
Подписано в печать _____ 2007 г. Формат бумаги 60/84 1/16
Усл.печ.л. ____ Уч.-изд. л. ____ Бумага писчая Гарнитура «Таймс». Печать офсетная. Заказ ____ . Тираж ____ экз.

Издательство Башкирского государственного аграрного университета
Типография Башкирского государственного аграрного университета
Адрес издательства и типографии: 450001, г.Уфа, ул. 50 лет Октября, 34

БАШКИРСКИЙ ГОСУДАРСТВЕННЫЙ АГРАРНЫЙ УНИВЕРСИТЕТ

О.Н. Новикова, Г.Г. Друкер

*Английский язык для
студентов аграрных вузов*

Уфа 2007

УДК 802(07)
ББК 81.2 Англ (я7)
У90

Рекомендуется к изданию Редакционно-издательским советом БГАУ

Авторы: О.Н.Новикова, Г.Г. Друкер

Рецензенты:

Кафедра языковой коммуникации и психолингвистики Уфимского государственного авиационного технического университета (зав. кафедрой д.ф.н., проф. Т.М. Рогожникова)

Д.ф.н., проф. кафедры английской филологии Башкирского государственного университета Л.А. Азнабаева

У 90 Английский язык для студентов аграрных вузов: Учебное пособие. – Уфа: Башгосагроуниверситет, 2007. – 248 с.

ISBN 5-7456-0001-2

Учебное пособие предназначено для обеспечения базового курса английского языка в аграрных вузах, рассчитано на 90-100 часов аудиторной и соответствующее время самостоятельной работы. Тексты и задания к ним коммуникативно ориентированы и направлены на обучение различным видам чтения, устной речи и письма.

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Учебное издание

Ольга Николаевна Новикова
Галина Григорьевна Друкер

Английский язык для студентов аграрных вузов

Печатается в авторской редакции

Технический редактор Л.З. Мунзарова

Отпечатано с готовых диапозитивов в типографии
Башкирского государственного аграрного университета

ОТ АВТОРОВ

Настоящее учебное пособие написано в соответствии с Примерной программой дисциплины «Иностранный язык» для неязыковых специальностей вузов.

Цель пособия – формирование устойчивых навыков владения всеми видами иноязычной речевой деятельности (чтение, письмо, говорение). Поставленные задачи обуславливают структуру пособия, которое состоит из шести разделов.

Раздел I включает 14 уроков, в том числе материал для повторения и итогового контроля. Основная цель этого раздела - выработка навыка извлечения различных видов информации из текста при опоре на его лексико-грамматическую структуру. Все предлагаемые для чтения и анализа тексты носят страноведческий характер и отражают различные, зачастую малоизвестные, реалии жизни пяти основных англоговорящих стран. Тексты отличаются друг от друга по объему, стилю и жанру, что делает возможным работу над ними как над объектами литературоведческого и социокультурного анализа, позволяя выход за рамки текста, значительно расширяя кругозор обучаемых, формируя их мировоззренческие позиции. При этом тексты расположены в соответствии с принципом «от простого к сложному» не только с точки зрения их лексико-грамматического наполнения, но и в информационном плане, позволяя подойти к общенаучным текстам по профилю обучаемых. Тексты из современной англоязычной литературы подвергнуты незначительному сокращению и адаптации. Каждый урок заканчивается разноплановыми заданиями творческого характера. Система заданий включает упражнения на словообразование, узнавание интернациональных слов, языковую догадку и прогнозирование, на установление связи между грамматической характеристикой текста и его содержательной стороной, на узнавание и активизацию грамматических явлений, характерных для того или ино-

го вида текста с их использованием в устной речи, упражнения на устное и письменное репродуцирование текстов. Задания предназначены как для аудиторной, так и для внеаудиторной самостоятельной работы студентов.

Раздел II представляет собой блок текстов по различным специальностям аграрного вуза. Тексты по каждой специальности имеют одинаковый объем, взяты из современных оригинальных источников. Работа над ними предполагает уровень восприятия с порождением вторичных текстов (аннотирование, реферирование, создание денотатных карт, логических схем и т.п.).

Разделы III и IV предлагают авторское изложение основных разделов грамматики английского языка с системой упражнений, обеспечивающих закрепление грамматических явлений.

Раздел V содержит информацию об основных способах словообразования современного английского языка.

Раздел VI раскрывает особенности английского произношения и дает возможность его закрепления на практике через систему упражнений.

Материалы разделов III-VI, а также три приложения являются базовой опорой при работе с текстами разделов I и II.

Тексты и задания к ним коммуникативно-ориентированны, что способствует социализации обучаемых, т.е. приобретению ими опыта социального взаимодействия и усвоению социальных ценностей. Коммуникативно-ориентированное обучение осуществляется с применением:

- заданий речевого взаимодействия, которые выполняются в парах или малых группах;
- проблемных речемыслительных ситуаций, которые могут быть основаны на причинно-следственном рассуждении, критическом мышлении, догадке, интерпретации, суждении;

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- организованного ролевого общения, которое реализуется в ролевой игре;

- спонтанного общения, которое возникает при переходе учебной ситуации в естественную.

Учебное пособие позволяет активизировать лингвистический опыт обучаемых, приобретенный при изучении английского языка в средней школе, и направлено на формирование способности к участию в межкультурной коммуникации.

Пособие предназначено для работы со студентами I-II курсов аграрных вузов, рассчитано на 90-100 часов аудиторных занятий и обеспечивает преподавателю свободу творчества в рамках его педагогической концепции.

Раздел I
Практический английский
Unit I
Practical English

Урок 1

Грамматика: Настоящее неопределенное время.
Порядок слов английского предложения.

**Задание 1**

Попытайтесь сформулировать возможное содержание текста по его заголовку.

Задание 2

Прочитайте текст и убедитесь, насколько Вы правы.

Задание 3

Прочитайте текст еще раз и выделите новую для вас информацию.

Задание 4

Переведите и прочитайте без словаря следующие слова и словосочетания: the national language, the island of Great Britain, a country, to speak English, a word, people, a capital, official, cold, a season, winter month, a mountain, far from.

Задание 5

Прочитайте и переведите текст, пользуясь словарем. Особое внимание обратите на грамматику текста.

English-Speaking Countries

English is the language of the people of England. England is in the south of the island of Great Britain. In the north of this

10. Quirk R., Greenbaum S., Leech G., Svartvik Y. A Comprehensive Grammar of the English Language. – Longman London, 7, 1995.

11. http://canada.gc.ca/canadiana/cdaind_e.html

12. <http://en.wikipedia.org>.

13. <http://english.language.ru/curious/curious/curious22.html>

14. <http://www.bbc.co.uk>

15. www.britainexpress.com/history/english-culture.htm.

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7. Macmillan Essential Dictionary for Learners of English. - Ed.-in-Chief M. Rundell, Assoc. Ed. G.Fox. – Macmillan Publishers Ltd, 2003.
8. Oxford Advanced Learner's Dictionary of Current English. 6th ed. – Oxford-New York, 2003.
9. Speak Out – 2000-2007 years.

island lies Scotland. To the west of England is Wales. The island of Ireland lies to the west of Great Britain.

Great Britain is not a large country. It is much smaller than France or Norway and smaller than Finland. England is the largest part of Great Britain. Today the official name of Great Britain is the United Kingdom of Great Britain and Northern Ireland. English is the official language of all parts of the country.

In the USA English is the official language, the language of the American nation. In the USA now people speak American English. Very many words are the same in American and in British English but the American people do not speak the English language in the same way as people do in England.

Canada is to the north of the United States of America. It is a very large country, larger than the United States. Ottawa is the capital of the country. Canada has two official languages – English and French.

