance, means, link, route

1. In his report the lecturer gave great ... to the further development of heavy industry. 2. Many young specialists work in different ... of national economy. 3. Reading a book on travelling the child got interested in the geographical ... of the country. 4. Have you heard about the ... of a new state in Africa? 5. The workers were speaking about the improvement of ... of the construction materials. 6. What is the shortest bus ...? 7. Nobody realized the real ... of his discovery. 8. What is the ... of this map? 9. The ... of the channel is 30 km. 10. What is the ... for his being late? 11. Much money was spent on improving production 12. The ... between the past and the future was very strong. 13. Much attention is given to the development of different ... of transport in the city.

Упражнение 7. *Дайте возможные сочетания следующих прилагательных и существительных.*

rapid	information	successful	factor
considerable	links	major	analysis
several	quality	previous	knowledge
convenient	river	careful	years
valuable	years	great	experiment
permanent	time	recent	attention

Упражнение 8. *Переведите следующие предложения на русский язык, обращая внимание на причастия.*

1. He heard the voices coming through the open window. 2. Waiting for him I looked through the magazines lying on the table. 3. They remained at home refusing to go anywhere that day. 4. The channel linking the two seas is being built now. 5. The explanation given was not complete. 6. The new materials recommended for bridge construction were described in the article written by our professor. 7. The results received were of great importance for further work. 8. A balsa tree found in South America is lighter than any other. 9. Having passed all the examinations he left for Kiev. 10. Having been shown the wrong way I could not find his house. 11. Having waited for him for half an hour they went home. 12. Having obtained the necessary results they stopped

their experimental work. 13. When studying metals Mendeleev found that they could be divided into nine groups. 14. When writing a telegram we must use as few words as possible. 15. When burnt coal produces heat. 16. When reconstructed the theatre looked more beautiful than before. 17. Being built in a new way modern houses have better facilities. 18. Being obtained in the laboratory the new substance had some valuable properties. 19. Being well prepared for the examinations the students could answer all the questions asked by examiners. 20. The population of the city increasing, much attention must be paid to housing construction. 21. No essential results having been obtained, the scientist had to carry out some more experiments. 22. A site for the construction having been chosen, the work started. 23. The translation of the report having been finished, he showed it to the author. 24 The train starting, I ran to catch it. 25. He works hard to pass his entrance examinations, his sister doing her best to help him.

Упражнение 9. *Переведите следующие словосочетания на английский язык.*

а) профессор, читающий лекцию; студент, изучающий английский язык; методы, улучшающие исследовательскую работу; девочка, спрашивающая дорогу; инженер, знающий два иностранных языка; человек, предлагающий свою помощь; мальчики, играющие на улице; студент, сдающий экзамен; народ, строящий новую жизнь; развивающиеся страны; инженер, использующий новые достижения; студент, оканчивающий институт; завод, увеличивающий производство; расширяющиеся газы;

б) студент, опрошенный преподавателем; книга, оставленная дома; книга, взятая в библиотеке; университет, основанный Ломоносовым; письмо, найденное в столе; телеграмма, посланная матери; вещь, сделанная в Советском Союзе; машина, сконструированная молодым инженером; железная дорога, построенная молодыми рабочими; усовершенствованные методы работы; оборудование, установленное в лаборатории; экзамен, сданный успешно; проблема, решенная успешно;

в) изучая иностранный язык; читая книгу; посещая лекции; сдавая экзамены; строя дороги; увеличивая скорость; объединяя народы; отказываясь помогать; устанавливая новое оборудование; производя новые автомобили; покидая город; двигаясь быстро; улучшая уличное движение; оставаясь дома;

г) изучив один иностранный язык; прочитав интересную книгу; оставив книгу дома; окончив институт; окончив работу; получив новую информацию; построив дорогу; открыв новый элемент; решив важную проблему; расширив связи с другими странами; получив письмо; оставшись дома; закрыв дверь; увеличив скорость; соединив две части города; объединив всех прогрессивных людей.

Упражнение 10 (обзорное). *Переведите следующие предложения на русский язык.*

1. I shall still be translating this long article when you come. You will have to wait until I finish. 2. He said he had already translated

the article that the teacher had given him. 3. You may ask comrade Pestov to help you with the translation. He usually translates articles from English into Russian. 4. You have come early. Your article is still being translated because it is long and difficult. 5. When translated his article on chemistry was sent to the International Chemical Congress. 6. Being translated into many foreign languages Gorky's works are read with great interest by people of different professions all over the world. 7. Translating the English article into Russian he looked up the words in the dictionary. 8. Having translated the article from the newspaper he showed it to the teacher. 9. What is he doing? He is translating some article from a foreign journal. 10. The article was difficult. He was translating it all day yesterday. 11. I have just translated an interesting article from the newspaper. You may have a look at it. 12. The article having been translated, he could read some book for pleasure.

Упражнение 11. *Ответьте на вопросы по тексту 6А.*

1. When was Moscow founded? 2. How many institutes of higher education are there in Moscow? 3. What was the task set by the 24th CPSU Congress? 4. For how many years was the general plan calculated? 5. What is the feature of Moscow's development? 6. How many production zones does this plan provide for? 7. How do present day housing projects differ from those of previous years? 8. What new sports facilities shall we have in the capital? 9. Why is transport a serious problem for large cities? 10. Why does the plan provide for the further development of the Metro? 11. How many complex zones will be set up in Moscow? 12. What is the aim of this plan?

Упражнение 12. *Постройте всевозможные вопросы и ответы, пользуясь таблицей.*

Образец А:·

<i>Вопрос:</i> How do you go to the institute?		
How does	he she your father his sister her brother your friend	go to the office? to school? to the centre of the city? to the institute? to the factory?
<i>Ответ:</i> I go there by Metro.		
He goes there She goes there	by trolley-bus. by tram. by Metro. by bus. on foot.	

Образец Б:

<i>Вопрос:</i> How long does it take you to get to the institute?			
How long does it take	you		to the institute?
	her		to the centre of the city?
	him		to the office?
	your mother	to get	to school?
	his sister		to your house?
	her father		to the nearest Metro station?
	your friend		to the nearest bus stop?
<i>Ответ:</i> It takes me 30 minutes to get there.			
It takes	me	about one hour	to get there.
	her	half an hour	
	him	only 5-10 minutes	
		more than one hour	
		45 minutes, etc.	

Упражнение 13. *Сделайте краткие сообщения на следующие темы.*

1. History of Moscow.
2. Moscow, the city of the world's culture, science and arts.
3. Moscow as an industrial centre.
4. Transport in Moscow.
5. The development of Moscow as a model communist city.

Упражнение 14. *Расскажите о своем родном городе или о городе, который вам нравится, используя следующие слова и словосочетания.*

to be born; to like very much; fine city (town); major; to found; wide streets; beautiful squares; valuable monuments; theatre; stadium; channel; houses with modern facilities; rapid building; population; means of transport; several new districts; important industrial centre; plant; factory; construction.

РАБОТА НАД СЛОВООБРАЗОВАНИЕМ

Упражнение 15. *Переведите следующие производные слова.*

Модель I: *основа глагола + -ing → существительное*

to open — открывать	opening — открытие
to break ломать	breaking
to repair чинить	repairing
to measure измерять	measuring
to build строить	building
to cast отливать	casting
to save спасать	saving
to coat покрывать	coating

Модель II : re- + основа глагола → глагол, означающий повторное действие

to read — читать

to reread — перечитать, прочесть заново

to form формировать

to reform

to cover покрывать

to recover

to do делать

to re-do

to elect избирать

to reelect

to establish устанавливать

to reestablish

to model создавать

to remodel

to produce производить

to reproduce

Упражнение 16. *Переведите следующие словосочетания.*

to reconstruct the old house; to reconsider the problem; to reinstall the motor; to re-use the substance; to recalculate the program; to reunite the country.

to design — конструировать

a designer of the ship

occasion — случай

occasional meetings

to communicate — общаться

we meet occasionally

fertile — плодородный

modern communications

to corrode — корродировать

fertility of the land

pervious — проницаемый

corrosive action

corrosion of metals

impervious to water

Упражнение 17. *Найдите в тексте слова, имеющие общий корень со словами, данными перед текстом, определите части речи, к которым они относятся, переведите их, затем переведите текст.*

to drive — водить машину

certain — определенный

to observe — наблюдать

subsequent — последующий

to collide — сталкиваться

to vary — различаться

to direct — направлять

to pave — мостить

to govern — управлять

to mark — отмечать

immediate — немедленный

to question — подвергать сомнению

determination — определение

In 1911 in Wayne County (округ), Michigan an automobile driver observed a collision on a narrow bridge between a horse and a buggy (повозка) and an automobile going into opposite directions. Each of the drivers was sure that he was on his own side of the road. The observer was Edward Hines, the governor of the county. Mr. Hines immediately decided that it must be possible for drivers to determine with certainty where their side of the road was. He ordered a white line painted (рисовать) on the centre of every bridge and every curve (поворот) within his county. Subsequently he had his idea extended (распространять) to all the highways of the county. The centre line and various pavement markings have unquestionably saved many lives. They are now one of the most effective means of controlling traffic.

Задание I. Прочтите текст, стараясь понять основное содержание. (Заметьте время начала и окончания чтения. Этот текст нужно прочесть за 5 минут, из расчета 80 слов в минуту.)

NEW YORK

New York is a city where all the languages of the world are spoken and where people live on the ground, travel under the ground and work in the sky.

New York makes a great impression on all visitors because of its many high buildings, its theatres, museums and hotels, its beautiful bridges, and its expensive shops with their fabulous (баснословный) prices.

The first permanent white settlers (поселенцы) came to New York from Holland in 1626. It was these Dutch settlers who bought all of Manhattan Island (остров) from the Indians for the equivalent of twenty-five dollars, while today some of this land costs a million dollars an acre. This island is the heart of the city.

It is on Manhattan Island that most of the skyscrapers are located. This island is connected by six long bridges, as well as by tunnels and ferries (паром) with the other four districts that constitute New York City.

New York is the largest city in the United States. Today there are more people living in the New York City than in Australia, Peru or Sweden.

For transportation New York depends (зависеть) mainly on buses, the subway, taxis and ferries. The buses are slow because of the crowded streets, whereas the subway trains can go as fast as railroad trains, sometimes stopping only at the most important stations. We may go all day by the subway for 50 cents, if we only change trains but do not go out of the stations.

New York moves vertically as well as horizontally, taking its people by elevator to their offices on the fortieth, sixtieth and eightieth floor.

New York is the richest and the poorest, the most modern and the most old-fashioned (старомодный) of cities. It is the home of expensive hotels and cheap boarding houses, the home of symphonies and popular jazz, of cathedrals (собор) and night clubs; the home of famous Metropolitan Opera and the Metropolitan Museum of Art; the home of most of the largest publishing houses (издательство) of the United States and the biggest newspapers. On the Fifth Avenue there are many expensive stores of international fame, but around the corner one may find little shops where imitation diamonds and cheap souvenirs are sold.

New York is a city of immense (огромный) beauty and immense ugliness (уродство), a place where everyone is in a hurry and where no one seems to have time to live.

Задание II. Выберите утверждение, соответствующее содержанию текста.

1. The first permanent white settlers of New York were:
 - 1) from France;
 - 2) from England;
 - 3) from Holland.
2. The Manhattan Island is:
 - 1) in the centre of New York;
 - 2) in the suburbs (пригород) of New York;
 - 3) very far from New York.
3. The Island is connected with other parts of New York:
 - 1) by one long bridge;
 - 2) by six long bridges;
 - 3) by six short bridges.
4. The largest city in the USA is:
 - 1) Washington;
 - 2) Chicago;
 - 3) New York.
5. The subway trains move:
 - 1) as fast as railroad trains;
 - 2) slower than railroad trains;
 - 3) faster than railroad trains.

Задание III. Сделайте краткие сообщения на следующие темы.

1. The History of New York.
2. Manhattan Island.
3. Transport in New York.

Т Е Х Т 6С

Задание I. Прочтите текст, отыскивая в нем ответы на поставленные вопросы.

LENIN'S LINKS WITH LONDON

When did V. I. Lenin visit London for the last time?

1. V. I. Lenin came to London on five separate occasions (случай). He first came in April 1902 to continue the illegal publication of "Iskra", after the activities of the German police had made it impossible to continue in Munich.

He stayed for a year, but was again in London in July 1903, when the Second Congress of the Russian Social Democratic Labour Party had to be transferred (переносить) from Brussels because of the activities of the police there.

In April 1905, Lenin again came to London from Geneva to attend the Third Party Congress, and was in London again for the Fifth Party Congress in April 1907.

His last visit was in April-May 1908 to work at the British Museum gathering (собирать) material for his work on "Materialism and Empirio-criticism".

How did N. K. Krupskaya learn English?

2. In her "Memories of Lenin", his wife N. K. Krupskaya tells how when they arrived in London they "were met at the station by a comrade living in London in emigration, who had a fine knowledge of English". "At first," she goes on, "he acted as our guide (гид) as we were in rather a hopeless position by ourselves. We thought we knew the English language, having even translated a whole book from English into Russian, when we were in Siberia. I learnt English in prison (тюрьма) from a self-instructor (самоучитель), but had never heard a single English word spoken.

How did V. I. Lenin divide his time in London?

3. When we came to London we found we could not understand a single word, and nobody could understand us. At first this was very comical. So we had to learn all over again. We started to master English pronunciation (произношение) little by little, we went to meetings, where we listened to speeches in English, and to Hyde Park to listen to Englishmen making speeches, and we conversed with our landlady (хозяйка). We also exchanged lessons with two Englishmen. We taught them Russian and they taught us English."

Krupskaya helped Vladimir Ilyich with the correspondence, kept house, bought food, prepared meals.

Lenin divided his time between editing (редактирование) "Iskra", looking through the correspondence that came illegally from Russia and studying in the British Museum Reading Room.

Where was "Iskra" published?

4. It was possible to publish the "Iskra" thanks to the help gladly given by Harry Quelch, editor of the journal "Justice", which was produced in the building now known as Marx House. Before Lenin's arrival in London, arrangements had been made with Harry Quelch for the publication of "Iskra" in the editorial offices of "Justice".

The small room where Harry Quelch and Vladimir Lenin worked together in those days still stands and is kept as it was in their day in Marx House—a standing memorial to the cooperation between the socialist movements of Britain and Russia.

Задание II. Прочтите текст еще раз и выделите в каждой части интересные для вас факты.

Задание III. Сделайте краткие сообщения на следующие темы.

1. V. I. Lenin's visits to London.
2. V. I. Lenin's life in London.

Задание I. Прочтите текст.

A FEW WORDS ABOUT ENGLISH TRADITIONS

1. When we arrived in London the day was fine and warm, there was a bright sun and a cloudless sky, but the general opinion abroad is that London has fog or rain, or both, every day of the year. After a short rest we went for a drive about the city. We saw many places of interest, such as Trafalgar Square with the Nelson Column in its centre, the British Museum and Westminster Palace. When we drove into the Strand, which is one of the busiest London streets, we could see a long stream of cars, buses and taxis. The newest and most comfortable cars ran side by side with old ones made more than twenty years ago.

2. The traffic regulations in Great Britain differ from ours: we are to keep to the right but in the streets of London you are to keep to the left. The street traffic is very heavy; it is much heavier than in Moscow. There are notice-boards at every crossing which show you the place where to cross the road: "Please, cross here", "Please, drive slowly". The streets of London were always of great interest to us. In some parts of London they look very much alike, as the houses are the same in style.

And sometimes the same street may have different names. For example—Grosvenor Street at Hyde Park is no longer Grosvenor street a little farther, but Grosvenor Place, and when it comes nearer the Thames it is Grosvenor Road.

In the oldest part of London many streets are quite narrow and have strange names, as White Horse Street. Milk Street, Honey Lane and Cheapside.

3. The houses are not very big, they are mostly two-storeyed buildings with as many front doors and as many little gardens as there are lodgers in the house.

Imagine how surprised we were to see the windows of one and the same house painted in different colours. And not only the windows. Whole parts of houses were in different colour, that is, doors, steps and walls.

"What is the idea of painting houses in this way?" I asked.

"We don't notice such things. We are used to them. Everybody paints his own part of the house in the colour he likes best." was the answer.

In many English houses windows are different from ours. To open such windows, you have to raise or to lower them. One may ask why they have such kinds of windows. The thing is that the winds in England often become very strong and may easily break windows of the kind we have.

Central heating is found in very few houses even in London. In most rooms there is a fireplace. I asked my English friend, "Why must you have open fires in the houses?" He laughed and said, "What shall we do without them in the evenings?"

This was, of course, a joke but it helped me to understand the whole thing. The fireplace is a symbol of a happy family life in England. Englishmen are fond of spending their evenings round the fire. This is an old tradition. They won't go to bed before the fire goes out and the room grows cold.

4. The next day was Sunday. Sunday is a very quiet day in London. All shops are closed and so are the theatres and most of cinemas. Londoners like to get out of town on Sundays. There are thousands of cars on the roads into the country. The south coast is only fifty or sixty miles away and people like to go down to the sea for the day.

Our English friends took us to Brighton. We enjoyed the journey but not the swimming because the water was very cold.

5. When we drove out of town, we noticed, here and there, young men and women riding on bicycles. We were told that those were members of factory sports clubs. Our attention was also attracted by cars standing along both sides of the road. Whole families were sitting nearby with baskets before them. It was half past one and they were having lunch.

"But what is that, over there?" one of us asked. "It looks very much like a house on wheels."

"We call it a caravan," our English friend explained, "a whole family can sleep in a caravan and prepare their meals when they go on a trip. But I must say that a caravan costs a lot of money and few people can buy one."

"Well, there are many ways to have a good rest," he continues, "one may go to the country by train or even on a bicycle. Many people in England spend their holidays in the country. It is a tradition with us."

6. Then we began talking about cars. As I had noticed many old cars on the road, I said, "Aren't they ashamed of such cars?"

"Ashamed? Why, they are proud of them! You see, there is a tradition even about old cars. Every year they hold a race from London to the town of Brighton. Only the oldest cars are allowed to take part in it. A race like that is very funny, indeed."

7. The English certainly have many traditions, manners and customs of which they can be proud and English humour is one of them. It is ironical, often directed against oneself in a self-critical way.

Obraztsov, the Russian actor, observed the English type of humour very carefully, telling the following little story as an illustration:

"While I was in England, I always took my camera with me and I tried to take shots of everything I saw, particularly everyday life. One day, I set off for Petticoat Lane. One of the passengers in the bus in which we were travelling was gaily telling us that this market had, for a long time, been notorious for its thieves: when a woman came out of the market she had been offered her own petticoat at a reduced price, the very same petticoat, which she had been wearing when she came into the market. Hence the name. The conductor appeared to be paying no attention to our conversation and was whistling some tune. The bus came to a stop at the market. The jolly passenger shouted: 'Good luck! You'll find something to photograph in the market alright.' And the conductor added, 'If you've still got your camera...'"

Задание II. Ответьте на вопросы по тексту D. Правильность ответов проверьте в соответствующих частях текста.

1. What do people think about the weather in London? (1) 2. What kind of traffic regulations is there in Great Britain? (2) 3. What can you see at every crossing? (2) 4. What do houses in Great Britain look like? (3) 5. Where do Londoners go on Sunday? (4) 6. What is a caravan? (5) 7. What race do Londoners hold from London to Brighton? (6) 8. What kind of market is Petticoat Lane? (7)

КОНТРОЛЬНЫЙ СЛОВАРЬ

1. although (*сf*); 2. attention (*n*); 3. branch (*n*); 4. calculate (*v*); 5. capital (*n*); 6. carefully (*adv*); 7. channel (*n*); 8. considerable (*a*); 9. construction (*n*); 10. convenient (*a*); 11. district (*n*); 12. establishment (*n*); 13. exist (*v*); 14. expand (*v*); 15. facilitate (*v*); 16. facility (*n*); 17. feature (*n*); 18. found (*v*); 19. improvement (*n*); 20. increase (*n, v*); 21. instead of (*ppr*); 22. length (*n*); 23. link (*n, v*); 24. major (*a*); 25. means (*n*); 26. number (*n*); 27. perform (*v*); 28. permanent (*a*); 29. population (*n*); 30. previous (*a*); 31. quality (*n*); 32. rapid (*a*); 33. reason (*n*); 34. recent (*a*); 35. remain (*v*); 36. route (*n*); 37. scale (*n*); 38. seat (*n, v*); 39. several (*a*); 40. significance (*n*); 41. solve (*v*); 42. successful (*a*); 43. unite (*v*); 44. valuable (*a*); 45. within (*ppr*).

LESSON 7 (Seven)

Грамматика: 1. Герундий (Gerund).

2. Конверсия.

Основной текст А: The House.

Герундий

	Active	Passive
Indefinite	asking	being asked
Perfect	having asked	having been asked

Упражнение 1. *Переведите следующие предложения на русский язык, обращая внимание на герундий.*

1. Reading English technical magazines is important for an engineer. 2. It is no use speaking to her. 3. I remember attending his lectures on history. 4. He remembers having added some water to the mixture. 5. They finished installing the apparatus only on Saturday. 6. The strange man stopped following me. 7. They began making the experiment in May. 8. He began determining the properties of the new material. 9. After failing in the examination in January he had to take it again in February. 10. After graduating from the institute he worked in the Far North. 11. At the meeting they discussed different ways of improving their work. 12. There are different ways of obtaining the substance. 13. The problem of obtaining power was solved. 14. The organizers of the conference were informed of his refusing to take part in it. 15. We were informed of new results being obtained at the laboratory. 16. I remember his having been interested in languages in his childhood.

Конверсия

house *n* — дом, жилище, здание
v — вмещать(ся), поместить

Modern houses are comfortable.
The building houses a library, and
a reading hall.

Упражнение 2. *Переведите следующие предложения на русский язык, обращая внимание на перевод слов, образованных по способу конверсии.*

1. Do you know Ned's new **address**? 2. The letter was not **addressed** to him. 3. The **telephone** is the invention of the 20th century. 4. Sam didn't **telephone** me yesterday. 5. Nelly's **visit** has come to an end. 6. Why don't you **visit** her? 7. The city was in **ruins**. 8. That fact **ruined** John's career. 9. Have you got many **mistakes** in your test? 10. You have **mistaken** me for somebody else. 11. I don't know this girl's **name**. 12. The boy was **named** after his grandfather. 13. Pete wants to **pilot** modern airplanes. 14. He wants to become a **pilot**. 15. I haven't received an **answer** to my letter. 16. She didn't **answer** my last letter.

VOCABULARY NOTES

Задание I. *Переведите следующие предложения.*

1. **to depend on (upon)** — зависеть. She started working as a secretary as she did not want to depend on her parents.

2. **wood** — лес, роща. Though it was dark they had to go through the wood.

3. **earth** — земля, земной шар. We believe that Pushkin is the greatest poet on earth.

4. **top** — верхушка, вершина. The top of the mountain was covered with snow.

5. **region** — область. There are many factories and plants in the Moscow region.

6. **stone** — камень. A bus was moving along the street covered with stones.

7. **without** — без. He said that she should not leave the town without you.

8. **still** — еще. They were still working when we went home.

9. **to appear** — 1) появляться; 2) казаться. 1) Last year fruit appeared early in the south of the country. 2) It appears that he lives in Kiev.

10. **shallow** — мелкий. In summer some rivers become very shallow.

11. **hole** — дыра, отверстие. There was a big hole in the wall of the old house.

12. **roof** — крыша. The shape of the roof was very strange.

13. **brick** — кирпич. The art of brick making dates from very early time.

14. **to put up (put, put)** — поднимать, возводить. The tourists put up a red flag on the top of the mountain.

15. **above** — над, выше. Your parents live in the flat above ours.

16. **flat** — плоский. In Asia one can see many houses with flat roofs.

flat — квартира. Many families have moved into new comfortable flats.

17. **to arouse** — пробуждать, вызывать. The beautiful pictures of the Tretyakov Gallery **arouse** everybody's interest.

18. **direction** — направление. They were driving in the direction of the forest.

19. **middle** — середина. There was a table right in the middle of the room.

20. **in turn** — по очереди. The teacher called out the students in turn.

21. **thus** — таким образом. She wanted to attract everybody's attention, so she began thus: "Ladies and Gentlemen..."

22. **strength** — 1) сила; 2) прочность. 1) He is a man of great strength. 2) Probably the strength of this machine is great.

23. **unfortunately** — к сожалению. Unfortunately they could not achieve better results.

24. **thick** — 1) толстый; 2) густой. 1) The people were safe behind the thick walls of the house. 2) They were going through a thick forest.

25. **to serve** — служить. Young men serve in the army for 2 years.

26. **to destroy** — разрушать. Minsk was almost completely destroyed during the War.

27. **effort** — усилие. Many efforts had been made before the problem of transport in the city was solved.

28. **to restore** — реставрировать. Many fine buildings near the Kremlin will be restored.

29. **shortage** — нехватка, недостаток. Among other difficulties Sedov's expedition had food shortage.

30. **advanced** — передовой. Advanced methods of work must be developed to increase the scale of production.

31. **unit** — 1) единица; 2) агрегат, узел. 1) The metre is a unit of length, and the gramme is a unit of weight. 2) The construction units were brought to the site by lorries.

32. **to assemble** — собирать. He is a good engineer. He has assembled a motor-car of his own.

assembly — сборка. The assembly of heavy units took much time.

33. **advantage** — преимущество. The knowledge of a foreign language is a great advantage.

34. **to cut** (**cut, cut**) — 1) резать; 2) сокращать. 1) They have already started to cut a tunnel under the channel. 2) The prices for everyday food had been cut by the end of the year.

35. **main** — главный. What is the main reason for changing the schedule?

36. **to extend** — удлинять. According to the new plan the railway will be extended as far as the seaport.

37. **to heat** — отоплять. In England plenty of houses are heated with coal.

38. **furthermore** — кроме того, к тому же. Higher education is free in the Soviet Union, furthermore most of the students receive monthly grants.

39. **duration** — продолжительность. Doctors believed that the duration of the epidemic would not be more than a month.

40. **expensive** — дорогой. Usually the quality of expensive things is much better.

41. **huge** — огромный. He is a man of huge physical strength.

РАБОТА СО СЛОВАРЕМ

Задание II. *Определите, к какой части речи относятся выделенные в данных предложениях слова; затем найдите в словаре нужные значения этих слов и переведите следующие предложения.*

1. part

a) The greatest **part** of the research has been completed. b) They **parted** after they graduated from the institute. c) He divided the apple into two **parts**.

2. cover

a) The forest looked beautiful because the trees were **covered** with snow. b) It's raining hard; we must get under **cover** quick! c) This book needs a new **cover**.

3. tie

a) The man **tied** his horse to the tree. b) Family **ties** are often very strong. c) The man's hands were **tied** together.

4. shape

a) It was getting dark and I could not see the **shape** of the building clearly. b) He **shaped** a piece of clay into a ball. c) The man opened his eyes and saw clouds of different **shapes** over him.

5. place

a) The house is well **placed**, not far from the river. b) They hoped that the horse would get the first **place** in a race. c) **Place** the books in the right order.

6. damage

a) Storms sometimes cause great **damage**. b) Several valuable pictures were **damaged** by fire. c) The accident didn't do much **damage** to the motor-car.

7. crowd

a) There were large **crowds** in the streets. b) People quickly **crowd** round when there is a street accident. c) The pupils **crowded** round the teacher to ask questions.

8. concrete

a) **Concrete** as well as other building materials was widely used for the bridge construction. b) **Concrete** units have been brought to the site. c) The road was **concreted** long ago.

9. manufacture

a) High quality goods are **manufactured** at this plant. b) The steel **manufacture** has been considerably increased for the last years. c) The shop **manufactures** engines for the motor-cars.

Задание III. *Прочтите следующие интернациональные слова и догадайтесь об их значении.*

climate, tent, primitive, cement, oval, conical, period, standard, pyramids, sphinx, tourist, technique, industrialize, season.

THE HOUSE

1. Man has always been a builder. The kind of house he built in the beginning depended upon the climate, upon his enemies, and upon the building materials at hand. The first houses in many parts of the world were made of wood, for in those days the greater part of the earth was covered with forests. Men tied together the tops of several trees and covered them with the skins of animals or with leaves and grass. So a tent, or hut, was the first house of the primitive people who lived where there was much wood.

In other regions the most convenient building material was stone. Men began building houses out of stone very long ago. Although they were built without cement, the remains of a few of them still exist.

It appears that the most ancient homes on the territory of the Soviet Union were earthenhouses. One such home was discovered near Voronezh in 1927. It consisted of a shallow hole of oval shape. The floor was covered with limestone slabs.¹ The roof had been conical and stood on poles (столб) covered by branches or animal skins. Such dwellings existed in that part of the country in the Upper Palaeolithic Period (from 40,000 to 12,000 years ago).

2. The ancient Egyptians built very simple houses by present standards. Having dried the bricks in the sun, they put up four walls, and above these they placed a flat roof. The roof was flat because there was very little rain in Egypt. Although their buildings were simple in construction, the Egyptian art of building was very beautiful. Their pyramids and monuments, sphinxes and palaces arouse our wonder to this day. An important part in the history of building has been played by the column, and it was ancient Egypt that gave the world its first lessons in the art of making columns.

The Greeks learned much from Egypt. But they did not borrow the flat roof. They built a slanting roof because there was much rain in their country. The Greeks made the roof slant in two directions from the middle. They also improved on Egypt's columns and soon became the teachers of the world in column making.

The Romans, in turn, learned much from the Greeks. First of all, they borrowed the slanting roof and the columns. But they added the arch, thus adding much strength and beauty to their buildings.

3. In our country architecture flourished for the first time in Kiev Russ. Unfortunately, only a few of the church buildings of that period have remained. The churches of the time were strong buildings with thick walls and small windows. They often had to serve as fortresses during enemy invasions. Tourists from all over the world come to see the famous Cathedral of St. Sophia, the cornerstone of which was laid in 1037 to commemorate a victory over the Pechenegs. Having been forced out of Kiev the German fascists did their best to destroy its finest ancient architecture, although it had no military significance. Great effort has gone into restoring them.

4. Having become very acute in many countries after World War II, the housing problem called for a solution. As a result of the damages caused by the war there has been a great housing shortage. The Soviet Government set itself the task of housing all the homeless people, who had lost their flats and of improving the living conditions of those who lived in crowded and uncomfortable flats.

To solve the problem great housing construction has started since the end of the war. Millions of people have already moved into new flats.

5. A very advanced construction technique today is the use of precast concrete.² According to this technique, the reinforced concrete³ units of which a building is to be made are manufactured at a factory and are then simply assembled on the site.

The use of precast concrete has many advantages over other building methods. For one thing,⁴ building work is industrialized more highly. The site becomes something like an assembly shop which cuts the labour needed for building by 60 to 70%, the main part of the work being done at the factory. The building season is also extended. After all,⁵ in the greater part of the Soviet Union the winter lasts for several months.

Precast building units are manufactured in heated premises⁶ and can be assembled at the site all the year round in any frost. Furthermore, the duration of building is cut. And, finally, materials and money are saved, as, for example, it is possible to do away⁷ with expensive scaffolding.⁸

The precast concrete technique, which is continuously being improved in the Soviet Union, has a big part to play in the country's huge building program.

NOTES TO THE TEXT

1. limestone slab — известняковая плита
2. precast concrete — готовый бетон
3. reinforced concrete — железобетон
4. for one thing — во-первых
5. after all — в конце концов
6. premises — помещение
7. to do away — покончить
8. scaffolding — (техн.) леса

Упражнение 3. Переведите следующие словосочетания:

to depend on size; in the middle of the wood; to tie together; the top of a wooden house; to appear on the horizon; the middle of the day; a shallow hole; to have no shape; a flat ground; to put up a tent; a stone wall; without a word; to do something in turn; the strength of the material; thick clay; to serve as an explanation; to destroy the city; main effort; to restore the name; advanced workers; steel and concrete; numerous units; to manufacture tubes; to assemble houses; to cut down

expenses for the construction; a number of advantages; to extend the road; to heat the house; expensive means; huge scale.

Упражнение 4. Заполните пропуски подходящими по смыслу словами.

above	heat	main
put up	restored	covered
unfortunately	serve	the earth
concrete	appear	extends
hole	advantages	manufactures
part	expensive	wood
assemble	huge	roof

1. I don't like the second ... of the book. 2. The airplane fell on the ... of the building. 3. The old house was made of 4. ... goes round the sun. 5. There was a big ... in the roof of a wooden house. 6. We were waiting for him for two hours but he did not 7. A building of stones has been ... this month not far from the bus stop. 8. He said that in his country the ground was never ... with snow. 9. At last we could see the top of the mountain ... us. 10. Higher education is very ... in capitalist countries. 11. Our garden ... as far as the river. 12. We need warm water for our experiment. Please ... some. 13. Aluminium has many .. over other metals. 14. What is the ... idea of the book? 15. After the war many destroyed buildings had to be 16. Young people usually ... in the Soviet army for 2 years. 17. This ... building can be seen from all parts of the city. 18. ... I was ill and could not attend this interesting lecture. 19. New methods of construction allow us to ... ready made units on the site. 20. This factory ... motor-cars of the latest make. 21. The house looked like a big box made of steel and

Упражнение 5. Переведите следующие предложения, обращая внимание на герундий.

1. I know of his having been sent to work to the Far East. 2. What is the reason for his having left our city so suddenly? 3. We heard of the experiment having been started last week. 4. He improved his report by changing the end. 5. They objected to his remaining at home. 6. Instead of restoring the old theatre they decided to build a new one in the centre of the town. 7. New possibilities for applying atomic energy open up. 8. It is possible to set up power stations based on utilizing the heat of the sun. 9. The idea of creating a multi-stage rocket belongs to Tsiolkovsky. 10. Before having been sent up the balloon was filled with a special gas. 11. What apparatus do we use for measuring air pressure? 12. Science requires experimenting. 13. These methods were tried without obtaining the necessary results. 14. Speaking foreign languages is of importance for every cultured man.

Упражнение 6 (обзорное). Переведите следующие предложения на русский язык, обращая внимание на *ing*-forms.

1. The monument needs restoring. 2. The monument of what century are you restoring? 3. The monument of what century is being restored?

4. The experts restoring the monument were provided with all modern technique. 5. With the help of a magnet we can hold two huge metal plates together without tying them. 6. He pointed out that the assembling time of the apparatus was very short. 7. The police were informed of the criminals having appeared in the city. 8. The committee studied the problem of improving the bus service in the town without increasing the number of buses operating on the routes. 9. Increasing population of the world changes the face of the earth. 10. Heating the substance at high temperatures may change its properties. 11. Being heated to high temperatures the substance considerably expanded. 12. The substance was being heated for 3 hours.

Упражнение 7. *Переведите следующие предложения на русский язык, обращая внимание на перевод слов, образованных по способу конверсии.*

1. Concrete has become an important construction material. 2. The large hole was concreted over. 3. He carefully studied the shape of the stones. 4. Clay is easily shaped. 5. There is no need to heat the substance. 6. You needn't accompany him to the station. 7. The region is cut into two parts by the river. 8. There was a deep cut on his hand. 9. We couldn't find a dry place anywhere. 10. Why have they placed the bridge here? 11. His hands have been tied. 12. There are close cultural ties between socialist countries. 13. The battalion approached the town under the cover of the night. 14. Rivers are covered with ice in winter.

Упражнение 8. *Выполните упражнения согласно образцам. Используйте данные словосочетания.*

Образец А: а) I like **going** to the cinema.
 б) I don't like **going** to the cinema.

Образец Б: Do you like **going** to the cinema?

to go to the theatre	to go by air
to return home late	to go by train
to return home early	to go by underground
to help your mother	to drive a car
to meet your friends	to listen to the music
to prepare your lessons at home	to ask questions
to smoke	to play football
to dance	to play volley-ball
to read English	to work at the library
to watch a TV programme	to translate from English into Russian
to sing English songs	to swim
to write letters	to travel

Упражнение 9. *Выразите свое согласие или несогласие со следующими утверждениями, основываясь на информации, полученной из текста А. Свое согласие выразите, начиная предложение словами That's right или That's true, а несогласие, начиная словами That's wrong или According to the text.*

1. The first houses in many parts of the world were made of earth. 2. Men cut the tops of several trees and covered them with skins of animals to make a house. 3. On the territory on what is now the Soviet Union the most ancient homes were earthen houses. 4. One such home was discovered near Voronezh in the 19th century. 5. The floor of that house was covered with wood. 6. The roof of the Egyptian house was flat. 7. The Greeks borrowed the flat roof from Egypt. 8. The Greeks improved on Egypt's column. 9. The Greeks became the teachers of the world in column making. 10. In our country architecture flourished for the first time in Kiev Russ. 11. The famous Cathedral of St. Sophia was founded in the 12th century. 12. A very advanced construction technique today is the use of precast concrete. 13. The use of precast concrete has many advantages over other building methods. 14. Precast building units are manufactured in heated premises and can be assembled in summer season.

Упражнение 10. *Спросите своего товарища, как можно подробнее, о его квартире или доме, в котором он живет, используя следующие слова:*

house, brick, stone, wooden, concrete, ceiling, floor, walls, windows, doors, balcony, roof, flat, kitchen, bathroom, living-room, bedroom, facilities, gas, electricity, running water, central heating, telephone, refrigerator, huge, thick, light, comfortable, modern, high.

РАБОТА НАД СЛОВООБРАЗОВАНИЕМ

Упражнение 11. *Просмотрите текст, определите по суффиксам части речи, к которым принадлежат выделенные слова, переведите их. Переведите текст.*

From the earliest times people used many methods of conveying messages (передавать сообщения) as **quickly** and as **efficiently** (efficient — эффективный) as **possible**.

In American history the pony express was one of the most **heroic** adventures (приключений). The discovery (открытие) of gold in California made it necessary to give **important** messages. The stage coaches (дилижанс) which **regularly** carried mail (почта) required months to reach California. The pony express carried **urgent** (to urge — настаивать) messages. It was a group of 80 young men of 18 years of age. These **courageous** (courage — храбрость) men carried mail in relays (по очереди). They used five hundred of the finest horses available (to avail — иметься в наличии). At each of the 190 stations along the route a fresh rider (to ride — ехать верхом) was ready. The **management** (to manage — управлять) kept men under very strict (строгий) rules. Every rider was given a Bible and was not allowed to drink or swear (ругаться). The pony express had a remarkable (to remark — замечать) career. To deliver mail the riders had to overcome (преодолевать) **great physical** danger. On April 3, 1860 the first rider started from Missouri and ten days later the message arrived in California which was two thousand

miles away. A huge **celebration** (to celebrate — праздновать) was held in honour of this magnificent (magnificence — великолелие) **achievement**. But the pony express had a short life of 16 months only.

In 1861 the **completion** (to complete — завершать) of the first **trans-continental** telegraph line marked the end of the pony express.

TEXT 7B

Задание I. Прочтите текст, стараясь понять основное содержание. (Заметьте время начала и окончания чтения. Этот текст нужно прочесть за 3,5 минуты, из расчета 90 слов в минуту.)

EGYPTIAN PYRAMIDS

Architecture is the art which makes buildings beautiful to look at as well as useful. A man who designs (проектировать) buildings and makes the plans for them is called an architect. He has to think not only of what he wants the building to look like when it is finished, but also what it is to be used for. He must not forget the sort of material to be used in the building. This may be stone, brick, wood or steel and concrete.

There have been many different styles or kinds of architecture in the past and there are many different styles today in different parts of the world.

The oldest monuments which are met within architecture are the colossal pyramids of Egypt most of which were constructed about 6,000 years ago.

The pyramids are large triangular (треугольный) buildings which were placed over the tombs (могила) of Egyptian kings. The best known of the pyramids are a group of three built at Giza south of Cairo. The largest of these is 482 feet high. They tell us of the advanced civilization of ancient Egypt which is much spoken about even in our days.

It was a country which had expert mathematicians and engineers, where astronomy and philosophy were known and studied.

The country was rich in hard and durable (прочный) stone, but poor in timber and metal, so that the main material used for construction was granite, and this was the reason for the durability of the pyramids.

Large blocks of stone were transported over long distances by land and water, and placed into position with the help of the most primitive equipment. That was done by slaves (раб) working for thirty or forty years. All this great amount of work was done, masses of material and a large territory, sometimes of about 52,000 square meters were used only for protecting the body of a dead king and constructing a dwelling place for his happy life in the "other world".

Задание II. Выберите утверждение, соответствующее содержанию текста.

1. An architect is a person who:
 - 1) makes a building;
 - 2) designs a building;
 - 3) founds a building.
2. The oldest architectural monuments are:
 - 1) the tents of primitive people;
 - 2) the Cathedral of St. Sophia in Kiev;
 - 3) Egyptian pyramids.
3. The main building material for pyramids was:
 - 1) timber and metal;
 - 2) bricks;
 - 3) granite.
4. Large blocks of building material were:
 - 1) found in place;
 - 2) transported over long distances;
 - 3) imported from Giza.
5. The pyramids were constructed for:
 - 1) slaves to live in;
 - 2) a dead king;
 - 3) military purposes.

Задание III. Прочтите текст еще раз. Составьте план текста.

Задание IV. Сделайте краткие сообщения на следующие темы:

1. The work of an architect.
2. Egyptian pyramids.

Т Е Х Т 7С

Задание I. Прочтите текст, отыскивая в нем ответы на поставленные вопросы.

FROM THE HISTORY OF HUMAN DWELLINGS

Where did primitive people look for protection?

1. Most of the time of a modern man is spent within the walls of some building. Houses are built for dwelling; large buildings are constructed for industrial purposes; theatres, museums, public and scientific institutions are built for cultural activities of the people. The purpose of modern buildings differ widely, but all of them originate from the efforts of primitive (первобытный) men to protect themselves from stormy weather, wild animals and human enemies.

Protection was looked for everywhere. In prehistoric times men looked for protection under the branches of trees; some covered themselves with skins of animals to protect themselves from cold and rain; others settled in caves (пещера).

What are the earliest types of human dwellings?

2. When the Ice Age had passed Europe remained very cold, at least in winter, and so the people of the Old Stone Age had to find some

warm and dry place to shelter from bad weather. They chose caves, dwelling places that storm and cold could not destroy. On the walls of their caves ancient people painted pictures. Such decorated caves are found in Europe, Asia and Africa.

When man began to build a home for himself, caves were imitated in stone structures, trees were taken as a model for huts built of branches, skins were raised on poles and formed tents.

Primitive stone structures, huts and tents are the earliest types of human dwellings, they are lost in the prehistoric past but serve as prototypes for structures of later historic times.

Why were the houses in town higher than in the country?

3. In the days of early civilization, once men had learnt how to build simple houses for their families, they began to feel a need to have a number of different kinds of houses in one place. At first the difference was mainly in size—the chief or leader had a larger hut or tent than the rest of the people. Much later, when men began to build towns, there grew up a difference between town houses and country houses. The streets in towns were very narrow and there was not much place for building within the town walls, and therefore houses had to be built higher than they were in the country. A typical town house consisted of a shop opening on the street where the man did his work or sold his goods, with a kitchen behind and a bedroom above.

What were the houses in Egypt built of?

4. In the country ordinary people lived in simple one-storey cottages which did not differ much from the mud and stone huts of an earlier age.

The rich people in the country, on the other hand, built huge castles (замок) with thick walls and narrow windows. These castles were built not only as dwellings, but also to stand up to enemy attack and to be strong bases in time of war. The earliest houses of which anything is known are those of ancient Egypt. They were built of bricks dried in the sun. Some of them were built around a courtyard or garden with rooms opening into it.

How did the light come into early English houses?

5. Greek houses, too, had a courtyard in the middle and round their courtyard ran a covered walk (аллея), its ceiling supported by pillars. There were special women's quarters, usually upstairs on the second storey.

In Rome bricks were used for building and houses were often finished with plaster over bricks on both inside and outside walls. The centre of family life was a garden-courtyard, surrounded by columns and with rooms opening out into it.

The earliest houses in Britain were round, built of wood or wicker basket work (плетение из прутьев) plastered over with clay. In the centre of the house was the hearth (очар) and light came in through the

hole in the roof above it and through the door because there were no windows.

Задание II. Прочтите текст С еще раз и выделите в каждой части текста предложения, которые содержат интересные для вас факты.

Задание III. Сделайте краткие сообщения на следующие темы.

1. Earliest types of human dwellings.
2. First towns.
3. Earliest Egyptian houses.
4. Earliest Greek houses.
5. Earliest Roman houses.
6. Earliest British houses.

TEXT 7D

Задание I. Прочтите текст.

IMPRESSIONS OF MODERN ARCHITECTURE

(a Letter from England)

1. You ask what I think of modern architecture. I don't know very much about modern architecture in Europe, but styles are probably similar in most countries today. I think this is because now architects have no opportunities they had in the past. They are seldom asked to design buildings like wonderful churches and cathedrals of the Middle Ages. Architects today have to design schools, hospitals and huge blocks of flats and offices. If they are asked to make plans for houses these are usually all alike or nearly alike.

2. Boxes—that's what a good deal of modern architecture reminds me of. The blocks of flats in our big towns are huge boxes, whether the fronts and sides are square or oblong. A man who lives in one of these boxes works in another big box, high up in the air. If he falls ill, he goes to another big box called a hospital. And if the doctors make a mistake, the man is put into a coffin, which is another box, wooden this time, instead of stone or concrete.

3. Outside many of our large towns the main roads are often lined with really ugly little bungalows but probably the architects are not to be blamed for these. Many of them were put up by builders who saved money by not employing an architect. Retired shopkeepers and small business men usually live there. All their lives they were saving money to have "a home in the country". They don't always get what they hope for, because there are plenty of notices "For sale" outside these bungalows.

4. Architects have done some very good work in designing new schools. Many of these are prefabricated, which means that as much of the building work as possible is done, not on the building site, but in factories where mass production methods can be used. The parts are taken

to the site and put together there. Children who attend the best of these new schools are very happy. Their classrooms are light and big, and they have a fine large assembly hall. The children have dinner at school, and there is a dining-hall complete with modern kitchen.

5. I began this letter by saying that many modern buildings, especially the blocks of flats and business offices, were like big boxes. They do look like boxes from the outside, but when we go inside, we find them very well planned for their purposes. An architect today has to be an engineer too. The best modern buildings help us to live and work in comfort. They save plenty of unnecessary work. There is central heating, for example, instead of the dusty open fires we used to have, with coal to be carried up long stairs and ashes to be carried down.

6. I have given my opinion on what I have seen in England. I know a lot of interesting work has been done in Scandinavia, and, of course, I've read about the work of Le Corbusier in France and I'd like to see what American architects are doing now. You may know the work of the American architect Frank Lloyd Wright. He designed the Imperial Hotel in Tokyo. It was designed to resist earthquakes and it proved so strong that it did. It was one of the few buildings in Tokyo that did not fall in the terrible earthquake of 1923.

Задание II. *Ответьте на вопросы по тексту D. Правильность ответов проверьте в соответствующих частях текста.*

1. What kind of buildings do architects design now? (1) 2 What do modern architectural buildings remind the author of the letter of? (2) 3. Why do little bungalows look ugly? (3) 4. What does a modern school building look like? (4) 5. What is the advantage of the central heating? (5) 6. What is the Imperial Hotel in Tokyo famous for? (6)

Задание III. *Прочтите текст еще раз. Озаглавьте каждую часть текста и подчеркните основную мысль.*

КОНТРОЛЬНЫЙ СЛОВАРЬ

1. above (*prp*); 2. advanced (*a*); 3. advantage (*n*); 4. appear (*v*); 5. arouse (*v*); 6. assemble (*v*); 7. brick (*n*); 8. concrete (*n, v*); 9. cover (*n, v*); 10. crowd (*n, v*); 11. cut (*v*); 12. damage (*n, v*); 13. depend on (upon) (*v*); 14. destroy (*v*); 15. direction (*n*); 16. duration (*n*); 17. earth (*n*); 18. effort (*n*); 19. expensive (*a*); 20. extend (*v*); 21. flat (*n, a*); 22. furthermore (*adv*); 23. heat (*v*); 24. hole (*n*); 25. huge (*a*); 26. main (*a*); 27. manufacture (*n, v*); 28. middle (*n*); 29. part (*n, v*); 30. place (*n, v*); 31. put up (*v*); 32. region (*n*); 33. restore (*v*); 34. roof (*n*); 35. serve (*v*); 36. shallow (*a*); 37. shape (*n, v*); 38. shortage (*n*); 39. still (*adv*); 40. stone (*n*); 41. strength (*n*); 42. thick (*a*); 43. thus (*adv*); 44. tie (*n, v*); 45. top (*n*); 46. in turn; 47. unfortunately (*adv*); 48. unit (*n*); 49. without (*prp*); 50. wood (*n*).

LESSON 8 (Eight)

Грамматика: 1. Инфинитив (Infinitive). Формы инфинитива. Инфинитив в функции обстоятельства цели и в функции определения.

2. Цепочка определений.

Основной текст А: The History of Land Transport.

ИНФИНИТИВ

	Active	Passive
Indefinite	to write	to be written
Continuous	to be writing	—
Perfect	to have written	to have been written
Perfect Continuous	to have been writing	—

ИНФИНИТИВ В ФУНКЦИИ ОБСТОЯТЕЛЬСТВА

We came here to study.

To know English well you must work hard.

ИНФИНИТИВ В ФУНКЦИИ ОПРЕДЕЛЕНИЯ

They spoke about the method to be improved in the nearest future.

Упражнение 1. *Переведите следующие словосочетания и предложения, обращая внимание на инфинитив.*

I am happy to help you.	to send the letter to inform them
I am glad to have helped him.	the house to be built
He was glad to have been helped.	to build the road to connect two towns
He is happy to have been helping them.	the story to listen to
I am glad to be helping them.	the question to be answered
I am glad to be helped.	the picture to speak of

Упражнение 2. *Переведите следующие предложения, обращая внимание на инфинитив.*

1. They were glad to take part in our expedition. 2. She wanted to be answered at once. 3. He was happy to have been working for many

years with the famous scientist. 4. To drive a car in a big city is very difficult. 5. Water may be used to drive dynamos which generate electricity. 6. Sputniks do not need any additional energy to move along their orbit. 7. Newton made use of the three laws of motion to explain the movement of the moon around the earth and of the planets around the sun. 8. This method was introduced in the factory to achieve better results. 9. To extend the main street they had to destroy some old buildings. 10. The workers will use powerful machinery to assemble these huge units. 11. In this area there are no monuments to speak of. 12. Dalton's atomic theory was the first to make successful use of the old Greek theory of atoms in chemistry. 13. The new channel to be constructed here will be the longest in the country. 14. The valuable information to be collected by Sputniks will help to improve previous results. 15. The new branches of industry to be developed in this part of the country are metallurgy and radioengineering. 16. Another reason to consider is the absence of necessary facilities for the experiment.

Упражнение 3. *Переведите на русский язык следующие словосочетания. Укажите, чем выражено определение.*

the problem to be settled
 the new device to be introduced
 the theory to be considered
 the instrument to be used
 the bridge to be constructed
 the road to be paved
 the experiment to be carried out

material varied
 remark made
 travelled distance
 money paid
 delayed train
 translated article
 collapsed building
 tested method

Цепочка определений

артикль	существительные в роли определения	определяемое существительное
the	land	transport
the	land transport	improvement
the	land transport improvement	problem

Упражнение 4. *Переведите следующие словосочетания на русский язык:*

the traffic speed; the traffic speed increase; the railway bridge; the railway bridge reconstruction; the London underground; the London underground problem; the thermoelectric generator development; the energy accumulation process; the modern house ventilation facilities; the car speed calculation; the arch bridge construction site; the high quality concrete; the research program result; the Moscow region newspaper; the temperature limit determination; the household goods; the household goods store; the steam engine invention; the soil stabili-

zation result; the transport animal; the wheel invention; the deep sea current measuring device; a rocket-propelled five ton sputnik spaceship.

VOCABULARY NOTES

Задание I. *Переведите следующие предложения.*

1. **to mean (meant, meant)** — значить; иметь в виду. The English word "quality" means «качество».
2. **goods** — товары, груз. The train carried goods for the population.
3. **also** — тоже, также. They also made efforts to restore this valuable building.
4. **vehicle** — экипаж, повозка. One can see many old vehicles in the museum of cars.
5. **lorry** — грузовик. We had to use some lorries to transport sand to the site.
6. **coach** — карета, экипаж; автобус (*междугородный*). A huge coach appeared from behind the corner.
7. **the same** — тот (же) самый, одинаковый. The level of the water in the river remained the same.
8. **stage** — стадия, этап. This discovery opened a new stage in physics.
9. **directly** — прямо, непосредственно. The workers assembled the units directly on the site.
10. **wind** — ветер. The wind was rising.
11. **internal** — внутренний. The internal forces of this new kind of energy still remain unknown.
12. **combustion** — сгорание. Combustion of petrol produces more heat than combustion of coal.
13. **engine** — двигатель. The combustion of an air and gasoline mixture takes place inside the internal combustion engine.
14. **source** — источник. Books are a source of knowledge.
15. **to settle** — разрешать (вопрос); поселяться. They will have to settle the problem of transport in the city. The people settled near the river.
16. **soil** — почва, грунт. This soil needs stabilization before the construction starts.
17. **to beat (beat, beaten)** — бить. It is said, that the Suvorov army was never beaten.
18. **backward** — отсталый. This part of the country is still backward; there are no railways or motor roads, and electricity is unknown.
19. **to vary** — менять, изменять. The results achieved varied with the materials used.
20. **general** — общий, обычный, главный. At the beginning the lecturer gave the general idea of his lecture.
21. **to drag** — тащить. All day long he was dragging heavy stones off his field.

22. **because of** — из-за. The accident occurred because of the high speed of the car.

23. **weight** — вес. What is your weight?

24. **at once** — сразу, немедленно. The letter was of great importance and he had to answer it at once.

25. **to lead (led, led)** — вести. The traveller wanted to know where the road led.

26. **wide** — широкий. It is pleasant to drive along a wide road.

27. **to pave** — мостить. The road had been paved by the end of the summer.

28. **unless** — если не. Unless you start at once you will be late.

29. **surface** — поверхность. The larger part of the earth surface is covered with water.

30. **chiefly** — главным образом. He has got a wide knowledge of art and he is valued chiefly for that.

31. **gradually** — постепенно. It was getting dark gradually.

32. **rather** — до некоторой степени, весьма. He felt rather tired. The wind is rather cold.

33. **distance** — расстояние. The distance from here to the railway station is 5 km.

34. **to introduce** — вводить. How many new English words have been introduced at the lesson?

35. **device** — устройство. A new safety device has been introduced to regulate traffic.

36. **to connect** — связывать. A new railway will connect some towns with the capital.

37. **due** — должный, надлежащий. We shall not have to wait for him, he always comes in due time.

38. **to charge** — 1) нагружать, заряжать; 2) взимать плату. 1) The lorries were charged mechanically. The air was charged with steam. 2) They don't charge for packing.

РАБОТА СО СЛОВАРЕМ

Задание II. Определите, к какой части речи относятся выделенные в данных предложениях слова; затем найдите в словаре нужные значения этих слов и переведите следующие предложения.

1. remark

a) I meant nothing by my **remark**. b) She **remarked** that it was getting dark. c) The teacher made no **remarks** about our report.

2. current

a) They were discussing **current** events. b) The warm **currents** in the Atlantic Ocean influence the climate of Great Britain. c) The physicist was studying some of the properties of an electric **current**.

3. force

a) The nearer the earth, the greater the **force** of gravitation. b) The **force** of steam moves the engine. c) She could not wait so she **forced** her way through the crowd.

4. step

a) We heard **steps** outside. b) An old man **stepped** heavily. c) As there was nobody at home, he directed his **steps** to the railway station.

5. wheel

a) There was something wrong with the front **wheel** of the car. b) The boys **wheeled** the vehicle into the yard. c) Nobody knows when the **wheel** was invented.

6. collapse

a) The weight of the snow on the roof caused the house **to collapse**. b) Their son's failure meant the **collapse** of his hopes. c) On hearing the news she **collapsed** into the chair.

7. delay

a) After a **delay** of half an hour they started to work. b) The street transport was **delayed** by the demonstration. c) The secretary was asked to answer the letter without **delay**.

8. pay

a) He never **pays** at once, tell him about it. b) What **pay** do you get for your work? c) I **paid** much money for a new car.

9. stretch

a) The **stretch** of the road from the airport to the town is to be reconstructed. b) She decided **to stretch** her new shoes by wearing them. c) A rope was **stretched** across the room.

10. hand

a) The documents were **handed** over to the writer who wanted to include them into his novel. b) It was dark and the mother took her child by the **hand**. c) She was **handed** the prize for singing.

11. repair

a) The house must be **repaired** within a year. b) The **repair** of the car cost him much money. c) It will not take you much time **to repair** your watch, **repair** is done while you wait.

12. measure

a) Speedometer **measures** the speed of the car. b) They took **measures** to improve the work of the laboratory. c) This room **measures** 30 feet across.

Задание III. Прочтите следующие интернациональные слова и догадайтесь об их значении.

civilization, attack, idea, sum [sʌm], taxi [ˈtæksɪ], mechanic [mɪˈkænik], moment.

TEXT 8A

THE HISTORY OF LAND TRANSPORT

INTRODUCTION

1. The word "transport" means to carry people or goods from place to place. It is also used for the vehicles that carry people or goods—for example, motor transport includes buses, lorries, motor coaches and

motor cars. The American word for the same thing is transportation, and the remark "transportation is civilization" was made by an American, the motor-car manufacturer Henry Ford.

The story of transport is divided into two stages. The first stage is that in which all forms of transport depended directly on the power of men or animals or on natural forces such as winds and currents. The second stage began with the development of the steam engine, which was followed by the electric motor and the internal combustion engine as the main sources of power for transport.

LAND TRANSPORT

Porters and Pack Animals

2. The most ancient peoples were probably wanderers. They did not live in settled homes because they did not know how to till the soil. As they moved from place to place they had to carry their goods themselves. The porters were usually the women, probably because the men had to be ready to beat off attacks by wild beasts or enemies. Even now, to carry the household goods is the job of women in backward wandering tribes.

The next step was the use of pack animals for carrying goods. The kind of animal used varied in different places, but the general idea was the same—the bundles or baskets were carried by the animals on their backs. The dog, although too small to carry much, was probably one of the first transport animals used because it is so easily trained. Dogs are still to be trained for dragging sledges in the Arctic because of their light weight.

3. The next advance in land transport came with the invention of the wheel. The wheel at once led to the development of two-wheeled carts and four-wheeled waggons and carriages, but before these could be used for carrying goods over long distances, a system of roads was necessary. These roads had to be wide enough to take a cart and paved, for unless their surface was paved the wheels sank in and the cart stuck. In Britain, and also over much Europe, the first long-distance paved roads were made by the Romans, chiefly so that troops could be marched without delay from place to place. The roads made it possible to use wheeled traffic. However, when the Roman Empire collapsed, the roads gradually got into a very bad state.

4. There were two problems to be solved—first, how to make good road, and, second, to decide who was to pay for them. In Great Britain these problems were solved in the 18th century. Stretches of roads were handed over to groups called trusts. The trusts borrowed money for repairing and improving the roads, paying it back from the sums they collected from road users. This method of paying for new roads and bridges is still used, especially in the United States. Then it became possible to travel rather comfortably by coaches. In cities like London, rich people had their own carriages, while poor people went on horseback or walked. Then appeared carriages that could be hired for short

distances. They correspond to the modern taxis. The word is short for "taxi cab" which in turn comes from the words taximeter and cabriolet. A cabriolet is a light two-wheeled carriage introduced from France in the 19th century. The taximeter is a mechanical device, connected with the wheels which, by measuring the distance travelled, shows the fare due at any moment. It is also controlled by a clock so that waiting time too is charged for.

Упражнение 5. *Переведите следующие словосочетания на русский язык:*

to mean nothing; a goods train; also successful; a powerful vehicle; huge lorries and coaches; the same route; an ordinary remark; numerous stages; to follow directly; without wind; permanent force; to manufacture car engines; internal affairs; rapid combustion; source of energy; to settle the problem; dry soil; to beat animals; a backward country; general weakness; to drag along the road; to vary considerably; quick steps; to repair something at once; rather dark; measured distance; under repair; wide connections; the Earth surface; atomic weight; in due time; in due form; to pay in full; what's the pay; front wheel; on wheels; to wheel the car; collapse of plans; the building collapsed; without delay; rather big; nuclear device; charged with electricity; fast-moving charge; to get the same mark; to put marks.

Упражнение 6. *Заполните пропуски подходящими по смыслу словами.*

engine	the same	weight
backward	to collapse	sources
wind	leads	general
delayed	wide	handed
distance	mean	connected
charged	vehicle	introduced
soil		

1. He did not ... anything when he said it. 2. This news comes from different 3. Nothing could grow in this poor dry 4. The steam ... was invented in the 18th century. 5. The ... plan of the development of the city was considered at a special meeting. 6. The jeep is a small light ... with great freedom of movement especially for military use. 7. There are almost no schools in that country and the people are still very 8. The method of construction is not ... now as it was some years ago. It is quite different. 9. A cold ... was blowing from the North-west. 10. The weight of a heavy tank caused the bridge 11. The train was ... two hours by snow storms. 12. The paper was ... over to the director. 13. He says that the road ... to the forest. 14. The bridge ... the two banks of the river. 15. The lorry was ... to the full. 16. He is big and strong, he is twice my 17. She is an educated person and her interests are rather 18. A new method has been ... at their factory this month. 19. The ... from here to the park is ten kilometres.

Упражнение 7. *Переведите на русский язык следующие словосочетания, укажите, чем выражено определение.*

the new device to be introduced
the problem to be settled
material varied
the theory to be considered
connecting line
advanced student
tested method
remark made
general plan
the internal combustion engine
George Washington bridge bus
terminal station

destroyed bridge
travelling passenger
travelled distance
money paid
the bridge to be constructed
translated article
reading student
the instrument to be used
current events
cylinder wall

Упражнение 8. *Переведите на русский язык следующие предложения, обращая внимание на инфинитив в различных функциях.*

1. This does not mean that the discoveries to be made over a period are planned in advance. 2. They will need much concrete to be used for soil stabilization. 3. Many people came there to discuss a problem about the land transport improvement. 4. The problem to be discussed was connected with the city water supply system. 5. The steam engine marked the beginning of another stage; to develop it was the task in hand. 6. This method is not good enough to be used everywhere. 7. People made many efforts to find a new source of energy. 8. A new comfortable coach was developed to transport people over long distances. 9. He was saving money to travel about the country. 10. It did not take much time to pave the road again. 11. To settle the problem of the engine weight they improved some of its parts. 12. The internal combustion engine to be used in this lorry is of a new design. 13. The road surface to be repaired was destroyed many years ago by heavy vehicles. 14. Goods to be transported to the north are stored at the railway station. 15. The main step to take is to settle the problem of city transport at peak hours. 16. The results to be received may vary considerably. 17. He remembered at once to have been living in the Crimea when a child. 18. He was too tired to be asked any questions. 19. England looks like one well ordered park. Englishmen like to preserve various old trees. There are some trees which were even too old to be cut for building ships in the seventeenth century. 20. The first step in the perfection of the internal combustion engine was made by N. Otto. He introduced the four-stroke cycle of operation, a principle used in most petrol and diesel engines today. 21. A high speed electronic machine has introduced great changes in carrying out various mathematical calculations. This electronic machine works according to a programme to be prepared in advance and can carry out several thousand arithmetic operations per second. 22. The invention of the car wheel led to the development of two-wheeled carts at first and then to four-wheeled carriages.

Упражнение 9. *Переведите следующие предложения на русский язык, обращая внимание на перевод пассивных конструкций.*

1. Special kinds of equipment for African developing countries have been produced by one of the Ural building plants. 2. He was asked to take part in the expedition last week. 3. The building of the theatre is being reconstructed. 4. The work will be performed in due time. 5. My friend was glad to have been given such an interesting book to read. 6. The experiment was very important and it was being watched with great attention. 7. The Urals is known as a region of the greatest mineral resources. 8. The growth of heavy industry is always paid great attention to.

Упражнение 10. А. Ответьте на вопросы по тексту 8А.

1. What does the word "transport" mean? 2. What's the American word for "transport"? 3. What are the stages of the story of transport? 4. What were the first porters? 5. What kind of an animal was used first for carrying goods? 6. What did the invention of the wheel bring? 7. Whom were the first roads made by? 8. What were the two problems to be solved? 9. What was a cabriolet like? 10. What is a taximeter like? 11. Is waiting time charged for?

Б. Перескажите текст.

TEXT 8B

Задание 1. Прочтите текст, стараясь понять основное содержание. (Заметьте время начала и окончания чтения. Этот текст нужно прочесть за 5 минут, из расчета 90 слов в минуту.)

THE WHEEL, STEAM CARRIAGES AND RAILWAYS

One of mankind's earliest and greatest inventions was the wheel. Without it there could be no industry, little transportation or communication, only crude farming, no water or electric power.

Nobody knows when the wheel was invented. There is no trace of the wheel during the Stone Age, and it was not known to the American Indian until the White Man came. In the Old World it came into use during the Bronze Age, when horses and oxen were used as work animals. At first all wheels were solid discs.

The problem to be solved was to make the wheels lighter and at the same time keep them strong. At first holes were made in the wheels, and they became somewhat lighter. Then wheels with spokes were made. Finally, the wheel was covered with iron and then with rubber.

Light two-wheeled carriages were used widely in the ancient world. As time passed they were made lighter, stronger, and better. Later people joined together a pair of two-wheeled carts into a four-wheeled vehicle. At first only kings and queens had the privilege of driving in them.

In the West the first steam carriage was invented in France. The three-wheeled machine had the front wheel driven by a two-cylinder

steam engine, and carried two people along the road at a walking pace. It was not a great success, as the boiler did not produce enough steam for keeping the carriage going for more than about 15 minutes.

The steam engine appeared in 1763. It was followed by several improved steam road carriages. Their further development was prevented by railway companies. The rapid spread of railways in the United Kingdom was due largely to George Stephenson, who was an enthusiast as well as a brilliant engineer.

He demonstrated a locomotive that could run eighteen kilometres an hour and carry passengers cheaper than horses carry them. Eleven years later Stephenson was operating a railway between Stockton and Darlington. The steam locomotive was a success.

In Russia the tsar's government showed little interest in railway transportation. After long debates the government, which did not believe in its own engineers, finally decided to invite foreign engineers to submit (представить) projects for building railways in Russia.

Yet at the very time when foreign engineers were submitting their plans, in the Urals a steam locomotive was actually in use. It had been invented and built by the Cherepanovs, father and son, both skilful mechanics and serfs (крепостные). The first Russian locomotive was, of course a "baby" compared with the locomotives of today. Under the boiler (котел) there were two cylinders, which turned the locomotive's two driving wheels (there were four wheels in all). At the front there was a smoke-stack, while at the back there was a platform for the driver.

Задание II. Выберите утверждения, соответствующие содержанию текста.

1. The wheel:
 - 1) was invented during the Stone Age;
 - 2) was known to American Indians before the White Man came;
 - 3) came into use during the Bronze Age.
2. In the West the first steam carriage was invented:
 - 1) in the United Kingdom;
 - 2) in France;
 - 3) in Germany.
3. The steam locomotive:
 - 1) was cheaper than horses;
 - 2) was not cheaper than horses;
 - 3) was more expensive than horses.
4. The Cherepanovs were:
 - 1) engineers;
 - 2) scientists;
 - 3) mechanics.
5. The first Russian locomotive had:
 - 1) three wheels;
 - 2) two wheels;
 - 3) four wheels.

Задание III. Прочтите текст еще раз и ответьте на вопросы.

1. What kind of animals were used for work during the Bronze Age?
2. What were the first wheels like?
3. What are the stages in the development of the wheel?
4. How many people did the first steam carriage carry?
5. Who demonstrated the first locomotive in the United Kingdom?
6. Was the Russian government interested in railway transportation?
7. What were the Cherepanovs?
8. What was the first Russian locomotive like?
9. Are the locomotives widely used in our country?
10. What kind of locomotives are used in our country now?

TEXT 8C

Занятие I. Прочтите текст, отыскивая в нем ответы на поставленные вопросы.

DIFFERENT KINDS OF LAND TRANSPORT

What was the reaction of the people after the invention of the steam engine?

1. In Washington the story is told of a director of the Patent Office who in the early thirties of the last century suggested that the Office be closed because "everything that could possibly be invented had been invented". People experienced a similar feeling after the invention of the steam engine.

But there was a great need for a more efficient engine than the steam engine, for one without a huge boiler, an engine that could quickly be started and stopped. This problem was solved by the invention of the internal combustion engine.

Who introduced the first cheap motor car?

2. The first practical internal combustion engine was introduced in the form of a gas engine by the German engineer N. Otto in 1876.

Since then motor transport began to spread in Europe very rapidly. But the person who was the first to make it really popular was Henry Ford, an American manufacturer who introduced the first cheap motor car, the famous Ford Model "T".

When did diesel-engined lorries become general?

3. The rapid development of the internal combustion engine led to its use in the farm tractors, thereby creating a revolution in agriculture. The use of motor vehicles for carrying heavy loads developed more slowly until the 1930s when diesel-engined lorries became general.

The motor cycle steadily increased in popularity as engines and tyres became more reliable and roads improved. Motor cycles were found well suited for competition races and sporting events and were also recognized as the cheapest form of fast transport.

When were the trams introduced first?

4. Buses were started in Paris in 1820. In 1828 they were introduced in London by George Shillibeer, a coach builder who used the French name "Omnibus" which was obtained from the Latin word meaning "for all". His omnibuses were driven by three horses and had seats for 22 passengers. Then in the 20th century reliable petrol engines became available, and by 1912 the new motor buses were fast replacing horse-driven buses.

Trams were introduced in the middle of the 19th century. The idea was that, as the rails were smoother than the roads, less effort was needed to pull a tram than a bus. The first trams were horse drawn but the later trams were almost all driven by electricity. The electric motor driving the tram was usually with electric current from overhead wires. Such wires are also used by trolley-buses, which run on rubber tyres and do not need rails.

Another form of transport used in London, Paris, Berlin, Moscow, Leningrad, Kiev and some other crowded cities is the underground railway.

London's first underground railway of the "tube" type was opened in 1863. The Moscow underground, which is considered to be the best and most comfortable underground in the world, was opened in 1935.

What do the longest oil pipe-lines connect?

5. The pipe-lines, which were in use by the ancient Romans for carrying water supplies to their houses, are now mainly used to transport petroleum. The first pipe-line of this kind was laid in Pennsylvania, the United States, in 1865.

Some of the longest oil pipe-lines connect oil-fields in Iraq and near the Persian Gulf with ports on the Mediterranean coast. A famous Pipe-Line Under the Ocean (PLUTO) was laid across the English channel in 1944.

What are the cableways used for?

6. A form of transport which is quite common in some mountainous parts of the world, especially in Switzerland, is the aerial cableway. Cableways are used at nearly all winter sports centres to pull or carry skiers to the top of the slopes. Cableways are used by many Alpine villages which lie high up the mountain-sides for bringing up their supplies from the valley below.

Задание II. Прочтите текст С еще раз и выделите в каждой части текста интересные для вас факты.

TEXT 8D

Задание I. Прочтите текст.

THE EARLY DAYS OF THE AUTOMOBILE

1. One of the earliest attempts to propel a vehicle by mechanical power was suggested by Isaac Newton. But the first self-propelled vehicle was constructed by the French military engineer Cugnot in 1763. He built a steam-driven engine which had three wheels, carried two

passengers and ran at maximum speed of four miles. The carriage was a great achievement but it was far from perfect and extremely inefficient. The supply of steam lasted only 15 minutes and the carriage had to stop every 100 yards to make more steam.

2. In 1825 a steam engine was built in Great Britain. The vehicle carried 18 passengers and covered 8 miles in 45 minutes. However, the progress of motor cars met with great opposition in Great Britain. Further development of the motor car lagged because of the restrictions resulting from legislative acts. The most famous of these acts was the Red Flag Act of 1865, according to which the speed of the steam-driven vehicles was limited to 4 miles per hour and a man with a red flag had to walk in front of it.

Motoring really started in the country after the abolition of this act.

3. In Russia there were cities where motor cars were outlawed altogether. When the editor of the local newspaper in the city of Uralsk bought a car, the governor issued these instructions to the police: "When the vehicle appears in the streets, it is to be stopped and escorted to the police station, where its driver is to be prosecuted."

4. From 1860 to 1900 was a period of the application of gasoline engines to motor cars in many countries. The first to perfect gasoline engine was N. Otto who introduced the four-stroke cycle of operation. By that time motor cars got a standard shape and appearance.

In 1896 a procession of motor cars took place from London to Brighton to show how reliable the new vehicles were. In fact many of the cars broke down for the transmissions were still unreliable and constantly gave trouble.

The cars of that time were very small, two-seated cars with no roof, driven by an engine placed under the seat. Motorists had to carry large cans of fuel and separate spare tires, for there were no repair or filling stations to serve them.

After World War I it became possible to achieve greater reliability of motor cars, brakes became more efficient. Constant efforts were made to standardize common components. Multi-cylinder engines came into use, most commonly used are four-cylinder engines.

5. Like most other great human achievements, the motor car is not the product of any single inventor. Gradually the development of vehicles driven by internal combustion engine-cars, as they had come to be known, led to the abolition of earlier restrictions. Huge capital began to flow into the automobile industry.

From 1908 to 1924 the number of cars in the world rose from 200 thousand to 20 million; by 1960 it had reached 60 million! No other industry had ever developed at such a rate.

6. There are about 3,000 Americans who like to collect antique cars. They have several clubs which possess great influence such as Antique Automobile Club and Veteran Motor Car Club, which specialize in rare models. The clubs practise meetings where members can exhibit their cars. Collectors can also advertise in the magazines published by their clubs. Some magazines specialize in a single type of car such as glorious Model "T" Ford. A number of museums have exhibitions of anti-

que automobile models whose glory rings in automobile history. But practically the best collection—100 old cars of great rarity—is in possession of William Harrah. He is very influential in his field. The value of his collection is not only historical but also practical: photographs of his cars are used for films and advertisements.

7. In England there is the famous “Beaulieu Motor Museum”—the home for veteran cars.

The founder of the Museum is Lord Montague, the son of one of England's motoring pioneers, who opened it in 1952 in memory of his father. Lord Montague's father was the first person in England to be fined by the police for speeding. He was fined 5 pounds for going faster than 12 miles per hour!

In the Museum's collection there is a car called the “Silver Ghost” which people from near and far go to see. It was built by Rolls-Royce in 1907, and called the “Silver Ghost” because it ran so silently and was painted silver.

There is a car called “The Knight”. It is the first British petrol-driven car. Its top speed was only 8 m.p.h.!

In the Museum there is also a two-seater car, built in 1903.

Задание II. *Ответьте на вопросы по тексту D. Правильность ответов проверьте в соответствующих частях текста.*

1. Who was the first to suggest the idea of propelling vehicle by mechanical power? (1) 2. Who was a self-propelled vehicle constructed by? (1) 3. When and in what country was a steam engine built? (2) 4. What do you know about the Red Flag Act of 1865? (2) 5. What kind of instructions did the Russian governor issue? (3) 6. What did N. Otto introduce? (4) 7. When did it become possible to achieve greater reliability of the cars? (4) 8. What was the number of the cars by 1960? (5) 9. How many Americans collect antique cars? (6) 10. What is historical and practical value of William Harrah's collection? (6) 11. What can you say about the Museum of veteran cars? (7) 12. When did Rolls-Royce build its “Silver Ghost”? (7) 13. What was the speed of the first British petrol-driven car? (7)

Задание III. *Прочтите текст еще раз. Озаглавьте каждую часть текста и подчеркните основную мысль.*

КОНТРОЛЬНЫЙ СЛОВАРЬ

1. also (*adv*); 2. backward (*a*); 3. beat (*v*); 4. because of (*prep*); 5. charge (*v*); 6. chiefly (*adv*); 7. coach (*n*); 8. collapse (*n, v*); 9. combustion (*n*); 10. connect (*v*); 11. current (*n, a*); 12. delay (*n, v*); 13. device (*n*); 14. directly (*adv*); 15. distance (*n*); 16. drag (*v*); 17. due (*a*); 18. engine (*n*); 19. force (*n, v*); 20. general (*a*); 21. goods (*n*); 22. gradually (*adv*); 23. hand (*n, v*); 24. internal (*a*); 25. introduce (*v*); 26. lead (*v*); 27. lorry (*n*); 28. mean (*v*); 29. measure (*n, v*); 30. at once; 31. pave (*v*); 32. pay (*n, v*); 33. rather (*adv*); 34. remark (*n, v*); 35. repair (*n, v*); 36. the same (*a*); 37. settle (*v*); 38. soil (*n*); 39. source (*n*); 40. stage (*n*); 41. step (*n, v*); 42. stretch (*n, v*); 43. surface (*n*); 44. unless (*conj*); 45. vary (*v*); 46. vehicle (*n*); 47. weight (*n*); 48. wheel (*n, v*); 49. wide (*a*); 50. wind (*n*).

LESSON 9 (Nine)

- Грамматика:** 1. Объектный инфинитивный оборот.
 2. Субъектный инфинитивный оборот.
 3. Функции и перевод слов **one (ones), that (those)**.

Основной текст А: Water Transport.

Объектный инфинитивный оборот

А.	Подлежащее +	глагол-сказуемое +	дополнение +	инфинитив	
	I	know	him	to study	two foreign languages.
Б.	Подлежащее +	глагол-сказуемое +	дополнение +	инфинитив	без to
	I	see hear feel watch notice make (заставлять) hear	her	sing	at the concert.

Упражнение 1. *Переведите следующие предложения, обращая внимание на объектный инфинитивный оборот.*

А. 1. He wanted us to visit the arts exhibition. 2. I expect you to tell me everything. 3. I suppose her to be about 50. 4. The teacher does not consider him to be a good student. 5. The engineer expected the work to be done in time. 6. We expect you to show good results. 7. The discovery showed the atomic nucleus to be a vast source of energy. 8. We know him to have graduated from the institute two years ago. 9. Everybody knows him to be writing a new book. 10. We know the cybernetics to be an important branch of modern technology. 11. We thought him to have taken part in their experiment. 12. Did you want the plan to be improved?

Б. 1. She felt somebody look at her. 2. We heard him come in and close the door behind him. 3. Have you ever seen Ulanova dance? 4. She watched the boy buy a newspaper, open it, look it through and then throw it away. 5. Nobody noticed her leave the room. 6. I heard him mention my sister's name. 7. Many people like to watch the sun rise. 8. She saw her son fall. 9. He likes to watch his son play in the garden. 10. The students heard the bell ring. 11. You can't make me believe that all these stories are true. 12. In spite of bad weather the instructor made the sportsmen continue their training.

Субъектный инфинитивный оборот

Подлежащее + глагол-сказуемое + инфинитив		
The delegation is reported	to come	on Monday.
They seem	to know	the subject well.

Упражнение 2. *Переведите следующие предложения на русский язык, обращая внимание на субъектный инфинитивный оборот.*

1. The lecture was said to be very interesting. 2. The members of the committee are reported to come to an agreement. 3. The English delegation is believed to come at the end of the month. 4. She seems to know English and French. 5. He proved to be a good teacher. 6. This school is considered to be the best in the town. 7. The weather appears to be improving. 8. The doctor happened to be there at the time of the accident. 9. She seems to be waiting for you. 10. Lake Baikal is said to be the deepest in the world. 11. This picture proved to be the best at the exhibition. 12. These two scientists happened to work at the same problem.

Функции и перевод слов *one, ones*

1. He has given me **one** of his English books.
2. **One** must always observe traffic rules.
3. He hasn't got a radio-set, he wants to buy **one**.
4. One must always keep **one's** word.

Упражнение 3. *Переведите следующие предложения, обращая внимание на значения слов *one, ones*.*

1. I shall have to buy a new coat for myself and another **one** for my sister. 2. **One** thing is clear to everybody: **one** must study hard if **one** wants to pass **one's** examinations well. 3. This T. V. set is very expensive, show me another **one**. 4. **One** never knows what may happen. 5. What other methods will they use? The **ones** they used were not effective. 6. The more **one** studies, the more **one** knows. 7. These trucks are too small; they will need bigger **ones**. 8. This apparatus is more powerful than the **one** installed in our laboratory. 9. He is **one** of the most experienced drivers. 10. This article is much more difficult than the **one** we translated yesterday.

Функции слов *that, those*

1. Give me **that** text-book please. (Give me **those** text-books.)
2. **That** was a hard day. (**Those** were hard days.)
3. He thought **that** they would arrive tomorrow.
4. I shall show you the engine **that** we must test.
5. The year on the Earth is twice as short as **that** on Mars.
6. **That** he is the best driver is a well-known fact.

Упражнение 4. *Переведите следующие предложения, обращая внимание на значение слов that, those.*

1. I am afraid that he has fallen ill. 2. That he agreed to help his comrades is only natural. 3. She said that she would come back in ten minutes. 4. The book that you gave me is very interesting. 5. The question that was discussed at the meeting yesterday is of great importance. 6. That happened the year when I entered the institute. 7. Those children are always very noisy. 8. He thought that all those things were not important. 9. That was the thing that he wanted. 10. The cities that were destroyed during the war were reconstructed.

VOCABULARY NOTES

Задание 1. *Переведите следующие предложения.*

1. **to weigh** — весить. This boat weighs several tons.
2. **slowly** — медленно. Cars were moving slowly along the mountain road.
3. **horse-power (h.p.)** — лошадиная сила. The engine of the "Moskvitch-412" is 75 h.p.
4. **in order to** — для того чтобы. He came here in order to see us.
5. **to fly (flew, flown)** — летать. Who was the first to fly across the North Pole?
6. **to suppose** — полагать, думать. He is right, I suppose.
7. **to seem** — казаться. He was thirty, but he seemed much older.
8. **island** — остров. On the fifth day of the voyage they saw an island.
9. **mile** — миля. In the morning the travellers saw a snowpeaked mountain at the distance of about 5 miles.
10. **till** — до. I'll be waiting for you here till 5 o'clock.
11. **century** — век. We live in the twentieth century.
12. **round** — вокруг. The children were playing round a big tree.
13. **to prove** — 1) доказывать; 2) оказываться. 1) It was difficult to prove him anything. 2) The film proved to be very good.
14. **to test** — испытывать. Tomorrow we are going to test the new equipment.
15. **like** — 1) подобный; 2) как. 1) He is like his father in everything. 2) They are behaving like children.
16. **for** — так как. He did not come to the meeting for he was ill.
17. **iron** — железо. The first iron bridge was built in the 18th century.
18. **steel** — сталь. Modern ships are built of iron and steel.
19. **to replace** — заменять, вытеснять. Buses are replacing the trams in cities.
20. **timber** — строительный лес; дерево (*древесина*). All the northern regions of the USSR are covered with large forests which give us many different kinds of timber.
21. **size** — размер. The scientists studied the shape and size of meteorites found in the taiga.

22. **to promote** — способствовать, содействовать. It was necessary to build good roads to promote the rapid growth of the town.
23. **quantity** — количество. Quantity is transformed into quality.
24. **raw** — сырой; необработанный. In the 19th century a considerable number of raw materials was imported from colonial countries.
25. **such as** — как например. Students must attend lectures on different subjects such as physics, chemistry, and others.
26. **cotton** — хлопок. Some European countries import raw cotton from America and India and export cotton goods to other parts of the world.
27. **a great deal** — много. A great deal of earth work is to be done before the construction starts.
28. **smooth** — ровный, плавный. Gradually the road became smooth. Does the engine work smoothly?
29. **efficient** — эффективный, продуктивный. Efficient methods were used to increase the quantity of manufactured goods.
30. **a few** — несколько. Only a few people could understand the significance of the discovery.
31. **owing to** — благодаря, по причине, вследствие. There was much delay of transport owing to the accident.
32. **to operate** — 1) работать, действовать; 2) управлять, приводить в движение (*машину*). 1) Do you know how this machine operates? 2) This powerful machine is operated by one person.
33. **negligible** — незначительный. A negligible quantity of the chemical substance is sometimes enough to determine its properties.
34. **capacity** — 1) мощность; 2) вместимость. 1) Having made some improvements they increased the capacity of the engine. 2) The capacity of the tank is 100 litres.
35. **reliable** — надежный. He was recommended as a reliable person.
36. **protection** — защита, ограждение. When working an electrician must use some means of protection.
37. **to widen** — расширять(ся). The old street had to be widened.
38. **to deepen** — углублять(ся). This shallow river must be deepened for better navigation.
39. **narrow** — узкий. This narrow bridge has been used for many years; now it needs widening.
40. **to run** — 1) бежать; проходить; 2) работать (*о машине*). 1) You have to run very quickly, if you want to be there in time. For several miles the road runs through a thick forest. 2) The engine was running at full speed.

РАБОТА СО СЛОВАРЕМ

Задание II. *Определите, к какой части речи относятся выделенные в данных предложениях слова; затем найдите в словаре нужные значения этих слов и переведите следующие предложения.*

1. boat

- a) A loaded boat was moving in the direction of the port. b) A lot

of people went **boating** on this Sunday afternoon. c) Will this **boat** hold all five of us?

2. **supply**

a) They used **boats** to carry **supplies** of food to the island. b) I took with me a good **supply** of books. c) The expedition was **supplied** with all the necessary equipment.

3. **ship**

a) In modern ports the **ships** are loaded and unloaded mechanically. b) When does the **ship** leave? c) Have the goods for the Polar Station already been **shipped**?

4. **sail**

a) The boat was **sailing** at full speed. b) The boat had beautiful **sails**. c) Can you **sail** a boat?

5. **point**

a) We differ in some **points**. b) The water was heated to the boiling **point**. c) Everything **points** to a cold winter.

6. **cross**

a) Before **crossing** a street look first to the left, then to the right. b) Put a **cross** on the map to show where we are. c) We can **cross** the river at the next village.

7. **load**

a) The lorries were **loaded** mechanically. b) The **load** weighs a hundred kilograms. c) They **loaded** us with work.

8. **oil**

a) Every machine needs **oiling**. b) Water is heavier than **oil**. c) What sort of **oil** is there at this service station?

9. **fuel**

a) What kind of **fuel** is used in these motor cars? b) We had to stop to **fuel** the car. c) This passenger car needs **fuelling** every 300 miles.

10. **design**

a) He is working on the **design** for a new machine. b) The architect is **designing** a new school. c) The ice-breaker is **designed** for operation in Arctic waters.

Задание III. Прочтите следующие интернациональные слова и догадайтесь об их значении.

barge, ton, aeroplane, companion, army, colony, magnetic, compass, motor, revolution, port, turbine, diesel, reactor, radiation, atomic, canal.

TEXT 9A

WATER TRANSPORT

1. One of the most important things about water transport is the small effort needed to move floating craft. A heavy boat or a barge weighing several tons can be moved through the water, slowly but steadily, by one man. An aeroplane of the same weight as the barge needs engines of 1,000 horse-power or more in order to fly.

2. The raft made of logs of wood is supposed to be the earliest type of boat.

Rafts seem to be clumsy vessels, although the Norwegian scientist Thor Heyerdahl and his five companions in 1947 made a voyage on the raft "Kon-Tiki" from Peru, to Tuamotu Islands—a distance of 4,500 miles.

3. We know the water transport in ancient time to have been developing most rapidly on great rivers. The ancient Romans used vessels to carry their armies and supplies to colonies. These ships, usually called galleys, continued to be used in the Mediterranean till 1750.

4. The introduction of the magnetic compass allowed long voyages to be made with much greater safety. At the end of the 15th century, sailing vessels are known to have carried men from Europe to America and round Africa to India.

The middle of the 19th century proved to be the highest point in the development of sailing ships.

5. **Steam and Motor Ships.**—One of the earliest steamboats is known to have been tested at the end of the 18th century. The first steamship to cross the Atlantic was the "Savannah", a 98-foot ship built at New York, which made the crossing in 1819. Like all the early steamships, it had sails as well as paddles.¹ By the middle of the 19th century it became possible to build much larger ships for iron and steel began to replace timber.

6. The rapid increase in the size and power of ships was promoted by the industrial revolution. The industrial countries produced great quantities of goods which were carried to all parts of the world by ships. On their return voyages, the ships brought either raw materials such as cotton, metals or timber for the factories, or grain and foodstuffs for the growing population.

During the same period, a great deal was done to improve ports, and that permitted larger ships to use them and to make loading and unloading more quickly.

7. Improvements introduced in the 20th century included the smoother and more efficient type of engines called steam turbines and the use of oil fuel instead of coal. Between 1910 and 1920 the diesel engine began to be introduced in ships. These diesel-engined ships are called motor ships.² The largest ships, however, are still generally driven by steam turbines. In the late 1950s a few ships were being built which were equipped with nuclear reactors for producing steam.

8. In 1957 the world's first atomic ice-breaker was launched in Leningrad.

This atomic ice-breaker is equipped with an atomic engine owing to which her operating on negligible quantities of nuclear fuel is possible. In spite of the capacity of her engine being 44,000 h.p. it will need only a few grams of atomic fuel a week.

The atomic ice-breaker has three nuclear reactors. The operation of the nuclear reactor is accompanied by powerful radiation. Therefore, the ice-breaker is equipped with reliable means of protection. The ice-breaker is designed for operation in Arctic waters.

9. **Canal Transport.** — Seagoing ships can use some rivers, such as the Thames in England, the Rhine, and the Volga in Europe and the Mississippi in the United States. Generally, however, a river has to be “canalized” before ships can use it. This means widening and deepening the channel and protecting its banks so that they do not wash away and block the river with mud.

10. We find the British canals to be quite narrow and shallow.

The canals in Europe are much larger than those in Great Britain. France has a big network of canals, centred on Paris and linking ports of the Atlantic, Mediterranean and English Channel Coasts with each other and with other countries.

In the USSR canals large enough to be used by ships link Moscow with Leningrad on the Baltic Sea. Other Soviet canals run between the White Sea and the Baltic, and between the Don and the Volga rivers.

NOTES TO THE TEXT

1. **paddle** — гребное колесо

2. **motor ship** — теплоход

Упражнение 5. *Переведите следующие словосочетания на русский язык.*

to load a ship; a loaded barge; to move slowly; weighing several tons; a plane flying northwards; to seem young; an old islander; fresh supplies; a steam ship; to fly round; to prove something; to be made of iron, steel and concrete; to replace iron; rich in timber; different sizes; to promote progress; quality and quantity; to obtain raw materials; to provide with cotton; a great deal of goods; to work smoothly; efficient measures; to supply oil; fuel for vehicles; a few remarks; owing to the advantage; to operate well; negligible progress; to develop capacity; reliable sources of information; to protect children, to design according to the plan; to widen a road; to deepen a river; a narrow place; to run between two points.

Упражнение 6. *Заполните пропуски подходящими по смыслу словами.*

capacity	slowly	replace
negligible	supplies	smooth
owing to	suppose	protection
timber	sailing	fuel
prove	seemed	widening
loaded	till	efficient
weigh		raw

1. What ... is to be used for this engine? 2. Aluminium can easily ... iron in many cases. 3. Therefore ... measures were taken. 4. Is the road between the two villiages ... ? 5. Cotton was among other ... materials imported to the country. 6. They have developed a new reliable means of ... against radiation. 7. They are designing a new car of a greater 8. Even ... changes could lead to the accident. 9. This street

is rather narrow. It needs 10. ... is often spoken about as the one of the best structural materials. 11. ... the latest equipment new experiments could be made in the laboratory. 12. You look very thin, how much do you ... ? 13. They walked ... it got dark. 14. Let us go, I ... he is waiting for us there. 15. This ship is supposed to carry ... of food to the island. 16. It was clear he could ... nothing. 17. He worked hard, and he ... very tired. 18. The ship was ... South. 19. How much did a ... boat weigh? 20. He was very tired and was walking

Упражнение 7. *Переведите на русский язык, следующие незаконченные предложения, обращая внимание на субъектный инфинитивный оборот.*

1. The speed of the car is known to be 2. Mars is expected to be 3. The diesel engine is known to be used 4. The results are supposed to be 5. The atmosphere of Saturn is assumed to be 6. The radio was thought to have been 7. The calculations were considered to be 8. The new system was believed to have been 9. The scientist is always supposed to be 10. The match is reported to begin 11. The road is expected to be repaired 12. The design is said to have been improved

Упражнение 8. *Переведите следующие предложения на русский язык, обращая внимание на инфинитивные конструкции.*

1. A lot of people came to watch the oceanship return home after a long voyage. 2. Everybody thought him to be quite a reliable person. 3. The captain declared the load to be too much for his old and small boat. 4. He seems to know a great deal about the history of navigation. 5. The boat, though very small, proved to be quite reliable. 6. The 20th century is considered to be the century of space travels. 7. The design proved quite efficient. 8. Atomic ice-breakers are known to operate on a negligible quantity of atomic fuel. 9. The results of the test were found to be very interesting. 10. I know them to be working at the problem of protecting the cosmonauts from the effect of sun radiation. 11. Rubber is known to have been brought from America. 12. Ink is supposed to have been invented in Egypt. 13. We expected him to be appointed director of a new automobile plant. 14. This question appears to be of great importance. 15. The plan proved to be a great success. 16. He happened to leave the institute very early that day. 17. The travellers found the people of the small island to be very friendly. 18. They reported the capacity of the new engine to have been increased. 19. The owner of the motor car wanted the old engine to be replaced. 20. All the country watched the first Soviet motor car expedition cross the Kara-Kum Desert.