Australia is the smallest continent and the largest island on the map. Sydney, the biggest city of the country, is not its capital, the capital of Australia is Canberra. It is also an English-speaking country. In all countries, which lie to the south of the Equator the seasons are not the same as they are in the countries north of the Equator. In Australia the hottest summer month is January. And the coldest winter month is June. But June is not very cold. Snow falls on the mountains there, and there are not many mountains in Australia.

New Zealand is not far from Australia but it is a great distance from Britain.

The capital of the country is Wellington. The seasons in New Zealand are also different from what they are in Britain. From December to February it is summer, from March to May it is autumn, from June to August it is winter, and from September to November it is spring. The weather in summer is not very hot in the greater part of the country and the days in winter are not very cold. Snow falls on the mountains and sometimes in the far south

of the country. The national language in New Zealand is also English.



English is the first language in:		English is the official second language in:			
Country	Capital	Country	Capital	Country	Capital
1. Great Britain	London	1. Antigua and Barbuda	St. John's	16. Malawi	Lilongwe
2. The USA	Washington	2. The Bahamas	Nassau	17. Malaysia	Kuala Lumpur
3. Australia	Canberra	3. Bangladesh	Dhaka	18. Nepal	Kathmandu
4. Canada	Ottawa	4. Barbados	Bridgetown	19. Puerto Rico	St. Juan
5. EIRE (The Republic of Ireland)	Dublin	5. Bhutan	Thimbu	20. Seychelles	Victoria
		6. Botswana	Gaborone	21. St. Lucia	Castries
		7. Brunei	Bandar Seri Begawan	22. Sudan	Khartoum
6. New Zealand	Wellington	8. Cayman islands	Georgetown	23. The Republic of South Africa	Pretoria
		9. Guyana	Georgetown	24. Tanzania	Dodoma
		10. Hong Kong*		25. Trinidad and Tobago	Port of Spain

- 8-12 You try to be polite and helpful, but sometimes you don't want to get involved – you don't pay enough attention to other people's problems.
- 13-16 You're polite and often charming. But be careful! Perhaps sometimes you aren't assertive enough.

Урок 5. Задание 11

- | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| c | a | b | b | b | b | b | a | a | b | c | a |
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | | | |
| b | b | c | c | b | b | c | a | a | | | |

Lesson 7. Task 11

- | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| b | c | a | c | b | b | a | b | c |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| a | b | c | b | a | c | a | a | b |

Lesson 8 Task 11

- | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| b | c | b | a | b | b | c | b | c | a | a | b | a | a |

Lesson 10. Task 13

- | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| a | b | a | b | a | b | a | c | c | a | c | a | a | c |

Lesson 14. Task 9

- | | | | | | | | |
|-------|-------|------|-------|------|------|------|-------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| false | false | true | false | true | true | true | false |

(Sorry)... Could you say that again?	Let's ...
I didn't hear what you said.	Why not ...?
I didn't catch that.	How about (+ -ing)...?
Say that again (please).	What about (+ -ing)...?

Sympathy – Сочувствие

I am (so) sorry.	Never mind!
What bad luck.	Cheer up!
	Don't worry (about it)...
	It's not the end of the world.

КЛЮЧИ К ТЕСТАМ

Урок 1. Задание 18

1 2 3 4 5 6 7 8 9 10 11 12 13 14
b a b c a b a c c c a a a c

Урок 2. Задание 11

1 2 3 4 5 6 7 8 9 10
c a a c b c c a a c
11 12 13 14 15 16 17 18 19 20
c b c b c b c b c c

Урок 3. Задание 11

Истинные: a; d; e; f; g; h.

Ложные: b; c; i.

Урок 4. Задание 11

1-3 People may think you're rude and officious. You need to study the rules of social interaction.

4-7 Sometimes you aren't very polite. Maybe you're embarrassed in social situations. Don't be afraid to speak

		11. India	Delhi	26. The Virgin Islands	Rhodtown (Brit. ter.) Charlotte Amalia (USA ter.)
		12. Israel	Jerusalem	27. Zambia	Lusaka
		13. Jamaica	Kingston	* A British colony from 1842 until 1997. Now it is the Hong Kong Special Administrative Region of China.	
		14. Kenya	Nairobi		
		15. Liberia	Monrovia		

Задание 6

В каком времени ведется повествование в тексте? Как характеризуются представленные действия: как факты? как процессы? как результаты? По каким признакам глагола-сказуемого Вы это определяете?

Задание 7

Выберите из текста все формы глагола "to be". Составьте по одному предложению с каждой из этих форм.

Задание 8

Найдите в тексте предложение с глаголом "to have" и объясните используемую форму глагола.

Задание 9

В предложении "Snow falls on the mountains there and there are not many mountains in Australia" объясните различие в значениях слова "there".

Дайте свои примеры его использования.

Задание 10

Прочитайте предложения по-английски, используя правильную форму глагола в скобках.

Scotland (to lie) to the North of England.

Great Britain (to be, not) a large country.

In Canada people (to speak) English and French.
 Snow (to fall, not) often in Great Britain.
 (there, to be) many English-speaking countries in the world?

Задание 11

Выпишите из текста все так называемые «цепочки существительных». Переведите их на русский язык.

Задание 12

Найдите в тексте прилагательные в превосходной и сравнительной степени. Назовите их остальные формы.

Задание 13

Поставьте следующие предложения в вопросительную и отрицательную форму:

Ireland lies to the west of Great Britain.

New York is the biggest city of the USA.

English people have many interesting traditions.

There are some exotic animals in New Zealand and Australia.

We see many lakes on the map of North America.

Задание 14

Задайте все возможные специальные вопросы к следующему предложению и попросите своих товарищей ответить на них:

On week-ends many English people like to spend their free time on the sea-side.

Задание 15

Дайте краткие ответы на английском языке.

Великобритания – большая страна?

В США население говорит на английском языке?

Must I ...?	
(I think) I should ...	Yes, (I think) you should.
	No, I don't think you should.

Opinion – Мнение

I believe /think/ feel that ...	That's my opinion, too.
It's my opinion that...	I think you are right.
In my opinion...	I think so, too.
To my mind...	I don't think so.
As for me...	But on the other hand...
As far as I know...	

Possibility and impossibility – Возможность и невозможность

(Quite) possible.	It is not possible/impossible.
Maybe.	That'll never happen.

Perhaps.	Probably not.
Probably.	I don't think so.
I think so.	I doubt it.

Regret – Сожаление**Reluctance - Нежелание**

I'm sorry I can't/I didn't/did.	I don't really want to.
It's a pity I can't/I didn't/did.	I'm not in the mood.
I wish I could.	I don't feel like it.

Request – Просьба

Could you ... (please)?	(Yes), of course/certainly /all right.
Would you ... (please)?	OK.
Will you ...?	I'm afraid / Sorry, I can't.
	No, I can't./ I won't.
Do you mind (+ -ing)...?	
Would you mind (+ -ing) ...?	

Incredulity and Indifference – Недоверие и равнодушие

Really?	Who cares?
I don't /can't believe you.	I don't care.
You can't be serious.	Sorry, I'm afraid I'm not interested.
Surely not!	
You're joking!	

Introduction and Invitation – Знакомство и приглашение

I'd like you to meet ...	Pleased to meet you.
Let me introduce you to ...	I'd like / love to (very much).
Would you like to ...?	I'm afraid I can't.
Do you want to ...?	(I'm sorry), I can't.
	I'd like to, but ...
	Certainly not.

Like and Dislike – Нравится и не нравится

Do you like to ...?	(Yes) I do very much.
	I don't like (it).
	Not (very much).
	I hate it /you / them.

Loss (for words) – Поиск нужного слова

Oh, you know what I mean.
I can't remember what it's called / the name.
I've forgotten what you mean.
Yes, I know what you mean.
No, (I'm afraid) I don't know what you mean.

Necessity and Obligation – Необходимость и обязательства

Do I need to ...?	Yes, you do/must.
Is it necessary for me to ...?	Yes, it is necessary.