Упражнение 9. *Переведите следующие предложения на русский язык, обращая внимание на значения слов one (ones), that (those).*

1. This dictionary is very large, show me a smaller one. 2. One should be very attentive when taking notes of the lecture. 3. One cannot understand the reason why the bridge has collapsed. 4. It occurred to me, that there should be a person responsible for it. 5. The trouble is

that they haven't calculated the exact speed of the car. 6. This device is an ordinary one. 7. The scientist answered that they were going to find a new way of getting valuable minerals. 8. He said that the question should be discussed at once. 9. This advanced method allows one to get good results. 10. The head of the laboratory said that they should take part in the work on the device. 11. They knew that the building had collapsed. 12. One should be very careful when crossing the street. 13. The remark that he made was of no importance. 14. That was the distance that they covered in one hour. 15. The properties of gold are different from those of iron. 16. One never knows what to expect in this case. 17. The research of solar radiation as well as that of the earth's magnetic field became possible due to sputniks. 18. This was one of the reasons for the lengthening of the bus route. 19. The problems of water supply in this town are as important as those of lighting. 20. That Professor Fox held an open house was rather important for Eric.

Упражнение 10. *Переведите следующие предложения без словаря, обращая внимание на слова, образованные по способу конверсии.*

1. Besides his work Einstein liked most of all playing the violin and boating. 2. He didn't know her likes and dislikes. 3. A small boat couldn't hold so many people. 4. They supply us with all necessary information. 5. Our supplies of fuel have come to an end. 6. When was this ship built? 7. The supplies are shipped to Antarctic Stations in summer. 8. It was a fine day, and many people were boating on the lake. 9. There was no wind and the sails were down. 10. The ships sailed across the Atlantic as early as the 15th century. 11. The Red Cross Society sends food supplies to people who need it. 12. A submarine of this design can cross the Arctic Ocean under water. 13. Large supplies of fuel were stored during summer. 14. Fuelling stations are situated along the highway. 15. Will you step aside, please? 16. He took one step forward. 17. Can you repair my watch? 18. The house needs only small repairs. 19. I didn't like his last remark. 20. He remarked on the kind of work they would have to carry out.

Упражнение 11. *Ответьте на вопросы по тексту 9А.*

1. What is the most important thing about water transport? 2. What is the distance covered by "Kon-Tiki"? 3. What did the Romans use their vessels for? 4. Until what century were galleys used? 5. What made long voyages more safe? 6. What century is the highest point in the development of sailing ships? 7. When did the first steamship cross the Atlantic? 8. What made it possible to build larger ships in the middle of the 19th century? 9. In what way did the Industrial revolution influence the size and power of ships? 10. What changes in ports took place during the industrial revolution? 11. What improvements in the type of engines were introduced during the 20th century? 12. How are diesel-engined ships called? When were they introduced? 13. What type of ships were introduced in 1950s? 14. How much fuel a week does the atomic ice-breaker need? 15. What is the operation of nuclear reactor accompanied by? 16. What kind of work must be carried

out before sea-going ships can use some rivers? 17. What city is the centre of the network of the canals in France? 18. Can sea-going ships use the canal linking Moscow with Leningrad?

РАБОТА НАД СЛОВООБРАЗОВАНИЕМ

Упражнение 12. *Переведите следующие производные слова согласно модели.*

Модель: *основа существительного/прилагательного + -ize → глагол*

vapor	пар	vaporize испарять
character	характер	characterize
oxygen	кислород	oxidize
critic	критик	criticize
real	реальный	realize
magnet	магнит	magnetize
fraternal	братский	fraternize
general	общий	generalize

Упражнение 13. *Найдите в тексте слова, имеющие общий корень со словами данными перед текстом, определите части речи, к которым они относятся, переведите их, затем переведите текст.*

computer — электронно-вычислительная машина	abnormal — ненормальный
pollute — загрязнять	local — локальный
to detect — обнаруживать	industrial
to indicate — указывать	chemistry
to predict — предсказывать	meteorology

A computerized air pollution control system has been installed in Netherlands between Rotterdam and the North Sea. The area is densely populated and highly industrialized. Thirty-one detectors have been installed in the district. They are sensors (датчики) measuring levels of chemical substances considered to be indicators of general level of pollution. Signals of the sensors which also include meteorological information are sent electronically to a warning centre computer. The computer then gives predictions based on information from the sensors as well as on more general meteorological information. An abnormally high source of pollution can be localized within a minute. Plant operations are then curtailed (сокращать) or shut down through previous agreements with air pollution control authorities.

ТЕКСТ В

Задание I. *Прочтите текст, стараясь понять основное содержание. (Заметьте время начала и окончания чтения. Этот текст нужно прочесть за 4 минуты, из расчета 90 слов в минуту.)*

FORTY-NINE DAYS IN THE OCEAN

On the 17th of January, 1960, a terrible storm broke in the Kuriles. A Soviet barge was carried away to the ocean with four young soldiers on board. Boats and planes were sent to look for the barge but they were not able to notice it among the high waves.

The wind was blowing, big waves were rolling over the deck, the sky was covered with dark clouds. The crew of the boat was in great danger. They fought the storm bravely but it was impossible to approach (приблизиться) the shore.

The people on board heard the voice of the radio calling them but they were not able to answer because something had gone wrong with their radio.

The storm lasted for several days. When it had calmed down at last they saw that the waves had carried away almost all their food and fresh water. But the young men did not lose courage (мужество) and decided to fight for their lives.

The four friends strictly distributed the little food and water that had been left. Growing weaker and weaker from hunger and lack of water each thought about all of his comrades.

On the 23rd of February they were so weak that they could hardly move. Still they made up their minds to celebrate Soviet Army Day. One of them who was on duty that day took their last cigarette out of the box and they smoked it in turn.

On the forty-ninth day they heard some noise in the distance. It was an American plane. The pilot noticed them and soon they were out of danger on board an American ship.

By that time their small barge had covered 1,600 km. And it is of interest to note that three of the four soldiers had no idea of navigation before they joined the army.

The sailors who had saved them were surprised to see that after all the misfortunes those four Soviet young men had had, they remained a team of brave soldiers and true friends always doing their best to help each other and do their duty.

Soon the heroes returned to the Soviet Union. Their names became known all over the world. They are: Askhat Ziganshin, Philip Poplavsky, Anatoly Kryuchkovsky, Ivan Fedotov.

Задание II. Выберите утверждение, соответствующее содержанию текста.

1. On board the barge which was carried away to the ocean there were:
 - 1) three young tourists;
 - 2) four young soldiers;
 - 3) four young fishermen.
2. 1) The young men did not fight the storm;
 - 2) They got frightened (испугались);
 - 3) They fought the storm bravely.
3. When the storm stopped, they saw that:

- 1) almost all their food and fresh water had been carried away into the ocean;
 - 2) all the food and water remained;
 - 3) all the food remained, but the water had been carried away.
4. After some weeks had passed, they:
 - 1) lost courage (упали духом);
 - 2) began to quarrel (ссориться);
 - 3) remained very good friends and helped each other.
 5. They were saved by:
 - 1) American sailors;
 - 2) American fishermen;
 - 3) An English expedition.

TEXT 9C.

Задание I. Прочтите текст, отыскивая в нем ответы на поставленные вопросы.

THE FIRST VOYAGE ROUND THE WORLD

What was the aim of Magellan's voyage?

1. Magellan lived from 1480 till 1521. The first voyage round the world was made by him over 400 years ago. He thought that by going west he could travel by sea round the world and come to the same place again.

In those early days many people were interested in India. Many knew it was a very rich country whose culture was older than theirs. Magellan wanted to find a new way to India. His country, Portugal, did not help him but he got money, ships and all things necessary for the voyage from Spain. Magellan's business was to prepare everything.

To what type of people did Magellan belong?

2. At last the great day came and the voyage began. That was in September of 1519. Some people thought that nothing would come of it, that Magellan and his men would get lost and never come home again; others were sure that the whole thing would be a success. Who would be right, it was difficult to say at the moment. Magellan belonged to those who stop at nothing and always do their best to get what they want.

What did the people whom Magellan met in South America look like?

3. One day, after a voyage of many months, Magellan's crew saw land. It turned out to be South America. As the travellers were badly in need of food and water, Magellan decided to stop there. With some of his sailors he went to see what the country was like. They were soon met by a crowd of men and women, who looked quite different from them.

These people were dark, and had neither shoes, nor clothes. They soon made friends. They could not speak, of course, but understood one another well enough. Then these people went off, but soon returned, bringing with them many different things to eat. In his turn Magellan and his men gave them things which were not dear but looked beautiful. Everyone was well pleased.

Why was the voyage to the Philippine Islands difficult?

4. Magellan did not stay long in South America: he was in a hurry to get to India. This voyage was long and difficult. Islands were few and far between and the travellers were often in need of food and water. Many of them fell ill but at last, after many months of travelling, they reached the Philippine Islands. From there people used to get to India going east, while Magellan wanted to get there by travelling west.

In what war was Magellan killed?

5. In the Philippine Islands Magellan and his men were well met by the people. They stayed there for some time and took part in a war between two different peoples of the islands. Magellan was killed in this war.

Of Magellan's 5 ships which started for India in 1519 only one returned 3 years later, after making the first voyage round the world.

Задание II. Прочтите текст С еще раз; назовите номера частей текста, в которых встречаются следующие предложения.

1. In his turn Magellan and his men gave them things which were not dear but looked beautiful.

2. Some people thought that nothing would come of it, that Magellan and his men would get lost and never come home again; others were sure that the whole thing would be a success.

3. In the Philippine Islands Magellan and his men were well met by the people.

4. He thought that by going west he could travel by sea round the world and come to the same place again.

5. Portugal didn't help him, but he got money, ships and all things necessary for the voyage from Spain.

Задание III. Прочтите следующие утверждения и на основе полученной информации ответьте на вопросы.

1. Magellan lived from 1480 till 1521. How old was Magellan when he died?

2. He made his voyage over 400 years ago. In what century was it?

3. From South America Magellan decided to go to India. After many months of travel he reached the Philippine Islands. In what direction did he travel? (East or West?)

4. Magellan's ships started for India in 1519. Only one of them returned 3 years later. In what year was it?

Задание I. Прочтите текст.

INTERESTING FACTS ABOUT CANALS

1. The best examples of canals used for draining land are to be found in Holland, where much of the country is below sealevel. Dams are used to prevent flooding and since 1932 over 300,000 acres of land have been drained. In winter the Dutch people use the frozen canals for ice-skating.

2. In a hot dry country such as Egypt water is scarce, and to prevent the land from becoming dry long canals are built from dams. These canals must be continually kept open, for the Egyptian farms and cotton fields can not exist without these life lines of water.

3. Many inland waterways are used for the transport of heavy goods by barges. This method of carrying materials is not so widely used now, for although it is cheaper, it has the disadvantage of being much slower. Speed is regulated by the number of bridges and locks¹ which the barges encounter.

4. Two notable canals for ships in Europe are the Corinth Canal and the Kiel Canal. The former was built in 1893 across the solid rock of the isthmus² of Corinth. Bridges from the tops of the steep sides of the canal connect north and south Greece. The Kiel Canal, which also has no locks, was built two years later and it gives the countries of the Baltic Sea quicker access to the west.

5. Venice, at the Adriatic Sea, is one of the most beautiful cities in Europe, for it has many canals instead of streets. Long narrow boats with curved ends, called "gondolas", carry passengers and goods from one part of the city to another. The gondolas are supplied with lanterns, which at night make the canals very colourful and romantic. A peculiar custom of former days was that the Ruler of Venice used to throw a ring into the water each year to show that the city was wed³ to the sea.

6. One of the greatest arteries of world trade is the Suez Canal separating the two continents of Asia and Africa. As trade with India increased, the overland route across Suez became regular but very expensive. In 1859, the French engineer, Ferdinand de Lesseps, started to cut a passage through this flat desert country. Ten years later, the first sea-going ships passed through the canal, which is a hundred miles long and has no locks thus completing a direct water route from the North Atlantic to the Indian Ocean.

The journey along the canal takes about fifteen hours and shortens the distance from Britain to the East by about 4,000 miles. The canal belongs to Egypt and is a vital waterway serving the merchant fleets of many nations.

7. The Great Lakes which lie between Canada and the United States have become parts of the world's ocean highways for it is now possible for big ships to sail up the Saint Lawrence Canal to the ports of Toronto, Cleveland and Chicago. A 218 mile canal joins the Atlantic with these Great Lakes which contain half of all the fresh water in the world. There

are seven locks, five on the Canadian side and two on the United States side. Bridges needed to be raised fifty feet to allow big ship traffic to pass and, indeed, from Montreal, these ocean-going vessels are raised 246 feet above the sea level to Lake Ontario. The Saint Lawrence Canal takes the ships 2,200 miles inland, half-way across the North American continent and deep into the heart of Canada.

8. The construction of a major canal, 290 miles long, linking the rivers Volga and Ural is to irrigate the steppelands between them.

When the canal and irrigation systems are in full operation in the 1980s, they will enable an area of 68,125 square miles, bigger than that of England to be irrigated.

The first 140-mile stage of the canal is to be completed by 1979 and the second stage by 1985. The final stage of the canal irrigation system will only be put into operation when the Volga starts receiving some of the water from the Northern Pechora river, which flows into the Arctic.

The Volga-Ural Canal will enable hundreds of small lakes in West Kazakhstan which dry up in the summer to receive water supplies, and it is thus intended to create a substantial fish breeding zone there.

NOTES TO THE TEXT

1. lock — шлюз
2. isthmus — перешеек
3. to be wed — быть обрученным

Задание II. Ответьте на вопросы по тексту D. Правильность ответов проверьте в соответствующих частях текста.

1. What are dams in Holland used for? (1) 2. Why aren't barges so widely used now? (3) 3. When was the Corinth Canal built? (4) 4. When was the Kiel Canal built? (4) 5. What makes Venice one of the most beautiful cities in Europe? (5) 6. What makes the canals look so romantic at night? (5) 7. What peculiar custom existed in Venice? (5) 8. When was the Suez Canal opened for navigation? (6) 9. How long does the journey along the Suez Canal take? (6) 10. Who built the Suez Canal? (6) 11. Do the Great Lakes contain fresh or salt water? (7) 12. Can ocean-going ships travel along the Saint Lawrence Canal? (7) 13. What is the purpose of the construction of the canal between the Volga and the Ural? (8) 14. When will the fish breeding zone be created in West Kazakhstan? (8)

КОНТРОЛЬНЫЙ СЛОВАРЬ

1. boat (v); 2. capacity (n); 3. century (n); 4. cotton (n); 5. cross (n, v); 6. deepen (v); 7. design (n, v); 8. efficient (a); 9. a few; 10. fly (v); 11. for (cf); 12. fuel (n, v); 13. a great deal; 14. iron (n); 15. island (n); 16. horse-power (n); 17. like (a, prp); 18. load (n, v); 19. mile (n); 20. narrow (a); 21. negligible (a); 22. oil (n, v); 23. operate (v); 24. in order to (prp); 25. owing to (prp); 26. point (n, v); 27. promote (v); 28. protection (n); 29. prove (v); 30. quantity (n); 31. raw (a); 32. reliable (a); 33. replace (v); 34. round (prp); 35. run (v); 36. sail (n, v); 37. seem (v); 38. ship (n, v); 39. size (n); 40. slowly (adv); 41. smooth (a); 42. steel (n); 43. such as; 44. supply (n, v); 45. suppose (v); 46. test (n, v); 47. till (prp); 48. timber (n); 49. weigh (v); 50. widen (v).

LESSON 10 (Ten)

- Грамматика:** 1. Условные придаточные предложения (Conditional Sentences).
2. Многозначность слов.

Основной текст А: Air Transport.

Условные предложения

- | |
|---|
| I. If I have time (tomorrow), I shall go to see that film.
II. a) If I had time (today, tomorrow), I should go to see that film.
b) If I had had time (yesterday), I should have gone to see that film. |
|---|

Упражнение 1. *Переведите следующие предложения на русский язык, обращая внимание на условные придаточные предложения.*

1. If I come home early, I shall be able to write my report today.
2. If he were at the institute now, he would help us to translate the article.
3. If you had come to the institute meeting yesterday, you would have met with a well-known English writer.
4. You will get good results if you apply this method of calculation.
5. If he had taken a taxi, he would have come in time.
6. If the speed of the body were 16 km per second, it would leave the solar system.
7. If it had not been so late now, I should have gone to the country.
8. If the air were only composed of nitrogen burning would be impossible.
9. If you press the button, the device will start working.
10. The design would be ready by the end of the year if they supplied us with all the necessary equipment.

Упражнение 2. А. *Скажите или напишите данные предложения так, чтобы они выражали маловероятное предположение.*

Образец А: If I see him tomorrow, I shall tell him about the meeting.

If I saw him tomorrow, I should tell him about the meeting.

1. If they find the exact meaning of this word, they will understand the sentence easily.
2. If he works much at his English he will pass his exam well.
3. If I get a good dictionary, I shall translate this text.
4. If you go to the Lenin Library, you will find there all the books you need.
5. If we receive the documents tomorrow, we shall start loading the lorries on Monday.
6. If the student follows the rules, he will not make so

many mistakes. 7. If you help me, I shall repair the engine in an hour. 8. If they receive all the necessary equipment, they will be able to carry out their experiment. 9. If we drive at such a speed all the time, we shall arrive at the village before night. 10. If they change several details, they will be able to improve the design.

Б. Скажите или напишите данные предложения так, чтобы они выражали упущенную возможность совершить действие.

Образец Б: If I see him, I shall tell him about the meeting.
If I had seen him yesterday, I should have told him about the meeting.

1. If you go there by plane, you will come in time for the conference. 2. If I know the time of his arrival, I shall meet him at the station. 3. If the builders do not work hard, the canal will not be opened in time. 4. If the satellite's speed is much less than the necessary one, the satellite will drop and enter the atmosphere. 5. If the students are more careful, they will not break the new apparatus. 6. If he has all the necessary instrument, he will repair the machine much quicker. 7. If the driver is more careful, the accident will not happen. 8. If he knows the reason of the trouble, he will repair the engine himself. 9. If you don't know the design of the motor, you will not be able to operate it properly. 10. If the oil supply does not stop, the motor will work efficiently.

ИНВЕРСИЯ

Упражнение 3. *Измените следующие предложения по образцу, приведенному ниже, и переведите их на русский язык.*

Образец: а) If I were in your place, I should do this work myself.

Were I in your place, I should do this work myself.

б) If he had known the subject better, he wouldn't have failed in his exam.

Had he known the subject better, he wouldn't have failed in his exam.

1. If it were necessary to increase the speed of this particular engine, it could be achieved by using a special device. 2. If the road had been better, we should have been here in due time. 3. If the engineer had been informed of the results before, he would have allowed you to repeat the test. 4. If we had used new methods, we should have saved much time. 5. The plan would not have been fulfilled in time if the people had not worked with such energy. 6. If the oil supply had stopped even for a moment, serious damage might have resulted. 7. If the mechanic were there, he would repair the equipment. 8. If the air within the cylinder were motionless, only a small proportion of the fuel would find enough oxygen. 9. If the books on that subject were available in our library, I should be able to make a good report. 10. If he had all the necessary materials, he would accomplish his model in time.

hand *n* 1) рука; 2) работник, исполнитель; 3) pl. команда корабля; 4) почерк;
 5) стрелка (часовая); 6) участие в чем-л.
o передавать, вручать

Упражнение 4. *Переведите следующие предложения, обращая внимание на различные значения слова hand.*

1. Where can I wash my hands? 2. Will you hand me that pencil?
3. You can see his hand in this experiment. 4. He worked several years as a farm hand. 5. Do you have a hand in this project? 6. The hour hand in my watch is broken. 7. The letter was written in a strange hand. 8. He handed me a telegram.

VOCABULARY NOTES

Задание 1. *Переведите следующие предложения.*

1. **merely** — только. This device is not merely reliable, it is also very efficient.
2. **drawback** — недостаток. The main drawback of the new design is its large size.
3. **whereas** — тогда как. An atomic ice-breaker needs only a few grams of atomic fuel a week, whereas an ordinary ice-breaker needs more than 100 tons of fuel a day.
4. **to break down (broke, broken)** — сломаться, разрушиться. The engine broke down at the beginning of the test.
5. **aircraft** — самолет. One of the main advantages of an aircraft is its very high speed.
6. **trouble** — поломка, авария, неполадки. There was some engine trouble and the driver asked the passengers to leave the car.
7. **precaution** — предосторожность (мера предосторожности). All precautions were taken against the new epidemic of the grippe.
8. **to tend** — стремиться, иметь тенденцию. The University tends to pay more attention to the study of foreign languages now.
9. **low** — низкий. There was a low brick wall around the house.
10. **cloud** — облако. There was not a cloud in the sky.
11. **alone** — один, только. I can't repair this motor alone, you must help me. He alone can prove that I am right.
12. **upper** — верхний. If you need a dictionary, it is on the upper shelf.
13. **density** — плотность. The density of the lower layers of the atmosphere is greater than that of the upper ones.
14. **weather** — погода. The work at the meteorological stations goes on regularly in any weather.
15. **particularly** — особенно. He likes many subjects, but he is particularly interested in mathematics.
16. **readings** — показания на приборе. All space rockets are equipped with instruments the readings of which are sent back to the ground.
17. **to observe** — 1) наблюдать; 2) соблюдать. 1) The doctor sat by the patient to observe the effect of the new medicine on him. 2) The

student who makes many mistakes in writing English is a student who does not observe the rules of spelling.

18. **to adopt** — принимать. The metric system of measures and weights is adopted by almost all the countries of the world.

19. **no longer** — больше не. He is no longer working at this problem.

20. **capable** — способный. An electronic computer is capable of solving different complicated problems.

21. **skilled** — опытный, квалифицированный. The expedition consisted of skilled engineers and workers.

22. **available** — наличный, имеющийся. Is timber available in this region?

23. **to convert** — превращать. At 100°C water is converted into steam.

24. **extra** — дополнительный. You will receive extra pay for extra work.

25. **to recognize** — узнавать; признавать. He didn't recognize my voice over the telephone. His invention was recognized in all countries of the world.

26. **urgent** — настоятельный, безотлагательный. Urgent improvements in the design had to be made.

27. **wholly** — совершенно, целиком. The problem hasn't been wholly settled.

28. **fast** — быстрый. If you walk faster, you will get there in two hours.

29. **emergency** — крайняя необходимость, крайность. In case of emergency the doctors are sent to the island by helicopter. Helicopters are often used for emergency medical work.

30. **besides** — помимо, кроме. What other construction material besides concrete can you recommend for this project?

31. **unlikely** — маловероятный. It is unlikely that they will discuss the problem today.

32. **ever** — когда-либо. Has anyone ever been on this island?

33. **bulky** — большой, громоздкий. Bulky loads are usually transported by railway or by ship.

34. **cargo** — груз. Bulky cargoes are seldom transported by aircraft.

35. **to take off** — взлетать. The airliner took off at 6.30 p.m.

36. **nearly** — почти, приблизительно. What's the time? It's nearly two o'clock.

37. **to gain** — выигрывать. They gained a lot of time by using computers in their research work.

38. **to lose (lost, lost)** — терять. He has lost an excellent opportunity to test his device.

39. **forward** — вперед. They could no longer move forward because of the heavy snowfall.

40. **to combine** — соединять; сочетать. They combined theoretical and practical data. There are many people in our country who combine work and studies.

41. **purpose** — цель, намерение. For what purpose do you need the money? What was the purpose of your coming here?

42. **across** — через. The bridge across this river is not safe for walking.

РАБОТА СО СЛОВАРЕМ

Задание II. *Определите, к какой части речи относятся выделенные в данных предложениях слова; затем найдите в словаре нужные значения этих слов и переведите следующие предложения.*

1. stay

a) The expedition will **stay** in the arctic zone for three months. b) I met him twice during my **stay** in Kiev. c) I am sorry we can't **stay** here any longer.

2. truck

a) **Trucks** are usually used for carrying heavy loads. b) The supplies for the mountain observatory can be **trucked** only in summer. c) Where can I park this **truck**?

3. cost

a) The new improvement in the engine design has increased its **cost**. b) How much does the new model of the car **cost** now? c) The **cost** of transportation of bulky loads is very high here.

4. flow

a) This device controls the air **flow**. b) The river **flows** between the high banks. c) What is the speed of the water **flow** under the bridge?

5. release

a) At big airports planes are **released** from airfields one after another. b) At the end of World War II the Soviet Army **released** all the prisoners from the fascist concentration camps. c) The news was in the latest press **release**.

6. fit

a) The seats of modern design were **fitted** in the motor car. b) The water in this lake is not **fit** to drink. c) The engine is not fit for the work in the cold climate conditions.

7. value

a) Timber has gone up in **value**. b) I **value** your opinion very highly. c) What do you **value** this car at?

8. space

a) There is a narrow **space** between the two buildings. b) The houses are **spaced** ten metres apart. c) How much **space** does the building occupy?

Задание III. *Прочтите следующие интернациональные слова и догадайтесь об их значении.*

regular, meteorologist, radio, position, radar, aeroplane pilot, practice, medical, film, photography [fə'tɒgrəfi], serious, helicopter, platform, motor.

AIR TRANSPORT

1. Modern air transport using craft which is heavier than air requires a good deal of power merely to stay in the air. It is for this reason that air transport uses more fuel to carry a ton over a distance of a mile than land or water transport. Another drawback to air transport is that whereas a ship, truck or train whose engines break down can stop until they are mended, an aircraft with the same aircraft trouble must land. This means that an aircraft must have several engines and this increases its cost. Safety precautions for air transport also tend to make it expensive. It cannot be relied upon for regular services in places or seasons with low clouds and mist. The great advantages of air transport being its high speed, all civilized countries try to develop it. If you want to save time, you will naturally fly by air.

2. **Balloons.** The earliest form of air transport was balloons, which are sometimes called "free balloons" because having no engines they are forced to drift by the wind flow. This fact alone makes balloons not reliable enough for carrying people. If they were safer, they would be used more for transportation, but at present the scientists use balloons mostly for obtaining information about the upper atmosphere, its density, and other scientific subjects. Weather balloons are particularly used by meteorologists. They carry instruments whose readings are automatically sent back to the ground by the radio, the position of the balloon being obtained by radar. Small balloons released from airfields are observed to obtain the direction and strength of the wind.

3. **Aeroplanes.** The heavier-than-air machines called aeroplanes were rather slow in being adopted for transport. The first aeroplane flight was made in 1903.

World War I quickened the development of aeroplanes enormously. By 1918 they were no longer unreliable things capable of only short flights, but powerful machines able to carry heavy loads at high speeds for long distances. What was more, the ending of the war meant that thousands of aeroplanes and skilled pilots were available.

The first aeroplanes were machines that had been used as bombers. They were quickly converted for use by passengers by fitting extra seats and windows. The first regular public air service from London to Paris was started in August 1919.

4. During World War II the value of aeroplanes for carrying heavy loads was recognized. This led after the war to an increase in the practice of sending goods by air. Air freight is expensive but is often thought worth while for such goods as early vegetables, fruits and flowers, as well as for things urgently needed such as spare parts for machinery, medical supplies, films and photographs. Some parts of the world being hundreds of miles from a road, railway or waterway, air transport is the only possible kind. Such places are kept supplied wholly by air.

5. After World War II, bigger and faster airliners were introduced. Jet-propelled aircraft were first used in 1950. Air transport is very val-

uable for emergency medical work. The most important use of air transport besides carrying passengers is carrying mail. If the letters are sent by air mail, they are not long in coming. Although it is unlikely that aircraft will ever replace ships for carrying heavy and bulky cargoes such as oil, coal, minerals, grain and machinery, air transport is already proving a serious rival to passenger ships on some routes.

6. **Helicopters and Hovercraft.**¹ Helicopters and other moving-wing types of aircraft are very useful in places where there is no room for long, flat runways. Modern turbo-jet airliners need a run of nearly two miles long to take off, but helicopters can use small fields, platforms mounted on ships and the flat tops of buildings. Helicopters were first introduced for regular airline service in 1947. Later, helicopters were used for carrying passengers and mail on short routes, and for taking airline passengers between the centres of cities and the main airports.

7. While helicopters gain in needing very little space for taking-off and landing, they lose because the speed at which they move forward is quite low. So the problem was to develop an aircraft combining the advantages of the helicopter with the high speed of an ordinary aircraft. If the designers could develop such a machine the problem would be solved. So for this purpose the hovercraft was designed. Hovercraft are likely to be useful for ferry services—for example, in ferrying motor cars across the English Channel. They may also be useful for travel in roadless countries.

NOTES TO THE TEXT

1. **hovercraft** — самолет с вертикальным взлетом и посадкой

Упражнение 5. *Переведите на русский язык следующие словосочетания.*

to stay at home; another drawback of the new device; to adopt a new system of control; to increase the cost; a new feature of this aircraft; particularly bad weather; it was particularly urgent business; to move forward; to walk across the street; to need little space for taking-off; to gain in speed; to lose speed; to need extra parts; to combine work and studies; to lose time; at a distance of nearly two miles; to observe weather changes; on the upper shelf; low clouds; to move very fast; the density of the atmosphere; the advantages of the new aircraft design; to fit extra seats; things urgently needed for medical help; a strong water flow; to convert work into energy; a skilled worker; available extra parts; to recognize the trouble in the engine; densely-populated countries; this fact alone; to take precautions against engine breakdown; to be capable of solving complicated mathematical problems.

Упражнение 6. *Заполните пропуски подходящими по смыслу словами.*

available
forward
wholly
readings

value
take off
emergency
unlikely

fits
precautions
break-down
urgent

released	low	whereas
drawbacks	observed	purpose
ever	capable	trouble
bulky	combine	

1. This is the kind of work which only a very skilled worker is ... to carry out. 2. There were no taxis ... at that moment. 3. We are ... to be delayed so long. 4. ... cargo was loaded with the help of cranes. 5. The newly-found picture was of great 6. We cannot ... these two tasks. 7. Unfortunately the performance of the apparatus is not ... successful. 8. The task was ... and we had to work fast, if we wanted to complete it in time. 9. He said they couldn't move ... unless they were supplied with enough fuel. 10. Have you ... been to Paris? 11. We expected the airplane to ... at 2 p.m. 12. The key that ... this door appears to have been lost long ago. 13. Aircraft are often used to transport ... goods. 14. Some ... against bad weather should be taken. 15. The tractors of this make tend to ... in cold climate conditions, ... in hot climate conditions they are quite reliable. 16. He said that ... of the device were particularly interesting. 17. There is some ... with the instrument: it's readings are no longer reliable. 18. The company expected the operation of widening and deepening of the canal to be carried out at a ... cost. 19. What is the ... of weather observations? 20. He said that the news bulletin would be ... over the radio. 21. Long ago people ... that low clouds brought bad weather. 22. He settled the dispute by saying that although the work contained some ... they were quite negligible.

Упражнение 7. *Переведите данные предложения без словаря.*

1. An aircraft with engine **trouble** must land. We didn't get to town until late at night because there was serious engine **trouble** in our car. Cars with **troubles** of this sort are easily repaired at every service station. Stoppage of fuel supply caused serious **trouble** in the engine.

2. The bombers were quickly converted for use by passengers by fitting **extra** seats and windows. Have you got an **extra** ticket? On Sundays they run an **extra** train. People who work and study get **extra** leave during examination time.

3. After World War II, bigger and **faster** airliners were introduced. If you can get a ticket for the **fast** train, you'll get there in time. Which of you runs **faster**? The plane is the **fastest** means of transport.

4. Helicopters **gain** in needing very little space for taking-off and landing. Comrade Petrov **gained** a lot from his trip to the north of our country. By reading this journal you'll **gain** a lot of important information on the research going on in this field.

5. Air transport cannot be relied upon for regular services in places or seasons with **low** clouds and mist. The temperature is very **low** today, you should put on warm clothes. **Low** hills were covered with green grass and flowers. The picture hangs too **low**, move it up a little.

Упражнение 8. *Переведите следующие предложения на русский язык, обращая внимание на союзы условных придаточных предложений if, unless, provided.*

1. If they needed the equipment urgently, it would be sent by plane. 2. The accident would not have happened if they had been more careful. 3. If I were in his place, I should refuse to stop the experiment. 4. If the goods are shipped in April, they will arrive before the expedition starts. 5. If a sputnik moved in different orbits, the variations in speed would be relatively small. 6. The sputnik will keep to its orbit provided it travels at the uniform speed of 8 kilometers per second. 7. It would have been impossible to send up sputniks unless the laws governing the motion of planets had been studied. 8. We shall carry out our production plan provided everybody does his work well. 9. If I were you I should first test the car. 10. If a student got interested in the construction of that engine, he could obtain all the necessary data in the reference-book on engines. 11. If computers had not been worked out, many important problems would not have been solved. 12. If he did not know how to operate the new device, I should explain it to him.

Упражнение 9. *Переведите следующие предложения на русский язык.*

1. If we had repaired the engine yesterday, we should have left the town before sunrise. 2. He asked me if we had repaired the engine. 3. The chief engineer asked me if we could make the design more efficient. 4. He did not remember whether he had informed everybody of the new test. 5. He was not certain whether the new system would work well. 6. The results of the experiment would have been much better if he had used the new equipment. 7. The expert was interested if the speed of the car had been brought up to its maximum. 8. The members of the delegation asked if the old methods of production had been changed. 9. The quality of the goods produced by the plant would be improved if the old methods of production were changed. 10. The captain of the ship didn't know if he would be able to pass his ship through that old and narrow canal. 11. If you had taken some precautions we shouldn't have found ourselves in such a difficult condition now; almost no fuel left and some 100 km between us and the nearest station. 12. It's a pity we didn't have enough time to discuss the plan in detail before it was put into operation. Had we pointed out all the drawbacks, we should have found ways to solve the problem. 13. Unfortunately there are no cars available at the moment. Had you told us that your mission is so urgent we should have left a car for you. 14. The apparatus would weigh less, provided in some parts plastic were used instead of steel. Then its transporting would be facilitated and it would arrive at your plant without delay. 15. The designer of a bridge should be very careful. Unless all his calculations are reliable the bridge may collapse. 16. No accidents would have happened had the channel been widened and deepened, and some measures to protect ships had been taken. 17. How soon will you be able to repair the road? If it isn't repaired by tomorrow we'll have to change the route and try to approach the town from the North. 18. The committee is expected to meet tomorrow. If they decide that the new rules for traffic safety should be introduced, they will be put into practice by October. 19. If the construction of the canal

is started as it is agreed upon in April, it will be well under way by September. 20. Had the goods been sent by aircraft they would have already reached you on Monday.

Упражнение 10. *Ответьте на вопросы по тексту А.*

1. What transport uses more fuel to carry a ton over a distance of a mile than land transport? 2. What is the drawback of the air transport? 3. What increases the cost of an aircraft? 4. Why can't aircraft be relied upon for regular services everywhere? 5. What are the advantages of air transport? 6. What was the earliest form of air transport? 7. What are balloons chiefly used for? 8. By whom are weather balloons used? 9. When did airplanes become powerful machines able to carry heavy loads at high speed? 10. When was the first regular public air service from London to Paris started? 11. When did people recognize the value of airplanes for carrying heavy loads? 12. What goods are usually sent by air? 13. What places are kept supplied wholly by air? 14. When were jet-propelled aircraft first used? 15. Is it likely that aircraft will some day replace ships for carrying heavy and bulky cargoes? 16. In what places are helicopters very useful? 17. When were helicopters first introduced for regular airline service? 18. What are their advantages and disadvantages? 19. What are hovercraft used for?

Упражнение 11. *Ответьте на следующие вопросы, начиная свой ответ с I should ...*

Вопрос: a) What transport would you use if you went to ...?

- | | |
|------------------|----------------------------|
| a) the Far East; | g) New York; |
| b) the country; | h) Istanbul; |
| c) the Crimea; | i) the Philippine Islands; |
| d) Sofia; | j) Cuba; |
| e) London; | k) Sydney; |
| f) Prague; | l) the nearest village. |

Ответ: I should go there by ...

- | | |
|---------------|-----------|
| a) car; | d) train; |
| b) coach; | e) ship; |
| c) motor car; | f) plane. |

Вопрос: b) What would you do if you had much free time?

Ответ: I should ...

- | | |
|---------------------------------------|--|
| a) invite all my friends to my place; | h) help my mother around the house; |
| b) go boating; | i) read detective stories; |
| c) go hunting; | j) see all the new films; |
| d) go shopping; | k) watch all T.V. programs; |
| e) sleep 10 hours running; | l) tour all over the world; |
| f) go to a café; | m) go to music concerts; |
| g) read English magazines; | n) listen to pop-music over the radio. |

Упражнение 12. *Определите, к какой части речи относятся выделенные слова, и переведите следующие предложения на русский язык.*

1. The bridge was built to link the two cities on both banks of the Volga. 2. Cultural links between countries of the world must increase. 3. There exists a rapid increase of population in large cities in the 20th century. 4. Microelectronics is a quickly developing branch of industry. 5. Wait for us where the road branches to the right. 6. Can you tell me his telephone number? 7. The village numbers several hundred houses. 8. We've got excellent seats at the stadium. 9. How many people can the stadium seat? 10. The train is running according to the schedule. 11. The train is scheduled to arrive in Moscow at 12.30. 12. The waters of the river were channeled off. 13. He said that during the experiment they gained a lot of experience. 14. He said that during the experiment they experienced a lot of difficulties.

РАБОТА НАД СЛОВООБРАЗОВАНИЕМ

Упражнение 13. *Найдите в тексте слова, имеющие общий корень со словами, данными перед текстом, определите части речи, к которым они относятся, переведите их, затем переведите текст.*

resemblance — сходство	quick — быстрый
to differ — различаться	extreme — крайний
to complete — завершать	to value — ценить
to encourage — поощрять	to assist — помогать

A new way of teaching five-year-olds basic words has been used in one of English schools.

Every day 29 boys and girls spend half an hour playing a game resembling lotto. But instead of using cards containing numbers each card has a different set of words used by the children in everyday life. The teacher calls out words such as "cat", "play", "ball" and the children look through their cards to see if they can find them. On completion of a card another game begins. There is no prize, only a word of encouragement from a teacher. The children learn words more quickly by this method than by conventional (обычный) means. This method could also be extremely valuable because it offers certain assistance in teaching backward (отсталый) children from older age-groups.

ТЕКСТ 10В

Задание I. *Прочтите текст, стараясь понять основное содержание. (Заметьте время начала и окончания чтения. Этот текст нужно прочесть за 4 минуты, из расчета 100 слов в минуту.)*

THE FIRST BALLOONS

Etienne and Joseph Montgolfier lived in the eighteenth century in a little village in France where their father had a paper factory. The

two brothers took paper bags from their father, filled them with smoke over a fire (огонь), and watched them go up into the air.

After numerous experiments they were ready to show how their balloon worked. On the day of the flight people from different places came to the little village to see the spectacle. The brothers had constructed a bag some thirty feet in diameter. That big bag was held over a fire. When it was filled with hot smoke, it went high up into the air. It was in the air for ten minutes and then, as the air bag became cold, the balloon went slowly down.

The news about the experiment reached the king who wanted to see it himself. So on September 19, 1783 the Montgolfier brothers repeated their experiment in the presence of the King and Queen of France. This time the balloon carried a cage with a sheep, a cock, and a duck (овца, петух, утка) who were thus the first air travellers. The flight was successful. The balloon came down some distance off with the sheep, the cock and the duck completely unharmed (невредимый).

If the animals could live through this, men could risk too. A month later a balloon was sent up with a Frenchman, Rozier by name. He stayed up in the air for twenty-five minutes at a height of about one hundred feet above the ground, and then came down, saying that he had greatly enjoyed the view (вид) of the country.

A month later he and Arlandes made the first free balloon flight. Their friends who came to say good-bye to them were very sad as if the two men were going to certain death, but they went up several hundred feet, were carried by the wind over Paris, and came down in safety.

In 1785 a Frenchman and an American crossed the English Channel in a balloon. When they had covered three quarters of the way, the balloon began to go down. They threw everything they could overboard. They even undressed and threw away practically all their clothes. If they had not done it, they would have never reached the French coast safely.

Задание II. Выберите утверждение, соответствующее содержанию текста.

1. The Montgolfier brothers lived:
 - 1) in England;
 - 2) in France;
 - 3) in the USA.
2. Their balloon was filled with:
 - 1) smoke;
 - 2) pure hydrogen (чистый водород);
 - 3) water.
3. In the cage fastened to the balloon there were:
 - 1) some instruments;
 - 2) a hen, a dog and a cat;
 - 3) a sheep, a cock and a duck.
4.

<ol style="list-style-type: none">1) Very few people2) Some friends from their village3) People from different places	}	came to see the experiment.
---	---	-----------------------------

5. 1) Rozier's flight was successful.
2) The balloon exploded.
3) Rozier was wounded.

TEXT 10C

Задание I. Прочтите текст, отыскивая в нем ответы на поставленные вопросы.

LONDON AIRPORT SERVES THE WORLD

Why is a big airport like a town?

1. If you travelled by plane (we also say "by air"), you will probably agree that travelling by plane is a very exciting experience. An airport is so different from a railway station or a bus stop, the people you meet and the things you see are very interesting and new. What is more, a big airport is like a town—with its own shops, banks and police.

How do the passengers approach the centre of the airport?

2. London airport is one of the most modern in the world today and is a popular visiting place for both old and young. The airport covers over four square miles, and the road round it is 13 miles long. The airport has five main runways: the longest is 12,000 feet. The total number of people who work at the airport is nearly 36,000. London airport is one of the busiest in the world—more than 50 airlines operate from it every week. In 1965 the airport was used by ten and a half million passengers. Every day of the week in the summer, over 800 planes land or take off.

London airport is unique in its layout (планировка). All passenger and control buildings are in the centre of the airport. The only way for passengers to approach these buildings is by a tunnel which has been constructed under the main runways.

What helps the passengers to pass London airport easily and quickly?

3. This great airport is famous for the efficiency of its service to the passengers who are continually travelling to all parts of the world. On arrival at the airport, all luggage (багаж) is mechanically handled. This is done by a system of conveyor belts, which enables the passengers to pass this great airport with ease.

The cost of making such an airport was approximately 20 millions, but much more will be spent before the work is completed. Each year money is needed for the development of the airport to accommodate great new transatlantic aircraft. Runways have to be lengthened to enable these airplanes to take off with their heavy loads.

From what place can the visitors see how London airport operates?

4. One of the big attractions at London airport is the Roof Gardens which are open to visitors who wish to see how a modern airport opera-

tes. The Roof Gardens give view of the whole of the airport. From the garden you can see all the aircraft landing and taking off: you can see the VC-10—an intercontinental airliner—which has its engines at the back, and has a speed of 600 m.p.h., the Trident, the Boeing 707, the Caravelle, and many others. While you are watching the planes, a loudspeaker tells you where they are all going to or where they have come from. It also tells you if there are any filmstars, actors or other personalities on board. If you have your own camera you can take a lot of exciting pictures.

What accommodation (удобство) does London airport have for animals?

5. The English, as you know, like animals very much. You will not be surprised, therefore, when we tell you that London airport has a special animal “hotel”. Every year, thousands of animals arrive at London airport. Some stay the night there; others stay several weeks. Some just go to have a drink of water and a rest. The “hotel” looks after birds, insects, fish, elephants, monkeys and spiders.

TEXT 10D

Задание I. Прочтите текст.

TRANSPORTATION FOR THE YEAR 2000

1. Experts estimate that by the year 2000, we will go by rocket from New York to Tokyo in 30 minutes. We will be able to reach any point on the globe from any other point through tunnels deep in the earth.

The prospect is adventurous and exciting. But most people are more interested in better ways to travel during their own lifetime. It's possible, that within the next two or three decades we will be riding in remote-controlled electronic cars.¹

We will travel over plastic-footed climate-controlled highways.

Trips, through metropolitan areas will be made on quiet, swift buses travelling on separate express lines of city streets. Helicopters may carry whole buses loaded with passengers from point to point above city traffic.

But don't look for such developments in the next 30 years. Moving sidewalks still aren't moving, and won't for some time.

2. What about monorails? Half a dozen are already operating.

Tokyo has one that runs from the suburbs of the city to the airport, but few people use it. But for some reason, no monorail system has ever been able to find a practical place.

3. “Flying crane” helicopters soon may help solve the complicated problem of getting passengers from the centre to airport and back again.

A new mass transit system² particularly well suited to medium-sized towns is being tested now. Lightweight automated vehicles opera-

te singly or in trains on a lightweight aerial roadway. The cars look like buses and run on four pairs of rubber tyres. Service is round-the-clock with trains running every two minutes. The system is controlled by a central computer.

4. Electric cars are under development in a number of countries. Experts say they expect electric cars to be available within the next ten years, although they believe that their use will be limited almost totally to city centre delivery vans and suburban shopping cars.

5. Most of the advances in air transportation expected before 2000 will materialize within the next few years. The largest airplane ever designed for commercial service, capable of seating nearly 500 passengers, is already being built.

Supersonic transport prototypes now in development will be forerunners of a new generation of 1,800 miles per hour passenger jet-liners.

The "ideal" short-haul air transport³ probably will be a vertical or short take-off and landing aircraft that will fly 30 to 45 passengers right into the heart of a city or its suburbs on trips up to 260 miles.

6. If engineers could eliminate the friction of steel wheels against steel rails, they would have overcome the main reason why planes go faster than trains. They would also have solved the vibration problems caused by rails and wheels that presently limit a train's speed to about 200 miles per hour.

Such trains are already on the drawing boards and in experimental models, many with neither wheels nor rails.

7. The engineers are trying to overcome the friction barrier with rollers and by shaping the train like an airfoil⁴. They are working on suspending trains on a cushion of air and flying them over the ground at high speeds.

Air-cushion vehicles are getting a lot of press these days, and there's little doubt that they will be in your future. The scheme "Tubeflight" is one in which air-cushion-supported vehicles will travel inside tubes at air transport speeds.