Елизавета II – королева Англии?
 Королева живет в Букингемском дворце?
 В Австралии много гор?
 Новая Зеландия находится далеко от Австралии?
 У Вас есть друзья в Канаде?
 В Англии часто идет дождь?
 Вы хорошо говорите по-английски?
 Вы – президент Соединенных Штатов?

Задание 16

Кратко изложите содержание текста на английском языке.

Задание 17

Сделайте грамматический анализ следующих пословиц и поговорок, дайте их русские эквиваленты. Разыграйте возможные ситуации с их использованием.

Better late than never.
 Those do least who speak most.
 He laughs best who laughs last.
 As busy as a bee.
 Last but not least.

Задание 18**Тест «Знаете ли Вы...?»**

Выберите правильный ответ:

- Which is the largest planet of the Solar system?
 a) Saturn b) Jupiter c) Uranus
- Which is the largest country in the world?
 a) Russia b) China c) Canada
- Which is the largest ocean in the world?
 a) the Atlantic b) the Pacific c) the Indian
- Which is the smallest continent?
 a) Europe b) Asia c) Australia

5. Which is the largest animal in the world?
a) the blue whale b) the great white shark
c) the African elephant
6. Which is the fastest animal in the world?
a) the ostrich b) the cheetah c) the horse
7. Which is the smallest independent country in the world?
a) Vatican city b) Luxemburg c) Monaco
8. Which is the largest city in the world?
a) London b) New York c) Mexico City
9. Which language is spoken by the greatest number of people?
a) English b) Spanish c) Chinese
10. Which is the tallest tree in the world?
a) the sequoia b) the pine-tree c) the bamboo
11. Which of the following animals can spend up to 80% of their lives sleeping or dozing?
a) the opossum b) the bear c) the crocodile
12. Which is the deepest lake in the world?
a) Lake Baikal b) Lake Ontario c) Lake Superior
13. Where was the first mechanical clock invented?
a) in Egypt b) in India c) in China

Урок 2

Грамматика: Прошедшее неопределенное время.

Будущее неопределенное время



Задание 1

Прочитайте текст без словаря и скажите: а) в связи с чем в нем упоминаются “mouse, fire, English, cow, farmer, small houses, problem, children”; б) какое название Вы бы дали тексту.

The English are a very peculiar nation. This way people

Apology – Извинение

Reassurance – Утешение

I'm (very/so/terribly) sorry	That's/ It's/ all right/OK
	Never mind

Approval and Disapproval – Одобрение и неодобрение

(Oh) What a good idea!	That's not a (very) good idea.
A very good idea!	You shouldn't do that.
Good! Wonderful! Excellent!	Oh no!
That's nice.	You have no right to ...
Great.	

Gratitude – Благодарность

Thank you / Thanks.	(Oh) that's OK / all right.
Thank you very / so much.	Not at all.
I'm very grateful (to you).	You're welcome.
How kind of you!	Don't mention it.
I'm much obliged.	It's a pleasure.

Greeting - Приветствие

Hi! Hello!	True, thanks.
How are you?	(I'm) very well, thank you.
How are things?	Ok, thanks.
How's life?	Quite well.
Good morning/ afternoon / evening.	Not too / so bad.
Good-bye.	So-so.
Bye. Bye-bye.	
See you / later / soon.	

Ignorance – Незнание чего-либо

I don't know.	Ask him/her.
I can't tell you.	You might ask your friend.
I've no idea.	Why don't you ask someone else?
I couldn't say.	They may know

Приложение 3
Appendix 3

**ЭТИКЕТНЫЕ ФРАЗЫ-КЛИШЕ ДЛЯ ОФОРМЛЕНИЯ
УСТНОЙ РЕЧИ
CONVERSATIONAL FORMULAS**

Advice – Совет

(I think) you should ...	I don't think you should ...
You'd better ...	You'd better not ...
I advise you to ...	I advise you not to ...

Agreement and Disagreement – Согласие и несогласие

I (quite) agree (with you).	I don't think so.
I think so too.	I'm afraid I don't agree (with you).
I suppose so.	I think you are mistaken.

think about them all over the world. And this is really so. Great Britain is a country of old ceremonies, traditions and habits. English people prefer to live in small houses, perhaps with a small garden. They say, "My home is my castle". The fire is the focus of the English home. In the evening the whole family gets around the fire-place. They talk about the events of the day, discuss their problems and little children like to listen to the stories and tales which their grandparents tell them. Here is one of such tales.



“The Mouse and the Cat”

On morning, as a little mouse ran across the kitchen floor, a great black cat jumped on her and bit off her nice long tail. The poor mouse was very sad, and she said to the cat, "Old cat, will you, please, give me back my beautiful long tail?" "Yes," said the cat, "I shall give you your long tail if you bring me a cup of fresh milk."

So the mouse ran to a cow and said, "Please, kind cow, will you give me a cup of your sweet milk for the cat? If I bring the cat a cup of milk she will give me back my nice long tail." The cow said, "Yes, I shall give you the milk if you bring me some sweet dry hay." So the mouse ran to the farmer and said, "Will you, please, give me some sweet dry hay for the cow? If I bring her some hay she will give me some milk for the cat, and the cat will give me back my nice long tail." The farmer answered, "I shall give you the hay if you do not eat up my corn." The mouse promised not to eat up the corn and the farmer gave her some hay which she brought to the cow, and the cow gave her a cup of milk

which she brought to the cat. The cat gave her back her nice long tail, and it made her very happy.

Задание 2

На сколько относительно самостоятельных частей можно разделить текст? Что между ними общего и что отличает их друг от друга?

Задание 3

В чем основное грамматическое различие между двумя частями текста? Обоснуйте свой ответ.

Задание 4

Прочитайте и переведите текст, пользуясь словарем. Коротко изложите содержание текста по-русски.

Задание 5

Выпишите из текста все глаголы, разделите их на правильные и неправильные, запишите вторую форму всех неправильных глаголов, запомните эти глаголы.

Задание 6

Найдите в тексте все предложения, в которых глагол-сказуемое представляет действие как факт в прошлом. Преобразуйте предложение таким образом, чтобы глагол-сказуемое представлял действие: а) как факт в настоящем; б) как факт в будущем.

Задание 7

Сделайте предложение вопросительным и отрицательным: "This way people think about them all over the world".

make	делать, заставлять	made	made
mean	значить	meant	meant
meet	встречать	met	met
pay	платить	paid	paid
put	класть, положить	put	put
read	читать	read	read
ring	звонить	rang	rung
rise	вставать	rose	risen
run	бежать	ran	run
say	говорить, сказать	said	said
see	видеть	saw	seen
sell	продавать	sold	sold
send	посылать	sent	sent
set	ставить, устанавли- вать	set	set
show	показывать	showed	shown
sing	петь	sang	sung
sit	сидеть	sat	sat
sleep	спать	slept	slept
speak	говорить	spoke	spoken
spend	тратить, проводить	spent	spent
stand	стоять	stood	stood
swim	плавать	swam	swum
take	брать, взять	took	taken
teach	учить, обучать	taught	taught
tell	сказать	told	told
think	думать	thought	thought
throw	бросать	threw	thrown
wear	носить	wore	worn
win	выиграть	won	won
write	писать	wrote	written

breed	разводить, выводить	bred	bred
bring	приносить	brought	brought
build	строить	built	built
buy	покупать	bought	bought
catch	ловить, поймать	caught	caught
choose	выбирать	chose	chosen
come	приходить	came	come
cost	стоить	cost	cost
cut	резать	cut	cut
do	(с)делать	did	done
dream	сниться, мечтать	dreamt	dreamt
drink	пить	drank	drunk
drive	ехать	drove	driven
eat	есть, кушать	ate	eaten
fall	падать	fell	fallen
feed	кормить	fed	fed
feel	чувствовать	felt	felt
find	находить, обнаруживать	found	found
forget	забывать	forgot	forgotten
get	доставать, достигать, получать	got	got
give	давать	gave	given
grow	расти	grew	grown
have	иметь	had	had
hear	слышать	heard	heard
hold	держать	held	held
keep	держать, хранить	kept	kept
know	знать	knew	known
lay	класть	laid	laid
leave	уходить, покидать	left	left
let	позволять	let	let
lie	лежать	lay	lain

Задание 8

Задайте все возможные специальные вопросы к предложению: "One morning a little mouse ran across the kitchen floor".

Задание 9

Разделите все прилагательные из текста на две группы по способу образования сравнительной и превосходной степени. Запишите их во всех трех степенях.

Задание 10

Дайте краткие ответы на английском языке.

1. Вы любите кошек?
2. У Вас дома есть какое-нибудь домашнее животное?
3. В городских квартирах бывают мыши?
4. Вы поедете летом в Англию?
5. Америка была английской колонией в 17-м веке?

Задание 11

Тест «Знаете ли Вы Британию?». Проверьте себя.

1. The capital of Northern Ireland is _____.
a) Dublin b) Cardiff c) Belfast
2. The British flag is often called _____.
a) the Union Jack b) the Stars and Stripes c) the Maple Leaf
3. The highest mountain in the UK is _____.
a) Ben Nevis b) Mont Blanc c) Mount McKinley
4. The famous British newspaper which is printed on pink paper is _____.
a) The Times b) The Guardian c) The Financial Times
5. The kilt is _____.
a) a shirt b) a skirt c) a pair of trousers
6. The mysterious Loch Ness Monster is from _____.
a) Wales b) Ireland c) Scotland

языке глагол **will** все чаще употребляется во всех лицах единственного и множественного числа (особенно в утвердительных и отрицательных предложениях).

2. Вспомогательный глагол для придания действию оттенка желания, намерения, настойчивости, согласия.

I **will** help him. - Я (охотно) помогу ему.

The door **won't** open. - Дверь никак не открывается (сопротивление предмета).

3. Вспомогательный глагол для выражения просьбы, предложения.

Won't you have a cup of tea? - Не хотите ли чашку чая?

SHOULD, WOULD

1. Вспомогательные глаголы при согласовании времен в придаточных дополнительных предложениях для выражения будущего времени.

He said that he **would** take part in the conference. - Он сказал, что примет участие в конференции.

2. Вспомогательные глаголы при образовании сослагательного наклонения.

If I had time I **would** go with you to the cinema. - Если бы у меня было время, я бы пошел с тобой в кино.

It is necessary that we **should** cultivate the soil. - Необходимо, чтобы мы обработали почву.

3. Вспомогательные глаголы для выражения модальности: мягкого долженствования - «should», нежелания, противодействия усилиям человека – «would».

Before doing something you **should** think it over. - Прежде, чем сделать что-то, Вам следует все обдумать.

Mother insisted on her son's going to the country but the boy **wouldn't** follow her advice. - Мать настаивала на том, чтобы ее сын поехал за город, но мальчик не захотел последовать ее совету.

4. Вспомогательный глагол для указания на повтор-

20. Big Ben is _____.

- a) the clock tower on the Houses of Parliament
- b) the clock
- c) the largest bell at the top of the tower

Урок 3

Грамматика: Модальные глаголы и их эквиваленты



Задание 1

Прочитайте текст. Передайте его содержание, опираясь на следующие слова и словосочетания: “junk food” - неполноценная пища (в закусочных и т.п.); to grab – съесть наспех; candy counter – кондитерская; Mc Donald's; Burger King; Kentucky Fried (жареный) Chicken: a “hero” sandwich – «завтрак героя» (горячее блюдо из жареного хлеба с мясом, сыром и т.п.); a “submarine” sandwich – «субмарина» (сэндвич с мясом, сыром и т.п.); a deli – небольшой магазинчик деликатесов; a minor – несовершеннолетний; ID – удостоверение личности; a pub – паб.



Fast Food Chains

You'll find restaurants for every situation in the USA. If you are in a hurry, you may just want to grab some "junk food" at a grocery store or a candy counter, or you are able to get a bite to eat at one of the many fast food chains, like Mc Donald's, Burger King, Kentucky Fried Chicken. Or you can get a "hero" or "submarine" sandwich from a sandwich shop or deli. Some of these places have tables, but many don't. People eat in their cars or take their food home, to their offices or to parks. If you prefer sitting down but still don't want to spend much, you can try a cafeteria. At all of these places you must pay at a cash register before you sit down, and you don't have to tip anybody – but you usually have to clean the table when you finish.

Coffee shops are usually less expensive and less dressy than fine restaurants. So are pizza places, pancake houses, sandwich shops and family restaurants.

Like most fast food restaurants and cafeterias, many restaurants don't serve alcoholic beverages. This is often because they want people to feel comfortable bringing their children. Minors can eat at restaurants that serve beer and wine, but they are not allowed to enter pubs, taverns or bars. You should always have some ID with you because they may ask you to show it before you go into a bar.

Задание 2

Переведите заголовок текста.

Задание 3

Прочитайте и переведите текст, пользуясь словарем.

Задание 4

Обратите внимание на то, что в тексте встречается очень много модальных глаголов. Как Вы думаете, почему? Каким образом их использование связано с текстовой инфор-

Do you like music? – Yes, I do / No, I do not.

Ты любишь музыку? – Да/Да, люблю/ Нет/Нет, не люблю.

He wants to have a rest. – **So do I.**

Он хочет отдохнуть. – Я тоже (хочу).

The 2nd experiment gave us better results than **did** the 1st one. - Второй эксперимент дал нам лучшие результаты, чем дал первый.

SHALL

1. Вспомогательный глагол для образования форм будущего времени 1-го лица единственного и множественного числа.

I **shall** (I'll) do it tomorrow. - Я сделаю это завтра.

2. Вспомогательный глагол для придания действию оттенка долженствования, обещания, приказа, угрозы (обычно со 2-м и 3-м лицом).

This letter **shall** be sent off today. - Это письмо будет (должно быть) отправлено сегодня.

3. Вспомогательный глагол для выражения обращения за распоряжением – с 1-м и 3-м лицом в вопросительных предложениях.

Where **shall** they wait for you? - Где им Вас ждать?

WILL

1. Вспомогательный глагол для образования форм будущего времени 2-го и 3-го лица единственного и множественного числа.

They **will** not go there tomorrow. - Они не поедут туда завтра.

Обратите внимание, что в современном английском

He **has** two brothers. – У него есть два брата.

2. Модальный глагол со значением вынужденного долженствования – если за ним стоит другой глагол в форме инфинитива с частицей *to*.

Farmers **have to work** hard in spring. – Фермерам приходится много работать весной.

3. Вспомогательный глагол для образования времен-результатов, если после него стоит основной глагол в III форме.

I **have just had** dinner. – Я только что пообедал.

Запомните: чтобы определить функцию глагола to have и правильно его перевести, следует выяснить, что стоит за ним.

TO DO

1. Смысловой глагол в значении «делать, совершать, выполнять».

I **do** my morning exercises every day. – Я делаю утреннюю зарядку каждый день.

2. Вспомогательный глагол для образования вопросительной и отрицательной форм времен-фактов.

Do you live in Moscow? – Ты живешь в Москве?

My father **does not smoke**. – Мой отец не курит.

3. Вспомогательный глагол-усилитель для подчеркивания действия, выраженного глаголом-сказуемым в утвердительных предложениях.

We **do realize** what great importance this discovery has for the future work – Мы действительно понимаем, какое громадное значение имеет это открытие для нашей будущей работы.

He **did help** us! – Он действительно помог нам! Он же помог нам!

4. Вспомогательный глагол-заменитель смыслового глагола во избежание его повторения.