8. Speeds of 300 to 400 miles per hour would be practical in the "Tubeflight" system on runs of 25 to 250 miles. Intervals between trains would be as low as one minute, and the system could accommodate 10,000 to 12,000 passengers per hour per tube. Higher speeds, with longer intervals and lower capacities, would be practical over longer runs. The system would be fully automated.

Some ideas of rapid transportation are on the drawing boards, some may never get off. Some are already under way and operational, while others will see the light of day. Others may not take shape until nearly the year 2000. But changes are taking place, and there are more to come.

NOTES TO THE TEXT

1. remote-controlled electronic cars — автомобили, управляемые дистанционно с помощью ЭВМ

2. mass transit system — система массовой перевозки пассажиров

3. the short-haul air transport — воздушный транспорт для перевозки пассажиров на короткие расстояния

4. airfoil — эд. обтекаемой формы

Задание II. Ответьте на вопросы по тексту D. Правильность ответов проверьте в соответствующих частях текста.

1. How long will it take people to get from New York to Tokyo by the year 2000? (1) 2. What transport will people use in the next two or three decades? (1) 3. How will people travel within the city? (1) 4. How many monorails are already operating now? (2) 5. By what transport will the passengers get from the centre to the airport? (3) 6. What cars are used in the new mass transit system? (3) 7. During what part of the day does the new mass transit system operate? (3) 8. For what purpose will the electric cars be used? (4) 9. How many passengers will the new planes seat? (5) 10. What kind of transport will be used for transportation up to 260 miles? (5) 11. What factors limit the train's speed to about 200 miles per hour? (6) 12. In what way are engineers trying to overcome the friction barrier? (7) 13. At what speed will air-cushion vehicles be able to travel inside tubes? (7) 14. How long will be the intervals between trains of the "Tubeflight" system on distances of up to 250 miles? (8)

КОНТРОЛЬНЫЙ СЛОВАРЬ

1. across (*ppp*); 2. adopt (*v*); 3. aircraft (*n*); 4. alone (*adv*); 5. available (*a*); 6. besides (*ppp*); 7. break down (*v*); 8. bulky (*a*); 9. capable (*a*); 10. cargo (*n*); 11. cloud (*n*); 12. combine (*v*); 13. convert (*v*); 14. cost (*n, v*); 15. density (*n*); 16. drawback (*n*); 17. emergency (*n*); 18. ever (*adv*); 19. extra (*a*); 20. fast (*a*); 21. fit (*a, v*); 22. flow (*n, v*); 23. forward (*adv*); 24. gain (*v*); 25. lose (*v*); 26. low (*a*); 27. merely (*adv*); 28. nearly (*adv*); 29. no longer; 30. observe (*v*); 31. particularly (*adv*); 32. precaution (*n*); 33. purpose (*n*); 34. readings (*n*); 35. recognize (*v*); 36. release (*n, v*); 37. skilled (*a*); 38. space (*n, v*); 39. stay (*n, v*); 40. take off (*v*); 41. tend (*v*); 42. trouble (*n, v*); 43. truck (*n, v*); 44. unlikely (*a*); 45. upper (*a*); 46. urgent (*a*); 47. value (*n, v*); 48. weather (*n*); 49. whereas (*cj*); 50. wholly (*adv*).

LESSON 11 (Eleven)

Грамматика: Многозначность глаголов **shall, will, should, would, to be, to have.**

Основной текст А: Bridges and Tunnels.

Многозначность глаголов *shall, will, should, would, to be, to have*

shall	1) I shall make this experiment. 2) They shall make this experiment again.
will	1) He will come to see you. 2) I will come to see you.
should	1) You should send for a doctor. 2) I should send for a doctor if I felt bad. 3) They knew I should send for a doctor.
would	1) I would translate this interesting article. 2) He would translate this article if you gave him the journal. 3) He said he would easily translate this article. 4) He would translate articles from English into Russian when he was free.
to be	1) The students were in the laboratory. 2) The students were left in the laboratory. 3) The students were making experiments in the laboratory. 4) The students were to come to the laboratory at 3 o'clock.
to have	1) They have a good motor-car. 2) They have bought a good car. 3) He had to buy a car as he worked far from his house.

Упражнение 1. *Переведите следующие предложения на русский язык, обращая внимание на глаголы shall, should, will, would, to be, to have.*

1. I shall take my examinations in June. 2. They shall improve their method of work, if they want to obtain better results. 3. This new car will be tested tomorrow. 4. I will replace the old parts of the car. 5. You should do it by all means. 6. If I had read yesterday's newspaper, I should have learned about the accident. 7. They knew that I should fly to London. 8. I would not change my plans. 9. If he had not made a mistake in the calculations, the bridge would not have collapsed. 10. She said she would be delayed at the institute. 11. He would sit for hours on the shore and look at the water. 12. The plant was far away from the city. 13. The channel was deepened. 14. He was traveling in the north. 15. He was to come at 5. 16. They have a good plan. 17. They have already passed their exams. 18. They had to test the engine twice.

VOCABULARY NOTES

Задание I. *Переведите следующие предложения.*

1. **outstanding** — выдающийся. Lunacharsky was an outstanding speaker.

2. **readily** — легко. It can be readily understood why transportation means civilization.

3. **to evolve** — развивать(ся). Society evolved through the ages.

4. **beam** — балка. Timber beams were transported by special lorries.

5. **to reach** — простираться. The forest reaches as far as the river.

6. **by means of** — при помощи, посредством. Communication over long distances is made possible by means of radio.

7. **rope** — веревка, канат. A rope was stretched across the street.

8. **to suspend** — 1) подвешивать; 2) приостанавливать. 1) The lamp is suspended rather high. 2) The work was suspended for a week.

9. **rock** — 1) скала; 2) твердая порода. 1) In the darkness the boat approached the rock. 2) They could reach rock after many metres of sand and clay.

10. **to lay (laid, laid)** — класть, положить. They laid the foundation of a new school.

11. **temporary** — временный. The tourists lived in the temporary buildings.

12. **extremely** — крайне. It's extremely important to get the information before we start.

13. **pile** — свая. The structure was built on piles.

14. **bed** — русло, дно. Driving piles into a bed of the river is considered to be very hard work.

15. **basis** — основа. The struggle for peace is the basis of the international policy of the Soviet Union.

16. **to prevent** — предотвращать, мешать. Nothing could prevent him from doing his duties.

17. **passage** — проход. They went through a long passage and got into the yard.

18. **civil** — гражданский. Civil engineering means the building of roads, railways, bridges, tunnels, canals, etc.

19. **project** — проект, проектировать. The new project has some advantages over the previous one.

20. **to take into consideration** — принимать во внимание. The rapid growth of the population should be taken into consideration when planning a town.

21. **local** — местный. When constructing a road it is cheaper to use local materials.

22. **suitable** — подходящий. This machine is suitable for loading and unloading earth material.

23. **width** — ширина. The width of the channel was not enough for big ships.

24. **depth** — глубина. They were to measure the depth of the river.

25. **to erect** — воздвигать. The monument to the outstanding scientist was erected in the centre of the town.

26. to **distribute** — распределять. The postman had many magazines to be distributed at houses all over the town.

27. **range** — линия, цепь (*гор.*) A range of mountains goes through the whole continent from the north to the south.

28. to **acquire** — приобретать. You must work hard to acquire a good knowledge of a foreign language.

29. **circular** — круглый; окружной. The construction has already started of a new circular road which will link several of the city's districts.

30. **cross-section** — поперечное сечение. The cross-section of the tube has been measured.

31. to **suggest** — предлагать. He suggested a good plan of replacing the old equipment.

32. to **agree** — соглашаться. They agreed that the repairs of the car should be made by both sides.

33. **actually** — фактически, в настоящее время. The moving car is actually acted upon by various forces.

34. **scheme** — схема, план, проект. According to the scheme this channel will be deepened and widened.

35. **layer** — слой. This device can be used for studying the upper layers of the atmosphere.

36. to **penetrate** — проникать. It was a reliable means of protection: radiation could not penetrate it.

37. to **share** — делить. They had shared troubles together and now they were close friends.

38. **so far** — до сих пор. So far the explanation of this event has not been given.

РАБОТА СО СЛОВАРЕМ

Задание II. *Определите, к какой части речи относятся выделенные в данных предложениях слова, затем найдите в словаре нужные значения этих слов и переведите следующие предложения.*

1. **doubt**

a) I am in a **doubt** how to do it. b) He **doubted** the results of the experiment. c) There is no **doubt** about it.

2. **concern**

a) He is said to have been **concerned** in the crime. b) Everyone was filled with **concern** when news came that the ship was sinking. c) It does not **concern** me.

3. **fall**

a) It's getting dark, be careful not to **fall** down. b) A heavy **fall** of snow was expected. c) The leaves **fall** in autumn.

4. **support**

a) They hope to have your **support**. b) The students wanted to show that they **supported** Pavlov's theory. c) He **supports** a big family.

5. **secure**

a) Mother wants to feel **secure** about her children's future. b) By

strengthening the river banks, the city secured itself against floods.

c) Is this bridge secure?

6. further

a) It is not further than a mile from here. b) Having reached the river they stopped as it was unsafe to move further. c) The house was on the further side of the hill.

7. demand

a) There is a great demand for cars in many countries. b) He was stopped by a man who demanded his name and address. c) He demanded to be told everything.

8. chain

a) Different parts of the monument were linked with an iron chain. b) The dog was chained to the tree. c) They saw a chain of mountains in the distance.

9. object

a) They directly objected to our change in the plan. b) There were some strange objects in the corner. c) He objected to my remark.

10. crack

a) The ground was full of cracks after the hot dry summer. b) Some parts of the structure cracked. c) Boiling water will crack a glass.

11. estimate

a) The engineer was asked to estimate the costs for the repair of the building. b) I do not know enough about him to form an estimate of his abilities. c) We estimated that it would take three months to finish the work.

12. mention

a) I hoped he would mention my name too. b) They only just mentioned it at the meeting. c) He made no mention of the fact.

Задание III. Прочтите следующие интернациональные слова и догадайтесь об их значении.

story, progress, communication, barrier, canyon, central, parallel, cable, lift, peak, ventilate, automobile.

TEXT 11A

BRIDGES AND TUNNELS

Bridges

1. One of the outstanding statesmen once said in his speech, "There can be little doubt that in many ways the story of bridge-building is the story of civilization. By it we can readily measure an important part of a people's progress." Great rivers are important means of communication for in many parts of the world they have been, and still are, the chief roads. But they are also barriers to communication, and people have always been concerned with finding ways to cross them.

2. For hundreds of years men have built bridges over fast-flowing rivers or deep and rocky canyons. Early man probably got the idea of a bridge from a tree fallen across a stream. From this, at a later stage,

a bridge on a very simple bracket or cantilever principle¹ was evolved. Timber beams were embedded into the banks on each side of the river with their ends extending over the water. These made simple supports for a central beam reaching across from one bracket to the other. Bridges of this type are still used in Japan, and in India. A simple bridge on the suspension principle² was made by early man by means of ropes, and is still used in countries such as Tibet. Two parallel ropes suspended from rocks or trees on each bank of the river, with a platform of woven mats laid across them, made a secure crossing. Further ropes as hand-rails³ were added. When the Spaniards reached South America, they found that the Incas of Peru used suspension bridges made of six strong cables, four of which supported a platform and two served as rails.

3. All these bridges made possible crossings only over narrow rivers. The type of temporary floating bridge,⁴ the pontoon bridge, has been used for military purposes; military engineers can construct a temporary bridge on this principle, able to carry all the heavy equipment of a modern army, in an extremely short time.

The idea of driving wooden piles into the bed of the river in order to support a platform was put into practice 3,500 years ago. This is the basis of the 'trestle' or pile bridge⁵ which makes it possible to build a wider crossing easier for the transport of animals and goods.

4. With the coming of the railway in the 19th century there was a great demand for bridges, and the railways had capital for building them. The first railway bridges were built of stone or brick. In many places long lines of viaducts were built to carry railways; for instance, there are miles of brick viaducts supporting railways to London.

The next important development in bridge-building was the use of iron and, later, steel. The first iron bridge, crossed the river Severn in Great Britain.

The idea of a drawbridge,⁶ a bridge hinged so that it can be lifted by chains from inside to prevent passage, is an old one. Some Leningrad bridges were built on this principle. A modern bridge probably demands greater skill from designer and builder than any other civil engineering project. Many things should be taken into consideration, and these may vary widely according to local conditions. In deciding what type of bridge is most suitable the designer has to allow for the type and weight of the traffic, and width and depth of the gap to be bridged, the nature of the foundations and the method of erecting the bridge. The designer has to calculate carefully how the various loads would be distributed and to decide which building materials are more suitable for carrying these loads.

Tunnels

5. Tunnelling is difficult, expensive and dangerous engineering work. Tunnels are built to provide direct automobile or railway routes through mountain ranges, under or over rivers. They can also provide underground channels for water, sewage or oil. Before the 19th century men had not acquired enough skill in engineering to carry out extensive tun-

nelling. Tunnels, however were known in ancient times. They were, for instance, driven into the rock under the Pyramids of Egypt, and the Romans built one in Rome for their chief drain, parts of which still remain. One of the earliest tunnels known was made in Babylon. It passed under the Euphrates river, and was built of arched brickwork being 12 feet high and 15 feet wide.

Other ancient tunnels were built for water supply and for drainage.

6. Modern tunnels are often very long and deep. The Simplon tunnel on the France-to-Italy railway, for example, is 12 miles long and in one place the peaks of the Alps rise over 6,000 feet above it. Some tunnels are over 50 feet in diameter. Many are circular in cross-section. Others are horseshoe-shaped,⁷ with a level floor on which it is easy to lay permanent roads and railways.

Tunnel under Channel

7. A tunnel under the English Channel was first suggested in 1856. It was agreed in 1875 to build it and work was actually begun. However, the British War Office objected that an enemy on the European mainland could easily invade England through such a tunnel, and the British Government objected to the scheme.

In 1957 interest revived in the idea of a Channel Tunnel and the question was studied afresh by a group of French and British engineers. Such a Tunnel between Dover and Sagatte would have a length of about 36 miles of which 24 miles would be under the sea, and would run through a layer of dense chalk which is known to be free from cracks and allows water to penetrate it slowly. It would probably have to be a twin railway tunnel. There are several difficulties in having a road tunnel of this length, the chief of which is the enormous cost of ventilating it. Total cost is estimated at between 450 and 560 million dollars, to be shared by Britain and France with possibly some other European country.

No dates have so far been mentioned definitely but it might be completed at the earliest in 1980. The plan for the railway is to sink a metal pipe or bore a hole across the 21 mile Dover-Calais Strait.

Trains would each carry about 300 automobiles, driven by owners on to flat-cars, and journeys would last 45 minutes.

NOTES TO THE TEXT

1. a bridge on a bracket or cantilever principle (= a bracket or cantilever bridge) — консольный мост
2. a bridge on the suspension principle (= a suspension bridge) — висячий мост
3. handrails — поручни
4. a floating bridge — понтонный мост
5. a 'trestle' or pile bridge — мост на рамных основах
6. a drawbridge — разводной мост
7. horseshoe-shaped — подковообразный

Упражнение 2. *Переведите следующие словосочетания на русский язык.*

outstanding invention; outstanding writer; no doubt about it; to have no concern; a fallen tree; to evolve a theory; supporting beam; to get no support; to rope a box; to support a family; to lay bricks; to be secure from danger; to secure freedom; to prevent an accident; to prevent war; a bridge pile; to drive piles; the fall of an apple;

civil engineer; a number of projects; although it was taken into consideration; local transport; a suitable person; the width and the depth of the river; to erect buildings; to distribute books; to acquire experience; circular cross-section; to suggest a scheme; to agree to such a schedule; actually different; to object to the condition; the layers of the soil; numerous cracks; to penetrate rapidly; to estimate the cost; to share losses; so far unknown; to mention the same fact.

Упражнение 3. *Заполните пропуски подходящими по смыслу словами.*

project	mentioned	layer
cracks	estimated	so far
width	actually	outstanding
penetrate	local	to prevent
objected	further	fall
civil	bricks	doubt

1. ... in the structure may lead to its collapse. 2. A big engineering ... was suggested by a group of designers. 3. He ... to their remark. 4. The road needs widening as its ... is not enough for the modern traffic. 5. No sound could ... the thick walls of the building. 6. The people of the village could easily get to town by a ... train. 7. During the war all ... population was evacuated from the city. 8. They had to remove a thick ... of sand before they started the construction. 9. When ... the new project proved to be cheaper and was adopted. 10. The fact that the existing roads were not properly maintained has been also ... during the discussion. 11. ... this valuable information has not been received. 12. ... much more efforts were required in order to finish the work. 13. He never makes people wait, no ... he'll be in time in spite of all the difficulties. 14. The ... of the apple helped Newton to discover the theory of gravitation. 15. What is the most ... discovery of the 20th century? 16. In early times people learnt to burn ... to make clay a hard substance. 17. We must observe traffic rules ... road accidents. 18. To continue the work we must obtain ... information.

Упражнение 4. *Переведите следующие предложения на русский язык, обращая внимание на многозначность глаголов shall, should, will, would, to be, to have.*

1. The load is distributed among all piles. 2. The builders are to erect the structure in two months. 3. The theory which is being evolved is of great importance. 4. The chain was long enough to reach the

opposite bank. 5. Have you taken all the influencing factors into consideration? 6. The committee had certain doubts concerning the project. 7. You will have to take measures to prevent spring waters from penetrating the foundation. 8. You should acquire certain skill before beginning the work you are so interested in. 9. I was told that a temporary bridge would be built across the river. 10. If the concrete were of a better quality, no cracks would appear. 11. Had the beams of that cross-section been used before, their defects could have been readily discovered. 12. You should increase the width of the bridge. 13. He said that some interesting facts concerning the problem had been obtained. 14. Our aim is to facilitate the work of the builders as much as possible. 15. After the war the country was in ruins and the people had to work hard to restore national economy. 16. Having widened and deepened the canal, they made it suitable for use by ocean-going ships. 17. By the end of the discussion everybody had to recognize he was right. 18. The road is being extended and widened, the surface layer being replaced. 19. You are to test the behaviour of the newly-developed plastic in all temperature conditions. 20. The committee said that all measures providing for road safety would be introduced.

Упражнение 5. *Переведите следующие предложения на русский язык, обращая внимание на модальные глаголы и их заменители.*

1. Much more complicated problems are to be solved. 2. They will have to complete the experiment next month. 3. I shall not be able to leave Moscow until we finish our calculations. 4. The engineer was to make a report at the conference. 5. One is to be very attentive when crossing the street. 6. A machine can do work which a man is unable to do. 7. Children under 16 are not allowed to see this film. 8. They will have to try the method described in the article. 9. The engineer could correct the program during the test of the engine. 10. Many experiments are to be made to increase the engine efficiency. 11. The material collected is to be sent to the laboratory for examination. 12. You might use all the new equipment for your experiments. 13. He had to study the theory of interplanetary travel. 14. They couldn't discover any atmosphere on the planet. 15. The engineers of the plant had to use computers. 16. To design a spaceship designers must take many things into consideration.

Упражнение 6. *Переведите следующие предложения на русский язык, обращая внимание на слова латинского или греческого происхождения, имеющие сходное написание и различные значения в английском и русском языках (так наз. «ложные друзья переводчика»).*

1. **accurate** — точный (а не аккуратный). They received accurate information.
2. **actual** — действительный (а не актуальный). The actual facts of this invention became known later.
3. **concrete** — бетон (а не только конкретный). a) The house was built of steel and concrete. b) This was the first concrete task to be carried out.

4. **control** — управление (*а не только контроль*). а) He lost control of his motor-car and met with an accident. б) Close control is necessary.
5. **copy** — экземпляр (*а не только копия*). а) All copies of the magazine were sold out. б) I want to have copies of my documents.
6. **data** — данные (*а не дата*). His data are reliable.
7. **figure** — цифра (*а не только фигура*). а) 3, 5, 7 are figures. б) Some figures appeared on the road.
8. **film** — пленка (*а не только фильм*). а) There was some thin film on the surface. б) A new film is shown in the club.
9. **magazine** — журнал (*а не магазин*). You will find some interesting data in this magazine.
10. **object** — цель (*а не только объект*). а) He has no object in his life. б) They found themselves the object of great attention.
11. **operation** — работа, управление (*а не только операция*). а) The operation of this machine is rather easy. б) Only an operation will help him.
12. **original** — первоначальный (*а не только оригинальный*). а) Some changes have been made in the original design. б) It was an original idea.
13. **principal** — главный (*а не принципиальный*). His principal wish was to enter Moscow University.
14. **progressive** — постепенный (*а не только прогрессивный*). а) The progressive increase in quantity may lead to a change in quality. б) All progressive people are fighting for peace.
15. **project** — новостройка (*а не только проект*). а) More and more workers and engineers are required at the new gigantic projects in Siberia. б) They discussed the project of technical assistance to the African countries.
16. **race** — гонки, быстрое движение (*а не рейс*). The boat-race is a popular kind of sport at Cambridge.
17. **record** — запись (*а не только рекорд*). а) They were making a record of his speech. б) Soviet sportsmen established many world records.
18. **solid** — твердый (*а не только солидный*). а) Solid water is called ice. б) He is a man of solid built.
19. **square** — квадрат (*а не сквер*). Squares are studied in plane geometry.
20. **tank** — бак (*а не только танк*). а) After the accident they had to replace the fuel tank. б) It was a tank attack.

Упражнение 7. Найдите по словарю нужные значения выделенных слов и переведите предложения на русский язык.

1. I want a room with two **beds**.
2. People try to explore the ocean **bed**.
3. They crossed a dry river **bed**.
4. The machine rests on a **bed** of concrete.
5. They **shared** one hundred roubles among five men.
6. He **shared** his dinner with a friend.
7. He does more than his **share** of the work.
8. Two children **shared** a room.
9. The table was **piled** with books.
10. The house was built on **piles**.
11. The workers **piled** bricks on each

other. 12. In the middle of the room there was a **pile** carpet. 13. We all have **civil** rights and **civil** duties. 14. The boy gave a **civil** answer. 15. He left army and entered **civil** life. 16. In English colleges students are sometimes **suspended**. 17. The work of the conference was **suspended**. 18. The water was not pure. There was some **suspended** matter in it.

Упражнение 8. Составьте предложения, используя слова, данные в таблице.

There is	a large number of	cargoes tubes goods railways coaches kinds of fruit schemes districts facilities devices means of communication vehicles bus routes stones cracks units	here. (?)
There are	several some no a few plenty of		
There are not Are there	any many		
There is	some no a great deal of a large amount of a little plenty of	air clay coal sand oil steam light concrete timber iron steel fuel	here. (?)
There is not Is there	any much		

Упражнение 9. Выразите согласие или несогласие со следующими утверждениями, начиная словами *it's wrong, that's right, according to the text, as far as I know.*

1. The bridge that can be lifted by chains from inside is a suspension bridge. 2. The Incas of Peru used iron bridges. 3. Pile bridges are used for very narrow rivers. 4. The first railway bridges were made of timber. 5. Tunnels are built only to provide direct routes through mountain

ranges or under or over rivers. 6. Tunnels were quite unknown in ancient times. 7. The construction of the tunnel under the English Channel started in 1856. 8. The British War Office liked the idea of a Channel Tunnel. 9. The Channel Tunnel will be a road tunnel.

Упражнение 10. *Ответьте на вопросы по тексту А.*

1. From what did early man get an idea of a bridge? 2. What kind of bridge is a cantilever one? 3. For what purpose is a temporary floating bridge used? 4. Why are piles driven into the bed of the river? 5. Why was there a great demand for bridges in the 19th century? 6. When was the first iron bridge built in Great Britain? 7. What are tunnels built for? 8. Where did one of the earliest tunnels pass? 9. How long is the Simplon tunnel? 10. Why did the British War Office object to the building of the tunnel under the English Channel? 11. How long will the tunnel across the English Channel be? 12. What countries will share the cost of the construction?

Упражнение 11. *Сделайте краткие сообщения на следующие темы:*

1. Rivers as a means of communication.
2. Types of bridges (cantilever bridge, suspension bridge, pontoon bridge, trestle bridge, drawbridge).
3. The purposes of building tunnels.
4. The Simplon tunnel.
5. The tunnel under the English Channel.

ТЕКСТ 11В

Задание I. *Прочтите текст, стараясь понять основное содержание. (Заметьте время начала и окончания чтения. Этот текст нужно прочесть за 3,5 минуты, из расчета 110 слов в минуту.)*

OIL

Petrol (бензин) stations with their lines of pumps are among the commonest sights along our main roads today. Without petrol commerce and industry would soon come to a standstill (тупик). Traffic in our great cities would stop, and millions of workers would be unable to get to or from their work. Petroleum (нефть) is the name of the mineral oil that comes from under the ground and from which petrol is obtained. It is the crude (неочищенный) oil that comes from the wells. From this crude oil we obtain the various fuels that drive ships, aircraft, and many forms of land transport.

Oil usually lies thousands of feet below the earth's surface. There are many ways of discovering this underground oil, but the only way to be certain that it exists is to make a deep hole, called a bore-hole (буровая скважина) or a well, through the rock, earth and sand. The steel framework over the well is called a derrick (буровая вышка).

From this the machinery that makes the hole is raised and lowered. Bore-holes are often very deep. Some of them go down to a depth of two miles, or even farther. The diameter may be 24 inches at the top, and as little as 3 or 4 inches at the bottom.

Many oilfields are hundreds of miles from the sea. As petroleum is needed in all parts of the world and has to be transported across the oceans, it is carried from oilfields to the sea in pipelines that may go for very large distances. The pipeline to Baniyas, which can carry 14,000,000 tons of oil a year, has been called "The third river of Iraq". The crude oil may be stored in the tanks from which ships called oil-tankers carry it to many countries.

Crude oil contains many different materials. From crude oil, we obtain petrol, paraffin and other products.

In many parts of the world large quantities of natural gas exist where there is petroleum.

This gas can be used instead of, or in addition to, the kind of gas made from coal. Natural gas is very common in North America and in the Soviet Union.

Although petrol is the first word we think of in connection with petroleum, other oils are important. The oil fuel used in Diesel engines is much cheaper than petrol. Tractors that burn diesel oil are used in almost all countries today for many kinds of agricultural work. Kerosene (paraffin oil) is another fuel that is obtained from petroleum. It is used today as the fuel that is burnt in jet (реактивный) engines for aircraft and other purposes.

Other products obtained from petroleum are used in the manufacture of artificial rubber (искусственный каучук), asphalt for road surfaces, light machine oil and heavy engine oil.

Задание II. Выберите утверждение, соответствующее содержанию текста.

1. We obtain the various fuels from:
 - 1) gas;
 - 2) petrol;
 - 3) crude oil.
2. A bore-hole is made:
 - 1) to obtain petrol;
 - 2) to discover oil;
 - 3) to refine crude oil.
3. Natural gas exists in:
 - 1) the pipeline;
 - 2) the North Pole;
 - 3) North America and the Soviet Union.
4. The fuel used in jet engines for aircraft is:
 - 1) crude oil;
 - 2) kerosene;
 - 3) natural gas.
5. The crude oil is stored in:

- 1) the tanks;
- 2) the bore-holes;
- 3) pipelines.

TEXT 11C

Задание 1. Прочтите текст, отыскивая в нем ответы на поставленные вопросы.

LONDON AS A PORT

Who declared "Hands off Russia"?

1. The port of London is to the east of the City. Here, today are miles and miles of docks, and the great industrial areas that depend upon shipping. This is the East End of London, unattractive (непривлекательный) in appearance, but very important to the country's commerce. The East End is a great proletarian area populated by factory workers, dockers and small craftsmen. The East End is the "hands" of London. The hands which have built the palaces, theatres, shops and hotels, the hands which unload the cargoes in the docks, which make furniture (мебель), dresses, motor cars, and a million and one other things which fill the shops. It was these people, the people of the East End, who declared "Hands off Russia" in 1920 and refused to load arms for the interventionists who wanted to crush (разрушить) the first socialist state in the world.

How were the goods unloaded in the early days?

2. The River Thames, flowing from west to east divides London into two parts known as the north bank and the south bank. Years ago the Thames used to overflow its banks when the tide (прилив) came up, but now it has been banked up and you see a fine wide road way called the Embankment. The Thames estuary (устье) offered excellent facilities for shipping. The deep channel and high tide of the lower river enabled vessels to pass inland as far as the bridge and unload in waters that were little troubled by heavy storms in the North Sea. In the early days they anchored (бросать якорь) in the river and unloaded into small boats and barges which carried the goods to landing-places on the banks.

How are the goods unloaded now?

3. As the ships grew larger this became too slow a process, and the river was overcrowded, so docks were constructed, deep-water basins excavated in the banks of the river, where vessels could come alongside and unloaded their cargoes directly on the wharves (пристань) or even into lorries if necessary. Vessels increased rapidly in size during the last century and are still growing, and hence larger and larger docks have had to be constructed with deeper and deeper basins.

When can ocean-going ships go up the Thames?

4. The Thames has the benefit (преимущество) of a good tidal range so that the biggest vessels can go up the river and enter docks at high tide. By closing the dock gates and thus shutting off their waters from the river, deep water can be maintained in the dock all the time it is occupied by vessels. On the river there are ocean-going ships, and lines of barges pulled along by tugs (буксир). Ships up to 6,000 tons can come as far as London Bridge below which is the part of the river called the Pool.

How are the two halves of the drawbridge raised?

5. The ships can pass under Tower Bridge. It was designed by Sir Horace Jones, London architect, and Sir John Wolfe Barry, civil engineer. It took eight years to build it (1886-1894). It has permanent spans (пролет) 270 feet long, suspended on great chains, connecting them with the river bank and smaller towers (башня) at the shore approaches. The two halves of the drawbridge each weighing 100 tons, can be raised for the passage of ships by hydraulic machinery in a minute and a half only.

Задание II. Прочтите текст еще раз и дайте заголовок к каждой части текста.

Задание III. Сделайте краткие сообщения на следующие темы.

1. The East End.
2. The Thames.
3. Tower Bridge.

TEXT 11D

Задание I. Прочтите текст.

I

THE VOLGA-BALTIC WATERWAY

1. The Volga-Baltic Waterway named after Lenin is 842 kilometres long, stretching from Leningrad to Cherepovets and passing through the Neva River, Lake Ladoga, the Svir River with two hydroprojects, Lake Onega and the Volga-Baltic Canal proper, which extends over 361 kilometres.

The short but steep northern slope contains six locks. These half a dozen steps raise the ships to a height of 80 metres above the level of Lake Onega. The southern slope is more gradual. The difference in level between the Sheksna River and the Rybinsk Reservoir is 13.5 metres. This is where the Volga-Balt's seventh lock is situated. Generally speaking, all the locks are as like as twins, because of the maximum use made of standard building units and equipment, and the same head of water, amounting to 13.5 metres. Only the sixth lock has a head of 17 metres. It is the only one of its kind in the world.

2. Incidentally, a working shift at each of the locks consists of only two people—the shift chief and an inspector. The shift chief's control-panel room is a realm of electronics. The sluice-gates open in the "upper head" of the lock and the water surges in. But "surges" is rather an exaggeration. The water's colossal energy has already been damped by special devices placed deep down below. The ships stand quite steady, even though the rate of filling is high—about 100,000 cubic metres of water in 10 minutes.

Normal shipping conditions are ensured on the water route. 8,000 various indicators—buoys, beacons, and so on—have been installed between Leningrad and Cherepovets. All the lighting devices are automatic.

3. The main cargoes are timber, grain, coal, oil, iron ore and metals. Nine shipping companies of the Russian Federation's River Fleet Ministry use the Volga-Baltic Waterway. The cost of the carriage of mass freight is 1.5-2 times less than by rail.

The length of the route, which used to circumvent Europe, has been reduced 2-3 times. The annual saving from the elimination of costly reloading operations from river to seagoing craft runs into tens of millions of roubles. The Soviet "river-sea" craft are well known in the ports of Poland, the GDR, the FRG, Finland, Belgium, Iran, Greece and Italy.

No other country has such a big artificial inland waterway. The Panama Canal is 81 km long; the Suez Canal—164; the White Sea-Baltic Canal—227 km and the Volga-Baltic Canal over 361 km.

The commissioning of this route completed the united system of inland deep waterways in the European part of the USSR. This covers a territory where a goodish half of our country's population lives.

Задание II. *Ответьте на вопросы к тексту D (I). Правильность ответов проверьте в соответствующих частях текста.*

1. How long is the Volga-Baltic waterway? (1) 2. How many people does a working shift consist of? (2) 3. What is the advantage of the waterway over the railway? (3)

II

WORK ON PYRENEES TUNNEL TO START

1. Construction is about to begin on a tunnel under the Pyrenees. Connecting Spain with France, the tunnel will be bored directly under the 8,300-foot-high Corneille Peak.

2. With a length of slightly over 2 miles it will be the third longest highway tunnel in Europe, exceeded in length only by recently opened Mt. Blanc and St. Bernards Tunnels. About 5 miles of access roads will be required. The tunnel will permit all-year, all-weather transportation between the industrial regions of France and Spain which are usually isolated from each other during the winter snows. Increased tourism in the area is another benefit expected. The cost estimated at 84.5 million dollars will be shared by the two countries.

Задание II. Ответьте на вопросы по тексту D (II). Правильность ответов проверьте в соответствующих частях текста.

1. What countries will the tunnel under the Pyrenees connect? (1)
2. Will it be the longest tunnel in Europe? (2)
3. What will this tunnel permit? (2)
4. What countries will share the estimated cost of the construction of the tunnel under the Pyrenees? (2)

КОНТРОЛЬНЫЙ СЛОВАРЬ

1. acquire (*v*); 2. actually (*adv*); 3. agree (*v*); 4. basis (*n*); 5. beam (*n*); 6. bed (*n*); 7. chain (*n, v*); 8. circular (*a*); 9. civil (*a*); 10. concern (*n, v*); 11. crack (*n, v*); 12. cross-section (*n*); 13. demand (*n, v*); 14. depth (*n*); 15. distribute (*v*); 16. doubt (*n, v*); 17. erect (*v*); 18. estimate (*n, v*); 19. evolve (*v*); 20. extremely (*adv*); 21. fall (*n, v*); 22. further (*adv, a*); 23. lay (*v*); 24. layer (*n*); 25. local (*a*); 26. by means of; 27. mention (*n, v*); 28. object (*n, v*); 29. outstanding (*a*); 30. passage (*n*); 31. penetrate (*v*); 32. pile (*n*); 33. prevent (*v*); 34. project (*n*); 35. range (*n*); 36. reach (*v*); 37. readily (*adv*); 38. rock (*n*); 39. rope (*n*); 40. scheme (*n*); 41. secure (*a, v*); 42. share (*v*); 43. so far; 44. suggest (*v*); 45. suitable (*a*); 46. support (*n, v*); 47. suspend (*v*); 48. take into consideration; 49. temporary (*a*); 50. width (*n*).

LESSON 12 (Twelve)

Грамматика: Составные предлоги и союзы.

Основной текст А: Survey.

Составные предлоги

1. according to	According to the information received by us the ship will arrive on the 10th of April.
2. as far as* ¹	I go by bus as far as the Lenin Library and then walk a few blocks to my office.
3. because of	They didn't go to the country because of the rain.
4. by means of	In big ports ships are loaded and unloaded by means of cranes.
5. due to*	The train did not arrive in time due to the snow storm.
6. in addition to*	In addition to the trouble in the engine there appeared another in the transmission.
7. in front of*	Who is sitting in front of you?
8. in order to	The new equipment was used in order to test the vibration of the engine.
9. in spite of	He left in spite of all my protests.
10. instead of	What book can you give me instead of that one?
11. on account of*	The match was delayed on account of heavy rain.
12. owing to	Owing to the new system of regulations the number of accidents went down.
13. thanks to*	Thanks to his help we finished our work early.

¹ Отмеченные звездочкой предлоги входят в состав активного словаря урока 12.

Упражнение 1. *Переведите следующие предложения, обращая внимание на составные предлоги.*

1. By means of this device we can now carry out more operations in shorter time. 2. The work is going on according to schedule. 3. The engine didn't operate well because of bad fuel. 4. In order to protect the surface from heat and cold it was covered with special substance. 5. Due to the establishment of new trolley-bus routes the passenger service in the city was improved. 6. The monument was restored in spite of many difficulties. 7. Who can repair the apparatus instead of him? 8. No planes took off on that day on account of low clouds. 9. Is there any high building in front of your house? 10. Owing to his works not only was the problem solved at last but a wholly new approach to it

was introduced. 11. The expedition sailed as far as Borneo. 12. In addition to sails the boat was also supplied with a motor. 13. In addition to the usual methods of computation they made use of computers.

Составные союзы

1. as...as* ¹	My younger brother is as tall as I am.
2. as long as	I shall remember you as long as I live.
3. as soon as*	I'll telephone you as soon as I return home.
4. as well as	This book is interesting as well as useful.
5. both...and*	Both the bridge and the tunnel will be finished in time.
6. either...or	I shall leave either tonight or tomorrow.
7. in order that*	In order that the comfort of the driver may be improved the design of the seat was changed.
8. neither...nor*	I could find him neither at home nor in the office.
9. so that	They crossed the mountains so that they could reach the village before dark.
10. the...the	The longer I think of your plan, the more I like it.

¹ Отмеченные звездочкой союзы входят в состав активного словаря урока 12.

Упражнение 2. *Переведите следующие предложения, обращая внимание на составные союзы.*

1. The shorter the lever (рычаг) arm, the greater is the effort necessary to lift the weight. 2. Both the bridge and the dam will be completed before the navigation season. 3. You can get to this part of the city either by bus or by the underground. 4. As soon as all the calculations are completed, we shall begin the tests. 5. The Soviet people know neither crisis nor unemployment. 6. As long as you refuse to apply new methods the output will remain unchanged. 7. The strength of this synthetic material is as high as that of steel. 8. Special containers were used in order that the supply of food could be improved. 9. The sun gives us both light and heat; it gives us energy as well. 10. The investigations at the Arctic research station are carried out daily in good as well as in bad weather according to a carefully worked out plan. 11. Various useful minerals have been found in the North of our country. The coal basins in Yakutia are as large as those in Donbass and Kusbass. 12. We decided to cross the mountains so that we could reach the airfield in the day-time.

VOCABULARY NOTES

Задание 1. *Переведите следующие предложения.*

1. **to indicate** — указывать. The sudden wind indicated a change in the weather.

2. **elevation** — поднятие; возвышенность. The topographic map indicates elevations of the land surface.

3. **height** — высота. The height and the orbit of satellites can be determined by means of radio.

4. **straight** — прямой. The road extended as a straight line.

5. **line** — линия, ряд. Communication lines must be built first.

6. **area** — площадь, район. There are large areas in Australia which are still unpopulated.

7. **rough** — неровный, шероховатый. Tractors can easily drive along rough ground.

8. **angle** — угол. They have measured the angles between the horizontal line and the top of the mountain.

9. **to mount** — устанавливать, монтировать. A new telescope was mounted in the observatory.

10. **fraction** — доля, частица. A computer can carry out these calculations.

11. **highway** — дорога, шоссе. They were building the circular highway to connect some districts of the city.

12. **preliminary** — предварительный. The preliminary calculations showed the high cost of the building.

13. **to make use of** — воспользоваться. They will probably make use of the materials available at the laboratory.

14. **to alter** — изменять(ся). The city has altered a great deal since the war ended.

15. **frequently** — часто. He frequently visits arts exhibitions.

16. **to apply** — применять. New and more reliable methods of computation are being applied in rocket engineering.

17. **to fix** — устанавливать. The mistake with which the position of the star was fixed was quite negligible.

18. **certain** — определенный, некоторый. Certain details of his biography became known to the public.

19. **vital** — жизненно необходимый, существенный. The earliest completion of the road across the mountains is vital for the population of the area.

20. **curve** — кривая. The curve of the road was calculated so as to allow smooth movement of the car.

21. **embankment** — насыпь, набережная. If no accident had happened, they would have completed the construction of the embankment.

22. **in case of** — в случае. You may use this equipment only in case of emergency.

23. **simultaneously** — одновременно. History knows a great deal of examples when two inventions were made simultaneously by scientists living in different countries.

24. **to check** — проверять. Is there any means to check if he is saying the truth?

25. **with reference to** — относительно. The position of the research ship with reference to the sputnik was checked with the help of navigational instruments.

26. **to utilize** — использовать. Modern railways utilize a great deal of modern facilities to make passenger transportation safe.

27. **to prefer** — предпочитать. Aircraft is usually preferred for transportation of emergency goods.

28. **to accomplish** — выполнять. After the construction of the tunnel under the English Channel is accomplished a direct route between European countries and Britain will become possible.

29. **otherwise** — иначе, в противном случае. The telescope allows to see very small stars which otherwise would be impossible to observe.

30. **access** — доступ, подход. The access to the mountain village was extremely difficult because of many rapid streams.

31. **explorer** — исследователь. G. Sedov was one of the greatest Arctic explorers.

32. **to investigate** — исследовать. In recent years underwater television has been introduced for investigating the ocean.

33. **as** — 1) так как; 2) как (в качестве); 3) когда. 1) The diamond is used for cutting metals as it is the hardest of minerals. 2) Formerly the diamond was only valued as a precious stone. 3) As the train was approaching the station, we went to the platform.

РАБОТА СО СЛОВАРЕМ

Задание II. Определите, к какой части речи относятся выделенные в данных предложениях слова; затем найдите в словаре нужные значения этих слов и переведите следующие предложения.

1. **survey**

a) **Survey** is an examination of the shape, size, position of a piece of land. b) The land must be **surveyed** before anything may be built on it. c) **Surveys** in the taiga are carried out in most difficult conditions.

2. **pipe**

a) This old **water-pipe** must be replaced by a new one. b) The water was **piped** to the town from a lake. c) There is a hole in that **pipe**.

3. **stream**

a) This wide **stream** is unlikely to be bridged very quickly. b) There is a steady **stream** of cars on the highway all day. c) A lot of people were **streaming** out of the building.

4. **amount**

a) According to the readings of the instrument a considerable **amount** of fuel was stored in the tank. b) The ship needs a large **amount** of coal. c) The speed of the rocket carrier **amounts** to 8 km/sec.

5. **aid**

a) Air photography is often utilized as an **aid** in road survey. b) Let me **aid** you. c) He was given first **aid**.

6. **deposit**

a) It is believed that under the ice and snow of Antarctica lie the largest **deposits** of coal in the world. b) In Ethiopia there is a lake 7 miles across. Half the bed of this lake is dry and is a **deposit** of white sea salt. c) The rivers **deposit** great amounts of sand.

Задание III. Прочтите следующие интернациональные слова и догадайтесь об их значении.

topographic [ˌtɒpə'græfɪk], base, theodolite [θɪ'ɒdəlaɪt], telescope, horizontal, minute, vertical, construction, transportation, transmission, principle, modification, operation, normal, contour, result, gradient, radius, camera, arctic, territory.

TEXT 12A

SURVEY

1. A topographic survey is a survey made to secure data from which may be made a topographic map indicating the relief or elevation and irregularities of the land surface.

Maps are based on measurements of distances, directions and heights. Surveying is the name given to the methods of making these measurements.

2. The simplest and most commonly used method of measuring the distance between two points on the ground is called chain surveying.¹ It is very similar to the way in which the distance between two points on a piece of paper is measured using a foot-rule. In chain surveying the place of the foot-rule is taken by a chain which is laid down in a straight line between the two points.

Small areas are often surveyed entirely by chain survey provided that the ground is not too rough.

3. Angles in surveying are measured with special instruments called theodolites. In its simplest form the theodolite is a telescope mounted above a horizontal circular scale, which is rather like a protractor. It is marked in degrees, minutes and fractions of minutes. (There are 60 minutes in one degree).

Theodolite also allows the measurement of angles in a vertical plane, such as the angle between the horizontal and the top of a tall building or hill.

4. Route survey² is a survey necessary for the location and construction of transportation or communication lines such as highways, railroads, canals, transmission lines and pipe lines. The preliminary work consists of a topographic survey.

5. Mine surveying³ makes use of the principles of land, topographic and route surveying with modifications in practice made necessary by altered conditions. Both surface and underground surveys are required. City surveying⁴ is the term frequently applied to the operation of laying out lots⁵ and to the municipal surveys⁶ made in connection with the construction of streets, water supply systems and sewers.

6. The maps and data produced by surveyors are used by civil engineers in many ways. Before construction begins the exact position of the various parts of dam, or the track of the railway or road, are fixed on the ground by using normal surveying methods. In choosing the site for a dam, for instance, an engineer can study on a map the courses of all the rivers and streams in the area. By reading the contours he can calculate the amount of water which can be stored by building a dam

of a given height in a certain place. In the same way the results of a soil survey clearly marked on a map will give the engineer vital information about the foundations. When deciding the route of a railway or road, the gradients, radii of curves, heights of embankments and depth of cutting can be calculated from data supplied by the surveyor.

7. In case of a tunnelling which is usually carried out from both ends simultaneously a base line is set out on the ground at each end and the course followed by the tunnellers is continually checked by measuring both levels and angles with reference to the base line. By this means it is possible to make the two tunnels meet accurately or within 1 or 2 inches over a distance of a mile or more.

8. Terrestrial photogrammetry⁷ or photographic surveyings from ground stations has been found to be a useful addition to other methods in mapping of mountainous areas. The work consists in taking photographs from two or more control stations and in utilizing the photographs for the projection of details of the terrain in plane and elevation.

Air Survey

9. Surveying by the methods described above is very labourous, the surveyor has to work over all the ground step by step. A great deal of time is saved by modern methods of photographic air survey.

Photographs taken from aeroplanes in flight have been used as aids to map-making since World War I. If such photographs are to be really useful the height and position of the aeroplane at the instant of taking the photographs must be accurately known.

The development since 1940 of radar methods for finding the position of aircraft has increased the role of photogrammetry in surveying.

Air photographs may be taken with the camera either pointing vertically downward, or at an angle. Vertical photographs are preferred for map-making especially when height and contours are required.

The advantages of air survey are the speed with which the field work is accomplished, the wealth of details secured and used in locations otherwise difficult or impossible of access. Air survey is widely used by Soviet explorers in investigating the Arctic zone.

With aeroplanes suitably winterized for operation in northern areas the Soviet pilots carry out the aerial mapping of the Russian Arctic and Sub-Arctic regions on such a scale as no one has ever applied to outlying territories in any other country.