мацией?

Задание 5

Объясните каждый случай употребления модальных глаголов в тексте.

Задание 6

Каких из известных Вам модальных глаголов и их эквивалентов в тексте нет? Каково их значение? Приведите примеры их употребления.

Задание 7

Ответьте на вопросы:

1. What should you do every morning?
2. What did you have to do on Monday?
3. What have you to do if you are ill?
4. What must every student do?
5. Where are you not allowed to smoke?
6. Where can you have your dinner?
7. May students of our University be late for their classes?
8. Would you like to have a snack now?
9. When are you to pass your examination?
10. Will you be able to help your friend with his/her English tomorrow?

Задание 8

Переведите на английский язык:

1. Если Вы захотите перекусить, Вы можете пойти в кафе.
2. В США имеется много разных закусок.
3. Можно привести детей в ресторан?
4. Обед в ресторане обычно дороже, чем в кафе.
5. Нужно ли убирать за собой со стола в кафетерии?
6. Что Вы предпочитаете: пиццерию или Макдоналдс?

7. Многие рестораны не предлагают алкогольные напитки.
8. В любом пабе молодые люди должны показывать свое удостоверение личности.

Задание 9

Ответьте на вопросы:

1. What do you understand by the “fast food system”?
2. Do we have such a system in Russia? Give your examples.
3. Give pros and cons for this system.
4. Where can you have dinner in our city?
5. Where do you prefer to have dinner? Why?
6. What sandwiches do you like?

Задание 10

Какое блюдо получится, если Вы его приготовите по следующему рецепту? Назовите его по-английски.

Ingredients:

100g flour, 1 egg, 250 ml milk, oil, salt, lemon, sugar.

Instructions:

1. Put flour, egg, salt, sugar and milk into a bowl.
2. Mix them with a fork.
3. Heat the frying pan and oil it.
4. Pour some mixture in the pan.
5. Fry it on both sides for 2-3 minutes.
6. Put it on the plate.
7. Squeeze lemon on it, roll it and eat it.

Задание 11

Тест ”British Food”

Какие, по-Вашему мнению, утверждения являются истинными, а какие – ложными?

- a) The biggest owner of pubs in Britain is a Japanese bank.
- b) People in Britain are buying 20% less food from super-

2. Глагол-связка в значении «являться» - если за ним следует существительное без предлога или прилагательное.

It **is** a book. – Это (есть) книга.

It **was** very interesting. - Это было очень интересно.

3. Модальный глагол со значением запланированного долженствования, если за ним стоит другой глагол в форме инфинитива с частицей *to*.

Students **are to pass** examinations twice a year. – Студенты должны сдавать экзамены два раза в год.

Обратите внимание, что предложения типа «Our task is to study well», где часть после глагола *to be* раскрывает содержание левой части, переводятся с помощью слов *заключается в том, чтобы; состоит в том, чтобы*: «Наша задача состоит в том, чтобы хорошо учиться».

4. Вспомогательный глагол для образования:

а) времен-процессов, если после него стоит IV форма основного глагола.

What **are** you **doing** now? – Что ты сейчас делаешь?

б) времен в пассивном залоге, если после него стоит основной глагол в III форме.

Our city **was founded** in 1574. – Наш город был основан в 1574 г.

Запомните: чтобы определить функцию глагола to be и правильно его перевести, следует выяснить, что стоит за ним.

TO HAVE

1. Смысловый глагол в значении «иметь» - если за ним следует существительное.

Приложение 1
Appendix 1

**ВСЕ ФУНКЦИИ *TO BE, TO HAVE,*
TO DO, SHALL, WILL, SHOULD, WOULD
ALL FUNCTIONS OF:**

TO BE

1. Смысловой глагол в значении «находиться» - если за ним следует существительное с предлогом или наречие места.

My friend **is** in Moscow. – Мой друг находится в Москве.

He **is** there. – Он находится там.

markets today than they did ten years ago.

c) The British spend about £1.26 billion a year on hamburgers, double what they spend on medicines.

d) Over five million kilograms of crisps are eaten in Britain every week.

e) There are more Chinese take-aways than there are fish and chip shops in the UK.

f) One of the most successful food programmes on TV recently was called “Two Fat Ladies”. It celebrated some of the richest, heaviest, fattiest foods in British and world cooking.

g) In 1997, a frozen food company started selling chocolate-flavoured carrots and pizza-flavoured sweet corn to encourage children to eat fresh vegetables.

h) Just over half the restaurants in Britain are fast-food outlets or take-aways.

i) Every person in Britain eats a ready meal from a supermarket at least five times a week.

Урок 4

Грамматика: Времена продолженной группы



Задание 1

Прочитайте текст и объясните, почему он разделен на несколько частей. Какие из этих частей можно объединить и по какому принципу?

Knowledge of a foreign language gives you the opportunity to enter the world of a new nation, new culture, new world vision. Every nation has its own character and peculiar traditions. When you learn a language you should also learn the traditions and manners of those who speak this language. In this case you will not find yourself in the following situations:

1. Two Americans were travelling in Spain. One morning they entered a little restaurant for lunch. They did not know Spanish, however, and the waiter did not know English. So they tried to make him understand that they wanted some milk and sandwiches.

At first they pronounced the word “milk” many times. Then they spelled it. But the waiter still could not understand.

At last one of them took a piece of paper and began to draw a cow. He was just finishing his drawing when the waiter looked at it and ran out of the restaurant.

“You see,” said the traveller who was drawing the cow, “what a pencil can do for a man who has difficulties in a foreign country.”

After some time the waiter was back but he brought no milk. He put in front of the two men two tickets for a bull-fight!



2. Two friends went on a trip to London. In London they went into a restaurant for dinner. On a table stood a jar of mustard. They didn't see mustard before, so one of them took a big spoonful into his mouth. Tears immediately filled his eyes. His friend asked him what he was crying about. “I am crying at the thought of the death of my unfortunate father whom they hanged 20 years ago,” the man answered.

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| 51. | He works for a firm in the North. | Он работает в фирме на Севере. |
| | He works for a farm in the North. | Он работает на ферме на Севере. |
| 52. | I've lost my purse. | Я потерял кошелек. |
| | I've lost my pass. | Я потерял пропуск. |
| 53. | The paper is on the table. | Бумага на столе. |
| | The pepper is on the table. | Перец на столе. |
| 54. | Please taste this tea. | Попробуйте этот чай. |
| | Please test this tea. | Проверьте этот чай. |
| 55. | The bear was awful. | Медведь был ужасный. |
| | The beer was awful. | Пиво было ужасное. |
| 56. | He is rarely unhappy. | Он редко бывает несчастным. |
| | He is really unhappy. | Он действительно несчастен. |
| 57. | They gave her three chairs. | Они ей дали три стула. |
| | They gave her three cheers. | Они приветствовали ее трехкратным «ура». |

Task 76

Train English sounds in tongue-twisters:

1. She sells seashells on the sea shore of the Seychelles.
2. Swan swam over the sea -
Swim, swan, swim;
Swan swam back again,
Well swam swan.
3. Peter Piper picked a peck of pickled pepper.
A peck of pickled pepper Peter
Piper picked.
If Peter Piper picked a peck of pickled pepper,
Where's the peck of pickled pepper Peter Piper picked?