Thanks to the data produced by air surveying Soviet geologists have discovered mineral deposits in areas almost quite unknown until recently.

NOTES TO THE TEXT

1. chain surveying — линейная съемка
2. route survey — маршрутная съемка
3. mine surveying — маркшейдерская съемка
4. city surveying — площадная съемка
5. lots — участки земли

6. **municipal survey** — городская съемка

7. **terrestrial photogrammetry** — наземная фотограмметрия

Упражнение 3. *Переведите следующие словосочетания.*

to make a survey; reliable data; to indicate the road to follow; a suitable location; to cross the highway; a straight line; to lay pipes; preliminary talks; height and width; common knowledge; a piece of information; safe area; entirely undeveloped; rough ground; a right angle; to mount an engine; to erect a tall building; to make use of a dictionary; to alter nothing in the schedule; both clay and sand; thanks to the development of industry; thanks to the new discovery in the field of physics; to investigate the upper layers of the atmosphere; large deposits of coal; to discover new oil deposits; as it was very cold; as he was late; frequent visits; frequent breakdowns; to apply a method; to apply a rule; to fix the position of a star; to fix the position of a comet; simultaneous translation; to check the amount of fuel; to check the home-task; with reference to the modern technology; to utilize new plastic materials; an aid in navigation; downward movement; to prefer an airplane to a train; wide and narrow streams; a certain number of people; a certain person; a subject of vital importance; the curve of the road; accomplished research; the amount otherwise immeasurable; a contribution to national economy.

Упражнение 4. *Заполните пропуски подходящими по смыслу словами.*

angle	preliminary	deposits
otherwise	preferred	investigation
simultaneous	highway	explorers
survey	checking	both...and
access	height	curve
indicate	frequently	amount
utilized	as	

1. The road turns at a right 2. The extensive soil ... is being carried out. 3. Test results ... that this method proved to be the most effective. 4. The canal needed ... widening ... deepening. 5. Everest is the highest mountain in the world, its ... is 29,002 feet. 6. A new ... will run through the thick forest and link several towns. 7. A ... course of studies is given to the young workers and peasants at the workers' faculties of the institutes. 8. The T.V. camera can be used for ... of underwater life. 9. The Soviet Union was the first nation that sent an expedition to spend the year-round on the floating Arctic ice. In 1937 a party of four ... headed by D. Papanin set up a scientific station on an ice-floe (плавающая льдина). 10. Recently rich diamond fields have been discovered in Yakutia. They are the biggest in the world and surpass even the ... of South Africa. 11. ... there were no wells near the construction site, we had to bring water in tank waggons. 12. Such conditions are ... observed in this area. 13. The most efficient methods of construction are known to be ... in this project. 14. ... weather observation in many points of the globe enables the meteorologists to make their fore

casts more reliable. 15. This information needs careful 16. Sometimes air survey is ... to ground survey. 17. By the end of the 20th century man will probably learn to live and work under water to gain ... to the natural resources of the world ocean. 18. The correct calculation of the ... of the highway is of vital importance, ... the cars would not be able to turn at full speed, and many accidents would be caused. 19. Pipelines are a reliable means for moving great ... of oil and gas over great distances.

Упражнение 5. *Переведите следующие предложения, обращая внимание на составные предлоги и союзы.*

1. According to the data made available by the survey, highway construction in this area was impossible. 2. The access to the mountain was difficult due to the great amount of snow which had fallen during the last week. 3. Preliminary survey was carried out by means of air photography. 4. Because of frequent breakdowns of the computer the task wasn't carried out in time. 5. In order to get the vital information the researchers had to look through great amount of technical literature. 6. The new plastic to be used for this purpose has to be both strong and elastic. 7. In order that the information should become available a computerized system was designed. 8. As soon as you check whether all parts of the machine function well, you may begin the test. 9. The larger the area to be investigated the more difficult is the task, especially if the area is entirely unpopulated. 10. Before constructing a bridge an engineer has to have certain information about the river to be bridged: the speed of the water stream as well as the amount of water have to be carefully measured. 11. The excavation of the coal was easy owing to the fact that the deposits were situated near the surface. 12. If the work were not organized properly, you would not achieve good results in spite of all the modern equipment you may have had.

Упражнение 6. *Переведите следующие предложения, обращая внимание на перевод слов, образованных по способу конверсии.*

1. How much fuel has been stored? 2. They had stores of food and fresh water on board a ship. 3. The engine needs refuelling. 4. What sort of fuel does this car work on? 5. He doubted whether they would be able to research into such a difficult problem. 6. He has done some very interesting research in the field of electronics. 7. There was no mention of the fact in his report. 8. Did he mention the place he was going to spend his vacation? 9. Gravitation forces the planets to move along elliptical orbits around the Sun. 10. Man has learned to govern the forces of nature. 11. Because of the cracks in the ice they had to change the place of their camp. 12. The wall of the building cracked in some places. 13. According to the legend Prometheus was chained to a rock. 14. The bridge was suspended on chains. 15. This is a produce of the USSR. 16. The USSR produces a great deal of steel.

Упражнение 7. *Установите, в каких предложениях данные слова имеют указанное значение.*

1. **organized** — организованный

a) The exhibition is organized by two societies. b) The exhibition organized by two societies was held in London. c) The Society of Motor Manufacturers organized the exhibition in London.

2. **is** — должен

a) The equipment is to be supplied by a Japanese firm. b) The equipment is being supplied by a Japanese firm. c) The equipment is supplied by a Japanese firm.

3. **has, have** — должен

a) The electrical equipment has been manufactured in France. b) Electrical equipment of special design has to be manufactured. c) They have electrical equipment manufactured in France.

4. **manufacturing** — производящий

a) CAV is a British firm manufacturing diesel engines. b) The firm is manufacturing diesel engines for automobiles. c) By 1980 the firm will be manufacturing 1-2 million engines a year.

5. **experimenting** — экспериментируя

a) They are experimenting with the new component. b) Experimenting with the new component they found out that it was most suitable for road surfacing. c) The two men started experimenting with the component several years ago.

6. **tested** — испытал

a) The motor car was tested on the roads. b) The firm tested the motor-car on the mountain roads. c) The motor-car was to be tested next spring.

Упражнение 8. Ответьте на вопросы по тексту А.

1. What data can be received from a topographic survey? 2. What kind of survey is most commonly used? 3. Can one use chain survey if the ground is very rough? 4. What is the theodolite used for? 5. How is the scale of the theodolite marked? 6. What is the route survey used for? 7. What principles does mine surveying make use of? 8. What information does a civil engineer building a dam get from surveying? 9. What data must be supplied by the surveyor in choosing the route of a road? 10. Is tunnelling usually carried out from one or both sides? 11. Since what time has air survey been used? 12. What are the advantages of air survey? 13. In what part of the Soviet Union is air survey widely used? 14. What aeroplanes are used for operation in Northern areas? 15. What have Soviet geologists discovered thanks to air surveying?

ТЕХТ 12В

Задание I. Прочтите текст, стараясь понять основное содержание. (Заметьте время начала и окончания чтения. Этот текст нужно прочесть за 3,5 минуты, из расчета 110 слов в минуту.)

THE BIGGEST DIAMONDS (АЛМАЗ) IN THE WORLD

Of all precious stones diamonds are probably the most widely known. The first discovery of diamonds in Africa was made in 1867, on the

banks of the Orange River, where a child found a particularly pretty stone which proved to be a diamond.

Diamonds have also been discovered in other parts of the world: the USSR, Australia, South America and the United States.

Certain diamonds have become famous. One of the most famous diamonds is the Koh-i-noor. In the 16th century it belonged to Asiatic rulers. It was so valued that wars were fought over it.

The largest coloured diamond is the greenish-blue Hope diamond. It is supposed to bring misfortune (несчастье) to its owner. Another famous diamond is the Great Cullinan. Here is the story about Cullinan. In January 1905, the director of the Diamond Mine in South Africa, while walking through the mine during the noon hour, saw the sparkle (блеск) of what he at first thought to be a broken bottle. But it was a diamond as large as a large apple.

This remarkable stone, the largest ever found, has since become known to the world as the Great Cullinan. Upon being cut, it proved to be a pure white stone, four by two and one half by two inches, weighing 3.025 carats or 1.37 pounds. The Great Cullinan was immediately bought by the Transvaal Government and presented to King Edward VII.

The question then arose of how a diamond of such great value could be transported to England in safety. After many discussions and a great amount of newspaper publicity, four men, armed to the teeth, left the mine, carrying with them a dispatch case (сумка курьера).

Having crossed the 30 miles of open country to Pretoria under heavy escort, they went in a special car of the mail (почтовый) train to Cape Town. In the ship by which they went to England a safe had been specially installed and in it was placed the dispatch case. Two of the men remained on duty beside the safe night and day.

From Southampton a special train took them up to London and a strong guard of police and detectives escorted them to the bank at which the diamond was to be delivered.

When the dispatch box was opened in the presence of a group of officials it was found to contain nothing more valuable than a piece of coal. The stone itself had been packed in a box and sent to England by mail, not even the postmaster-general (министр почт) knew about it.

Later it was cut into several stones, two of the largest of which are in the British Crown (корона).

Задание II. Выберите утверждение, соответствующее содержанию текста.

1. Great Cullinan was discovered by:
 - 1) a worker in the mine;
 - 2) director of the mine;
 - 3) a child playing on the bank of the river.
2. Great Cullinan was presented to:
 - 1) the King of Britain;
 - 2) the President of the USA;
 - 3) The head of the Transvaal Government.
3. The problem of the delivery of the diamond was discussed:

- 1) by all the newspapers ;
 - 2) only by the government officials;
 - 3) only by the postmaster-general and by his officials.
4. When the dispatch case was opened, it was found to contain:
- 1) nothing;
 - 2) a piece of coal;
 - 3) the diamond.
5. The diamond:
- 1) was sent by mail;
 - 2) was delivered by a diplomatic courier;
 - 3) was delivered personally by the head of the Transvaal Government.

Задание III. Прочтите текст еще раз и выполните следующие пункты задания.

1. Name the three most famous diamonds mentioned in the text.
2. Name the countries where diamonds are found.
3. Name all the means of transport used to deliver the dispatch case (plane, motor-car, train, ship, bus, helicopter).
4. Describe the route by which the escort with the dispatch case went.

Т Е Х Т 12С

Задание I. Прочтите текст, отыскивая в нем ответы на поставленные вопросы.

MONORAIL TRANSPORT: FROM THE DRAWING BOARDS TO REALITY

In what country was the first electric monorail designed?

1. The idea of monorail transport occurred to people long ago. Back in 1897 the Russian Technical Society organized in Petersburg a demonstration of working models. This was the first suspended electric monorail designed by engineer Ippolit Romanov. The small car powered by a miniature electric motor operated without fail.

At the beginning of the century British specialists designed "lightning trains" with the speed of 240 kph.

What are the most efficient forms of the monorail?

2. There are more than 20 monorails, most of them experimental, operating in the world today. The successful functioning of these proves that they could be well used as a means of regular passenger transport. Investigations have revealed that the most effective monorails are when the cars either suspend from the rail or roll atop of it. Elevated monorails can be built either with an open or a covered rail. The wheels of the cars, with pneumatic tyres, roll on top of this rail.

What kind of monorails are suitable for the central part of the USSR?

3. The choice of the type of monorail depends upon climatic conditions, terrain and the number of passengers. For example, it would be better to build suspension-type monorail with a covered-up rail in the central part of the USSR, and of the top type with an open rail—in the Southern areas. The high-speed air-cushioned transport is most effective for long distances.

Why can monorails be built in a comparatively short time?

4. High speed is the main advantage of the monorail. Today a person who lives in a large city covers some 40 km every day. The monorail trains which can do 80 km or more per hour, as compared with the approximately 15 kph speed of the tram, would save the passenger 670 hours every year. But the saving of time is far from being the only advantage of the monorail. Monorail can be laid at a comparatively short time because its construction involves little earth-moving work. And, surely, as calculations show, the construction of monorail will be about 30 per cent cheaper than that of the Metro.

Where can monorails be utilized?

5. Monorails supply comfortable high-speed communication between the centre of the city and the airports which are usually situated some 25-30 kilometres away.

Moscow, Leningrad, Kiev and other cities and especially industrial centres each have several satellite towns. These towns are densely populated and quite a few people living in them go to work to the centre of the big city, which takes them one or even two hours. Monorails offer a reliable solution to this problem.

The health-resort routes running along the Black Sea coast of the Crimea and the Caucasus are an important possible field for the utilization of monorails. For example, Sochi spreads for 140 km along the sea coast. Naturally the holiday-makers must be given an opportunity to travel up and down the resort swiftly and in comfort. Monorail is the obvious answer here too.

And that is not such a far-off prospect. The idea of building a 15 km long monorail to connect the Yugo-Zapadnaya Metro Station with Vnu-kovo Airport has been taken up seriously. The problem of building monorails to the Istra and Klyazma reservoirs and to other recreational zones is also being studied.

What engines will be used on the monorails within city limits?

6. Aircraft-type cars, 23.6 m long and weighing only 20 tons, have already been designed. The car accommodates 200 passengers and has 100 comfortable seats. Diesel traction is planned for intercity monorails that will connect Moscow with Leningrad and Gorky. En route (в пути) the rocket-cars will develop a speed of up to 350 kph. Within city limits they will travel at a lower speed and with the aid of noiseless auxiliary engines. Everything points to monorails becoming in the near future just as necessary as railways, air and highway transport.

Задание I. Прочтите текст.

ROADS AND TUNNELS

1. British roads are classified in three groups. The arterial roads, so called because they might be compared to the arteries in the human body, are known as *A* or Class I roads. The arterial roads include the principal roads radiating from London to far parts of the country, and many roads joining big cities. The second group of classified roads consists of *B* or Class II roads which are a little less important than *A* roads. Last comes a third group, which has no official name. Each road of the first two classes, *A* and *B*, has a different number, which appears on all signposts, so that a motor driver can find his way across Britain if he has previously looked up the number on a map.

2. The crowded state of the British roads caused many accidents and delays even before World War II and became much worse afterwards. For some years little was done to tackle the problem apart from widening the roads in places and making by-pass roads around towns to avoid traffic jams in busy streets. In the late 1950s a programme was begun for building some 400 miles of motorways in the form of a network over the country, the chief ones radiating from London to the industrial areas in South Wales, the Midlands, and Lancashire. These modern double-track highways are being built with fly-over junctions and crossings and will in time form part of a system of motorways running right across Europe.

3. A motorway is usually designed with two carriage-ways, one for traffic in each direction. These should be at least 30 feet apart to avoid the vision of drivers being dazzled by the lights of vehicles coming the other way. The two carriage-ways needn't run side by side. A width of 24 feet between kerbs usually gives ample room for passing, but some roads are wider, for example the London-Birmingham motorway is 36 feet wide. At all cross-roads there are fly-over or clover-leaf crossings.

4. In thinly populated tropical countries, where the earth is dry and sandy, roads to carry occasional traffic can be made quite cheaply. The soil is turned over and mixed with a small quantity of cement, watered, and finally rolled, after which it has quite a good hard surface.

5. In many countries there are high-speed motorways, like the German "autobahnen" or Italian "autostrade". They are usually fenced in, and motorists are admitted to them only at special gates where they pay a toll. Once inside, they can travel at 80 or 90 miles an hour, for there are hardly any junctions, and no slow moving traffic is allowed.

6. Europe's first automobile tunnel under the Alps—the 3.4-mile Great St. Bernard Tunnel between Italy and Switzerland—was officially opened to traffic on the 19 March 1969. The tunnel was under construction slightly over five years and cost about 38 million dollars. Actual digging starting from both sides was under way from February 1959 to April 1961. Some 1,650 tons of explosives were used to excavate more

than a million cubic yards of rock. The project also required 44,000 tons of steel for use in the construction of walls and roadbed, and 165,000 tons of reinforced concrete for lining the inside of the tunnel. The tunnel has a two-line road bed, 24 ft. wide and is 14 ft. 9 in. high. Leading up to it on both sides are several miles of approaches built on concrete stilts and roofed with concrete to protect the roads from snow and avalanches and make them useable throughout the year. Up to now the Great St. Bernard Pass has been closed much of the year by snow.

7. More than 30,000 cars a year are expected to use the tunnel. Tolls range from 2.10 dollars to 4.65 depending on the engine, size of the car and the number of passengers. There are 12 other important tunnels under the Alps in central Europe all for rail traffic. Soon a second Alpine motor tunnel will be ready. It will connect Italy and France under Mont Blanc.

Задание II. Ответьте на вопросы по тексту D. Правильность ответов проверьте в соответствующих частях текста.

1. What roads are included in Class I roads? (1) 2. Why are Class I roads called arterial roads? (1) 3. What work in road-making in Great Britain was done in the 1950s? (2) 4. What roads were built in Great Britain in the 1950s? (2) 5. Why should two carriage-ways be set at a distance? (3) 6. What is the width of London-Birmingham road? (3). 7. What method of road building is used in thinly populated tropical countries with dry climate? (4). 8. What must a motorist do to be allowed to use high-speed motorways? (5) 9. When was Europe's first automobile tunnel under the Alps opened? (6). 10. What was the inside of the tunnel lined with? (6) 11. How many cars a year are expected to use this tunnel? (7)

КОНТРОЛЬНЫЙ СЛОВАРЬ

1. access (*n*); 2. accomplish (*v*); 3. on account of (*prp*); 4. in addition to (*prp*); 5. aid (*n, v*); 6. alter (*v*); 7. amount (*n, v*); 8. angle (*n*); 9. apply (*v*); 10. area (*n*); 11. as (*cj*); 12 as... as (*cj*); 13. as far as (*cj*); 14. as soon as (*cj*); 15. both... and (*cj*); 16. in case of (*prp*); 17. certain (*a*); 18. check (*v*); 19. curve (*n*); 20. deposit (*n, v*); 21. due to (*prp*); 22. elevation (*n*); 23. embankment (*n*); 24. explorer (*n*); 25. fix (*v*); 26. fraction (*n*); 27. frequently (*adv*); 28. height (*n*); 29. in front of (*prp*); 30. highway (*n*); 31. indicate (*v*); 32. investigate (*v*); 33. line (*n*); 34. make use of; 35. mount (*v*); 36. neither...nor (*cj*); 37. in order that (*cj*); 38. otherwise (*adv*); 39. pipe (*n, v*); 40. prefer (*v*); 41. preliminary (*a*); 42. rough (*a*); 43. simultaneously (*adv*); 44. straight (*a*); 45. stream (*n, v*); 46. survey (*n, v*); 47. thanks to (*prp*); 48. utilize (*v*); 49. vital (*a*); 50. with reference to.

I. *Оборот there + to be* (к § 3²).

1. There were some cracks in the structure. 2. There is a great number of goods that can be transported by air. 3. There is no fear of damaging the machine if it is properly maintained. 4. There was no chance of getting tickets for this concert. 5. There are very powerful cranes for unloading ships in this port. 6. There was still some hope of reaching the destination in time. 7. There are some factories to be rebuilt in this region. 8. Is there any demand for the tubes of that size? 9. There are no reasons for his being late. 10. There are always some problems to be solved.

II. *Степени сравнения прилагательных* (к § 4).

1. He thought he was the happiest man in the world. 2. Mayakovsky is one of the most talented poets of the Soviet Union. 3. The new car is more comfortable than the previous one. 4. His radio set is not so powerful as mine. 5. The Neva is wider and deeper than the Moskva River. 6. Last year he spent less time on English than this year. 7. The sooner they finish the construction of the plant the better. 8. The book is not so interesting as you think. 9. The more time you spend in the open air the sooner you will recover after your illness. 10. He has much more free time than I have.

III. *Времена группы Indefinite Active and Passive* (к §§ 5, 6).

1. At last he returned to his native country to the little town where his childhood was spent. 2. The latest surgical instruments were used during this unique operation. 3. The trouble is that this student does not work properly at his English. 4. Before the experiment substances are mixed in a large cup. 5. The commission will consider this offer carefully before accepting it. 6. In spite of the fact that the report was short, it covered the subject completely. 7. This instrument is preferred to all others because of its great reliability. 8. The doctor said that an urgent operation was needed. 9. Will they do everything in their

¹ Упражнения предназначены для перевода с английского языка на русский.

² Номера параграфов соответствуют номерам параграфов грамматического справочника.

power to help us? 10. I hope we shall never deal with this matter again. 11. You are required to the director immediately. 12. The last experimental results were constantly referred to by the professor.

IV. *Модальные глаголы и их эквиваленты (к § 7).*

1. He is to go to the Far East on business. 2. When are we to visit the laboratories of the institute? 3. He has to investigate a series of accidents that occurred in the locality for a period of three months. 4. We had to find a safe place for the pictures. 5. I shall have to take a local train. 6. You should follow all the important scientific researches in your field. 7. He was allowed to use the mobile equipment. 8. You needn't keep your activities in secret. 9. You can see this old film in one cinema only. 10. The laboratory was to make important scientific experiments in a very short time. 11. The talks were to be attended by the representatives of the 15 European countries. 12. We shall be able to see a number of Chaplin's films in September.

V. *Времена группы Continuous Active and Passive (к § 8).*

1. When he met me I was going to the institute and had little time to talk to him. 2. "What's your little brother doing?" "He is still sleeping." 3. She was sitting there doing nothing. 4. Next Monday we'll only be working five hours. 5. The construction of the road was being completed when the commission arrived. 6. The new engine is being tested in the laboratory. 7. Automation is being increasingly used in all the branches of our industry. 8. A new car was being looked at. 9. A child is being looked for everywhere. 10. A new research is being carried out successfully. 11. When I come home the family will be watching the TV programme. 12. A new hydro-electric station was being built when we came there to have practice.

VI. *Времена группы Perfect Active and Passive (к § 11).*

1. He has never been there. 2. When you see him next, he will have passed the last exam. 3. By that time we had already changed our plans. 4. He decided to become a writer only when his first story had been published. 5. No one came in here since we have been here. 6. He has been shown her photo. 7. He told me that he had never gone to doctors. 8. The boy has never been told the truth. 9. The papers have not yet been sent. 10. It's a long time since I have visited that town. 11. By that time the story had been long forgotten even by the story-teller himself. 12. The better results have not been obtained yet.

VII. *Согласование времен (к § 12).*

1. He said that by the year 2000 the number of skiers in the world would reach 75 million. 2. He asked me if I knew about the largest contracts concluded by the firm. 3. We didn't know whether our plan would

bring us success. 4. They wanted to know what our present research was centred upon. 5. He asked if the car-manufacturing plant had expanded its international operations. 6. He reported that the firm was holding talks about possible construction of an automobile plant in this district. 7. I thought that the organization had already started its work. 8. He added that he could show us the collection of mail stamps his father had started to collect in his college days. 9. He claimed he was no longer interested in the discussion of that problem. 10. It was announced that the expedition had already left for the Kurils. 11. He asked me whether I had known about the planning and fulfilment of this mission. 12. It was announced that a 10,000-foot airfield was being completed.

VIII. *Неопределенные местоимения some, any и отрицательное местоимение no (к § 13).*

1. There was no water left in the radiator, so we had to stop and refill it. 2. Any engineer who has worked long enough in this field can give this information. 3. I cannot consult just any person, I need someone who is an expert on the problem and who has had enough experience. 4. He said he had no wish to read detective stories. 5. I don't want to have any argument. The matter is clear enough for me. 6. He makes no attempts to establish any contacts with our group, so I understand he got no such orders. 7. No explanation was given to him why the experiment had been stopped. 8. The scientists believe that there is practically no atmosphere on the Moon. 9. You've got absolutely no basis for saying so. 10. The station master said that no trains had arrived at the station during the night because of the heavy snow storms in the mountains. 11. It was clear that no person could do this work alone. 12. None of the young men seemed to enjoy the film. 13. No discovery can be made without wide experimentation. 14. Any moving object will continue to move in a straight line unless it is stopped by some other force.

IX. *Причастие. Независимый причастный оборот (к §§ 14, 15).*

1. The professor told the students about the experiments now being carried on in the laboratory of the institute. 2. He went home, having looked through all the documents and letters received that day. 3. Squeezed by the ice the steamer could not continue her way. 4. She showed us a list of the books published. 5. Lake Baikal, known to be the deepest in the world, is fed by 336 rivers. 6. The sun having risen, they continued their way. 7. The talks between the two countries were conducted behind the closed doors, measures having been taken that no correspondent should receive any information. 8. The figures mentioned in his report were published in the latest scientific journal. 9. The goods having been loaded, the workers left the port. 10. Having been advised by the doctor to go to the south, she decided to spend her leave in Sochi. 11. One of the most noticeable features of air transport development is the big increase in the quantities of goods carried. 12. The moon being bright, everything was clearly visible.

X. Герундий (к § 16).

1. I remember your having objected to this schedule. 2. He entered the room without noticing her. 3. We were surprised at hearing his name among the sportsmen. 4. Nothing could prevent Maria Curie from changing her course. 5. Do you find any difficulty in solving this problem? 6. He improved his report by changing the end. 7. She is against being sent to this region of the country. 8. I suggested taking into consideration his note. 9. Is there any possibility of their finding a suitable building material so soon? 10. They insisted on the question being reconsidered.

XI. Инфинитив (к §§ 18, 20, 21).

1. The results to be expected are of great importance. 2. The child wanted to be taken seriously. 3. He didn't hear the boy enter the room. 4. The dog was the first to feel danger. 5. This question is too complicated to be answered at once. 6. The engine to be installed in this car is very powerful. 7. They considered him to have completed his research two days ago. 8. Where is the work to be done? 9. To get good results one must work hard. 10. To explain the problem the students were interested in, the engineer demonstrated some diagrams. 11. A delegation is expected to arrive in the capital of the country to discuss the creation of a shipping line to operate between the two countries. 12. The computer is said to be able to do computation in milliseconds. 13. He seemed to be completely exhausted after a whole day of hard work. 14. His knowledge of the subject proved to be both deep and many-sided. 15. The children were so tired that nothing could make them continue their training.

XII. Условные предложения (к § 24).

1. Had they met with such difficulties before, they would have known what to do and where to go now. 2. If the scientists found the ways to predict earthquakes, it would be possible to evacuate people from the regions and thus save many human lives. 3. Were I a newspaperman, I should write an article to the newspaper describing all the events that have taken place here. 4. If you approach the village from the North, you will see a tall deserted building that has once been a landlord's place. 5. Had you planned your time better, you wouldn't have come to the station the minute before the train left. 6. If you had told me that you couldn't find enough material for your report, we might have postponed it until next Friday. 7. As much as I wanted it I couldn't have done it, unless you had helped me. 8. You would never get lost in a new city provided you took with you a map of it. 9. You will never get well unless you give up smoking. 10. The director won't see you unless you phone him at least two days in advance. 11. Although many people get malaria in this climate, you would never fall ill provided you always did what the doctor tells you. 12. Were you an experienced driver, you would never have any road accidents no matter what road conditions are.

ЧАСТЬ I (УРОКИ 1—6)

ON READING

You ask me for advice on reading. That's a very difficult request. I always hesitate to advise my friends on what to read. How can I possibly know what will interest other people? And you don't say in your letter whether you want to read fiction, or drama, or essays, or books on travel.

You know that "some books are to be tasted, others to be swallowed, and some few to be chewed and digested."

I can't give you advice better than that. It tells you how to read books of different kinds. I suppose most travel books are "to be tasted"; it's enough to dip into them and read bits here and there. If you're fond of crime stories, you will read them quickly; you'll "swallow" them. And then there are books that you'll read slowly and carefully. If a book's on an important subject, and a subject you're interested in, you'll want to chew and digest it. And you'll want to weight what the author says, and consider his ideas and arguments.

I suppose that's a common experience in many countries with books in a foreign language. The reader starts out, full of hope and determination. Then the need to turn to a dictionary or a reference book, perhaps ten or even twenty times a page, tires him out.

There are two or three answers to this problem. The first is a negative one. Don't start reading a book unless you see, from the first few pages, that it's one you can read with ease, and understanding. Don't try to run before you can walk. There are plenty of books that have been rewritten in simple language—and shortened, too, if necessary. I know there are good reasons against simplified texts. We don't feel that we're getting the real thing if we read a book that has been "made simple". There are some authors whose style is fairly easy, of course. I used to wonder why Oscar Wilde's books were so popular in European schools and colleges. Wilde seemed to be more famous in Europe than in England. Then I realized that in his short stories he writes in a very simple style.

My second answer to this question of difficult vocabulary is, I think, a much better one. Don't stop every time you come to a word or phrase you don't know. Read the whole chapter quickly. Quite often you'll find the unknown word comes again, perhaps several times, and by the end of the chapter you'll have guessed its meaning. That's how we learn the meanings of words in our own language, isn't it? When we're children, I mean. When I'm telling a story to children, they seldom stop to

ask what a word means. Even when they read, they don't run for the dictionary every time they see an unknown word.

I was thinking about this problem of how we learn what words mean, yesterday morning after I'd read your letter. We have a young nephew staying with us here, so I decided to find out how he learnt words. So I asked him, "Peter, what's a jungle? (I was sure he knew the word; I wanted to know how he'd learnt it.)" "Don't you know, Uncle?" he said. "They have jungles in India. They're full of tigers and elephants. Jungles are hot and steamy. And branches come down from the trees like ropes, and monkeys swing about on them."

Well, you see, Peter knew what an Indian jungle was like. He said he'd learnt all that from his reading, probably from Kipling's "Jungle Books", and from other adventure stories. I'm sure he didn't go to his dictionary when he first met the word. It's possible, of course, that Peter learnt the word by seeing Tarzan films or picture strips, but even in that case, he learnt the word by seeing or hearing, not from a dictionary.

Read a chapter quickly, and then go back and read it more slowly. This time, use your reference books when necessary. But try to judge what is important and what can be ignored.

You'll tell me that it's difficult, very often, for you to judge whether an unknown word or reference is important or not. I agree that this is often true. But it's not always difficult. You're going to be an architect, so words used in architecture are important to you. If you're reading a travel book, and there are descriptions of abbeys, churches, and cathedrals, you'll perhaps find the words transept and clerestory. If they are new to you, you'll look them up. They're words that belong to your subject. But if the reader is a medical student, uninterested in architecture, he could pass them by. They're not at all necessary for his enjoyment of the book. I'm not an expert in architecture, but my ignorance of some architectural words does not prevent me from enjoying beautiful churches and cathedrals.

When I read my Times these days I often find articles about the uses of atomic energy. There are always words that I don't know—and some of them are so new that they're not yet in the dictionaries. But I'm slowly beginning to understand what some of the words mean—simply by meeting them so often.

Well, that's my advice to you. I hope you'll find it helpful. It isn't perfect, I know. There will be times when, if you decide not to look up a reference, you'll miss something that may be important.

I feel I'm right in advising you not to be too thorough in your use of reference books—except when you're studying your own special subject. If you're too thorough, you'll lose heart and perhaps give up.

A VISIT TO OXFORD

I want to tell you what I saw at Oxford where I was invited by my friend for a week-end. He met me at the station and took me to the "guest room" at his college where I was to stay during my visit. After a short rest we went out to see Oxford.

Nearly all the students were on vacation at that time but we saw a few of them about. They were wearing black gowns and strange caps. Some of the gowns looked very old and even rather ragged, and I asked my friend if these students were very poor and couldn't afford new gowns. He laughed and said that undergraduates, especially those who had just come up, tried to get old, torn-looking gowns so that people would think they had been in Oxford for years. One student passed us, looking rather unhappy and wearing a black suit under his gown, a white collar and a white bow-tie. My friend said they had to wear that dress when they were taking an examination, and that the unhappy-looking student was either going to or coming from the examination room.

We went into some colleges through the gardens and into the dining-halls and chapels. In the colleges the students study and live. They all have dinner together in the big dining-halls. Most of the halls are wonderful, especially the hall of Christ Church. This is the biggest of the colleges. All round the hall are portraits of great men who have been members of the college. This college gave England five Prime Ministers in a single century, and a great many other famous people. I should think nearly every great man in England must have been at Oxford. One of the portraits in that college that interested me very much was that of Lewis Carroll, the writer of the most delightful of all children's books, "Alice in Wonderland". Lewis Carroll was not a typical "children's author," but a lecturer in mathematics at Oxford. There is a story that Queen Victoria was so charmed with "Alice in Wonderland" that she gave orders that the next book by this writer should be sent to her. In some time it arrived and was: "The Condensation of Determinants, a new and brief method of computing Arithmetical Values."

Oxford is full of curious old customs. For example, in one of the colleges, every Christmas Day a roast boar's head is carried, with great ceremony, to the high table where the teachers sit. The story of this custom goes back to the early years of the 16th century and celebrates the fight between a student of the college and a wild boar on the hills near the college. The student killed the boar by thrusting down its throat a copy of Aristotle that he happened to be reading at the time, saying as he did so, "That's Greek!"

The next morning I was reminded of another old Oxford tradition. I was awakened at five o'clock in the morning by a terrible noise in St. Giles, one of the most beautiful streets in Oxford. I quickly dressed and went outside to see what was happening. I discovered that it was St. Giles' Fair. This has taken place at the beginning of September ever since the 12th century. The whole appearance of the street was quite changed. Preparations for the fair mustn't begin before 5 a.m. At five o'clock the entrances to St. Giles are closed to traffic.

I looked around and saw a stream of wagons, cars, roundabouts, swings and "all the fun of the fair" waiting to rush in. It's all very noisy and jolly, and they say it's great fun while it lasts.

All these things make Oxford extremely fascinating.

Now I am going to finish my story by telling you an anecdote that I had from my friend. I happened to say to him as we walked through

one of the gardens, "I wonder how they get these lovely lawns." My friend said, "That's what an American visitor asked one of the gardeners here. He said he'd like (ему бы хотелось) to have a lawn like that in his big house in America. 'Oh, it's quite easy,' said the gardener, 'you just roll them and cut them, and roll them and cut them. That's all.' 'And how long do you do that?' said the American.

'Oh,' said the gardener, 'for about five hundred years.'"

CYBERNETICS AND TRANSPORT

Man has always been striving to make physical work easier by using ever more efficient tools and mechanical means. The greatest progress has been made in the past 100-120 years. In 1850 man's muscle power accounted for 15 per cent, animal muscle power for 79 per cent, and water, wind and steam machines for only 6 per cent of mankind's total power balance, nowadays the muscle power of men and animals constitutes about one per cent of the total power expenditure and the other 99 per cent is being generated by steam, gas, electric and other engines.

However, steady technological progress has been accompanied by growing intellectual and nervous strain on man connected with the control of new machinery. To see for yourself how true this is, just look into the driver's cab of a modern diesel locomotive, into the wheelhouse of an ocean-going ship or into the cockpit of a modern airliner, with their multitudinous controls and indicator dials.

This has presented today's world with new problems. At present, there is only one way of solving these problems, namely, through extensive use of highly efficient means and methods of cybernetics. Its immense possibilities as a science dealing with the most general laws of control have opened up boundless prospects for the automation of complex and labour-consuming process in all spheres of human activities.

Horizons of Automation

Transport, a vast sphere of material production, has become one of the biggest spheres in which cybernetics methods are being applied. Large-scale research and experimental work are now being carried on in the Soviet Union with a view to automating transportation processes by cybernetics methods in such spheres as locomotive driving, ship handling, air and marine navigation, current control over the functioning of individual big transport divisions or whole ministries, planning and technical work, such as the drawing up of cargo and passenger transportation plans, time-tables and schedules, the solution of engineering and scientific problems connected with designing, servicing and maintaining the basic units, accounting and stock-taking.

Let us dwell in greater detail on each of the above spheres. To drive a train, to steer a ship or plane strictly to schedule and at high speed, an engine driver, a helmsman or a flier should always look ahead, size up the situation quickly, set the necessary engine operation mode, use braking devices and manoeuvre.

At the same time, one has to ensure the normal operation of all units, using the appropriate instruments. It goes without saying that the discharge of all these functions is beyond one man's physical and physiological powers. Previously, attempts were made to solve this problem by employing more men to serve as the engine driver's mates, ship mechanics and co-pilots. But this has had an adverse effect on labour productivity and has also violated the vital principle of one-man control. Specialists see a radical solution of the problem in the automation of transport control using the latest technical means and methods of cybernetics.

The first steps in designing a robot engine driver for heavy high-speed trains were made at the beginning of the fifties. The robot incorporated a small-size electronic computer with assorted transducers. All the necessary data—overall distance, time of covering each stretch of the route, speed limits, etc. were programmed and fed into the computer's storage.

As the train rolled along, the electronic computer set the optimum speed on the basis of information coming in from the transducers.

A system with one central electronic computer controlling all the trains proved more rational for a closed railway network of the underground type. In this case, all the trains are fitted with actuating organs. Such a system is already operating on one of the lines of the Leningrad underground railway and in Moscow. Leningrad's robot drivers run each train strictly to schedule (to within 5 seconds) and align it with platforms to within 0.3 metres of the set point.

Our country is making substantial progress in the field of automatic ship control systems, above all in the main propulsion plant. World experience shows that the system of comprehensive process automation is the best; it cuts down the crews by 30-35 per cent, makes work easier, increases the reliability of machines and prolongs their service life.

New equipment, guaranteeing a high degree of ships' navigational and running safety, is now being developed at an accelerated rate. This system issues timely warnings of obstacles in the ship's way and prevents collisions with other ships in conditions of poor visibility caused by fog, downpours or snowfall.

New automation systems, ensuring the most rational cargo distribution on board large ships, are now in the development stage.

Automatic Air Traffic Control: A Guarantee of Safety

A large number of cybernetic problems are being tackled in air transport, too. The growing intensity of air traffic has called for the automation of its control. The world's biggest airports handle up to 1,000 planes a day. The dangerous situations that often arise as a result tell on an aerodrome's capacity.

The automatic air traffic system takes over a large proportion of the work involved in the information exchange between dispatcher and pilot. At the same time, it carries out all sorts of calculations and warns the dispatcher of potential dangers, thus taking a lot of nervous strain and effort out of his work.

Fundamental research is being carried out into the automation of automobile driving. The "robot driver" system is called upon to do two things: to keep the vehicle on the road and to prevent it from colliding with the cars ahead or running into obstacles. The first problem was solved experimentally by tracing a luminous line on the road and fitting a car with a photocell which keeps an "eye" on this line, and, through a set of actuating mechanisms, adjusts the steering wheel in case of the slightest deviation from the present course.

The second problem is more complex, both technically and economically. Life itself insistently calls for its solution, for, according to international statistics, road accidents kill 250,000 people a year. Two ideas are considered the most practicable in this respect—the use of microwave radar which probes the stretch of the road lying ahead of the moving car and presents the road situation on a dashboard screen. In conditions of poor visibility, it can always take over the steering wheel and brake control. The other idea is to lay "loops" of current-carrying cable under the road surface. When a car passes over such a loop, the latter's magnetic characteristic changes, this being a source of information for the car following immediately behind. The latter's transducers pick up the signal and transmit continuous measurements of the distance to the leading car, its speed and the gain rate. In critical situations, the engine is stopped and the brakes are applied automatically.

"Express" and "Sirena"

Apart from the systems described above, efficient and time-saving cybernetic devices intended for handling trains, ships and planes are now in the development stage. Two systems, named "Express" and "Sirena", are of special interest.

The former system, to be installed at nine Moscow railway terminals, is meant for booking train tickets. It consists of an electronic computer, cash registers connected with it via communication channels and an information board displayed prominently at the terminals, at the Central Booking Bureau and at the city station. The computer storages contain information about the vacancies in each of the 300 trains departing from Moscow every day and keep the booking agents informed on the availability of any given place. With the increase in storage capacity, the system will make it possible to book tickets 30 to 60 days in advance.

The "Express" system is to be put into service in 1975. In future, this system will operate in conjunction with its "counterparts" located in other big cities of the USSR and also with the plane and ship ticket booking systems.

The "Sirena" system was being developed by the Ministry of Civil Aviation for the sale and booking of airline tickets. At present, the booking offices and transport agencies in Moscow already use 90 panels from which tickets to all the planes departing from Moscow can be bought or booked. The central booking agency will service 28 cities in the country. When enough experience has been accumulated and higher tech-

nical standards have been achieved in the equipment, the "Sirena" system will operate on the international air routes of the CMEA countries and will probably be connected with corresponding systems in other European countries.

THE GENIUS WHO COULDN'T GET A JOB

The house in Ulm, Germany, where Albert Einstein was born no longer stands. World War II reduced it to rubble.

Actually, Einstein had spent little time in Ulm. A year after his birth the family moved to Munich where his father set up a small electrotechnical factory.

As a child Albert was far from a promising candidate for fame. He didn't talk until he was more than three and his concerned parents consulted a doctor about it.

When children came to play in their garden he took little part in their games. In a document written much later his sister Maja recalled that he preferred games that required patience, building complicated structures and houses of cards as high as 14 stories.

Later in life Einstein spoke bitterly of his schooling. He disliked the drill sergeant methods of instruction. In 1955 he wrote, "As a pupil I was neither good nor bad. My principal weakness was a poor memory for words and texts". His Greek teacher said to him, "You will never achieve anything." "Only in mathematics and physics was I, through self-study, far beyond the school curriculum."

Here we have a clear picture of how young Einstein was developing. The key phrase is "self-study". Throughout his life he listened and read very much.

In 1895 Albert Einstein took the entrance examination for the Department of Engineering of the famous Federal Institute of Technology in Zurich, Switzerland. He failed.

It was a painful blow, even though half expected. Besides, he was only 16 and a half and the entrance age was 18. Fortunately, his failure was not catastrophic. He failed in subjects like language and botany, not in mathematics and physics.

The director of the Zurich Polytechnic advised Albert to go to the progressive Swiss Cantonal School, where Einstein obtained his diploma.

In the autumn of 1896 he entered the Zurich Polytechnic, enrolling in the course for training specialist teachers of mathematics and science.

At the Polytechnic Einstein couldn't easily make himself study what didn't interest him. Most of the time he spent studying the works of great pioneers in science and philosophy. Among the fields he mastered was Maxwell's theory of electromagnetism, which was not covered in his university lectures. As for the lectures, they were for him only an intrusion. He attended them only fitfully. By now he knew that his interest lay not in mathematics but in physics.

He graduated in 1900. With graduation came bitter times for Ein-

stein. He had to look for a job. He was now 21. When he sought a university position he was rebuffed.

Einstein managed to keep body and soul together by finding temporary jobs. His university friend had strongly recommended Einstein to Haller the director of the Swiss Patent Office in Bern. Haller called Einstein for an interview, which quickly revealed Einstein's lack of technical qualifications. But Haller realised that there was something about the young man, and he offered him a job in Patent Office.

The years that followed were the period of hard work at the theory of relativity, which brought him world-wide fame.

HOW WE KEPT MOTHER'S BIRTHDAY

(after S. Leacock)

This year, we decided to have a special celebration of Mother's birthday. We thought it a fine idea. It made us all realize how much Mother had done for us.

So we decided that we'd make a great day, a holiday for all the family, and do everything we could to make Mother happy. Father decided to take a holiday from his office, so as to help in celebrating the day, my sister Anne and I stayed home from college classes, and Mary and my brother Will stayed home from school.

It was our plan to make it just like a big holiday, and so we decided to decorate the house with flowers.

The two girls thought it would be a nice thing to dress in our very best for such a big day, and so they both got new hats. Father had bought four ties for himself and us boys, for we wanted to have something to remember Mother by. We were going to get Mother a new hat too but she said she liked her old hat better than a new one, and both the girls said that it was awfully becoming her.

Well, after breakfast we all decided that we would hire a car and take her for a beautiful drive away into the country. Mother is never able to have anything like that because she is busy in the house all the time. And of course the country is so lovely now that it would be just wonderful for her to have a lovely morning, driving for miles and miles.

But on the very morning of the day we changed the plan a little, because Father said that it would be much better for Mother if we took her fishing. Father said that as the car was hired and paid for, we might just as well use it for a drive up into the hills where there are small rivers. So we all felt that it would be nicer for Mother to go fishing. Father got a new rod, and he said that Mother could use it if she wanted to.

So everything was ready for the trip. Mother had made a lunch in case we got hungry, though of course we were to come home again to a big dinner in the middle of the day, just like New-Year's Day or some other big holiday.

Well, when the car came to the door, we saw that there was not as much room in it as we had supposed, because we hadn't thought of

Father's fishing basket and the rods and the lunch, and it was clear that we couldn't all get in.

Father said that he could just as well stay home and spend the time working in the garden. He said that there was a lot of dirty work that he could do, and so he said that he would stay at home. He wanted us to go right up into the hills and be happy and have a big day, and he said he had been a fool to think there would be any holiday for him.

But of course we all felt that we couldn't let Father stay at home. The two girls, Anne and Mary, would gladly have stayed and helped the maid get dinner. Only it was such a pity to stay at home on a lovely day like that, having their new hats. But they both said that Mother had only to say the word, and they would gladly stay home and work. Will and I would have stayed, but we wouldn't have been of any help in getting the dinner.

So in the end it was decided that Mother would stay at home and just have a lovely day round the house, and get the dinner. Mother didn't care much for fishing, and also it was just a little cold and fresh out-of-doors, though it was lovely and sunny, and Father was rather afraid that Mother might take cold if she came.

He said he would never forgive himself if he took Mother to the country and let her take cold at a time when she might be having a beautiful rest. He said it was our duty to try and let Mother get all the rest and quiet that she could, after all that she had done for all of us. He said that young people seldom realize how much quiet means to people who are getting old.

So we all drove away, saying good-bye to Mother, and Mother stood and watched us from the gate for as long as she could see us, and Father waved his hand back to her. Well, we had the loveliest day up among the hills that you could possibly imagine, and Father caught many big fishes. Will and I fished too, though we didn't get so many as Father, and the two girls met quite a lot of people that they knew as we drove along, and there were some young men friends of theirs that they met along the river and talked to, and so we all had a wonderful time.

It was quite late when we got back, nearly seven o'clock in the evening, but Mother had supposed that we would be late, so she did everything to have the dinner just ready and hot for us. Only first she had to get towels and soap for Father and clean clothes for him to put on, and that kept Mother busy for a little time.

But at last everything was ready, and we sat down to the most wonderful kind of dinner like on New-Year's Day. Mother had to get up and down many times for things, but at the end Father noticed it and said she simply mustn't do it.

The dinner lasted a long time, and when it was over all of us wanted to help Mother to wash up the dishes, only Mother said that she would really do it herself, and so we left her because we wanted just for once to please her.

It was quite late when it was all over, and when we all kissed Mother before going to bed, she said it had been the most wonderful day in her life, and I think there were tears in her eyes.