38. There are three gifts for you. Все три подарка для Вас.
There are free gifts for you. Вот бесплатные подарки для вас.
39. Did you feel it? Вы это почувствовали?
Did you fill it? Вы это заполнили?
40. He beat the dog. Он ударил собаку.
He bit the dog. Он укусил собаку.
41. I'm going to leave with my brother. Я собираюсь уехать со своим братом.
I'm going to live with my brother. Я собираюсь жить со своим братом.
42. He lost his bat. Он потерял свою летучую мышь.
He lost his bet. Он проиграл пари.
43. Where is my pan? Где моя кастрюля?
Where is my pen? Где моя ручка?
44. I've lost the truck. Я потерял грузовик.
I've lost the track. Я потерял след.
45. Does my hut look nice? Моя хижина хорошо смотрится?
Does my hat look nice? Моя шляпа хорошо смотрится?
46. He's worried about his uncle. Он беспокоится о своем дяде.
He's worried about his ankle. Он беспокоится о своей щиколотке.
47. We couldn't find the fox. Мы не могли найти лису.
We couldn't find the forks. Мы не могли найти вилки.
48. The pot was old. Горшок был старый.
The port was old. Порт был старый.
49. The hole is big. Дыра большая.
The hall is big. Зал большой.



They continued eating, and soon the other traveller also took a big dose of mustard. He did so and tears ran down his cheeks also. "What are you crying about?" asked his friend. "Oh, I'm crying because they didn't hang you with your father," was the answer.

3. An American who went to Japan had a Japanese servant who was very polite. One morning the American wanted to get up very early and said to the servant: "Wake me up at 6 o'clock, please. Don't forget to do it."

At 6 o'clock the servant entered the American's room very quietly and, seeing that the American was sleeping, took a sheet of paper and wrote some words on it. Then he left the room as quietly as he had entered it.

The American woke up at 11 o'clock, jumped out of bed, looked at his watch and saw the sheet of paper on the table. He read these words on it: "Dear sir, it is 6 o'clock now. Please get up at once."

Задание 2

Озаглавьте весь текст и каждую из его частей.

Задание 3

Прочитайте текст, пользуясь словарем. Найдите английские эквиваленты следующих слов и словосочетаний: "пу-

тешествовать; возвращаться; понимать; наконец; много раз; видите ли...; сталкиваться с трудностями; при мысли о; продолжать еду; быть вежливым; рано вставать; не забывай/не забудь; войти в комнату – выйти из комнаты; лист бумаги”.

Задание 4

Найдите глаголы-сказуемые во всех предложениях и объясните, почему некоторые из них стоят в форме Continuous.

Задание 5

Определите, в каком времени – в основном - представлены действия во второй части текста. Помня, что для описания последовательности действий в прошлом часто используются формы настоящего времени, преобразуйте текст соответствующим образом и прочитайте его вслух.

Задание 6

Найдите в третьей части текста все глаголы-сказуемые в форме Continuous. Как изменится характеристика действия при замене формы Continuous на форму Indefinite?

Задание 7

Ответьте на вопрос: “Why could the situation of Part IV happen only in Japan?”

Задание 8

Какие из приведенных ниже качеств Вы бы использовали при описании характера англичанина и американца: “reserved, polite, energetic, forward looking, conservative, optimistic, self-possessed, with a sense of humour, pragmatic, good mixer”?

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| 26. | The USA has vast motorways. | В США есть широкие магистралы. |
| | The USA has fast motorways. | В США есть скоростные магистралы. |
| 27. | The fees are very expensive. | Оплата очень высокая. |
| | The peas are very expensive. | Горох очень дорогой. |
| 28. | Have you got a bet? | Ты заключил пари? |
| | Have you got a vet? | У вас есть ветеринар? |
| 29. | The country's vines are famous. | Виноградники этой страны знамениты. |
| | The country's wines are famous. | Вина этой страны знамениты. |
| 30. | This veal is no good. | Эта телятина испорчена. |
| | This wheel is no good. | Это колесо не годится. |
| 31. | He ran home. | Он побежал домой. |
| | He rang home. | Он позвонил домой. |
| 32. | Stop sinning. | Перестань грешить. |
| | Stop singing. | Перестань петь. |
| 33. | He is thinking. | Он думает. |
| | He is sinking. | Он тонет. |
| 34. | Every mouth is different. | Все рты разные. |
| | Every mouse is different. | Все мыши разные. |
| 35. | The theme was very popular. | Тема была очень популярной. |
| | The team was very popular. | Команда была очень популярной. |
| 36. | I don't like the heath. | Я не люблю вереск. |
| | I don't like the heat. | Я не люблю жару. |
| 37. | We thought about that for a long time. | Мы долго думали об этом. |

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| 16. | We must heat up the potatoes.
We must eat up the potatoes. | Мы должны разогреть картошку.
Мы должны доесть картошку. |
| 17. | Have you got a bet?
Have you got a pet? | Ты заключил пари?
У тебя есть домашнее животное? |
| 18. | The doctor looked at the rip.
The doctor looked at the rib. | Доктор осмотрел порез.
Доктор осмотрел ребро. |
| 19. | He writes very well.
He rides very well. | Он очень хорошо пишет.
Он очень хорошо ездит верхом. |
| 20. | There was something wrong with the trains.
There was something wrong with the drains. | Что-то случилось с поездами.
Что-то случилось с трубами. |
| 21. | What a beautiful curl!
What a beautiful girl! | Какой красивый локон!
Какая красивая девушка! |
| 22. | I could see her back in the train.
I could see her bag in the train. | Я видел ее со спины в поезде.
Я видел ее сумку в поезде. |
| 23. | The teacher is collecting the exam papers today.
The teacher is correcting the exam papers today. | Сегодня учитель собирает экзаменационные работы.
Сегодня учитель исправляет экзаменационные работы. |
| 24. | He dialed a long number.
He dialed a wrong number. | Он набрал длинный номер.
Он набрал неверный номер. |

Задание 9

Дополните диалоги вопросами (а) и ответами (б):

- а) А.: ...?
Б.: I am waiting for a bus.
А.: ...?
Б.: I am going to my friend.
А.: ...?
Б.: We'll be doing our home work together.
- б) А.: What are you writing?
Б.:
А.: Are you going to visit them this week-end?
Б.:

Задание 10

Опишите на английском языке все, что происходит в данный момент:

- в аудитории;
- за окном;
- в столовой университета.

Задание 11**Текст "What is your Personality?"**

- 1) You're walking along on a train when you knock over someone's coffee. What would you say?
- а) "I'm terribly sorry."
б) "It's your fault. That was a stupid place to put it."
в) "Sorry. Are you OK? I'll get you another one."
- 2) You arrive at the door of a department store at the same time as someone else. What would you do?
- а) say "After you"
б) say nothing, but walk through the door first
в) say "Excuse me" politely, then walk through the door first

- 3) You're at work. You walk into an office. A colleague that you don't know very well is crying. What do you do?
- say "Sorry", and leave the room
 - sit down next to her and say "You look upset. Would you like to talk about it?"
 - say "What's wrong? You're supposed to be working!"
- 4) You phone a colleague during the early evening about a work problem. They answer the phone and you can hear the sound of people talking. What do you say?
- "Sorry to call you at home. Are you having dinner? I can call later."
 - "I want to talk to you about a problem at work."
 - "Sorry to bother you, but it is important. We have a problem at work."
- 5) Your company has a no smoking policy, which you agree with. A visitor walks into your office and lights a cigarette. What do you say?
- "You're not allowed to smoke here."
 - "Smoking causes cancer."
 - "I hope you don't mind, but I'm afraid we have a no smoking policy here."
- 6) You're in a hotel and the TV in the neighbouring room is very loud. You're trying to get to sleep. What do you do?
- knock on the wall with your shoe, and shout "Turn that noise off! I'm trying to sleep!"
 - knock on the door of the neighbouring room and say, "I'm sorry, but your TV is rather loud and I'm trying to sleep. Would you mind turning it down?"
 - call the reception desk and ask them to request your neighbours to turn their TV down.