HOW TO PLAN A TOWN

(an extract from "How to be an Alien")

(after G. Mikes)

Britain is a Spartan country. This is mainly due to the British way of building towns.

On the Continent doctors, lawyers, booksellers—just to mention a few examples—are sprinkled all over the city, so you can call on a good or at least expensive doctor in any district. In England the idea is that it is the address that makes the man. Doctors in England are crowded in Harley Street, solicitors in Lincoln's Inn Fields, second-hand-bookshops in Charing Cross Road, newspaper offices in Fleet Street, tailors in Savile Row, car-merchants in Great Portland Street, theatres around Piccadilly Circus, cinemas in Leicester Square, etc. If you have a chance of replanning London you can greatly improve on this idea. All green-grocers should be placed in Hornsey Lane, all butchers in Mile End, and all gentlemen's conveniences in Bloomsbury.

Now I should like to give you a little practical advice on how to build an English town.

You must understand that an English town is a vast conspiracy to mislead foreigners. You have to use century-old little practices and tricks.

1. First of all, never build a street straight. The English love privacy and do not want to see one end of the street from the other end. Make sudden curves in the streets and build them S-shaped too; the letters L, T, V, Y, W and O are also becoming increasingly popular. It would be a fine tribute to the Greeks to build a few ϕ - and θ -shaped streets and it would be a compliment to the Russians to favour the shape of Я.

2. Never build the houses of the same street in a straight line. The British have always been a freedom-loving race and the "freedom to build in a muddle" is one of their most ancient civil rights.

3. Now there are other camouflage possibilities in the numbering of houses. Primitive continental races put even numbers on one side, odd numbers on the other, and you always know that small numbers start from the north or west. In England you have this system, too; but you may start numbering your houses at one end, go up to a certain number on the same side, then continue on the other side, going back in the opposite direction.

You may leave out some numbers and you may continue the numbering in a side street; you may also give the same number to two or three houses.

But this is far from the end. Many people refuse to have numbers altogether, and they choose names. It is very pleasant, for instance, to find a street with three hundred and fifty totally similar bungalows and look for "The Bungalow". Or to arrive in a street where all the houses have a charming view of a hill and try to find "Hill View". Or search for "Seven Oaks" and find a house with three apple-trees.

4. Give a different name to the street wherever it bends; but if the curve is too sharp that it really makes two different streets, you may keep the same name. On the other hand, if, owing to neglect, a street has been built in a straight line it must be called by many different names (High Holborn, New Oxford Street, Oxford Street, Bays-water Road, Notting Hill Gate, Holland Park, and so on).

5. As some foreigners would be able to learn their way about even under such circumstances, some further measures are necessary. Call streets by various names: street, road, place, crescent, avenue, rise, way, park, gardens, alley, arch, path, walk, Broadway, gate, terrace, hill, etc.

Now two further possibilities arise:

(a) Gather all sorts of streets and squares of the same name in one neighbourhood: Belsize Park, Belsize Street, Belsize Road, Belsize Gardens, Belsize Green, Belsize Arcade, Belsize Heath, etc.

(b) Place a number of streets of exactly the same name in different districts. If you have about twenty Princes Squares and Warwick Avenues in the town, the muddle will be complete.

6. Street names should be painted clearly and distinctly on large boards. Then hide these boards carefully. Place them too high or too low, in shadow and darkness, upside down and inside out, or, even better, lock them up in a safe in your bank, otherwise they may give people some indication about the names of the streets.

I have been told that my above-described theory is all wrong and the English do not care for the opinion of foreigners. In every other country, it has been explained, people just build streets and towns following their own common sense. England is the only country in the world where there is a Ministry of Town and Country Planning. That is the real reason for the muddle.

ЧАСТЬ II (УРОКИ 7—12)

THE UNCERTAIN FUTURE OF THE AMERICAN SKYSCRAPER

Just at a time when the building of skyscrapers is moving ahead, attacks on these "megastructures" are spreading on a wide variety of fronts.

In San Francisco, officials recently set a 40-foot height limit on buildings in more than 95 per cent of residential areas in the city.

In Washington, efforts by builders to raise a height limit of 130 feet have been unsuccessful.

Tallest of the new "spacescrapers" are the twin towers of the World Trade Centre in New York City, which opened recently. But these 1,350-foot buildings will be short-lived. The Sears, Roebuck Tower in Chicago will rise to 1,450 feet when finished.

And the owners of the 40-year-old Empire State Building are going to add 11 stories to make it once again the world's tallest building. Other high-rise structures are under way in Boston, Atlanta, Phila-

delphia, San Francisco, Detroit, Dallas, Miami, Oklahoma City and others.

200 Stories? Many builders are convinced that high-rise structures are an economic necessity in cities because of space shortage.

One engineer believes that tall buildings will rise to 200 stories or more. In Chicago the Hancock Centre—or “Big John” as it’s known among architects—is a 95-million-dollar vertical city 1,127 feet high. Its 100 stories contain department and grocery stores, 705 apartments, office space for 4,000 workers, restaurants, banks and recreational and parking facilities.

The management says its “megastructure” provides a complete living arrangement for more than 1,700 tenants—a place where people can live comfortably, without ever leaving the house. But some residents have complained of tedious elevator delays, “living above the weather”, and “a sense of isolation from street life”.

“You wake up literally on top of the clouds while back down on earth it’s raining,” said one.

“It’s all so artificial,” said another. “You can’t open a window, only a slot. Everything is done by push button. You feel like you’re living in a space station. And you just have to get on the ground for a while.”

Experts in the field agree there are no structural limits to the potential height of buildings.

“We could start erecting a mile-high structure next year,” says L. E. Robertson, partner in the New York engineering firm. “But do we really want to? The question is not can such a building be built, but should it be built.”

Effects on People. Some scientists think that the sway and vibrations caused in the upper stories of tall buildings by high winds or minor earthquakes—cause discomfort and tension. Some tall buildings sway as much as 15 inches in strong winds.

Another structural problem has been to provide adequate foundation support for massive buildings.

Garbage and Sewage. For example, the World Trade Centre by 1974 had had 130,000 workers and visitors and produced 50 tons of garbage daily.

What effect a tall building will have on the rest of a city is a question city planners should ask themselves before the building goes up. Architects and engineers should enter the political arena where questions about a building’s effect on the ecology and the environment are asked. “Too often we get into the picture after it is too late,” said one of the statesman.

In Chicago, the gigantic new Sears tower threatened to distort television reception for estimated 62,500 households because it would intercept signals from antennas mounted atop the Hancock buildings, causing double images on TV screens.

Fire and Crime. The most immediate menaces to high-rise workers and dwellers are fire and crime, which take a heavy toll in lives and dollars.

When flames break out in a modern skyscraper, they may quickly spread to combustible carpeting and furniture stuffed with polyurethane foam. Smoke and lethal gases are channeled through air-conditioning ducts, mail chutes, elevator shafts and stair wells, rising between the steel and concrete walls as if in a chimney. Most persons killed in fires in tall buildings die from smoke.

Many skyscrapers are also proving an easy mark for criminals—in fact, urban crime is moving into the office buildings, luxury apartment complexes and low-income housing from small stores, alleys and parks.

Most recent evidence of this trend were the results of a three-year study by New York University which showed that the taller a building was, the higher its rate of crime.

The research, conducted in 100 public-housing projects in New York City, indicated that the crime rate in high-rise buildings was more than twice that in walk-up buildings. In some Chicago offices, employers are providing armed guards to escort women to and from their jobs even in daytime.

Now many people are beginning to feel that skyscrapers should not be considered the only option available in growing cities because skyscrapers have always been put up for reasons of advertisement and publicity.

THE COMING REVOLUTION IN TRANSPORTATION

You ride toward the city at 90 miles an hour, glancing through the morning newspaper while your electrically powered car follows its programmed route on an automated "guideway". You leave your car at the city's edge—a parklike city without streets—and enter a small plastic "people capsule". Inside, you dial your destination on a sequence of numbered buttons and settle back. Smoothly, silently, your capsule accelerates to 80 miles an hour. Guided by a distant master computer, it slips down into the network of tunnels under the city and takes precisely the fastest route to your destination.

Far-fetched? Not at all. Every element of this fantastic system is already within range of our scientists' skills. Indeed, the system utilizes only a few of the exciting new people-moving machines that have reached or passed the experimental stage.

What are they like? When will they become commonplace? In search of the answers, I journeyed worldwide to talk with scientists, engineers, transportation officials and city planners. Everywhere I found signs of a revolution in transportation.

New York Airport Bus. New York is putting into service a whole fleet of vehicles that are half bus and half train in an attempt to cope with impossible traffic jams between midtown and John F. Kennedy Airport on Long Island. The N.Y. rail-bus venture is being implemented by the Kennedy Airport Project. Stated simply the plan calls for bypassing the worst of the N.Y. City traffic by means of on-railing the buses to the tracks of the Long Island Railroad where they will travel

by rail for approximately eight miles. Then in a relatively free from traffic area the buses will be off-railed and proceed the balance of the distance as a conventional bus finally off-loading passengers at various airline terminals. The vehicle used in the N.Y. project is a standard 41-passenger airport bus converted for rail highway usage. The conversion is accomplished by installation of four hydraulic cylinders and eight rail wheels together with the necessary controls for rapid conversion from highway to rail or vice versa. The actual switch from rail to highway can be accomplished in as little as 20 seconds and it's all done simply by raising or lowering the rail wheels with hydraulic system. Once the vehicle is on the rails speeds of up to 50 miles per hour are acceptable providing good rails are available. In the case of the N.Y. operation a 40 to 45 miles per hour speed limit is contemplated. An ordinary bus can be converted to a rail bus without any unusual problems. Certain commuter type buses are even more easily converted and it can be done by any competent shop. The eyes of many a traffic-watcher are being turned to N.Y.: if rail buses work there, they'll work anywhere.

Automated Autos. At the General Motors Technical Centre near Detroit, I drove the Unicontrol Car, one step along the way to the automated family sedan. In the car, a small knob next to the seat replaced steering wheel, gearshift lever, accelerator and brake pedal. Moving that knob sends electronic impulses to a "baby computer" in the car's trunk. From these signals the computer activates the proper servomechanism—steering motor, power brakes or accelerator.

Although this strange control method is easy to handle, the car does have to be driven. I asked Lawrence R. Hafstad, then GM's vice president in charge of research laboratories, about the proposed automated highways that would relieve the driver of all responsibilities except that of choosing a destination.

"Automated highways—engineers call them guideways—are technically feasible today," he answered. "In fact, General Motors successfully demonstrated an electronically controlled guidance system about ten years ago. A wire was embedded in the road, and two pick-up coils were installed at the front of a car to sense its position in relation to that wire. The coils sent electrical signals to the steering system, to keep the vehicle automatically on course. More recently, we tested a system that also controlled spacing and detected obstacles. It could slow down or stop an overtaking vehicle until the road was clear."

Other companies are also experimenting with guideways. In some systems, the car's power comes from an electric transmission line built into the road. In others, vehicles would be carried on a high-speed conveyor, or perhaps in a container.

"Before the first mile of automated highway is installed," Hafstad pointed out, "everyone will have to agree on just which system is to be used." But once that decision is made, computer-controlled highways will almost surely become a reality, for when the human element is removed, vehicles can travel with greater safety at faster speeds, closer together. In fact, most experts believe that each lane of automated highway could move the traffic of three or four of today's uncontrolled lanes.

“People Places”. And when all this comes true, will we drive into even more nightmarish traffic tangles on city streets? I found a tantalizing bit of the answer in Sweden last summer, as I strolled across a fountain-dotted plaza lined with attractive shops. No noisy traffic intruded here; this was “a walking plaza”, “a people place”, and the key to its success was the network of tunnels beneath it. Down there, trucks were supplying the stores with merchandise, and a subway ferried people to and from nearby Stockholm.

Underground Highways? Most transportation experts I’ve talked to don’t consider them extravagant at all. The average cost of a surface freeway in an urban area runs about four million dollars a mile. Deep-tunnel mileage costs are now averaging about seven million. But improved boring methods—laser beams, chemicals, water or flame jets—will make tunnelling cheaper, while land costs climb. As the two opposing trends continue, tunnels will become increasingly attractive to highway planners. Moreover, underground highways are not affected by weather, and they do not provoke the bitter debates that have erupted in many cities over the displacement of people by surface construction.

Many of the transportation authorities are enthusiastic about Stockholm’s “walking plaza” concept. “The idea,” explains Los Angeles architect and city planner William Pereira, “is to shorten the desire lines of the people. In other words, to provide for most of their needs in a more concentrated area, so that they have less reason to travel outside their own community.”

Few people expect entire cities to be torn down and rebuilt just to solve the transportation problem. But a new look might be superimposed. It might work like this: Spread out a map of your city, and with a pencil mark it off into squares, eight city blocks to a side. Those squares are super-blocks; your grid of pencil lines trace boulevards which serve the blocks along their perimeters. Barricade most of the streets within each super-block to channel the traffic into logical, efficient routes—and you will be looking at your city as it may appear a decade or so from now.

Planners expect each super-block to evolve into a city within a city, with new stores clustered at its core. But why allow streets to occupy precious land? Why not put all roads underground and, in that case, why not dig the tunnels to accommodate computer-controlled people capsules instead? (There are several such systems now in the development stage.) Planners in the 1980s may be thinking along those lines.

Still, people must travel to their place of work—which is not necessarily near where they live—and this causes an almost universal problem in our cities. Some recent studies point toward solution.

In Peoria III, for example, a bus line picks up passengers practically at their doors (for a monthly charge) and carries them directly to their place of work. In the future, such personalized commuter services may be provided by mini-buses. One proposal calls for special metal plates connected to a central computer, installed throughout a neighbourhood. When someone pushes a plate, it signals the computer which orders the nearest mini-bus to pick him up.

Skimming the Waves. The Aerotraine, of course, derives from that older vehicle, the hovercraft, which is bringing the transportation revolution down to the seas. Take a look at England's SR.N4 which I first saw resting peacefully on a wide concrete ramp at the Dover edge of the English Channel. Surely this squat 130-foot hovercraft was feminine, for she was wearing what appeared to be a skirt.

Walking inside, I took a seat. The door clanged shut, muffled gas-turbine engines began to throb, and the lady came to life. Air pressure from four great fans ballooned her limp skirt into a rounded fullness. Carrying 254 passengers and 30 automobiles, the SR.N4 slowly glided down the ramp, hovered over the water for a moment—and then raced toward France at a mile a minute. Supported on a cushion of air, she crosses land and water with equal ease. Tides, debris and ice bother her not at all, for the skirt lifts her hull seven feet above the surface.

Several types of ships have also joined the waterborne revolution. Highly automated supertankers more than a thousand feet long are sailing with crews of fewer than 30 men. And imaginative marine experts are attacking some of cargo ships' other traditional problems. Is it really necessary, they ask, for a freighter to waste valuable time going into port at all? They envision nuclear-powered cargo ships that would remain at sea for years at a time. Cargo, supplies and crews would be transferred by giant helicopters as the ships sail up and down the coast.

PANAMA CANAL

The man who built the Panama Canal—Colonel Goethals—was the man who turned a great engineering failure into a great victory. He was the builder of the Panama Canal. He was not the first engineer to undertake that difficult problem. It was undertaken in 1880 by a Frenchman, Ferdinand de Lesseps, who had built the Suez Canal. He decided to build the Panama Canal by driving it straight through, at sea level all the way just as the Suez Canal had been driven. He had to make deep cuts through rocky hills and mountains and found it was impossible.

Then another French expedition of engineers was sent out to see what could be done. But again the technical difficulties were too much for them. Moreover, lots of the workers died from yellow fever.

Some years later—about 1904—the Americans took control of the Panama Zone. The construction of the canal started again. And just as the Frenchmen before them, the US engineers were powerless against difficulties which they could not overcome, again the workers died of fever, and there were more and more accidents.

It was then—in 1908—that Colonel Goethals was appointed as the Chief Engineer in charge of the construction of the Panama Canal. The first thing he did was to organize a fight against the diseases which had been killing the workers since the canal was first begun. All swamps, lakes had to be covered with a film of oil to destroy the breeding places of mosquitoes. Goethals built a large scale drainage system of canals, ditches and sewers, windows and doors had to be protected with fine wire netting.

Colonel Goethals did not follow the idea of building a canal on the same level all the way. He thought it was impossible to construct. His idea was to carry the canal at different heights by means of locks and sluices. He was successful where so many others had failed. The canal was finished early in October 1913, a great achievement in modern engineering. On the 10th of October President Wilson of the United States pressed a golden button in the White House in Washington; 2,000 miles away the electric current from the White House made a dynamite charge explode and blow up the last dam between the finished canal and the sea. The Atlantic and the Pacific were now connected with each other.

LINCOLN AIRPORT DURING THE STORM

(an extract from "Airport")

(after A. Hailey)

At half-past six on a Friday evening in January, Lincoln International Airport, Illinois, was functioning though with difficulty.

The airport was suffering from the meanest, roughest winter storm. The storm has lasted three days. It had been born five days ago in the Colorado mountains. At first it was so small that most forecasters on their air route weather charts had either failed to notice or ignored it. As if in resentment it grew into a giant storm.

It crossed Kansas and Oklahoma, then paused at Arkansas, gathering strength. Finally over Illinois the storm unloaded, almost paralyzing the state with winds, freezing temperatures, and a ten-inch snowfall in twenty-four hours. Maintenance snow crews were nearing exhaustion.

A United Air Lines food truck loaded with two hundred dinners was lost somewhere on the airport perimeter. A search for the truck—in driving snow and darkness—had so far failed to locate either the missing vehicle or its driver.

United's Flight III—a non-stop DC-8 for Los Angeles, which the food truck was to service—was already several hours behind schedule. Similar delays, for varying reasons, were affecting at least a hundred flights of twenty other airlines using Lincoln International.

Out on the airfield, runway three zero was out of use, blocked by a jet—a Boeing 707—its wheels deeply mired in waterlogged ground beneath snow, near the runway's edge. Two hours of intensive effort had failed to get the big jet moved.

Air Traffic Control, because of the loss of runway three zero, had limited the volume of incoming traffic from adjoining air route centres. Despite this, twenty incoming flights were stacked up overhead, and orbiting, some nearing low fuel limits. On the ground, twice that number were readying for take-off. Meanwhile, terminal gates, taxiways, and ground holding areas were increasingly crammed with waiting aircraft, many with engines running.

Air freight warehouses—of all airlines—were stacked with goods,

their usual high speed transit slowed down by the storm. Freight supervisors were nervously watching perishables—a ton of Pennsylvania cheese for Alaska; frozen peas for Iceland. The lobsters were for tomorrow's menus in Edinburgh and Paris where they would be billed as "fresh local seafood", and American tourists would order them unknowingly. Storm or not, contracts decreed that air freight perishables must arrive at destination fresh, and swiftly.

Causing special anxiety in American Airlines Freight was a shipment of several thousand turkey poults, hatched in incubators only hours earlier. The precise hatching-shipping schedule was set up weeks ago, before the turkey eggs were laid. It called for delivery of the live birds on the West Coast within forty-eight hours of birth, the limit of the tiny creatures' existence without their first food or water. Normally, the arrangement provided a near-hundred per cent survival. Significant also—if the poults were fed en route, they would stink, and so would the airplane conveying them, for days afterward. Already the poults' schedule was out of joint by several hours. But an airplane had been diverted from passenger to freight service, and tonight the fledgling turkeys would have priority over everything else.

In the main passenger terminal, chaos predominated. Terminal waiting areas were jammed with thousands of passengers from delayed or canceled flights. Baggage, in piles, was everywhere.

HEINRICH SCHLIEMAN

Heinrich Schlieman was one of the world's most extraordinary men. From early childhood he wanted to find Troy, to prove that the Greece of Homer was fact not myth. He had to overcome many difficulties—poverty, illness, lack of education to achieve the goal. He trained himself as an archaeologist, he was a genius at languages. His mind was brilliant, his energy immeasurable. He walked the Great wall of China and penetrated the jungles of Mexico and Peru.

His wife Sophia was his partner in all the excavations. The book devoted to their life covers their tremendous discoveries and excavations. Troy came first. At Troy they discovered in Priam's palace, the great treasure of more than 10,000 pieces. Schlieman offered the treasure to the British museum, which refused it, ultimately it went to Berlin and disappeared at the end of the Second World War.

(...) Work progressed rapidly through the long days. And in late spring, 1873, came the day that justified their hopes.

Sophia and Heinrich were digging together but without a crew on a level flagstone floor between two walls. One was the wall of the house that Heinrich thought was the Palace of Priam, the other, a high fortification wall. Heinrich standing apart from Sophia, struck metal, a strike that triggered the most sensational archaeological news of the nineteenth century. He called to her. In a moment she stood beside him, looking at a big copper object of a most peculiar shape. Then she too saw a glint of brighter metal. Without speaking, she helped Heinrich

dig into the wall. On top of it there was a layer of red ruins, about five feet thick and hard as stone. The fortification wall rested on that layer.

The copper object was finally freed from the earth, and the Schliemans stared at the hole. Gold gleamed from it. Heinrich turned to Sophia, his back to the opening. Soundlessly his lips formed the words: None must see it.

In a whisper he told Sophia to tell the workmen to have extra time to rest in honour of his birthday. After that Sophia returned. Together they cut out the treasure with a large knife which it was impossible to do without the greatest risk to their life, for the fortification well threatened every moment to fall down. As a jumble of gold, silver and copper objects began to pile up Sophia took the treasure to their room in her big red shawl.

In their room they began to examine the more than 10,000 precious objects they had dug out from the earth that morning.

Heinrich and Sophia picked up a huge silver vase. Lifting the vase to eye level Heinrich shook the heavy object. His fingers explored the inside of the neck of the vase, and gently pulled out from it gold so glorious that Sophia involuntarily cried out.

Heinrich held two deadems. Sophia slid her hand into the vase and pulled out four golden earrings.

Heinrich implusively tilted the silver vase, and thousand of tiny objects tumbled to the table. When the tiny gold treasures were counted, they numbered 8,700.

POLLUTION

Few, if any, countries are as heavily polluted as Japan, where 110 million people—about half as many as live in the United States—are crammed into an area about the size of the State of Montana.

Postwar economic expansion has so befouled the country that the Japanese—many of whom expect to be wearing gas masks most of the time within 10 to 15 years—bitterly joke that GNP (Gross National Progress) stands for "Gross National Pollution".

According to one estimate waste generated per square mile in Japan is 10 times larger than in the US.

Government statistics disclose that nearly 100 persons have died and more than 6,000 have become ill of "pollution related" diseases since an official count began in December, 1969. Some experts believe the real toll is at least twice as high.

Schoolchildren at play have been knocked out by smog. Rivers are unswimmable, and the best beaches are contaminated. Half the commercial fishing grounds in the seas around Japan have been ruined by industrial wastes. Tokyo police use an oxygen-inhaler after one hour of directing traffic.

Deepening Trouble. The problem of filthy waters, dirty air and poisoned land is getting steadily worse.

Already, authorities contend, the mortality rate in heavily polluted areas is almost three times the normal rate.

The Prime Minister's office estimates that about 30 million people—more than one third of the urban population—have suffered from some form of pollution in the past five years.

Experts complain that industry, to a large extent, has ignored the damage it is doing, and that government at most levels has been indifferent.

They point out that sewerage and waste-disposal systems in Japan are grossly inadequate. Motor vehicles have multiplied 10 times in 10 years, and now number nearly 21 million—2.3 million in Tokyo alone. Yet devices to control engine emissions are installed only on automobiles for export.

Government studies show that 70 per cent of Japanese companies fail to process any of their wastes, which are piling up at the rate of 58 million tons a year. Many factories are handicapped by old equipment and out-of-date technology. Chief offenders are producers of chemicals, electric power, non-ferrous metals, petrochemicals, paper and steel.

"Alarming Speed". The damage to the environment, while easy to see, is impossible to assess accurately. Pollution was ignored in Japan for years. Even today, the dangers are not fully appreciated. Says "Yomiuri Shimbun," one of the country's leading newspapers:

"Health hazards and environmental destruction caused by pollution have been spreading with alarming speed throughout the country. Yet leaders of industrial organizations still hold the view that pollution is a 'necessary evil' and that economic progress cannot be accomplished without it."

The country was shocked a year ago when a Cabinet minister suggested that the Japanese "must have the spirit to eat contaminated rice."

Fourteen vaguely worded antipollution bills passed by Parliament in December, 1970, have had little effect.

Lesson 1

§ 1. ГЛАГОЛ *TO BE*

Глагол **to be** в Present, Past и Future Indefinite имеет следующие формы:

Present Indefinite	Past Indefinite	Future Indefinite
I am he } she } is (есть) it } we } you } are (есть) they }	I he } she } was it } был была было we } you } were they } были	I shall be буду he } she } will be будет it } we shall be будем you } will be будете they } будут

В вопросительном предложении глагол **to be** ставится перед подлежащим. Например:

Was he in Africa last year?

Он был в Африке в прошлом году?

Where were you yesterday?

Где вы были вчера?

Отрицательная форма глагола **to be** в Present и Past Indefinite образуется без помощи вспомогательного глагола; отрицание **not** следует непосредственно за глаголом **to be**. Например:

The institute is not far from the metro station.

Институт находится недалеко от станции метро.

§ 2. ГЛАГОЛ *TO HAVE*

Глагол **to have** в Present, Past и Future Indefinite имеет следующие формы:

Present Indefinite		Past Indefinite		Future Indefinite			
I	} have	у меня есть	} had	я имел	} shall я буду иметь		
we		мы имеем		мы имели		we	have мы будем иметь
you		ты имеешь		ты имел		you	ты будешь иметь
they		вы имеете		вы имели		they	вы будете иметь
he		они имеют		они имели		he	will он } они будут иметь
she	} has	она } имеет	he	он имел	} will он } она } будет		
it		оно }	she	она имела			
(для неодушевленного существительного)			it	оно имело		it	have она } оно } будет иметь

Вопросительная форма глагола **to have** может быть образована двумя способами:

1) С помощью глагола **to do**. Например:

Did you have a lecture on philosophy yesterday? У вас вчера была лекция по философии?

2) Путем постановки глагола **to have** перед подлежащим. Например:

Had you a lecture on philosophy yesterday? У вас вчера была лекция по философии?

Отрицательная форма глагола **to have** может строиться двумя способами:

1) При помощи отрицательного местоимения **no** (или отрицательной группы **not any**) перед существительным. Например:

They have no car. У них нет машины.
I have not any car. У меня нет машины.

2) Обычным способом образования отрицательной формы глагола, т.е. при помощи вспомогательного глагола **to do**. Например:

I did not have much work to do yesterday. Вчера у меня было немного работы.

§ 3. ОБОРОТ **THERE + TO BE**

Эта конструкция употребляется в сообщениях, когда в центре внимания говорящего находится сказуемое, выраженное глаголами *быть, иметь, находиться, существовать*. Глагол **to be** ставится в личной форме (*is, are, was, were, will be*) и согласуется с последующим именем существительным. Перевод таких предложений надо начинать с обстоятельства места или со сказуемого. Например:

1. There are many new books at the institute library.	1. В институтской библиотеке много новых книг.
2. There are different methods of learning English words.	2. Существуют различные методы (способы) заучивания английских слов.

В вопросительном предложении глагол в личной форме ставится на первое место перед **there**.

Вопрос:

Is there a school in your street? На вашей улице есть школа?

Ответ:

Yes, there is. Да, есть.
No, there is not. Нет.

В полном отрицательном предложении после оборота **there+to be** ставится отрицательное местоимение **no**.

There will be no lecture on physics tomorrow. Завтра лекции по физике не будет.

Перед **many, much** и числительными ставится **not** вместо **no**.

There aren't many interesting articles in this magazine. В этом журнале мало интересных статей.

§ 4. СТЕПЕНИ СРАВНЕНИЯ ПРИЛАГАТЕЛЬНЫХ

Имена прилагательные, как и в русском языке, имеют положительную, сравнительную и превосходную степени.

I. Односложные прилагательные и двусложные с ударением на первом слоге и некоторые другие двусложные прилагательные образуют сравнительную степень с помощью суффикса **-er**, а превосходную степень с помощью суффикса **-est**. Имя существительное, определяемое прилагательным в превосходной степени, употребляется с определенным артиклем.

Положительная степень	Сравнительная степень	Превосходная степень
This building is high. Это здание высокое.	That building is higher. То здание выше.	That is the highest building in the city. Это самое высокое здание города.

II. Сравнительная степень многосложных прилагательных образуется при помощи слова **more**, а превосходная — при помощи слова **(the) most**. Для того чтобы выразить уменьшение качества или свойства предмета, употребляются слова **less** *менее*; **(the) least** *наименее*.

Положительная степень	Сравнительная степень	Превосходная степень
This film is interesting. Этот фильм интересный.	That film is more interesting. Тот фильм более интересный.	That is the most interesting film I saw. Это самый интересный фильм, который я видел.
This work is important. Эта работа важная.	That work is less important. Та работа менее важная.	This work is the least important. Эта работа наименее важная.

III. Некоторые прилагательные образуют степени сравнения от разных основ.

Положительная степень	Сравнительная степень	Превосходная степень
good хороший	better лучше	(the) best самый лучший
bad плохой	worse хуже	(the) worst самый худший
many, much много	more больше	(the) most самый большой
little маленький	less меньше	(the) least самый маленький, наименьший

Другие способы выражения сравнения:

1. Для сравнения двух предметов одинакового качества прилагательное в основной форме ставится между парными союзами *as ... as*, означающими *так ... же ... как*. Для того чтобы избежать повторения существительного, употребляется местоимение *one (ones — для множественного числа)* или указательное местоимение *that (those)*.

This street is as long as that one. Эта улица такая же длинная, как та.

The days in summer are longer than those in winter. Летом дни длиннее, чем (дни) зимой.

2. Для выражения неравной степени качества в двух сравниваемых предметах используется парный союз *not so ... as*, который на русский язык переводится *не такой ... как*.

The Dnieper is not so long as the Volga. Днепр не такая длинная река, как Волга.

3. Сравнительный союз *the ... the* в сочетании с прилагательным или наречием в сравнительной степени переводится на русский язык союзом *чем ... тем*.

The sooner the better. Чем скорее, тем лучше.

4. После сравнительной степени употребляется союз **than**, который переводится словом *чем* или совсем не переводится.

Exercise 5 is easier than exercise 7.

Упражнение 5 легче (чем) упражнения (упражнение) 7.

§ 5. ВРЕМЕНА ГРУППЫ INDEFINITE ACTIVE

Глаголы в формах Indefinite относят действие к настоящему, прошедшему или будущему времени, не уточняя, как оно протекает во времени. Времена Indefinite Active образуются от инфинитива — неличной формы глагола.

Present Indefinite Tense

Формы глагола в Present Indefinite совпадают с инфинитивом без частицы **to**. Лишь в 3-м лице единственного числа добавляется суффикс **-s**.

Это время употребляется для выражения обычного действия, происходящего вообще, а не в момент речи. Например:

We study at the institute every day except Sunday.

Мы занимаемся в институте каждый день, кроме воскресенья.

His brother lives in the Far East.

Его брат живет на Дальнем Востоке.

Past Indefinite Tense

Стандартные глаголы образуют формы в Past Indefinite путем прибавления к инфинитиву (без частицы **to**) суффикса **-ed (-d)** для всех лиц единственного и множественного числа.

Например: ask (спрашивать) — asked (спросил)

translate (переводить) — translated (перевел)

Нестандартные глаголы образуют формы в Past Indefinite различными способами. Например:

Infinitive	Перевод	Past Indefinite	Перевод
to go	ходить	went	ходил
to write	писать	wrote	писал
to give	давать	gave	дал
to take	брать	took	взял
to come	приходить	came	пришел

Past Indefinite употребляется, когда речь идет о действии, имевшем место в прошлом:

1) Для выражения ряда последовательных действий.

He stood up, came up to the window and saw an endless stream of cars, running along the street.

Он встал, подошел к окну и увидел бесконечный поток машин, едущих по улице.

2) Когда действие соотносится с обстоятельственными словами, точно обозначающими прошедшее время; к ним относятся наречия *ago (тому назад)*, *yesterday (вчера)*, словосочетания *last month*

(week, year) (в прошлом месяце, на прошлой неделе, в прошлом году). Это время также употребляется при обозначении часа действия, дня недели, месяца, года.

My friends came to see me on Saturday.

I took this book from the library last week.

Мои друзья приходили ко мне в субботу.

Я взял эту книгу в библиотеке на прошлой неделе.

3) Когда интересуются временем совершения действия в прошлом, т.е. в вопросительном предложении, начинающемся с вопросительного слова **when**.

When did you see her last?

Когда вы видели ее в последний раз?

Future Indefinite Tense

Формы глагола в Future Indefinite образуются при помощи вспомогательных глаголов **shall** (для 1-го лица единственного и множественного числа), **will** (для всех других лиц) и инфинитива глагола без частицы **to**. Например:

We shall go to the country tomorrow.

He will make his report next week.

Завтра мы поедем за город.

Он будет делать доклад на следующей неделе.

Таблица времен группы Indefinite Active

Время \ Форма	Present Indefinite	Past Indefinite	Future Indefinite
Утвердительная	My friends study French. He reads newspapers every day.	My friends studied French at school. He read newspapers yesterday.	My friends will study French at the Institute. He will read newspapers tomorrow.
Вопросительная	Do your friends study French? Does he read newspapers every day?	Did your friends study French at school? Did he read newspapers yesterday?	Will your friends study French at the Institute? Will he read newspapers tomorrow?
Отрицательная	My friends do not study French. He does not read newspapers every day.	My friends did not study French at school. He did not read newspapers yesterday.	My friends will not study French at the Institute. He will not read newspapers tomorrow.

КОНСТРУКЦИЯ СПЕЦИАЛЬНЫХ ВОПРОСОВ

1. В специальных вопросах, относящихся к любому члену предложения, кроме подлежащего и его определения, и начинающихся всегда с вопросительного слова, вспомогательный глагол стоит перед подлежащим, а сказуемое в инфинитивной форме без частицы *to* сохраняет свое место после подлежащего.

Вопросительные слова	Вспомогательный глагол	Подлежащее и определение к нему	Сказуемое в инфинитивной форме	Другие члены предложения
What Where When	do did will	you he she	do go return	in the evening? yesterday? home?

2. В вопросах, относящихся к подлежащему или его определению, вопросительное слово является подлежащим или определением подлежащего, поэтому полностью сохраняется порядок слов утвердительного предложения.

Who knows his address?
Who will help you with this work?
Whose father worked as a doctor?

ОТВЕТЫ НА ВОПРОСЫ

1. На общий вопрос дается краткий ответ.

Do you know German?	Yes, I do.
	No, I don't.
Did he study German at school?	Yes, he did.
	No, he didn't.
Will they come tomorrow?	Yes, they will.
	No, they won't (will not).

2. На специальный вопрос дается полный ответ.

What language did you study at school?—I studied English.
Where does your mother work?—She works at the Ministry.
What will they do after work?—They will go home.

3. На специальный вопрос к подлежащему, как правило, дается краткий ответ.

Who will help them?—I shall.
Who saw her yesterday?—They did.
Who translates articles from foreign journals? — We do.

Lesson 2

§ 6. ВРЕМЕНА ГРУППЫ INDEFINITE PASSIVE

Залог — категория глагола, которая показывает отношение действия к субъекту или объекту.

Страдательный залог — The Passive Voice — показывает что предмет или лицо, являющееся подлежащим, подвергается действию.

The radio was invented by Popov. Радио было изобретено Поповым.

Страдательный залог выражается сочетанием вспомогательного глагола to be с Participle II (причастие прошедшего времени).

На русский язык Passive Voice может переводиться следующими способами:

1) Сочетанием глагола *быть* (в прошедшем и будущем временах) с краткой формой причастия страдательного залога.

The article was translated. Статья была переведена.
The article will be translated. Статья будет переведена.

Глагол-связка *быть* в русском предложении в настоящем времени опускается.

The article is translated. Статья (есть) переведена.

2) Глаголом с окончанием на *-ся*.

Technical articles are translated at every lesson. Технические статьи переводятся на каждом уроке.

3) Неопределенно-личной формой, т.е. без подлежащего.

Technical articles are translated at every lesson. Технические статьи переводят на каждом уроке.

Глагол в форме Indefinite Passive может переводиться на русский язык глаголом совершенного и несовершенного вида, так как форма Indefinite не уточняет характера действия.

Houses are built very quickly now. Дома строятся (строят) теперь очень быстро.
These houses are built of concrete. Эти дома построены из бетона.

В английском языке в пассивном залоге показателем времени служит глагол to be, который изменяется в зависимости от лица и числа подлежащего. Смысловой глагол стоит всегда в форме Participle II, т.е. остается неизменным.

New films are shown here every week. Новые фильмы показывают здесь каждую неделю.
A new film was shown here yesterday. Новый фильм был показан здесь вчера.
A new film will be shown here tomorrow. Новый фильм будет показан здесь завтра.

Если указывается, кем или чем производится действие, то употребляется существительное или местоимение, управляемое предлогами **by** или **with**, выражающими отношение творительного падежа.

The new engine was designed by our engineers.
The laboratory is equipped with automatic machinery.

Новый двигатель был сконструирован нашими инженерами.
Лаборатория оборудована автоматическими механизмами.

В английском предложении за сказуемым в страдательном залоге может следовать **предлог**; слово, с которым этот предлог соотносится, является подлежащим. Поэтому при переводе на русский язык этот предлог ставится перед подлежащим.

The engineer was sent for.
This article is much spoken about.

За инженером послали.
Об этой статье много говорят.

Подлежащее английского предложения пассивной конструкции при переводе на русский язык может стоять не только в именительном падеже, но и в любом косвенном падеже в зависимости от контекста.

The chief engineer was sent abroad.
The chief engineer was sent many telegrams.
This information was referred to.

Главного инженера послали за границу.
Главному инженеру послали много телеграмм.
На эту информацию ссылались.

§ 7. МОДАЛЬНЫЕ ГЛАГОЛЫ И ИХ ЭКВИВАЛЕНТЫ

Модальные глаголы обозначают не само действие, а указывают на отношение к нему говорящего. Модальные глаголы выражают способность, возможность, допустимость, долженствование.

Модальные глаголы употребляются только в сочетании с инфинитивом смыслового глагола без частицы **to**. Эти глаголы часто называются недостаточными, так как они:

1. Не имеют неличных форм — инфинитива, причастия, герундия.

2. Не изменяются ни по лицам, ни по числам (не имеют окончания в 3-м лице ед. числа):

He can do it himself.

Он может сделать это сам.

3. Образуют вопросительную форму путем постановки глаголов **can**, **must** или **may** перед подлежащим, а отрицательную форму — путем добавления отрицания **not**.

Can you play tennis?
Must I translate this article?

Вы умеете играть в теннис?
Мне нужно переводить эту статью?

You mustn't smoke here.

Здесь нельзя курить.

Примечание. Поскольку отрицательная форма глагола **must** употребляется только для выражения запрещения, для того чтобы передать значение отсутствия

необходимости (*не нужно, не надо, не должен*), употребляется модальный глагол **need**, в отрицательной форме — **needn't**.

"Must I translate these sentences?"
"No, you needn't."

Нужно ли мне переводить эти предложения? — Нет, не нужно.

4. **Can** и **may** имеют формы настоящего и прошедшего времени, глагол **must** имеет только форму настоящего времени.

Наряду с модальными глаголами **can, may, must** для выражения долженствования, допустимости, способности или возможности совершения действия используется ряд других глаголов, которые употребляются как наряду с модальными глаголами, так и вместо недостающих форм этих глаголов.

Выражение долженствования

Долженствование может быть выражено:

1) **must+inf.** без **to** в настоящем времени во всех лицах.

I must do it at once.

Я должен сделать это немедленно.

2) **to have+inf.** с **to** в настоящем, прошедшем и будущем времени.

To have to выражает долженствование, вытекающее из внешних условий, и часто переводится на русский язык глаголом *приходится*.

I had to work hard to pass my examination.

Я должен был (мне пришлось) много работать, чтобы сдать экзамен.

3) **to be+inf.** с **to** в настоящем и прошедшем времени:

To be to означает долженствование, вытекающее из предварительной договоренности или плана.

We were to inspect the engine very carefully.

Мы должны были очень тщательно осмотреть этот двигатель.

4) **should** в самостоятельном предложении употребляется для выражения морального долга или совета, относящегося к настоящему или будущему времени.

You should go and see him tomorrow.

Вы должны (вам следует) навестить его завтра.

Выражение способности или возможности совершения действия

1) **can+inf.** без частицы **to** в настоящем времени.

could+inf. без частицы **to** в прошедшем времени.

I can play tennis.

Я могу (умею) играть в теннис.

He could help you.

Он мог помочь вам.

2) **to be able+inf.** с частицей **to** в настоящем, прошедшем и будущем времени.

We shall be able to see each other very often.

Мы сможем часто видаться.

Выражение допустимости совершения действия

- 1) **may+inf.** без частицы **to** в настоящем времени.
might+inf. без частицы **to** в прошедшем времени.

You may come here every day. Вы можете приходить сюда каждый день.

2) **to be allowed+inf.** с частицей **to** в настоящем, прошедшем и будущем времени.

He was allowed to take books from the University library. Ему разрешили (позволили) брать книги из университетской библиотеки.

Сводная таблица модальных глаголов и их эквивалентов

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

Lesson 3

§ 8. ВРЕМЕНА ГРУППЫ CONTINUOUS ACTIVE AND PASSIVE

Глаголы в формах Continuous употребляются, когда требуется подчеркнуть, что действие продолжается, продолжалось или будет продолжаться в то время, о котором идет речь, т.е. когда нужно выразить действие в процессе его совершения.

Present Continuous (Active and Passive) употребляется для выражения длительного действия, совершаемого в момент речи. Эти формы образуются следующим образом:

Active

to be в настоящем времени (**am, is, are**) + Participle I смыслового глагола.

Passive

to be в настоящем времени (**am, is, are**) + *being* + Participle II смыслового глагола.

Глаголы в формах Present Continuous (Active and Passive) переводятся на русский язык глаголами несовершенного вида, иногда с добавлением слова *сейчас*.

They are translating the new article. (active)

Они *переводят* новую статью сейчас.

The article is being translated. (passive)

Статья *переводится* сейчас. (Статью *переводят*).

Примечание. Глаголы в формах Present Continuous Passive переводятся на русский язык формами глагола только несовершенного вида с окончанием *-ся* или неопределенно-личным предложением.

Past Continuous (Active and Passive) употребляется для выражения действия, которое продолжало совершаться в определенный момент в прошлом, обозначаемом либо точным указанием момента или отрезка времени, либо другим действием, выраженным глаголом в Past Indefinite.

Эти формы образуются следующим образом:

Active

to be в прошедшем времени (**was, were**) + Participle I смыслового глагола.

Passive

to be в прошедшем времени (**was, were**) + *being* + Participle II смыслового глагола.

We were working in the laboratory from 5 till 7 o'clock. (active)

Мы *работали* в лаборатории с 5 до 7 часов.

He was translating the article when I came. (active)

Он *переводил* статью, когда я пришел.

The article was being translated when I came. (passive)

Статья *переводилась*, когда я пришел.

Future Continuous (Active) употребляется для выражения действия, которое будет совершаться в будущем в течение указанного периода времени. Образуется из сочетания вспомогательного глагола **to be** в будущем времени (**shall be, will be**) + Participle I смыслового глагола.

I shall be reading the book all day long.

Я *буду читать* книгу завтра целый день.

Примечание. Пассивная форма в Future Continuous не существует.

Таблица времен группы Continuous Active

Время Форма	Present Continuous	Past Continuous	Future Continuous
Утвердительная	They are having an English lesson. He is still writing an exercise.	They were having an English lesson when I came to see them. He was writing an exercise from 6 till 8 o'clock.	They will be having an English lesson tomorrow at 9 o'clock. He will be writing an exercise from 6 till 8 o'clock tomorrow.
Вопросительная	Are they having an English lesson? Is he still writing an exercise?	Were they having an English lesson when I came to see them? Was he writing an exercise from 6 till 8 o'clock?	Will they be having an English lesson tomorrow at 9 o'clock? Will he be writing an exercise from 6 till 8 o'clock tomorrow?
Отрицательная	They are not having an English lesson, they are having a Russian lesson. He is not writing an exercise, he is reading a book.	They were not having an English lesson when I came to see them, they were having a Russian lesson. He was not writing an exercise from 6 till 8 o'clock, he was reading a book.	They will not be having an English lesson tomorrow at 9 o'clock, they will be having a Russian lesson. He will not be writing an exercise from 6 till 8 o'clock tomorrow, he will be reading a book.

§ 9. УСИЛИТЕЛЬНАЯ КОНСТРУКЦИЯ

It is/was ... { who
that
when

В английском языке существует особая конструкция для выделения отдельных членов предложения.

В русском языке в подобных случаях употребляются лексические средства усиления: *только, как раз, именно, только тогда* и т.д.

It was Nick who told me the news.

Именно Николай и рассказал мне эту новость.

It is the gravitation that makes the satellites move round the Earth.

Именно сила земного притяжения и заставляет спутники вращаться вокруг Земли.

It was yesterday when we got his letter.
It was yesterday that I met him at the institute.

Как раз вчера мы получили его письмо.
Я встретил его в институте только вчера.

§ 10. ЧИСЛИТЕЛЬНОЕ (THE NUMERAL)

Количественные

1—one
2—two
3—three
4—four
5—five
6—six
7—seven
8—eight
9—nine
10—ten
11—eleven
12—twelve
13—thirteen
20—twenty
21—twenty-one

100—one (a) hundred
101—one hundred and one (books)
1001—one thousand and one (books)
1200—one thousand two hundred (books) = twelve hundred (books)
2,045,328 books—two million forty-five thousand three hundred and twenty-eight books

Хронологические даты

in 1900—in nineteen hundred	— в 1900 году
in 1905—in nineteen five	— в 1905 году
in 1964—in nineteen sixty-four	— в 1964 году
on the 15th of January, 1968—on the fifteenth of January, nineteen sixty-eight	— 15 января 1968 года
on January 15, 1958—on January fifteenth, nineteen fifty-eight	— 15 января 1958 года

Номера страниц, комнат, автобусов и т. д.

on page 305=three hundred and five=three-o-five	— на странице 305
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Порядковые

the first
the second
the third
fourth
fifth
sixth
seventh
eighth
ninth
tenth
eleventh
twelfth
thirteenth
twentieth
twenty-first

hundredth

in room 418 — four hundred and eighteen	— в комнате 418
to take the 134 bus—the one three four bus	— ехать 134-м автобусом

Дробные числа (простые и десятичные)

1/3 ton—third of a ton	— 1/3 тонны
1/2 kilometre—half of a kilometre	— 1/2 км
1/4 kilometre — a quarter of a kilometre	— 1/4 км
3/5 ton—three fifths of a ton	— 3/5 тонны
0.5—point five	— 0,5
3.217—three point two one seven	— 3,217
54.85 tons — fifty-four point eighty-five tons	— 54,85 тонны

Lesson 4

§ 11. ВРЕМЕНА ГРУППЫ PERFECT ACTIVE AND PASSIVE

Глаголы в формах Perfect указывают, что действие закончено или закончится к определенному моменту времени в настоящем, прошедшем или будущем.

Глаголы в формах Perfect обычно переводятся на русский язык глаголами в форме прошедшего или будущего времени совершенного вида, чем и подчеркивается завершенность действия.

Present Perfect (Active and Passive) употребляется:

1) Для выражения завершившегося действия, когда время не указано.

I have seen a new film. (active)	Я <i>видел</i> новый фильм.
The letter has been sent. (pas- sive)	Письмо <i>отправлено</i> .

2) С обстоятельством, выражающими период времени, не закончившийся до настоящего момента (*today, this week, this month, this year*).

They have completed the work this week. (active)	Они <i>закончили</i> работу на этой неделе.
The work has been completed this month. (passive)	Работа <i>закончена</i> в этом месяце.

3) С наречиями неопределенного времени, такими, как:

always	всегда	never	никогда
ever	когда-либо	seldom	редко
often	часто	just	только что
already	уже	not yet	еще нет

В этом случае глагол в форме Present Perfect обычно переводится на русский язык глаголом несовершенного вида.

I have never read that book.
He has often been to Minsk.

Я никогда не читал той книги.
Он часто бывал в Минске.

4) Для обозначения действия, начавшегося в прошлом и продолжающегося в настоящем, со словами *since с тех пор как* и *for в течение*; в этом случае глагол в форме Present Perfect обычно переводится на русский язык глаголом в настоящем времени.

I have known him since 1970.
He has lived here for many years.

Я знаю его с 1970 года.
Он живет здесь уже много лет.

Формы глагола в Present Perfect образуются следующим образом:

Active

to have в настоящем времени (**have, has**)+Participle II смыслового глагола.

Passive

to have в настоящем времени (**have, has**)+*been*+Participle II смыслового глагола.

Past Perfect (Active and Passive) употребляется для выражения действия, закончившегося до начала другого действия или до указанного момента в прошлом.

The letter had been written by yesterday evening. (passive)
He had already written the letter when I came to see him. (active)

Вчера к вечеру письмо было написано.
Он уже написал письмо, когда я пришел к нему.

Формы глагола Past Perfect Active образуются при помощи вспомогательного глагола **to have** в прошедшем времени — **had** и Participle II смыслового глагола.

Формы глагола в Past Perfect Passive образуются следующим образом: **had**+*been*+Participle II смыслового глагола.

Future Perfect (Active and Passive) употребляется для выражения действия, которое закончится до начала другого действия или до указанного момента в будущем.

They will have returned before you come home. (active)
Many letters will have been got by the end of the week. (passive)

Они возвратятся до того, как вы придете домой.
Много писем будет получено к концу месяца.

Формы глагола в Future Perfect образуются следующим образом:

Active

to have в будущем времени — **will have (shall have)**+Participle II смыслового глагола.

Passive

to have в будущем времени — will have (shall have)+been+Participle II смыслового глагола.

Таблица времен группы Perfect Active

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

Таблица времен Indefinite, Continuous and Perfect Passive

Время	Present	Past	Future
Indefinite	The letter is written. Письмо пишут. Письмо пишется.	The letter was written. Письмо было написано.	The letter will be written. Письмо напишут. Письмо будет написано.
Continuous	The letter is being written. Письмо пишется (сейчас).	The letter was being written all day. Письмо писали весь день. Письмо писалось весь день.	—
Perfect	The letter has been written. Письмо написано.	The letter had been written by yesterday evening. Письмо уже было написано вчера к вечеру.	The letter will have been written by tomorrow evening. Письмо будет написано завтра к вечеру.

Lesson 5

§ 12. СОГЛАСОВАНИЕ ВРЕМЕН (SEQUENCE OF TENSES)

Согласование времен в английском языке состоит в следующем:

1. Если глагол-сказуемое главного предложения стоит в настоящем времени, то глагол-сказуемое придаточного предложения может стоять в любом, требуемом по смыслу времени.

He says that Он говорит, что	}	he is busy now. он занят сейчас. he was busy yesterday. он был занят вчера. he will be busy tomorrow. он будет занят завтра.
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2. Если глагол-сказуемое главного предложения стоит в прошедшем времени, то сказуемое дополнительного придаточного предложения тоже должно стоять в одном из прошедших времен.

а) Если действия обоих сказуемых совершаются одновременно, то в придаточном предложении сказуемое употребляется в форме Past Indefinite или Past Continuous, которые в данном случае переводятся на русский язык глаголом в настоящем времени.

He said that he was busy.
He said that he was translating
an article from an English technical journal.

Он сказал, что он занят.
Он сказал, что он переводит статью из английского технического журнала.

б) Если действие, выраженное сказуемым придаточного предложения, предшествовало действию, выраженному сказуемым главного предложения, то в придаточном предложении употребляется время Past Perfect, которое переводится на русский язык глаголом в прошедшем времени.

He said that he had been busy yesterday.

Он сказал, что он был занят вчера.

в) Если в придаточном предложении требуется выразить действие, которое произойдет в будущем, то вместо вспомогательных глаголов **shall/will** употребляются вспомогательные глаголы **should/would**. Эта форма английского глагола называется Future-in-the-Past. На русский язык эта форма переводится глаголом в будущем времени.

He said that he would be busy tomorrow.

Он сказал, что он будет занят завтра.

He said Он сказал,	}	that he worked at a plant. что он работает на заводе. that he had worked at a plant. что он работал на заводе. that he would work at a plant. что он будет работать на заводе.
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Правила согласования времен соблюдаются при переводе предложений из прямой речи в косвенную.

He says, "I am busy today."
He says that he is busy today.

Он говорит: Я занят сегодня.
Он говорит, что он сегодня занят.

He said, "I am busy today."
He said that he was busy that day.

Он сказал: Я занят сегодня.
Он сказал, что он занят сегодня.

Предложения, выражающие общий вопрос в прямой речи, в косвенной вводятся союзом **whether** или **if**.

He asked me: "Are you translating the article?"

Он спросил меня: Вы переводите статью?

He asked me if (**whether**) I was translating the article.

Он спросил меня, перевожу ли я статью.

§ 13. НЕОПРЕДЕЛЕННЫЕ МЕСТОИМЕНЕНИЯ **SOME**, **ANY** И ОТРИЦАТЕЛЬНОЕ МЕСТОИМЕНИЕ **NO**

Значение неопределенных местоимений и перевод их на русский язык зависят от того, в каком предложении они употребляются — в утвердительном, вопросительном или отрицательном.

1. Местоимение **some**.

а) **some** — *некоторые, несколько* — употребляется в утвердительных предложениях:

We shall discuss **some** problems at the conference.

На конференции мы обсудим *несколько (некоторые)* вопросов.

б) если **some** стоит перед неисчисляемыми существительными, заменяя артикль, оно на русский язык не переводится:

Let's have **some** tea.

Давайте выпьем чаю.

в) если **some** стоит перед числительным, оно имеет значение *приблизительно*:

There were **some** 20 people in the room.

В комнате было *около* 20 человек.

2. Местоимение **any**.

а) если **any** стоит перед исчисляемым существительным в единственном числе в утвердительном предложении, оно имеет значение *всякий, любой*:

You can get this newspaper at **any** book-stand.

Вы можете достать эту газету в *любом* киоске.

б) если **any** стоит перед существительным в вопросительном предложении, оно имеет значение *какой-либо*:

Is there **any** news of him?

От него есть *какие-либо* известия?

в) в отрицательных предложениях **any** имеет значение *никакой*:
 He was not asked **any** questions. Ему не было задано *никаких* вопросов.

г) если **any** стоит перед неисчисляемым существительным, то на русский язык оно не переводится.

There isn't **any** water in the well. В колодце нет воды.

3. Местоимения **no** и **none**.

а) перед существительным в единственном и множественном числе **no** имеет значение *никакой, нет*:

There is **no** information on this question. По этому вопросу нет *никакой* информации.

б) **none** употребляется взамен уже упоминавшегося существительного:
 Are there **any** books on this problem in your library? В вашей библиотеке есть книги по этому вопросу?
 No, there are **none**. Нет.

Производные слова от местоимений **some, any, no, every**

Местоимения **some, any, no, every** со словами **thing (вещь), body (субъект), one (некто), where (где, куда)** образуют сложные местоимения.

Таблица производных слов от **some, any, no, every**

Местоимения	→ thing	+ { body one	+ where	Употребляются
some <i>некоторый, какой-то, какой-нибудь, несколько</i>	something <i>что-то, что-нибудь</i>	somebody, someone <i>кто-то, кто-нибудь</i>	somewhere <i>где-то, куда-то, где-нибудь, куда-нибудь</i>	в утверд. предл.
any <i>всякий, любой, какой-нибудь</i>	anything <i>всё, что-то, что-нибудь</i>	anybody, anyone <i>всякий, все кто-то, кто-нибудь</i>	anywhere <i>везде, где-нибудь, куда-нибудь</i>	в утверд. и вопросит. предл.
no, not any <i>никакой</i>	nothing (not anything) <i>ничто, ничего</i>	nobody (not anybody), no one, none <i>никто</i>	nowhere (not anywhere) <i>нигде (никуда)</i>	в отрицат. предл.
every <i>всякий, каждый</i>	everything <i>все</i>	everybody everyone <i>все</i>	everywhere <i>везде, повсюду</i>	в утверд., вопросит. и отрицат. предл.

Lesson 6

§ 14. ПРИЧАСТИЕ (THE PARTICIPLE)

Причастие является неличной формой глагола, в которой сочетаются признаки имени прилагательного или наречия с признаками глагола.

В английском языке существуют два вида причастий: **Participle I** и **Participle II**.

Participle I может иметь простую (**coming**) и сложные (аналитические) формы (**having come, being read**). Participle II имеет только простую форму (**written**). Participle I и Participle II обозначают признак предмета, но, в отличие от прилагательного, признак, обозначаемый причастием, указывает на действие или состояние предмета (a moving part), а не на его качества (a small part).

Participle I

Participle I выполняет в предложении самостоятельные функции определения и обстоятельства.

Participle I в функции определения может находиться:

а) перед определяемым словом:

the shining star

сияющая звезда

б) после определяемого слова:

The stars shining in the dark sky seemed blue.

Звезды, сиявшие в темном небе, казались голубыми.

На русский язык Participle I в функции определения переводится причастием действительного залога с суффиксами-окончаниями *щий (-щийся), -щая, -щее, -щие*, иногда *-вший -вшие*, независимо от времени действия, выраженного сказуемым.

Participle I в функции обстоятельства стоит чаще всего в начале предложения и отвечает на вопросы: *как? когда?* Переводится на русский язык деепричастием несовершенного вида, оканчивающимся на *-а, -я*, например, *читая, сидя* и т. д.

Translating the article he consulted the dictionary.

Переводя статью, он пользовался словарем.

Перед Participle I в функции обстоятельства часто стоят союзы **when** или **while**. Такие предложения переводятся на русский язык либо деепричастным оборотом с опущением союза, либо придаточным предложением, которое начинается с союзов *когда, в то время как*. В качестве подлежащего этого предложения употребляется существительное, стоящее за этим оборотом, или заменяющее его личное местоимение.

While translating the article the student consulted the dictionary.

- 1) Переводя статью, студент пользовался словарем.
- 2) Когда студент переводил статью, он пользовался словарем.

Participle II

Participle II выполняет в предложении функции определения и обстоятельства.

Participle II в функции определения отвечает на вопрос *какой?, какая?, какое?* и может стоять:

а) перед определяемым словом:

the improved methods

улучшенные методы

б) после определяемого слова:

The theatre built in the last century needed reconstruction.

Театр, *построенный* в прошлом веке, нуждался в реконструкции.

На русский язык Participle II в функции определения переводится причастиями страдательного залога совершенного и несовершенного вида с суффиксами-окончаниями *-нный, -емый, -имый, -тый*: *invented* — *изобретенный, изобретаемый*.

Перед Participle II в функции обстоятельства иногда могут стоять союзы *if, unless, when*. В таком случае оно переводится на русский язык чаще всего безличным обстоятельственным придаточным предложением. Подлежащее английского предложения при этом переводится русским личным местоимением соответствующего рода и числа (в главном предложении).

When asked this question he could not answer it at once.

Когда ему задали этот вопрос, он не мог ответить на него сразу.

Сложные формы причастий

Participle I Indefinite Passive выполняет функции:

1) определения и переводится на русский язык причастием настоящего времени действительного или страдательного залога или определительным придаточным предложением:

The bridge being built across the river is very beautiful.

Мост, *строющийся* (который строится) через реку, очень красивый.

2) обстоятельства (времени, причины) и переводится на русский язык обстоятельственным придаточным предложением:

Being built of wood the bridge could not withstand heavy loads.

Так как мост *был построен* (будучи построенным) из дерева, он не мог выдержать тяжелых нагузов.

Perfect Participle Active выражает действие, предшествовавшее действию, выраженному сказуемым, и переводится на русский язык деепричастием совершенного вида.

Having finished the experiment the students left the laboratory.

Закончив эксперимент, студенты ушли из лаборатории.

Perfect Participle Passive, выполняя функцию обстоятельства (времени, причины), выражает действие, предшествовавшее действию сказуемого, и переводится на русский язык обстоятельственным придаточным предложением. При этом в качестве подлежащего русского придаточного предложения употребляется подлежащее английского предложения.

Having been translated into many languages Pushkin's books became known all over the world.

После того как книги Пушкина были переведены на многие языки, они стали известны во всем мире.

Таблица форм причастий

Participle I		Participle II	
	Active	Passive	
Indefinite	changing 1) определение: <i>изменяющий (-вший)</i> 2) обстоятельство: <i>изменяя</i>	being changed 1) определение: <i>изменяющийся, изменяемый, который изменяется</i> 2) обстоятельство: <i>будучи измененным</i>	changed 1) определение: <i>изменяемый, измененный</i> 2) обстоятельство: <i>когда изменили</i>
Perfect	having changed обстоятельство: <i>изменив</i>	having been changed обстоятельство: <i>когда изменили, после того как изменили</i>	

§ 15. НЕЗАВИСИМЫЙ ПРИЧАСТНЫЙ ОБОРОТ (THE ABSOLUTE PARTICIPLE CONSTRUCTION)

«Независимый причастный оборот» в отличие от зависимого причастного оборота имеет собственное (независимое) подлежащее, выраженное существительным в общем падеже или личным местоимением в форме именительного падежа. На русский язык этот оборот переводится придаточным обстоятельственным предложением, начинающимся союзами *если, так как, поскольку, когда, после того как* и др., если оборот предшествует подлежащему со сказуемым, выраженным личной формой глагола.

His father being very ill, he had to send for the doctor.

Поскольку его отец был очень болен, он должен был послать за доктором.

Предложения с «Независимым причастным оборотом», стоящим в конце предложения, чаще всего переводятся на русский язык сложносочиненным предложением с союзами *причем, а, и, но*.

Mendeleyev discovered the Periodic Law of elements, the table of elements bearing his name.

Менделеев открыл периодический закон элементов, и таблица элементов носит его имя.

Если действие, выраженное причастием «Независимого причастного оборота», предшествовало действию глагола-сказуемого предложения, то употребляется Perfect Participle.

The article having been translated, the student showed it to the teacher.

Когда статья была переведена, студент показал ее преподавателю.

Формальные признаки «Независимого причастного оборота»:

- 1) перед причастием стоит существительное без предлога или местоимение в именительном падеже;
- 2) «Независимый причастный оборот» всегда отделен запятой.

Lesson 7

§ 16. ГЕРУНДИЙ (THE GERUND)

Герундий — неличная форма глагола, имеющая грамматические особенности как глагола, так и существительного и всегда выражающая действие как развивающийся процесс. Например:

increasing — увеличение
obtaining — получение
heating — нагревание и т. д.

Таблица форм герундия

	Active	Passive
Indefinite	writing	being written
Perfect	having written	having been written

Синтаксические функции герундия в предложении и способы его перевода на русский язык

Функция	Пример	Перевод
1. Подлежащее	1. Smoking is not allowed here.	1. <i>Курить</i> здесь не разрешается.
2. Именная часть составного сказуемого	2. His hobby is driving a car.	2. Его любимое занятие — <i>водить</i> машину.
3. Дополнение:		
а) прямое	3а. The car needs repairing .	3а. Машина нуждается в ремонте.
б) предложное	3б. They spoke about their travelling to the North.	3б. Они говорили о поездке на север.
4. Определение	4. There are different ways of obtaining this substance.	4. Существуют различные способы получения этого вещества.
5. обстоятельство	5. After receiving good results they stopped experiments.	5. Получив (после того как получили) хорошие результаты, они прекратили эксперименты.

Выводы:

1. В функции подлежащего, определения, именной части сказуемого и прямого дополнения герундий переводится существительным или инфинитивом (см. примеры 1, 2, 3а, 4).
2. В функции предложного дополнения герундий переводится существительным или придаточным предложением (см. пример 3б).
3. В функции обстоятельства герундий переводится существительным с предлогом, деепричастием или придаточным предложением (см. пример 5).
4. Сложные формы герундия чаще всего переводятся придаточным предложением.

I know of his **having been appointed** to a new job. Я знаю, что его назначили на новую работу.

§ 17. КОНВЕРСИЯ

Конверсия — это одна из форм словообразования. При конверсии от существующего слова без изменения его графической формы образуется новое слово, относящееся к другой части речи. Например, от существительного могут быть образованы глаголы:

place	— место	to place	— помещать
house	— дом	to house	— вмещать
seal	— изоляция	to seal	— изолировать

Нередко встречаются совпадающие по форме прилагательные и глаголы:

clean	— чистый	to clean	— чистить
empty	— пустой	to empty	— опустошать
free	— свободный	to free	— освобождать

В некоторых случаях совпадение форм встречается у нескольких частей речи. Например, **back** может быть существительным со значением *спина*, прилагательным со значением *задний*, глаголом со значением *поддерживать* и наречием со значением *обратно*.

Показателями того, к какой части речи относится данное слово, являются служебные слова — артикли и частицы.

The bright light came in through the window.

Яркий свет проникал через окно.

He stopped to light a cigarette.

Он остановился чтобы зажечь сигарету.

Lesson 8

§ 18. ИНФИНИТИВ (THE INFINITIVE)

Инфинитив, являясь неличной формой глагола, имеет свойства как существительного, так и глагола.

Инфинитив может выполнять функции подлежащего, дополнения, обстоятельства, определения, а также может быть именной частью составного сказуемого.

1. To read English is a great pleasure. (в функции подлежащего)

Читать по-английски — большое удовольствие.

2. He likes to read English. (в функции дополнения)

Ему нравится читать по-английски.

3. His task was to complete the work on time. (в функции именной части сказуемого)

Его задача состояла в том, чтобы закончить работу вовремя.

4. To know a foreign language well you must learn many words. (в функции обстоятельства цели)

Чтобы знать хорошо иностранный язык, надо выучить много слов.

В функции обстоятельства цели инфинитив может стоять в начале предложения или в конце. Перед ним иногда стоят союзы *in order, so as* — *чтобы, для того чтобы*.

They went there (in order) to help you.

Они поехали, чтобы помочь вам.

They went there (so as) to help you.

Они поехали туда для того, чтобы помочь вам.

5. The material to be tested has been carefully examined. (в функции определения)

Вещество, которое должно быть испытано, было тщательно исследовано.

Если определение выражено инфинитивом (обычно в пассивной форме), то на русский язык оно переводится придаточным определительным предложением с оттенком будущности и долженствования.

Инфинитив может выражать характер действия (длительность, законченность) и имеет залог.

Употребление форм инфинитива

1. Indefinite Infinitive (Active and Passive) обозначает действие одновременное действию, выраженному глаголом-сказуемым.

I want to show you a new picture. (active) Я хочу *показать* вам новую картину.

I want to be shown a new picture. (passive) Я хочу, чтобы мне *показали* новую картину.

2. Continuous Infinitive (Active) обозначает действие, которое развивается одновременно с действием, выраженным глаголом-сказуемым.

I know her to be translating an English article. Я *знаю*, что она *переводит* английскую статью.

3. Perfect Infinitive (Active and Passive) обозначает действие, предшествовавшее действию, выраженному глаголом-сказуемым.

I know him to have sent the letter. (active) Я *знаю*, что он *послал* письмо.

I know the letter to have been sent yesterday. (passive) Я *знаю*, что письмо *было послано* вчера.

4. Perfect Continuous Infinitive обозначает действие, которое длилось в течение определенного периода времени до настоящего момента, и в этом случае он переводится на русский язык глаголом в настоящем времени.

I know him to have been studying English for three years. Я *знаю*, что он *изучает* английский язык три года.

Таблица форм инфинитива

	Active	Passive
Indefinite	He is glad to help his friend. Он рад <i>помочь</i> своему другу.	He is glad to be helped . Он рад, что <i>ему помогают</i> .
Continuous	He is glad to be helping his friend. Он рад, что <i>помогает</i> своему другу (<i>сейчас</i>).	—
Perfect	He is glad to have helped his friend. Он рад, что <i>помог</i> своему другу.	He is glad to have been helped . Он рад, что <i>ему помогли</i> .
Perfect Continuous	He is glad to have been helping his friend. Он рад, что <i>помогал</i> своему другу.	—

§ 19. ЦЕПОЧКА ОПРЕДЕЛЕНИЙ

Если между артиклем (или другим определителем) и существительным, к которому он относится, стоит несколько существительных, они образуют цепочку определений, а существительное, к которому относится артикль, является по отношению к ним опорным. С него рекомендуется начинать перевод цепочки определений.

a steam engine car	автомобиль с паровым двигателем
the car speed calculation problem	проблема вычисления скорости (движения) автомобиля

Lesson 9

§ 20. ОБЪЕКТНЫЙ ИНФИНИТИВНЫЙ ОБОРОТ (THE OBJECTIVE INFINITIVE CONSTRUCTION)

«Объектный инфинитивный оборот» представляет собой сочетание имени существительного в общем падеже или местоимения в объектном падеже с инфинитивом глагола.

«Объектный инфинитивный оборот» равнозначен придаточному предложению и поэтому имеет два элемента: 1) имя (существительное или местоимение), обозначающее лицо или предмет, которое совершает действие (соответствует подлежащему придаточного предложения) и 2) инфинитив, выражающий действие, совершаемое лицом или предметом (соответствует сказуемому придаточного предложения). Поэтому «Объектный инфинитивный оборот» переводится на русский язык придаточным дополнительным предложением, вводимым союзами *что, чтобы, как*.

«Объектный инфинитивный оборот» употребляется после глаголов, выражающих:

1) желание или потребность:

to want	}	— хотеть, требовать, нуждаться
to wish	}	желать
to desire	}	— я хотел бы
I should like		

He wants me to help him.

Он *хочет*, чтобы я помог ему.

I wish my friends to come on Sunday.

Я *хочу*, чтобы мои друзья пришли в воскресенье.

I should like you to translate this article.

Я *бы хотел*, чтобы вы перевели эту статью.

2) предположение, мнение, суждение:

to suppose	—	полагать, предполагать
to expect	—	ожидать
to consider	—	считать
to assume	—	предполагать, допускать
to prove	—	оказываться, доказывать

to believe	—	полагать, считать
to understand	—	понимать
to know	—	знать
to think	—	думать, считать

I suppose him to be about forty.
They expect the ship to arrive tonight.

They don't consider him to be a good engineer.

I believe her to be in Leningrad now.

Я полагаю, что ему лет сорок.
Они ожидают, что пароход придет сегодня вечером.

Они не считают, что он хороший инженер.

Я полагаю, что она сейчас в Ленинграде.

В конструкции «Объектный инфинитивный оборот» после глаголов **to consider, to think** глагол **to be** может опускаться. Например, вместо **I consider him to be a good specialist** можно сказать **I consider him a good specialist** и на русский язык перевести буквально, а именно: *Я считаю его хорошим специалистом.*

3) физическое восприятие и ощущение:

to watch	}	наблюдать
to observe		
to notice	—	замечать
to see	—	видеть
to hear	—	слышать
to feel	—	ощущать

После всех этих глаголов, а также после глаголов **to make, to cause** в значении *заставлять, вынудить* инфинитив употребляется без частицы **to**.

We did not see the teacher enter the room.

Have you heard him play the piano?

Мы не видели, как преподаватель вошел в комнату.

Слышали ли вы, как он играет на пианино?

4) знание, осведомленность, утверждение, констатацию факта:

to know	—	знать
to note	—	отмечать
to find	—	находить
to claim	—	утверждать
to state	—	констатировать

We know him to have taken part in the expedition.

Мы знаем, что он принимал участие в экспедиции.

5) принуждение, разрешение или запрет:

to make	}	заставлять
to cause		
to force		— вынуждать
to allow	}	позволять
to permit		
to order	}	приказывать
to command		
to enable		— давать возможность

«Объектный инфинитивный оборот» после этих глаголов не переводится развернутым придаточным предложением.

Our English teacher makes us learn the words for every lesson.	Наш преподаватель английского языка заставляет нас учить слова к каждому уроку.
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Инфинитив после перечисленных глаголов нередко встречается в страдательном залоге (Passive Voice). В этом случае он переводится на русский язык инфинитивом в форме действительного залога и ставится перед существительным, которое в английском предложении предшествует инфинитиву.

The chief engineer allowed the new engine to be tested.	Главный инженер разрешил испытывать новый двигатель.
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§ 21. СУБЪЕКТНЫЙ ИНФИНИТИВНЫЙ ОБОРОТ (THE SUBJECTIVE INFINITIVE CONSTRUCTION)

Неопределенно-личным предложениям русского языка чаще всего в английском языке соответствуют пассивные обороты, как например:

It is said that...	Говорят, что...
It is reported that...	Сообщается, что...
It is supposed that...	Предполагается, что...

Сложноподчиненное предложение с главным предложением, выраженным неопределенно-личным оборотом типа *it is said* (говорят), *it is known* (известно), *it seems* (кажется), *it is likely* (вероятно), имеет свой эквивалент, — простое предложение, в которое входит особая конструкция «Субъектный инфинитивный оборот». Эта конструкция, выраженная существительным в общем падеже или местоимением в именительном падеже с инфинитивом, переводится на русский язык придаточным предложением.

It is said that they live in Leningrad.	Говорят, что они живут в Ленинграде.
They are said to live in Leningrad.	

Сказуемое английского предложения (*are said*) при переводе на русский язык преобразуется в сказуемое главного предложения, представляющее собой неопределенно-личный оборот (*говорят*), подлежащее (*they*) становится подлежащим русского придаточного

предложения, а инфинитив (to live) — его сказуемым. Придаточное предложение в русском переводе вводится союзом *что*. «Субъектный инфинитивный оборот» употребляется с глаголами, обозначающими утверждение, знание, физическое восприятие, просьбу, приказание, которые могут стоять в любом времени в страдательном залоге, а именно с глаголами:

to say	говорить
to know	знать
to think	полагать, думать
to report	сообщать
to suppose	предполагать
to expect	ожидать, полагать
to consider	считать, рассматривать
to assume	допускать
to believe	полагать
to see	видеть
to hear	слышать
	и др.

She is said to know several foreign languages.

Говорят, что она знает несколько иностранных языков.

They were reported to have arrived in Moscow.

Сообщили, что они приехали в Москву.

He is known to have a large collection of pictures.

Известно, что у него большая коллекция картин.

«Субъектный инфинитивный оборот» употребляется также в сочетании с некоторыми непереходными глаголами, которые могут стоять в любом времени в действительном залоге, а именно с глаголами:

to seem	}	казаться
to appear		
to prove		
to turn out		
to happen	—	оказаться
	—	случаться

She seemed to know everybody at the plant.

Казалось, она знала на заводе всех.

This young lecturer appears to know this subject well.

Кажется (по-видимому), этот молодой лектор хорошо знает свой предмет.

I happened to be there at that time.

Случилось так, что я был там в это время.

Для выражения залоговых и видовых значений в «Субъектном инфинитивном обороте» используются различные видовые и залоговые формы инфинитива.

Indefinite Infinitive выражает действие, одновременное с действием, выраженным сказуемым предложения.

He is said to work hard at his English.

Говорят, что он работает над английским уроном.

Continuous Infinitive выражает действие как процесс, протекающий одновременно с действием, выраженным сказуемым предложением.

The weather appears to be improving.

Кажется, (что) погода улучшается.

Perfect Infinitive выражает действие, совершенное ранее действия, выраженного сказуемым, и переводится на русский язык формой глагола в прошедшем времени.

This house is said to have been built two hundred years ago.

Говорят, что этот дом был построен около двухсот лет тому назад.

Перевод на русский язык английских предложений, содержащих «Субъектный инфинитивный оборот», следует начинать со сказуемого, передавая его русским неопределенно-личным оборотом, затем имя существительное в общем падеже вместе с инфинитивом переводится придаточным предложением, присоединяемым к главному подчинительным союзом *что*:

The expedition is reported to have reached the North Pole.

Сообщают, что экспедиция достигла Северного полюса.

§ 22. ФУНКЦИИ И ПЕРЕВОД СЛОВА *ONE (ONES)*

One, стоящее перед личной формой глагола, является формальным подлежащим и указывает на то, что данное предложение является неопределенно-личным. В этом случае на русский язык **one** не переводится, а глагол в личной форме переводят обычно во 2-м лице единственного числа или в 3-м лице множественного числа.

One never knows what he can do.

Никогда не знаешь, что он может сделать.

One в форме притяжательного падежа переводится на русский язык местоимением *свой, своя, свое*.

One should always keep one's word.

Надо всегда держать *свое* слово.

One часто употребляется в сочетании с модальными глаголами.

One cannot understand why they are not helped in their work.

Невозможно понять, почему им не помогают в их работе.

One should be careful when working with chemical substances.

Нужно быть осторожным при работе с химическими веществами.

One may work in this laboratory only observing certain rules.

В этой лаборатории *можно* работать только при соблюдении определенных правил.

One (ones для мн. ч.) может выступать в качестве слова-заместителя, т. е. употребляться для замены ранее упомянутого исчисляемого существительного или существительных.

I haven't got a dictionary. I must buy one.

Here are some books. Which ones would you like?

Перед one (ones) в качестве слова-заместителя может стоять артикль (the one) либо другие определители и определения (this one, another one, the black ones). В этом случае при переводе на русский язык one обычно опускают.

I don't like this fountain pen, show me another one, please.

This article is easier than the one we translated last week.

What pencils will you take? The black ones.

У меня нет словаря. Я должен купить *словарь*.

Вот несколько книг. Какие (*книги*) вы хотели бы?

Мне не нравится эта авторучка, покажите мне *другую*, пожалуйста.

Эта статья легче, чем *та*, которую мы переводили на прошлой неделе.

Какие карандаши вы возьмете? Черные.

§ 23. ФУНКЦИИ И ПЕРЕВОД СЛОВА THAT (THOSE)

Функции	Примеры	Перевод
1. That (ед. ч.) — указательное местоимение <i>тот, та, то</i> (иногда <i>этот</i>), обычно стоит перед существительным. Those (мн. ч.) — <i>те</i>	Give me that text-book please. I like those flowers better. The work of the new device is much more efficient than that of the old one.	Дайте мне, пожалуйста, <i>тот</i> учебник. <i>Те</i> цветы мне нравятся больше. Работа нового прибора гораздо более эффективна, чем <i>работа</i> старого.
2. That (of), those (of) — слова-заместители; они заменяют упомянутое существительное, переводятся или словом, которое заменяют, или совсем не переводятся.	Spaceships can cover distances that are measured in millions of kilometres.	Космические корабли могут покрывать расстояния, <i>которые</i> измеряются миллионами километров.
3. That — относительное местоимение <i>который, -ая, -ое</i> ; после существительного вводит определительное придаточное предложение.	He said that he would do his best to help them.	Он сказал, <i>что</i> сделает все возможное, чтобы помочь им.
4. That — союз <i>что</i> ; после глагола вводит дополнительное придаточное предложение.	That he failed in his examination did not surprise anybody.	<i>То, что</i> он провалился на экзамене, никого не удивило.
5. That — союз <i>то, что</i> ; вводит придаточное подлежащее и придаточное сказуемое.		

§ 24. УСЛОВНЫЕ ПРИДАТОЧНЫЕ ПРЕДЛОЖЕНИЯ (ADVERBIAL CLAUSES OF CONDITION)

Формы сослагательного наклонения

В отличие от изъявительного наклонения, которое обозначает действие, как реальный факт, сослагательное наклонение (the Subjunctive Mood) показывает, что выражаемое им действие или явление являются предполагаемыми или желательными, а также возможными при известных условиях.

В русском языке сослагательное наклонение выражается сочетанием глагола в форме прошедшего времени с частицей *бы* и имеет только одну форму, которая может относиться к настоящему, прошедшему и будущему времени: Например:

Если *бы* я закончил работу вовремя, я *бы* смог проводить вас на вокзал (сегодня, завтра, вчера).

В английском языке имеются аналитические и синтетические формы сослагательного наклонения. Аналитическая форма глагола в сослагательном наклонении представляет собой сочетание **should** (для 1-го лица ед. и мн. числа) и **would** (для всех остальных лиц) с простым инфинитивом (Indefinite Infinitive) или перфектным инфинитивом (Perfect Infinitive).

Сочетание **should/would**+Indefinite Infinitive используется, если предположение относится к настоящему или будущему времени.

I should come.

Я *бы* пришел.

He would come.

Он *бы* пришел.

Сочетание **should/would**+Perfect Infinitive используется, если предположение относится к прошедшему времени.

I should have come then.

Я *бы* пришла тогда.

He would have come then.

Он *бы* пришел тогда.

В современном английском языке имеется небольшое число синтетических форм сослагательного наклонения.

Глагол **to be** имеет форму **be** для всех лиц при выражении предположения, желания или возможности, относящихся к настоящему времени (употребляется редко). Глагол **to be** в прошедшем времени имеет форму **were** для всех лиц единственного и множественного числа. На русский язык обе формы глагола переводятся одинаково.

If I be...

If I were...

} Если *бы* я был...

Для выражения желательного, предположительного действия, относящегося к настоящему или будущему времени, для всех других глаголов используются формы сослагательного наклонения, сходные с формой Past Indefinite изъявительного наклонения.

If I came earlier, I should speak
to him.

Если бы я пришел пораньше,
я бы поговорил с ним.

Употребление форм изъявительного или сослагательного наклонения в условных придаточных предложениях

Условные придаточные предложения могут выражать реальные, маловероятные и нереальные условия. В зависимости от характера условия условные предложения принято подразделять на условные предложения первого типа (реальные), второго типа (нереальные или маловероятные условия, относящиеся к настоящему или будущему времени) и третьего типа (нереальные условия, относящиеся к прошедшему времени).

Условные придаточные предложения первого типа

Условие, содержащееся в условном придаточном предложении, рассматривается говорящим как реально предполагаемый факт, относящийся к настоящему, прошедшему и будущему времени. В этом случае сказуемые главного и придаточного предложений выражаются глаголами в формах изъявительного наклонения.

If the weather is good, we shall
go skiing.

If the weather was good, we went
skiing.

If the weather is good, we go
skiing.

Если погода будет хорошей, мы
пойдем кататься на лыжах.

Если погода была хорошей, мы
ходили кататься на лыжах.

Если погода хорошая, мы хо-
дим кататься на лыжах.

Условные придаточные предложения второго типа

Условие, содержащееся в условном придаточном предложении, рассматривается говорящим как маловероятное. Для выражения малой вероятности осуществления действия в настоящем или будущем времени сказуемое главного предложения употребляется в форме сослагательного наклонения — **should/would + Indefinite Infinitive без to**, а сказуемое придаточного предложения — в форме сослагательного наклонения, аналогичной форме **Past Indefinite**, или **were** для всех лиц от глагола **to be**.

На русский язык глагол придаточного предложения переводится глаголом в сослагательном наклонении с частицей *бы*.

If the plane landed, they would
let us know about it.

If he were here, I should speak
to him.

Если бы самолет приземлился,
они бы нам сообщили об этом.

Если бы он был здесь, я бы с
ним поговорил.

Условные придаточные предложения третьего типа

Условие, содержащееся в условном придаточном предложении, рассматривается говорящим как фактически неосуществимое. Для выражения нереального условия, относящегося к прошедшему времени, сказуемое главного предложения употребляется в форме сослагательного наклонения — **should would + Perfect Infinitive**, а сказуемое придаточного предложения — в форме сослагательного наклонения, аналогичной форме **Past Perfect**.

На русский язык глагол придаточного предложения переводится глаголом в сослагательном наклонении с частицей *бы* (в русском языке не отличается от условного придаточного предложения второго типа).

If the weather conditions had been favourable, the construction of the bridge would have been completed in time.

Если бы погодные условия были благоприятными, строительство моста закончилось бы своевременно.

Инверсия в условном придаточном предложении

В условных придаточных предложениях второго и третьего типа союзы **if, provided** могут быть опущены, в этом случае в придаточном предложении вспомогательный глагол (**should, would, had, were** и др.) ставится перед подлежащим.

Had the engine been repaired yesterday, we should have left the port.

Если бы двигатель был отремонтирован вчера, мы бы покинули порт.

Were there any letters from him, his sister would telephone me.

Если бы от него были письма, его сестра позвонила бы мне.

Союзы условных придаточных предложений

Основными союзами условных предложений являются:

if — *если*

If you wait for me, we shall go there together.

Если вы подождете меня, мы пойдем туда вместе.

unless — *если не*

He will not finish his work in time unless you help him.

Он не закончит свою работу вовремя, если вы ему не поможете.

provided (providing) — (*при условии*) *если*

We shall start out at 7 sharp, provided everybody comes in time.

Мы выйдем точно в 7 часов, (при условии) если все соберутся вовремя.

Lesson 11

25. МНОГОЗНАЧНОСТЬ ГЛАГОЛОВ *SHALL, WILL, SHOULD, WOULD, TO BE, TO HAVE*

Функции глагола *shall*

1. Вспомогательный глагол для образования глагольных форм будущего времени в 1-м лице ед. и мн. числа.

We shall not take an examination in physics in June. Мы не будем сдавать экзамен по физике в июне.

2. Модальный глагол с оттенком долженствования в утвердительном и отрицательном предложениях во 2-м и 3-м лицах.

You shall not say so. Вы не должны так говорить.

Функции глагола *will*

1. Вспомогательный глагол для образования глагольных форм будущего времени во 2-м и 3-м лицах ед. и мн. числа.

He will not do it. Он не сделает этого.

2. Модальный глагол со значением *хотеть* (в 1-м лице).

I will help you. Я хочу вам помочь.

3. Употребляется для выражения повторных привычных действий в отношении настоящего и будущего времени.

He will sit for hours without saying a word. Он сидит часами, не говоря ни слова.

Функции глагола *should*

1. Модальный глагол, выражающий долженствование (во всех лицах ед. и мн. числа).

You should do this work again. Вам нужно сделать эту работу еще раз.

2. Вспомогательный глагол в формах сослагательного наклонения.

If I knew his address I should write to him. Если бы я знал его адрес, я бы написал ему.

3. Вспомогательный глагол для образования глагольных форм Future-in-the-Past (в 1-м лице ед. и мн. числа).

I said I should help him in the laboratory work. Я сказал, что буду помогать ему в лабораторной работе.

Функции глагола *would*

1. Модальный глагол, выражающий нежелание выполнить действие (в 1-м лице).

I would not read this book. Я не хотел читать эту книгу.

2. Вспомогательный глагол в формах сослагательного наклонения.
He would answer the question if he knew it. Он бы ответил на вопрос, если бы знал.

3. Вспомогательный глагол для образования глагольных форм Future-in-the-Past (во 2-м и 3-ем лицах ед. и мн. числа).

He said he would enter the University. Он сказал, что будет поступать в университет.

4. Употребляется для выражения повторных действий в прошлом.
In summer she would go swimming. Летом она обычно плавала.

Функции глагола *to be*

1. *to be* перед обстоятельством, обычно выраженным существительным с предшествующим предлогом, выступает в роли смыслового глагола *быть, находиться* в личной форме.

His books were in the bag. Его книги были в портфеле.

2. *to be* в сочетании с Participle II смыслового глагола употребляется для образования всех времен страдательного залога (Passive Voice).

The work was finished. Работу закончили.

3. *to be* в сочетании с Participle I смыслового глагола употребляется для образования сложных глагольных времен Continuous и Perfect Continuous действительного залога.

They are waiting for him. Они ждут его.

4. *to be* в сочетании с инфинитивом другого глагола с частицей *to* имеет модальное значение долженствования и указывает, что действие должно иметь место в соответствии с намеченным планом.

The teacher is to come at 5. Преподаватель должен прийти в 5 часов.

Функции глагола *to have*

1. *to have* перед существительным выступает в роли смыслового глагола *иметь, обладать*.

They have a house in the country. У них дом (они имеют дом) за городом.

2. to have в сочетании с Participle II смыслового глагола употребляется для образования сложных глагольных времен группы Perfect.

We have introduced a new system of work. Мы ввели новую систему работы.

3. to have в сочетании с инфинитивом другого глагола с частицей to имеет модальное значение долженствования.

I have to buy another newspaper. Я должен купить еще одну газету.

Lesson 12

§ 26. СОСТАВНЫЕ ПРЕДЛОГИ

Предлоги	Примеры	Перевод
1. according to <i>согласно чему-л.</i>	According to the information received by us the exhibition will open on May, 10.	Согласно полученным нами сведениям выставка откроется 10 мая.
2. as far as <i>до</i>	I went with him as far as Sverdlov Square and then we parted.	Я дошел с ним до площади Свердлова, а затем мы расстались.
3. because of <i>из-за</i>	The fishermen did not go into the open sea because of the storm.	Рыбаки не вышли в море из-за шторма.
4. by means of <i>посредством, с помощью</i>	All the calculations were made by means of electronic computer.	Все расчеты были сделаны с помощью электронно-вычислительной машины.
5. due to <i>из-за, благодаря</i>	He achieved these results due to his hard work.	Он достиг этих результатов благодаря усердной работе.
6. in addition to <i>в дополнение</i>	In addition to the oral examination they are given a written test.	В дополнение к устному экзамену они сдают письменный экзамен.
7. in front of <i>перед, впереди, напротив</i>	The bus stop is just in front of my house.	Автобусная остановка как раз перед моим домом.
8. in order to <i>чтобы, для того чтобы</i>	I went to the post office in order to send a telegram.	Я пошел на почту, чтобы послать телеграмму.
9. in spite of <i>несмотря на</i>	I went on an excursion in spite of the rain.	Я отправился на экскурсию, несмотря на дождь.
10. instead of <i>вместо</i>	May I go there instead of you?	Можно мне пойти туда вместо вас?
11. on account of <i>вследствие, из-за</i>	He was not sent to work in the North on account of his poor health.	Его не послали работать на север из-за слабого здоровья.
12. owing to <i>благодаря, из-за</i>	We could not get there in time owing to a severe storm.	Мы не могли прибыть туда вовремя из-за сильной бури.
13. thanks to <i>благодаря</i>	The fire was extinguished thanks to the energy of the fire brigade.	Пожар был потушен благодаря энергии пожарной команды.

§ 27. СОСТАВНЫЕ СОЮЗЫ

Союзы	Примеры	Перевод
1. as...as так (же)... как (и); такой (же)... как (и)	The strength of this material is as great as that of steel.	Прочность этого материала <i>так же</i> велика, как и прочность стали.
2. as long as (до тех пор) пока	As long as you apply old methods, you will not be able to accomplish this research.	<i>До тех пор пока</i> вы будете применять старые методы, вы не сможете завершить это исследование.
3. as soon as как только	As soon as you finish your calculations, we shall begin the tests.	Как <i>только</i> вы закончите расчеты, мы начнем испытания.
4. as well as так же как (и); и... и	We received your letter as well as your telegram.	Мы получили <i>и</i> ваше письмо <i>и</i> вашу телеграмму.
5. both...and как...так и	Franklin is known all over the world both as a scientist and as a progressive political leader.	Франклин известен всему миру <i>как</i> ученый, <i>так и</i> прогрессивный политический деятель.
6. either...or или...или; либо... либо	The chief engineer is either at the office or at the laboratory.	Главный инженер <i>либо</i> в конторе, <i>либо</i> в лаборатории.
7. in order that (для того) чтобы	The invitations were sent out early in order that the delegates might arrive in time for the conference.	Приглашения были разосланы заранее, <i>чтобы</i> делегаты прибыли на конференцию вовремя.
8. neither...nor ни...ни	Neither he nor I know French.	<i>Ни</i> он, <i>ни</i> я не знаем французского.
9. so that чтобы; для того чтобы	I gave him the book so that he could prepare the task at home.	Я дал ему книгу, <i>чтобы</i> он мог подготовить задание дома.
10. the ...the чем... тем	The longer I look at this picture the more I like it.	<i>Чем</i> больше я смотрю на эту картину, <i>тем</i> больше она мне нравится.