- She enjoys washing the children. Ей нравится мыть детей.
- She enjoys watching the children. Ей нравится наблюдать за детьми.
- Small shops are often expensive. Маленькие магазины часто бывают дорогими.
Small shops are often expensive. Маленькие отбивные часто бывают дорогими.
- It's not a little fir tree. Это не елочка.
It's a larch tree. Это лиственница.
It's not a little fir tree. Это не елочка.
It's a large tree. Это большое дерево.
- Look out. He is choking. Смотрите, он задыхается.
Look out. He is joking. Смотрите, он шутит.
- All the yolks were bad. Все желтки были испорчены.
All the jokes were bad. Все шутки были плохие.
- The years have gone by. Годы прошли.
The jeers have gone by. Насмешки остались незамеченными.
- We're hoping for peace. Мы надеемся на мир.
We're hoping for peas. Мы надеемся на горох.
- The price was wonderful. Цена была чудесная.
The prize was wonderful. Приз был чудесный.
- She heard a bus. Она услышала автобус.
She heard a buzz. Она услышала гудок.
- My heart is the most important thing for me. Мое сердце – самое главное для меня.
My art is the most important thing for me. Мое искусство – самое главное для меня.

Task 74

Practise in reading: name, size, hope, tune, theme, tone, wife, blame, these, my, place, cake, cap, cup, pencil, she, student, myth, clock, sell, bird, fur, sort, farm, verb, horse, perfect, market, page, firm, meet, book, good, food, seed, moon, cool, room, wood, wool, chess, cheese, check, shock, ship, sheep, chop, shop, ice, math, third, the, other, brother, north, day, pay, may, they, spy, say, family, cattle, way, with, candy, toy, mine, space, cite, site, birch, climate, when, whose, wall, whole, whom, gym, gum, sing, ring, gypsy, long, whisky, spring, them, cell, dine, dinner, while, whale, king, met, meet, hush, hoe, price, house, round, about, queen, quick, wage, apple, equip, night, high, knight, large, bright, knife, write, white, often, wrong, hour, half, why, could, huge, farmer, should, would, shook, shave.

Task 75

Read the following English sentences aloud. Look at their Russian equivalents and say what the cause for change in the meaning is.

- | | | |
|----|-------------------------------|-------------------------------|
| 1. | I'm waiting for the bill. | Я жду счета. |
| | I'm waiting for the bell. | Я жду звонка. |
| 2. | Whose pin is that? | Чья эта булавка? |
| | Whose pen is that? | Чья эта ручка? |
| 3. | He had tin boxes. | У него были жестяные коробки. |
| | He had ten boxes. | У него было десять коробок. |
| 4. | The seat is dirty. | Сиденье грязное. |
| | The sheet is dirty. | Простыня грязная. |
| 5. | Could you sign this, please? | Не могли бы Вы подписать это? |
| | Could you shine this, please? | Не могли бы Вы натереть это? |

- 7) You're having coffee in a restaurant with an acquaintance. The bill arrives, and your acquaintance takes it. What do you say?
- a) nothing
b) "Thank you."
c) "Let me pay."
- 8) Your colleague has won 10,000 pounds in a lottery. What do you say?
- a) "Congratulations! That's wonderful!"
b) "I never win anything!"
c) "Can you lend me 100 pounds until next month? I'll pay you back."

Here are the scores:

1	A 1	B 0	C 2	5	A 1	B 0	C 2
2	A 2	B 0	C 1	6	A 0	B 2	C 1
3	A 1	B 2	C 0	7	A 0	B 1	C 2
4	A 2	B 0	C 1	8	A 2	B 1	C 0

Add up your score, then look at page 241 to see what your score means.

Урок 5

Грамматика: Времена совершенной группы.

**Задание 1**

Прочитайте текст, определите его характер.

First Impressions of London

- Have you already been to London?
- No, I haven't. I'm here for the first time. Our English friends have invited us, and here I am.



- What is your first impression of London?
- London is very large. I have never seen so many cars and buses at once. What square are we going to?
- It's Trafalgar Square. It is one of the most beautiful squares in London. In the middle you can see the Nelson Column. It is very tall. There is a statue of Nelson on the top of the column. Four big lions are at the foot of the column.
- And what building is this?
- This is the National Gallery.
- Have you been there many times?
- Of course, I have.
- Have you seen drawings by Leonardo de Vinci there?
- No, I haven't yet. I think I'll have to go there once again.
- Shall we go there today?
- Not today. Don't forget we have a tea-party at 6. Look out, our bus is coming. Follow me to the top of the bus.
- Oh, that will be very interesting.

Задание 2

Прочитайте текст со словарем и: а) найдите эквиваленты следующих слов и словосочетаний: «впервые, увидеть все сразу, в центре, подножие, много раз»; б) объясните разницу в значениях слова “top” в словосочетаниях “the top of the column”, “the top of the bus”.

Чтение сочетаний гласных и согласных букв

Буквосочетание	Чтение	Примеры
ai ay	[ei]	rain, main, train day, hay, way
ea ee	[i:]	sea, meat, tea see, meet, street
oi oy	[oi]	point, coil, boil boy, toy
oo	[u:]	too, room, food
ou	[au]	out, house, round
ew	[ju:]	new, few, dew
ow	[au]	how, brown, town
igh	[ai]	light, high, night
ai+r	[ɛə]	hair, chair, stair
ee+r	[iə]	deer, engineer
ou+r	[aʊə]	our, hour
oo+r	[o:]	door

Устная речь оформляется с помощью *интонации*. Для английской речи характерны два основных тона: нисходящий и восходящий. Нисходящий тон употребляется в повествовательных утвердительных и отрицательных предложениях, в повелительных предложениях, в специальных вопросах. Восходящий тон употребляется в конце общих вопросов, при перечислении, в переспросах, в приветствии или прощании, в просьбах. При этом ритм речи создается за счет фразового ударения на информационно значимых для говорящего словах.

Чтение некоторых согласных букв и их сочетаний

Буквы и буквосочетания	Позиция	Чтение	примеры
Cc [si:]	1. Перед e,i,y. 2. Любая другая.	[s] [k]	cent, pencil, icy cap, cup, can
Gg [dʒi:]	1. Перед e,i,y. 2. Любая другая.	[dʒ] [g]	page, gin, gypsy good, green, big
Ss [es]	1. Обычная. 2. Между гласными, после гласных или звонких согласных.	[s] [z]	sit, lists ties, please, pens
Xx [eks]	1. Обычная. 2. Перед ударной гласной.	[ks] [gz]	six, box, text exam
sh	Любая.	[ʃ]	she, sheep
ch	Любая. В словах латинского и греческого происхождения.	[tʃ] [k]	chess, chair character, school
ck	Любая.	[k]	black, back
th	1. Обычная. 2. Между гласными, в начале местоимений и служебных слов.	[θ] [ð]	thick, think this, then, there, bathe
wh	1. Перед o. 2. Любая другая.	[h] [w]	whole what, where
kn	Любая.	[n]	know, knock, knight

Задание 3

Разделите все глаголы-сказуемые текста на три группы и объясните принцип этого деления.

Задание 4

Объясните, почему именно в этом тексте достаточно часто используются времена группы Perfect.

Задание 5

Найдите в тексте предложения, в которых глагол “to have” не служит для образования перфектной формы. По каким признакам Вы выбрали эти предложения? Переведите эти предложения.

Задание 6

Прочитайте текст “London” и переведите его со словарем.

London

London has been the centre of Britain’s transport network since Roman times, with roads radiating outwards to all parts of the country. This has helped industry to grow, and many people have come to London for work.

For centuries London has been the home of government and of the monarch. This has ensured its position as Britain’s capital. It has always been a centre of trends and fashions, too.

People of many nationalities have settled in London. They have come to find work or because of religious persecution in their own countries. Often they have set up their own communities in one particular area. Since the WW II people have come to live and work in London from the Commonwealth countries of India and Pakistan. They have set up many businesses, and celebrate their own religious festivals. Many people have come from Arab countries, too, and have set up temples for their Islamic faith. Chinese people have come to live in Chinatown, an area in Soho,

where there are many Chinese restaurants and food shops.