Словообразовательные аффиксы, представленные в учебнике

1. основа глагола + -tion/-sion/-ion → существительное (preparation)
2. основа глагола + -er/-or → существительное (writer)
3. основа глагола + -ing → существительное (opening)
4. основа глагола + -ment → существительное (development)
5. основа прилагательного + -ty → существительное (activity)
6. основа глагола + -ive → прилагательное (active)
7. un-/in-/ir-/il-/im- + основа прилагательного → прилагательное с отрицательным значением (unusual)
8. основа глагола + -able/-ible → прилагательное со значением возможности совершения действия, обозначаемого глаголом (disputable)
9. re- + глагол → глагол со значением повторного действия (re-write)
10. основа прилагательного + -ize → глагол (activize)
11. основа прилагательного + -ly → наречие (correctly)

**Сводная таблица основных форм нестандартных глаголов,
встречающихся в учебнике**

Infinitive	Past Indefinite	Participle II	Перевод
be	was, were	been	быть
beat	beat	beaten	бить
begin	began	begun	начинать
bring	brought	brought	приносить
build	built	built	строить
burn	burnt	burnt	сжигать
buy	bought	bought	покупать
come	came	come	приходить
cut	cut	cut	резать
do	did	done	делать
drink	drank	drunk	пить
drive	drove	driven	ехать
eat	ate	eaten	есть
fall	fell	fallen	падать
find	found	found	находить
fly	flew	flown	летать
give	gave	given	давать
go	went	gone	идти
grow	grew	grown	расти
have	had	had	иметь
hear	heard	heard	слышать
hold	held	held	держать
keep	kept	kept	хранить
know	knew	known	знать
lay	laid	laid	класть
lead	led	led	вести
leave	left	left	оставлять
lose	lost	lost	терять
make	made	made	делать
mean	meant	meant	иметь в виду
pay	paid	paid	платить
put	put	put	класть
read	read	read	читать
rise	rose	risen	подниматься
say	said	said	говорить
see	saw	seen	видеть
send	sent	sent	посылать
shake	shook	shaken	трясти
show	showed	shown	показывать
sit	sat	sat	сидеть
sleep	slept	slept	спать
speak	spoke	spoken	говорить
speed	sped	sped	ускорять
stand	stood	stood	стоять
swim	swam	swum	плавать
take	took	taken	брать
teach	taught	taught	учить
tell	told	told	говорить
think	thought	thought	думать
understand	understood	understood	понимать
wear	wore	worn	носить
win	won	won	выигрывать
wind	wound	wound	заводить
write	wrote	written	писать

ЯДРО ШКОЛЬНОЙ ЛЕКСИКИ

ГЛАГОЛЫ

- | | | |
|--------------------------|-------------------------|---------------------------|
| 1. act | 18. go (went, gone) | 35. say (said, said) |
| 2. answer | 19. have (had, had) | 36. see (saw, seen) |
| 3. ask | 20. hear (heard, heard) | 37. sit (sat, sat) |
| 4. be (was/were, been) | 21. help | 38. skate |
| 5. be born | 22. know (knew, known) | 39. ski |
| 6. begin (began, begun) | 23. learn | 40. sleep (slept, slept) |
| 7. close | 24. like | 41. speak (spoke, spoken) |
| 8. come (came, come) | 25. listen to | 42. stand (stood, stood) |
| 9. continue | 26. live | 43. study |
| 10. do (did, done) | 27. look at | 44. take (took, taken) |
| 11. dress | 28. love | 45. tell (told, told) |
| 12. drink (drank, drunk) | 29. open | 46. thank |
| 13. eat (ate, eaten) | 30. play | 47. translate |
| 14. end | 31. prepare | 48. travel |
| 15. excuse | 32. rain | 49. want |
| 16. get up (got, got) | 33. read (read, read) | 50. walk |
| 17. give (gave, given) | 34. repeat | 51. wash |

СУЩЕСТВИТЕЛЬНЫЕ

- | | | |
|----------------|---------------------------|---------------|
| 52. afternoon | 79. city | 106. father |
| 53. animal | 80. classroom | 107. February |
| 54. answer | 81. clock | 108. flat |
| 55. apple | 82. coat | 109. floor |
| 56. April | 83. comrade | 110. freedom |
| 57. arm | 84. corner | 111. Friday |
| 58. August | 85. country | 112. friend |
| 59. autumn | 86. date | 113. garden |
| 60. bag | 87. daughter | 114. girl |
| 61. ball | 88. day | 115. glass |
| 62. bed | 89. December | 116. hall |
| 63. bedroom | 90. desk | 117. head |
| 64. blackboard | 91. dictionary | 118. help |
| 65. body | 92. dining-room | 119. holiday |
| 66. book | 93. dinner | 120. home |
| 67. box | 94. door | 121. horse |
| 68. bread | 95. dress | 122. house |
| 69. breakfast | 96. East | 123. ice |
| 70. brother | 97. end | 124. ink |
| 71. building | 98. evening | 125. January |
| 72. bus | 99. example (for example) | 126. July |
| 73. cap | 100. exercise | 127. June |
| 74. car | 101. face | 128. lesson |
| 75. chair | 102. factory | 129. letter |
| 76. child | 103. family | 130. library |
| 77. children | 104. farm | 131. life |
| 78. cinema | 105. farmer | 132. love |

133. man (men)
134. map
135. March
136. May
137. milk
138. minute
139. mistake
140. money
141. month
142. morning
143. mother
144. name
145. newspaper
146. night
147. North
148. nose
149. notebook
150. November
151. October
152. page
153. paper
154. peace
155. pen
156. pencil

157. people
158. picture
159. play
160. pupil
161. question
162. reader
163. river
164. room
165. Russia
166. Saturday
167. school
168. scientist
169. sea
170. September
171. sister
172. skating-rink
173. snow
174. son
175. song
176. South
177. spring
178. square
179. story
180. street

181. summer
182. sun
183. Sunday
184. table
185. teacher
186. town
187. tram
188. tree
189. Tuesday
190. walk
191. wall
192. war
193. water
194. week
195. West
196. window
197. winter
198. woman (women)
199. word
200. work
201. worker
202. writer
203. year

ПРИЛАГАТЕЛЬНЫЕ

204. absent
205. bad
206. beautiful
207. big
208. black
209. blue
210. clean
211. cold
212. dark
213. different
214. difficult
215. English
216. famous

217. good
218. great
219. green
220. high
221. hot
222. ill (to be ill)
223. interesting
224. large
225. last
226. little
227. long
228. many, much
229. new

230. next
231. old
232. open
233. poor
234. ready (to be ready)
235. red
236. rich
237. right
238. short
239. small
240. warm
241. white
242. young

МЕСТОИМЕННИЯ

243. I
244. you
245. he
246. she
247. it
248. we
249. they
250. me
251. you
252. him

253. her
254. it
255. us
256. them
257. my
258. your
259. his
260. her
261. its
262. our

263. their
264. this
265. these
266. that
267. those
268. all
269. some
270. any
271. no

НАРЕЧИЯ

272. again
273. ago
274. far
275. here
276. near

277. now
278. never
279. quickly
280. there
281. today

282. tomorrow
283. yesterday
284. very
285. well

ЧИСЛИТЕЛЬНЫЕ

286. one	297. twelve	308. fifty
287. two	298. thirteen	309. sixty
288. three	299. fourteen	310. seventy
289. four	300. fifteen	311. eighty
290. five	301. sixteen	312. ninety
291. six	302. seventeen	313. hundred
292. seven	303. eighteen	314. thousand
293. eight	304. nineteen	315. the first
294. nine	305. twenty	316. the second
295. ten	306. thirty	317. the third
296. eleven	307. forty	318. the fourth

ВОПРОСИТЕЛЬНЫЕ СЛОВА

319. who	323. when	327. how many
320. whom	324. where	328. how much
321. whose	325. why	329. how long
322. what	326. how	

ПРЕДЛОГИ

330. against	334. in	338. out
331. around	335. into	339. to
332. at	336. of	340. under
333. from	337. on	341. with

СОЮЗЫ

342. and
343. but
344. or

СОКРАЩЕНИЯ

- a* — adjective — имя прилагательное
adv — adverb — наречие
cj — conjunction — союз
n — noun — имя существительное
num — numeral имя числительное
pl — plural — множественное число
pron — pronoun — местоимение
ppr — preposition — предлог
v — verb — глагол
L — lesson — урок (цифра после сокращений обозначает номер урока)

А

- about** [ə'baʊt] *ppr* (L5) о, об; *adv* около, приблизительно, почти
above [ə'baʊv] *ppr* (L7) над, выше; *adv* наверх
access ['ækses] *n* (L12) доступ, подход
accident ['æksɪdənt] *n* (L3) авария, катастрофа
accomplish [ə'kɒmplɪʃ] *v* (L12) выполнять, завершать
according to [ə'kɔ:diŋ] *ppr* (L12) согласно, соответственно
achievement [ə'tʃi:vtmənt] *n* (L3) достижение
acquire [ə'kwɪə] *v* (L11) приобретать
across [ə'krɒs] *ppr* (L10) через, сквозь
actually ['æktʃʊəli] *adv* (L11) 1. фактически; 2. в настоящее время
add [æd] *v* (L4) прибавлять, присоединять
admission [əd'mɪʃn] *n* (L5) доступ
adopt [əd'ɒpt] *v* (L10) принимать
advanced [əd'vɑ:nst] *a* (L7) передовой
advantage [əd'vɑ:ntɪdʒ] *n* (L7) преимущество, польза
adviser [əd'vaɪzə] *n* (L5) советник, консультант
after ['ɑ:ftə] *ppr* (L1) после, за; *cj* после того как
age [eɪdʒ] *n* (L1) 1. возраст; 2. век, эпоха
agree [ə'gri:] *v* (L11) соглашаться
aid [eɪd] *n* (L12) помощь; *v* помогать
air [eə] *n* (L3) воздух, атмосфера
aircraft ['ækrɑ:ft] *n* (L10) самолет
almost ['ɔ:lmoʊst] *adv* (L1) почти, едва не
alone [ə'ləʊn] *a* (L10) один; *adv* только, исключительно
also ['ɔ:lsəʊ] *adv* (L8) тоже, также
alter ['ɔ:lts] *v* (L12) изменять(ся)
although ['ɔ:lðəʊ] *cj* (L6) хотя, если бы даже
always ['ɔ:lweɪz] *adv* (L12) всегда
among [ə'mɒŋ] *ppr* (L4) среди, между
amount [ə'maʊnt] *n* (L12) количество, сумма; *v* доходить до, равняться, составлять
angle ['æŋɡl] *n* (L12) угол
another [ə'nʌðə] *pron* (L3) другой, еще один
appear [ə'pɪə] (L7) появляться, казаться
apply [ə'plai] *v* (L12) применять(ся)
area ['eəriə] *n* (L12) площадь, район
arouse [ə'raʊz] *v* (L7) будить, пробуждать
as [æz] *cj* (L12) в то время как; так как
as far as [əz 'fɑ:ɾəz] *cj* (L12) до, насколько
as long as [əz'lɔŋ əz] *cj* (L2) пока
as well as [əz 'wel əz] *cj* (L2) так же как
assemble [ə'sembəl] *v* (L7) собирать, монтировать

attend [ə'tend] *v* (L1) посещать; присутствовать
attention [ə'tenʃn] *n* (L6) внимание
available [ə'veɪləbl] *a* (L10) пригодный, полезный

В

back [bæk] *adv* (L5) назад, обратно
backward ['bækwəd] *a* (L8) обратный; отсталый; *adv* назад
basis ['beɪsɪs] *n* (L11) основание, базис
beam [bi:m] *n* (L11) 1. луч 2. брус, балка
beat [bi:t] *n* (L8) удар, бой; (**beat**; **beaten**; **beat**) *v* бить, ударять, стучать
because of [bi'kɔ:z əv] *conj* (L8) из-за, вследствие
bed [bed] *n* (L11) 1. постель; 2. основание
before [bɪ'fɔ:] *prp.* (L1) перед, раньше
behavior [bi'heɪvjə] *n* (L2) 1. поведение; 2. режим работы
behind [bɪ'haɪnd] *prp.* (L5) сзади, позади
believe [bɪ'li:v] *v* (L5) верить, полагать
besides [bɪ'saɪdz] *prp.* (L10) кроме
between [bɪ'twi:n] *prp.* (L1) между
boat [bəʊt] *n* (L9) лодка; *v* кататься на лодке
both [bəʊθ] *pron* (L4) оба, обе
both ... and ['bəʊθ ... 'ænd] *conj* (L12) как..., так и
branch [brɑ:ntʃ] *n* (L6) 1. ветвь; 2. отрасль
break down ['breɪk'daʊn] *v* (L10) ломаться, разрушаться
brick [brɪk] *n* (L7) кирпич
bring [brɪŋ] *v* (L3) приносить, приводить
build [bɪld] *v* (L2) строить, сооружать
bulky ['bʌlkɪ] *a* (L10) 1. большой; 2. громоздкий
burn [bɜ:n] *v* (L3) жечь, сжигать

С

calculate ['kælkjuleɪt] *v* (L6) вычислять
call [kɔ:l] *v* (L1) называть, вызывать, призывать
capable ['keɪpəbl] *a* (L10) способный
capacity [kə'pæsɪtɪ] *n* (L9) вместимость, емкость
capital ['kæpɪtəl] *n* (L6) столица
care [keə] *n* (L5) забота
carefully ['keəfʊli] *adv* (L6) аккуратно, тщательно

cargo ['kɑ:gou] *n* (L10) груз
carry ['kæri] *v* (L3) везти, перевозить
carry out *v* (L4) выполнять
in case of [ɪn 'keɪs əv] *prp.* (L12) в случае
cause [kɔ:z] *n* (L4) 1. дело; 2. причина, основание; *v* заставлять, вызывать
century ['sentʃuri] *n* (L9) век, столетие
certain ['sɜ:tn] *a* (L12) некоторый, определенный, уверенный
chain [tʃeɪn] *n* (L11) цепь, цепочка; *v* сковывать
change [tʃeɪnʒ] *n* (L3) изменение; *v* изменять
channel ['tʃænl] *n* (L6) 1. канал; 2. желоб, выемка
charge [tʃɑ:dʒ] *v* (L8) 1. поручать; 2. заряжать
check [tʃek] *v* (L12) проверять
chiefly ['tʃi:flɪ] *adv* (L8) особенно, главным образом
choose [tʃu:z] *v* (L5) выбирать
circular ['sɜ:kjələ] *a* (L11) круглый
civil ['sɪvl] *a* (L11) гражданский
clay [kleɪ] *n* (L3) глина
clear [kliə] *v* (L5) очищать
close [kloʊs] *a* (L4) близкий, плотный; *v* закрывать
cloud [klaʊd] *n* (L10) облако, туча
coach [kəʊtʃ] *n* (L8) карета, экипаж
coal [kəʊl] *n* (L3) уголь
collapse [kə'læps] *n* (L8) крах, крушение; *v* рушиться
combine [kəm'baɪn] *v* (L10) объединять
combustion [kəm'bastʃ(ə)n] *n* (L8) горение, сгорание
complete [kəm'pli:t] *a* (L1) полный; *v* заканчивать
complicated ['kɒmplɪkeɪtɪd] *a* (L5) сложный, трудный
concern [kən'sɜ:n] *v* (L11) касаться, иметь отношение; *n* забота
concrete ['kɒkri:t] *n* (L7) бетон; *a* конкретный
connect [kə'nekt] *v* (L8) соединять, связывать
consider [kən'sɪdə] *v* (L3) принимать во внимание, учитывать
considerable [kən'sɪd(ə)rəbl] *a* (L6) значительный, важный
consist (of) [kən'sɪst] *v* (L2) состоять
construction [kən'strʌkʃ(ə)n] *n* (L6) строительство, строение
contain [kən'teɪn] *v* (L4) содержать, вмещать
convenient [kən'vi:njənt] *a* (L6) удобный

convert [kən'vɔ:t] *v* (L10) превращать, преобразовывать
cost [kɒst] *n* (L10) цена, стоимость; *v* стоить
cotton ['kɒtn] *n* (L9) хлопок
course [kɔ:s] *n* (L1) 1. курс, поток; 2. слой
cover ['kʌvə] *v* (L7) покрывать; *n* крышка
crack [kræk] *n* (L11) трещина; *v* треснуть
cross [krɒs] *v* (L9) пересекать; *n* крест
cross-section ['krɒs,sekʃ(ə)n] *n* (L11) поперечное сечение
crowd [kraʊd] *n* (L7) толпа; *v* толпиться
current ['kʌrənt] *a* (L8) текущий; *n* ток; течение
curve [kɜ:v] *n* (L12) кривая
cut [kʌt] *v* (L7) 1. резать; 2. сокращать

D

damage ['dæmɪdʒ] *n* (L7) ущерб; *v* наносить ущерб
decide [di'saɪd] *v* (L2) решать
deep [di:p] *a* (L3) глубокий
deepen ['di:p(ə)n] *v* (L9) углублять, погружать
degree [di'grɪ:] *n* (L3) 1. степень; 2. градус
delay [di'leɪ] *v* (L8) задерживать, откладывать; *n* задержка
demand [di'mɑ:nd] *n* (L11) требование; *v* требовать
density ['densɪti] *n* (L10) густота, плотность
depend [di'pend] *v* (L7) *on*, *upon* 1. зависеть; 2. полагаться, рассчитывать
deposit [di'pɒzɪt] *v* (L12) отлагать; *n* отложение
depth [depθ] *n* (L11) глубина
design [di'zain] *n* (L9) чертеж, конструкция; *v* конструировать, проектировать
destroy [dis'trɔɪ] *v* (L7) разрушать
determine [di'tɜ:mɪn] *v* (L4) устанавливать, определять
develop [di'veləp] *v* (L2) развиваться, разрабатывать; совершенствовать
device [di'vaɪs] *n* (L8) приспособление
direction [di'rekʃ(ə)n] *n* (L7) направление, указание
directly [di'rekʃtli] *adv* (L8) прямо, непосредственно
discovery [dis'kʌv(ə)rɪ] *n* (L4) открытие
distance ['dɪstəns] *n* (L8) расстояние

distribute [dis'trɪbjʊt] *v* (L11) распределять
district ['dɪstrɪkt] *n* (L6) район
divide [di'vaɪd] *v* (L1) делить, разделять
doubt [daʊt] *n* (L11) сомнение; *v* сомневаться
drag [dræg] *v* (L8) тащить, волочить
drawback ['drɔ:bæk] *n* (L10) 1. недостаток; 2. похвала
drive [draɪv] *v* (L3) 1. управлять; 2. приводить в движение; 3. вбивать
dry [draɪ] *a* (L3) сухой
duration [dju'reɪʃn] *n* (L7) продолжительность
during ['djuəriŋ] *prep* (L1) в течение, в продолжение

E

each [i:tʃ] *pron* (L2) каждый
early ['ɜ:lɪ] *adv* (L2) рано
earth [ɜ:θ] *n* (L7) земля
easy ['i:zi] *a* (L3) легкий
education [,edju(:)'keɪʃ(ə)n] *n* (L1) образование, просвещение
efficient [ɪ'fɪʃnt] *a* (L9) продуктивный
effort ['efət] *n* (L7) усилие
either...or ['aɪðə...ɔ:] *conj* (L1) или...или
else [els] *adv* (L4) еще, кроме
embankment [ɪm'bæŋkmənt] *n* (L12) насыпь, дамба, набережная
emergency [ɪ'mɜ:dʒənsɪ] *n* (L10) крайняя необходимость; непредвиденный случай
empty ['emptɪ] *a* (L3) пустой
engine ['endʒɪn] *n* (L8) мотор, двигатель
enough [ɪ'naʊf] *adv* (L4) достаточно
entirely [ɪn'taɪəli] *adv* (L3) целиком, полностью
entrance ['entrəns] *n* (L1) вход, вступление
equip [ɪ'kwɪp] *v* (L1) оборудовать
erect [ɪ'rekt] *v* (L11) сооружать, воздвигать
especially [ɪs'peʃ(ə)li] *adv* (L2) специально, по существу
essential [ɪ'senʃəl] *a* (L2) существенный, неотъемлемый
establishment [ɪs'tæblɪʃmənt] *n* (L6) 1. основание; 2. установление
estimate ['estɪmeɪt] *v* (L11) 1. устанавливать, подсчитывать приблизительно; 2. оценивать; *n* оценка
even ['i:v(ə)n] *adv* (L2) даже
ever ['evə] *adv* (L10) когда-либо
every ['evrɪ] *a* (L5) каждый, всякий

evolve [i'vɒlv] *v* (L11) развиваться
excellent ['eksələnt] *a* (L5) отличный, превосходный
exist [ɪg'zɪst] *v* (L6) существовать
expand [ɪks'pænd] *v* (L6) расширяться, увеличиваться (*в объеме*)
expect [ɪks'pekt] *v* (L5) ожидать
expensive [ɪks'pensɪv] *a* (L7) дорогой
experience [ɪks'pɪəriəns] *n* (L3) опыт
explanation [ˌeksplə'neɪʃ(ə)n] *n* (L4) объяснение
explorer [ɪks'plɔːrə] *n* (L12) исследователь
extend [ɪks'tend] *v* (L7) 1. расширять; 2. распространять; 3. вытягивать
extra ['ekstrə] *a* (L10) дополнительный
extremely [ɪks'triːmlɪ] *adv* (L11) крайне, чрезвычайно

F

facilitate [fə'sɪlɪteɪt] *v* (L6) облегчать
facility [fə'sɪlɪtɪ] *n* (L6) 1. способность; 2. легкость; 3. удобство
fail [feɪl] *v* (L1) потерпеть неудачу, провалиться (*на экзамене*)
fall [fɔːl] *v* (L11) падать; *n* падение
fast [fɑːst] *a* (L10) 1. крепкий, стойкий, твердый; 2. скорый, быстрый
feature ['fi:tʃə] *n* (L6) особенность, характерная черта
a few [fjuː] *pron* (L9) несколько
field [fi:ld] *n* (L1) 1. поле; 2. сфера деятельности
final ['faɪnəl] *a* (L1) окончательный
find [faɪnd] *v* (L2) находить, обнаруживать; *f. out* разузнать, узнать
fit [fɪt] *v* (L10) 1. устанавливать; 2. соответствовать; *a* годный, подходящий
fix [fɪks] *v* (L12) укреплять, устанавливать
flat [flæt] *a* (L7) плоский, ровный
flat *n* (L7) квартира
flow [fləʊ] *n* (L10) поток; *v* течь
fly [flaɪ] *v* (L9) летать
follow ['fɒləʊ] *v* (L3) следовать, идти за
foot [fʊt] *n* (L3) 1. нога, ступня; 2. фут=30,48 см
for [fɔː] *conj* (L9) так как, потому что, ибо
force [fɔːs] *n* (L8) сила, мощьность; *v* заставлять, принуждать
foreign ['fɔːrɪn] *a* (L1) иностранный
forward ['fɔːwəd] *adv* (L10) вперед
found [faʊnd] *v* (L6) основывать
free [friː] *a* (L2) свободный

frequently ['friːkwəntli] *adv* (L12) часто
fuel ['fjuəl] *n* (L9) топливо; *v* снабжать топливом, заправляться
full [fuːl] *a* (L3) полный, целый
fulfill ['fʊːnɪʃ] *v* (L4) снабжать
further ['fʊːðə] *adv* (L11) дальше; *a* дальнейший
furthermore ['fʊːðə'mɔː] *adv* (L7) кроме того, к тому же

G

gain [geɪn] *v* (L10) 1. получать; 2. выигрывать
general ['dʒenərəl] *a* (L8) 1. общий; 2. обычный; 3. главный
go on [gəʊ] *v* (L5) продолжать
goods [gʊdz] *n* (L8) товары
gradually ['grædʒuəli] *adv* (L8) постепенно
graduate ['grædʒueɪt] *v* (L1) окончить высшее учебное заведение
a great deal of [ə'greɪt'di:l əv] (L9) множество, большое количество
grow [grəʊ] *v* (L2) 1. выращивать; 2. вырастить; 3. становиться

H

hand [hænd] *n* (L8) рука; *v* вручать
happen ['hæpən] *v* (L3) случаться
hard [hɑːd] *a* (L2) крепкий, тяжелый; суровый
heat [hi:t] *v* (L7) нагревать, отоплять
height [haɪt] *n* (L12) высота
higher ['haɪə] *a* (L1) высший: *h. education* высшее образование
highway ['haɪweɪ] *n* (L12) дорога, шоссе
hole [həʊl] *n* (L7) отверстие
horse-power ['hɔːs'paʊə] *n* (L9) лошадиная сила, мощьность
huge [hjuːdʒ] *a* (L7) огромный

I

important [ɪm'pɔːtənt] *a* (L1) важный
improvement [ɪm'pruːvmənt] *n* (L6) улучшение
include [ɪn'kluːd] *v* (L2) включать
increase [ɪn'kriːs] *v* (L6) увеличивать; *n* ['ɪnkriːs] увеличение
indicate ['ɪndɪkeɪt] *v* (L12) указывать
influence ['ɪnfluəns] *n* (L2) влияние, действие
install [ɪn'stɔːl] *v* (L3) устанавливать
instead of [ɪn'sted əv] *ppr* (L6) вместо

to be interested ['intrɪstɪd] (L4) интересоваться чем-либо
internal [ɪn'tɜ:nl] *a* (L8) внутренний
introduce [ɪn'trə'dju:s] *v* (L8) 1. вводить, вставлять; 2. вводить в употребление
introduction [ɪn'trə'dʌkʃ(ə)n] *n* (L1) введение
invention [ɪn'venʃ(ə)n] *n* (12) изобретение
investigate [ɪn'vestɪgeɪt] *v* (L12) исследовать
iron ['aɪən] *n* (L9) железо
island ['aɪlənd] *n* (L9) остров

J

job [dʒɒb] *n* (L5) работа
justify ['dʒʌstɪfaɪ] *v* (L5) 1. подтверждать; 2. оправдывать

K

keep [ki:p] *v* (L2) 1. держать; 2. сохранять
kind [kaɪnd] *n* (L5) 1. род; 2. вид, сорт
knowledge ['nɒlɪdʒ] *n* (L2) знание

L

land [lənd] *n* (L4) земля, суша
language ['læŋgwɪdʒ] *n* (L1) язык
last [lɑ:st] *v* (L1) длиться, продолжаться
late [leɪt] *a* (L1) последний
lay [leɪ] *v* (L11) класть, положить
layer [leɪ(t)ə] *n* (L11) слой
lead [li:d] *v* (L8) 1. вести; 2. руководить
leave [li:v] *v* (L1) 1. оставлять; 2. покидать
length [leŋθ] *n* (L6) 1. длина; 2. продолжительность, протяженность
level ['levl] *n* (L3) уровень
light [laɪt] *n* (L5) свет, освещение
like [laɪk] *a* (L9) 1. подобный, похожий; 2. одинаковый; *ppr* как, слово
line [laɪn] *n* (L12) 1. линия; 2. ряд
link [lɪŋk] *n* (L6) звено, связь; *v* связывать, сцеплять
load [ləʊd] *n* (L9) 1. груз; 2. нагрузка; *v* грузить
local ['ləʊkəl] *a* (L11) местный
no longer [nəʊ 'lɒŋgə] (L10) больше не
loggy ['lɒɡɪ] *n* (L8) грузовик
lose [lu:z] *v* (L10) терять
low [ləʊ] *a* (L10) 1. низкий; 2. слабый

M

main [meɪn] *a* (L7) главный, основной

maintain [meɪ'teɪn] *v* (L3) поддерживать, содержать
major ['meɪdʒə] *a* (L6) основной
make [meɪk] *v* (L5) 1. делать; 2. заставлять
make use of (L12) употреблять что-либо, пользоваться
manufacture [ˌmænju'fæktʃə] *n* (L7) производство; *v* производить
master ['mɑ:stə] *v* (L5) изучать, овладевать
no matter [nəʊ 'mætə] (L5) независимо от...
mean [mi:n] *v* (L8) значить; иметь в виду
means [mi:nz] *n* (L6) *pl* средство, способ
by means of (L11) посредством
in the meantime ['mi:ntaɪm] (L5) тем временем
measure ['meʒə] *n* (L8) мера; *v* измерять
member ['membə] *n* (L5) 1. член; 2. элемент конструкции
mention ['menʃ(ə)n] *v* (L11) упоминать; *n* упоминание
merely ['mɛəli] *adv* (L10) только, просто
middle ['mɪdl] *n* (L7) середина
mile [maɪl] *n* (L9) миля
mount [maʊnt] *v* (L12) устанавливать, монтировать
move [mu:v] *v* (L3) двигать(ся)

N

narrow ['nærou] *a* (L9) узкий
nearly ['nɛəli] *adv* (L10) 1. близко; 2. почти
necessary ['nesɪsəri] *a* (L2) необходимый, нужный
need [ni:d] *v* (L2) нуждаться
negligible ['neglɪdʒəbl] *a* (L9) незначительный
note [nəʊt] *n* (L1) заметка, запись
nuclear ['nju:kliə] *a* (L5) ядерный
number ['nʌmbə] *n* (L6) число, количество
numerous ['nju:m(ə)rəs] *a* (L3) многочисленный

O

object ['ɒbdʒɪkt] *n* (L11) 1. вещь; 2. объект; 3. цель; *v* возражать
observe [əb'zə:v] *v* (L10) наблюдать, замечать
obtain [əb'teɪn] *v* (L4) 1. получать; 2. достигать
occur [ə'kɜ:] *v* (L5) случаться, происходить
offer ['ɒfə] *v* (L4) предлагать
often ['ɔ:fn] *adv* (L3) часто
oil [ɔɪl] *n* (L9) масло, нефть; *v* смазывать

once [wʌns] *adv* (L4) 1. раз; 2. однажды
at once (L8) немедленно
only ['ounlɪ] *adv* (L2) только
operate ['ɔ:pəreit] *v* (L9) 1. работать, действовать; 2. эксплуатировать
opportunity [ɔ:pə'tju:niti] *n* (L5) благоприятная возможность
in order to ['ɔ:də] *prp* (L9) для того, чтобы
ordinary ['ɔ:dɪnri] *a* (L4) обычный
other ['ʌðə] *a* (L2) другой
otherwise ['ʌðəwaiz] *adv* (L12) 1. иначе; 2. в противном случае
outside ['aʊt'saɪd] *adv* (L3) снаружи
outstanding [aʊt'stændɪŋ] *a* (L11) выдающийся
owing to ['ɔʊɪŋ] *prp* (L9) благодаря
own [aʊn] *a* (L5) собственный

Р

part [pɑ:t] *n* (L7) часть, доля; *v* раставаться
particularly [pə'tɪkjʊləli] *adv* (L10) специальный, особенный
pass an examination [pɑ:s] (L1) сдать экзамен
passage ['pæsɪdʒ] *n* (L11) проход, переход
pave [peɪv] *v* (L8) мостить
pay [peɪ] *v* (L8) платить; *n* плата
pay attention (L2) уделять внимание
penetrate ['penɪtreɪt] *v* (L11) проникать
perform [pə'fɔ:m] *v* (L6) исполнять, выполнять
permanent ['pɜ:mənənt] *a* (L6) постоянный
piece [pi:s] *n* (L5) часть, кусок
pile [paɪl] *n* (L11) куча, груда
pipe [paɪp] *n* (L12) труба, трубопровод; *v* пускать по трубе
place [pleɪs] *n* (L7) место; *v* помещать, укладывать, располагать
plenty ['plenti] (L5) множество, избыток
point [pɔɪnt] *n* (L9) 1. точка; 2. пункт
population [ˌpɒpjʊ'leɪʃ(ə)n] *n* (L6) население
possible ['pɒsəbl] *a* (L2) возможный
powerful ['paʊəf(u)] *a* (L4) мощный
precaution [pri'kə:ʃn] *n* (L10) предосторожность, предостережение
prefer [pri'fɛə:] *v* (L12) предпочитать
preliminary [pri'limɪnəri] *a* (L12) предварительный
present [pri'zent] *v* (L1) представлять
prevent [pri'vent] *v* (L11) предотвращать, мешать

previous ['pri:vjəs] *a* (L6) предыдущий
primary school ['praɪməri] (L1) начальная школа
probably ['prɒbəbli] *adv* (L5) вероятно
produce [prə'dju:s] *v* (L2) производить
project ['prɒdʒekt] *n* (L11) проект
promote [prə'maʊt] *v* (L9) способствовать, содействовать
proper ['prɒpə] *a* (L4) 1. свойственный; 2. надлежащий
property ['prɒpəti] *n* (L4) 1. свойство; 2. собственность
protection [prə'tekʃən] *n* (L9) защита
prove [pru:v] *v* (L9) 1. доказывать; 2. оказываться
provide [prə'vaɪd] *v* (L2) 1. обеспечивать; 2. снабжать
purpose ['pɜ:pəs] *n* (L10) цель, намерение
put up [put] *v* (L7) поднимать, воздвигать

Q

quality ['kwɒləti] *n* (L6) качество
quantity ['kwɒntəti] *n* (L9) количество
quite [kwait] *adv* (L2) вполне, довольно

R

railway ['reɪlweɪ] *n* (L3) железная дорога
range [reɪndʒ] *n* (L11) ряд, размах
rapid ['ræpɪd] *a* (L6) быстрый
rather ['rɑ:ðə] *adv* (L8) скорее, предпочтительно
raw [rɔ:] *a* (L9) сырой, необработанный
ray [reɪ] *n* (L4) луч
reach [ri:tʃ] *v* (L11) доставать, достигать
readily ['redɪli] *adv* (L11) 1. охотно; 2. быстро; 3. легко
readings ['ri:dɪŋz] *n pl* (L10) показатели, данные
really ['ri:əli] *adv* (L5) действительно
reason ['ri:zn] *n* (L6) 1. причина, повод; 2. рассудок
receive [ri'si:v] *v* (L1) получать, принимать
recent ['ri:snt] *a* (L6) недавний
recognize ['rekəgnaɪz] *v* (L10) узнавать
with reference to ['refr(ə)ns] (L12) ссылаясь на, относительно
refuse [ri'fju:z] *v* (L4) отказываться(ся)
region ['ri:dʒ(ə)n] *n* (L7) край, область
release [ri'li:s] *v* (L10) освобождать; *n* выпуск

reliable [ri'laɪəbl̩] *a* (L9) надежный
remain [ri'meɪn] *v* (L6) оставаться
remark [ri'mɑ:k] *v* (L8) замечать, отмечать; *n* замечание
repair [ri'peə] *n* (L8) ремонт; *v* чинить, ремонтировать
replace [ri'pleɪs] *v* (L9) заменять
require [ri'kwaɪə] *v* (L1) требовать
research [ri'sə:tʃ] *n* (L4) исследование
restore [ri'stɔ:] *v* (L7) восстанавливать
return [ri'tɔ:n] *v* (L1) возвращаться
rise [raɪz] *v* (L5) подниматься
rock [rɒk] *n* (L11) скала, утес
roof [ru:f] *n* (L7) крыша
rope [rəʊp] *n* (L11) канат, веревка, трос
rough [rʌf] *a* (L12) грубый, шероховатый
round [raʊnd] *prep* (L9) вокруг
route [ru:t] *n* (L6) маршрут, путь
run [rʌn] *v* (L9) 1. бегать; проходить; 2. работать (о машине)

S

safety ['seɪftɪ] *n* (L3) безопасность
sail [seɪl] *v* (L9) плавать; *n* парус
the same [seɪm] *a* (L8) тот (же) самый, одинаковый
sand [sænd] *n* (L3) песок
scale [skeɪl] *n* (L6) 1. масштаб; 2. шкала
scarcely ['skeəslɪ] *adv* (L4) едва
schedule ['ʃedju:l] *n* (L5) расписание, график
scheme [ski:m] *n* (L11) 1. схема; 2. план, программа
science ['saɪəns] *n* (L4) наука
seat [si:t] *n* (L6) место; *v* вмещать, помещать
secondary school ['sek(ə)nd(ə)rɪ] (L1) средняя школа
secure [si'kjʊə] *v* (L11) 1. закреплять; 2. гарантировать, обеспечивать; *a* надежный
seem [si:m] *v* (L9) казаться
send [send] *v* (L2) посылать, отправлять
serve [sə:v] *v* (L7) служить
settle ['setl] *v* (L8) разрешать (*вопрос*)
several ['sevrəl] *a* (L6) несколько
shake [ʃeɪk] *v* (L5) трясти
shallow ['ʃæləʊ] *a* (L7) мелкий, неглубокий
shape [ʃeɪp] *v* (L7) форма, вид; *v* придавать форму
share [ʃeə] *v* (L11) делить, распределять
shift [ʃɪft] *n* (L1) смена

ship [ʃɪp] *n* (L9) корабль, судно; *v* перевозить грузы по воде
shop [ʃɒp] *n* (L1) 1. цех, мастерская; 2. магазин
shortage ['ʃɔ:tɪdʒ] *n* (L7) недостаток
show [ʃəʊ] *v* (L2) показывать, демонстрировать
side [saɪd] *n* (L2) сторона
significance [sɪɡ'nɪfɪkəns] *n* (L6) 1. значение; 2. важность
similar ['sɪmɪlə] *a* (L4) подобный, сходный
simple ['sɪmpl] *a* (L4) простой, элементарный
simultaneously [sɪmə'l'teɪnjəsli] *adv* (L12) одновременно
site [saɪt] *n* (L1) 1. участок; 2. местоположение
size [saɪz] *n* (L9) размер, величина
skilled [skɪld] *a* (L10) опытный, умелый
slowly ['sləʊli] *adv* (L9) медленно, тихо
smooth [smu:ð] *a* (L9) гладкий, ровный
so far [səʊ 'fa:] (L11) до сих пор
so far as [səʊ 'fa:ɪz] *cj* (L4) поскольку
so that ['səʊ ðæt] *cj* (L2) чтобы
soil [sɔɪl] *n* (L8) почва
solve [sɒlv] *v* (L6) решать
soon [su:n] *adv* (L4) скоро, вскоре
source [sɔ:s] *n* (L8) 1. источник; 2. начало
space [speɪs] *n* (L10) 1. пространство; 2. место; *v* размещать
speed [spi:d] *n* (L3) скорость
in spite of [ɪn 'spaɪt əv] (L13) несмотря на
split [splɪt] *v* (L4) расщеплять(ся), разделять(ся)
stage [steɪdʒ] *n* (L8) стадия, этап
state [steɪt] *n* (L1) 1. состояние; 2. государство; 3. штат (*США*)
stay [steɪ] *v* (L10) оставаться, пребывать; *n* пребывание
steadily ['stedɪli] *adv* (L1) равномерно
steam [sti:m] *n* (L3) пар
steel [sti:l] *n* (L9) сталь
step [step] *n* (L8) 1. шаг; 2. ступень
still [stɪl] *adv* (L7) 1. еще; 2. однако
stone [stəʊn] *n* (L7) камень
store [stɔ:] *v* (L4) 1. запастись; 2. хранить; 3. вмещать
straight [streɪt] *a* (L12) прямой
stream [stri:m] *n* (L12) 1. поток; 2. течение; *v* течь
strength [streŋθ] *n* (L7) сила
stretch [stretʃ] *n* (L8) протяжение; *v* вытягивать

strong [strɒŋ] *a* (L4) крепкий, сильный

subject ['sʌbdʒɪkt] *n* (L1) тема, предмет

substance ['sʌbstəns] *n* (L4) 1. вещество; 2. сущность

successful [sək'sesf(ʊ)l] *a* (L6) удачный, успешный

such as ['sʌtʃ əz] (L9) как например

suddenly ['sʌdnli] *adv* (L5) вдруг, внезапно

suggest [sə'dʒest] *v* (L11) предлагать

supply [sə'plaɪ] *n* (L9) 1. снабжение; 2. запас; *v* 1. поставлять; 2. снабжать

support [sə'pɔ:t] *n* (L11) 1. поддержка; 2. опора, оплот; *v* поддерживать

suppose [sə'pəʊz] *v* (L9) предполагать

surface ['sɜ:fɪs] *n* (L8) поверхность

survey ['sɜ:veɪ] *n* (L12) обследование; *v* [sɜ:'veɪ] осматривать

suspend [səs'pend] *v* (L11) откладывать, прекращать

Т

take an examination (L1) сдавать экзамен

take into consideration (L11) принимать во внимание

take off ['teɪk 'ɒf] *v* (L10) снимать

take place (L1) происходить

teach [ti:tʃ] *v* (L2) учить

temporary ['tempərəri] *a* (L11) временный

tend [tend] *v* (L10) стремиться, направляться

term [tɜ:m] *n* (L1) 1. срок, семестр; 2. термин

test [test] *v* (L9) испытывать; *n* 1. испытание; 2. проба

thanks to [θæŋks] *prp* (L12) благодаря

that is why [ðæt] (L5) вот почему

then [ðen] *adv* (L5) 1. тогда; 2. потом

therefore ['ðeəfɔ:] *adv* (L2) поэтому

thick [θɪk] *a* (L7) 1. толстый; 2. густой; 3. плотный

think [θɪŋk] *v* (L2) думать

though [ðəʊ] *cj* (L4) хотя

through [θru:] *prp* (L3) через, сквозь

throughout [θru:'aʊt] *adv* (L4) повсюду, везде

throw [θrou] *v* (L2) бросать, кидать

thus [ðʌs] *adv* (L7) таким образом

tie [taɪ] *v* (L7) связывать; *n* связь

till [tɪl] *prp* (L9) до

timber ['tɪmbə] *n* (L9) строевой лес

time [taɪm] *n* (L5) 1. время; 2. раз

too [tu:] *adv* (L5) 1. также; 2. слишком

top [tɒp] *n* (L7) верх, верхушка

total ['təʊtl] *a* (L3) целый, полный

towards [tə'wɔ:dz] *prp* (L5) по направлению

traffic ['træfɪk] *n* (L3) движение

trouble ['trʌbl] *n* (L10) 1. затруднение; 2. неполадки; *v* беспокоиться

truck [trʌk] *n* (L10) грузовик; *v* перевозить на грузовиках

try [traɪ] *v* (L2) 1. испытывать; 2. пробовать

tube [tju:b] *n* (L3) труба

tunnel ['tʌnl] *v* (L3) прокладывать туннель

turn [tɜ:n] *v* (L4) повернуть(ся)

in turn (L7) в свою очередь

twice [twɑɪs] *adv* (L4) дважды

У

unfortunately [ʌn'fɔ:tʃnɪtli] *adv* (L7) к сожалению

unit ['ju:nɪt] *n* (L7) 1. единица; 2. агрегат

unite [ju:'naɪt] *v* (L6) 1. соединять; 2. объединять

unless [ʌn'les] *cj* (L8) если не

unlikely ['ʌn'laɪkli] *a* (L10) неподходящий, невероятный

until [ʌn'tɪl] *prp* (L2) до; *cj* (до тех пор) пока

upper ['ʌpə] *a* (L10) верхний, высший

urgent ['ɜ:dʒənt] *a* (L10) срочный, настоятельный

use [ju:z] *v* (L2) применять, пользоваться

used to ['ju:st tə] (L5) иметь обыкновение

usually ['ju:ʒuəli] *adv* (L1) обычно

utilize ['ju:tɪlaɪz] *v* (L12) использовать

В

valuable ['væljuəbl] *a* (L6) ценный

value ['vælju:] *n* (L10) 1. значение; 2. величина; 3. ценность; *v* ценить

vary ['veəri] *v* (L8) менять, изменять

vehicle ['vi:ɪkl] *n* (L8) экипаж, повозка

vital ['vaɪtl] *a* (L12) 1. жизненный; 2. насыщенный

W

way [weɪ] *n* (L2) 1. путь; 2. способ, образ

weakness ['wi:knis] *n* (L3) слабость

wear [weə] *v* (L5) носить

weather ['weðə] *n* (L10) погода

weigh [weɪ] *v* (L9) 1. взвешивать;

2. весить
weight [weɪt] *n* (L8) 1. вес; 2. время;
3. груз
wheel [wi:l] *n* (L8) колесо; *v* катить
whereas [wɛəɹ'æz] *conj* (L10) в то время как
while [waɪl] *conj* (L5) пока, в то время как
wholly ['həʊli]. *adv* (L10) целиком
wide [waɪd] *a* (L8) широкий
widen ['waɪdn] *v* (L9) расширять(ся)

width [wɪð] *n* (L11) ширина
win [wɪn] *v* (L5) выигрывать
wind [wɪnd] *n* (L8) ветер
wish [wɪʃ] *n* (L1) желание
within [wɪ'ðɪn] *prep* (L6) в пределах
without [wɪ'ðaʊt] *prep* (L7) без
wood [wʊd] *n* (L7) дерево
world [wɜ:lɪd] *n* (L3) мир
wrong [rɒŋ] *a* (L5) неверный, неправильный

ЕЛЕНА ВАСИЛЬЕВНА СИНЯВСКАЯ
СВЕТЛАНА МИХАЙЛОВНА ЗЕЛЕНЕЦКАЯ
ОЛЬГА ИВАНОВНА ТЫНКОВА
ЭСФИРЬ САМУИЛОВНА УЛАНОВСКАЯ

*УЧЕБНИК
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для технических вузов

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**ИЗДАТЕЛЬСТВО «ВЫСШАЯ ШКОЛА»
ВЫПУСТИТ В СВЕТ В 1976 ГОДУ
ДЛЯ СТУДЕНТОВ ТЕХНИЧЕСКИХ ВУЗОВ
СЛЕДУЮЩИЕ УЧЕБНЫЕ ПОСОБИЯ И УЧЕБНИКИ:**

Курашвили Е. И., Медведева Т. Г., Михалкова Е. С. **Лабораторные работы по переводу английской научно-технической литературы.** Учебное пособие. 6 л., 22 к.

Цель пособия — выработать навыки узнавания и перевода сложных грамматических конструкций, а также устойчивых словосочетаний, характерных для английской научно-технической литературы.

Пособие содержит десять разделов, включающих тексты по курсу общей физики и математики, лексические и грамматические упражнения к ним, а также лабораторные работы с ключом для самоконтроля. Включены англо-русский словарь-минимум и перечень математических символов и физических формул, встречающихся в текстах, с указанием правил их чтения.

Предназначается для студентов I—II курсов технических вузов.

Новицкая Т. М., Макеева В. М. **Учебник английского языка для технических вузов** (радиотехнического и энергетического профиля). Учебник. 18 л., 88 к. В пер.

Учебник является частью комплекса, состоящего из книг: собственно учебника, лабораторных работ с ключами и книги для чтения.

Цель учебника — выработать умение читать оригинальную английскую литературу по специальности, а также научить студентов понимать английскую речь и вести беседу на основе изученного материала. Состоит из 20 уроков. Имеются грамматические таблицы и пояснения, англо-русский словарь-минимум, список географических названий.

Предназначается для студентов технических вузов.

Новицкая Т. М., Макеева В. М. Книга для чтения к учебнику английского языка для технических вузов (радиотехнического и энергетического профиля). Учебное пособие. 5 л., 19 к.

Книга включает в себя тексты по дополнительному чтению, связанные лексикой и грамматикой с соответствующими уроками учебника. Дается система тестов на составление вопросов, выбор ответов, подбор предложений по смысловому содержанию и т. п.

Предназначается для студентов технических вузов.

Новицкая Т. М., Макеева В. М. Лабораторные работы к учебнику английского языка для технических вузов (радиотехнического и энергетического профиля). Учебное пособие. 8 л., 33 к.

Пособие включает лабораторные работы к каждому уроку учебника, тесты на контроль грамматики и лексики, тренировочно-контрольную программу, тексты с упражнениями на поисковое чтение, образцы парной работы, ключи к текстам и программам.

Предназначается для студентов технических вузов.

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