Задание 7

Объясните, почему в данном тексте описательного характера достаточно часто используются глаголы в форме совершенного времени. Найдите примеры в тексте, переведите их на русский язык.

Задание 8

Скажите, что нового Вы узнали из текста. Свой ответ можете начинать со слов: "I have found that...", "I have learned that...", "I have come to the conclusion that..."

Задание 9

Задайте следующие вопросы по-английски и ответьте на них:

1. Вы сегодня завтракали?
2. Что у Вас было сегодня на обед?
3. Вы принесли с собой свой словарь?
4. Вы когда-нибудь были в Лондоне?
5. Кто взял мою ручку?
6. У тебя много друзей в университете?
7. Вам нужно будет приходить в университет в воскресенье?
8. Вы уже сдали все экзамены?

Задание 10

Работа в парах. Закончите диалог:

- Hello, Nick! I haven't seen you for ages. Where have you been all this time?
- I've just come from a trip to London. There I have...

вита. Вообще, английское письмо носит исторический характер, что приводит к большому различию между устной и письменной формами слова. Недаром англичане говорят: «Пишется – Ливерпуль, читается - Манчестер». Поэтому транскрипция имеет очень большое значение как для изучающих английский язык, так и для самих англичан.

Вместе с тем, существуют определенные правила чтения букв в зависимости от их положения в слове. Прежде всего, это относится к гласным: **20** звуков и **6** букв.

Правила чтения английских гласных букв в ударном слоге

Тип чтения	Буква					
	Aa	Oo	Ee	Ii	Yy	Uu
I (открытый слог)	[ei] name take	[ou] no stone	[i:] be Pete	[ai] fine mine	[wai] my by	[ju:] tune student
II (закрытый слог)	[æ] map flat	[ɔ] not stop	[e] pen step	[i] sit bit	[i] myth	[ʌ] but cup
III (гласная +r)	[a:] mark start	[ɔ:] sport fork	[ə:] term her	[ə:] firm bird	[ə:] Byrd	[ə:] fur burn
IV (гласная +re)	[ɛə] hare rare	[ɔ:] more core	[iə] mere here	[aiə] fire tired	[aiə] tyre	[juə] cure

Обратите внимание, что в безударном положении любой гласный может редуцироваться, т.е. ослабляться до звука [ə] или даже исчезать совсем: today [t' ədeɪ].

Согласные

p	п
b	б
m	м
w	звук, близкий к в , но произносится губами
f	ф
v	в
θ (без голоса)	для того чтобы получить этих два щелевых зву- ка – один без голоса, а другой с голосом, - сле- дует образовать щель между передним краем
ð (с го- лосом)	языка и верхними зубами
s	с
z	з
t	т произносится не у зубов, а у десен (альвеол)
d	д произносится не у зубов, а у десен (альвеол)
n	н произносится не у зубов, а у десен (альвеол)
l	л произносится не у зубов, а у десен (альвеол)
r	нераскатистый, невибрирующий, очень краткий слабый звук р
ɪ	мягкий ш
ʒ	мягкий ж
tʃ	твердый ч
dʒ	очень слитный мягкий дж , иными словами – звонкий ч , произнесенный с голосом
k	к
g	г
ŋ	задненебный н (т.е. н , произнесенное не кончи- ком языка, а задней частью его спинки)
h	простой выдох
j	слабый й

*Задание 11***Тест. London Quiz**

- Who gave London its first name?
a) the Egyptians b) the Greeks c) the Romans
- Which river runs through London?
a) the Thames b) the Severn c) the Seine
- Who founded the Tower of London?
a) Charles I b) William I c) Henry VIII
- Which is the oldest part of London?
a) Westminster b) the City c) the West End
- How much of London did the Great Fire of London
destroy in 1666?
a) a quarter of London b) three quarters of London
c) the whole city
- Where are the British kings and kings crowned?
a) St Paul's Cathedral b) Westminster Abbey
c) the House of Lords
- Which birds, according to legend, protect the Tower
of London?
a) pigeons b) ravens c) swans
- Which is the most famous shopping street in London?
a) Oxford Street b) Downing Street c) Baker Street
- What is a "double-decker"?
a) a bus b) a lorry c) a ship
- Where can you make a speech in Hyde Park?
a) Poet's Corner b) Speaker's Corner c) Revolutionary Corner
- What is "the Globe" in London?
a) the largest department store in Europe
b) Cockney rhyming slang for "hope" c) a Shakespearean theatre
- Which is the only London Bridge that can be raised?
a) Tower Bridge b) London Bridge c) Waterloo Bridge

На письме 44 звука обозначаются 26-ю буквами алфа-

13. Why will 2012 be a special year for London?
 a) It's the city's 2000th anniversary.
 b) The city will be hosting the Olympic Games.
 c) There will be an eclipse of the sun.
14. Where are the Crown Jewels kept?
 a) Buckingham Palace b) The Tower of London
 c) The Bank of England
15. If you visited Number One, London, where would you be?
 a) Buckingham Palace b) Main Post Office c) Apsley House
16. Which museum is situated at 221B Baker Street?
 a) Tate Modern b) Madam Tussaud's
 c) Sherlock Holmes Museum
17. What colour is the traditional London taxi?
 a) yellow b) black c) green
18. What is the London Eye?
 a) a telescope b) an observation wheel c) a newspaper
19. How much will it cost you to visit the British Museum, the National Gallery, the Tate Modern Gallery, the Science Museum and the Imperial War Museum?
 a) 10 pounds b) 30 pounds c) Nothing. They are all free
20. Which former London resident has been voted "the greatest Briton of all time"?
 a) Sir Winston Churchill b) Charles Darwin c) John Lennon
21. Which bridge over the Thames was pulled down in 1970 and transported, piece by piece, to Arizona in the United States?
 a) London Bridge b) Tower Bridge c) Westminster Bridge

рые звуки имеют два варианта обозначения.

Гласные

i:	долгий звук и
i	краткий и очень открытый и
e	е в словах «шесть», «эти»
æ	э, но более открытый; этот звук встречается в начале слова или следует за твердыми согласными
ɑ:	долгий задний а , похожий на а , в ударном слоге слова «палка»
Δ :	краткий очень открытый о
*	долгий о
u 8	краткий у со слабым округлением губ
u:	долгий у без сильного выдвижения губ
Ф	как русские неударные о и а в словах «мосты», «сады»; но английский звук « Λ » почти всегда стоит под ударением
X	неясный безударный звук, близкий к « Λ ».
X:]:	произносится как долгий ё (например, в слове «Фёкла»).

Двугласные

ei	эй	Δi	о^й
ou	X8 ou	i э	и^а
ai	ай	α э	eX э^а
au	a8 ay	u э	8X у^а

Ударение в двугласных падает на первый элемент.

Раздел VI***Английское произношение и его особенности*****Unit VI*****English Accent: How They Do It***

Английскую речь можно сразу же определить по ее звуковому – фонетическому – оформлению. Так, английский звук может быть долгим и кратким, причем замена долгого на краткий или наоборот может привести к изменению смысла слова:

<i>краткий</i>	<i>долгий</i>
hit	heat
ударять	нагревать
hut	heart
избушка	сердце
pot	port
горшок	порт

Гласные могут соединяться в одном слоге, составляя дифтонги (сочетание двух гласных звуков) или трифтонги (сочетание трех гласных звуков): boy, lay, ray, tyre, hour. Что касается согласных, то особенностями их артикуляции в английском языке прежде всего являются:

1) преобладание альвеолярных и заальвеолярных согласных, т.е. язык (в отличие от русского языка!) находится не на зубах, а на альвеолах – бугорках за верхними зубами, что придает специфический оттенок всей речи;

2) отсутствие смягченных согласных;

3) сохранение звонких согласных в конце слова: bat – bad, cab – cap.

Всего в английском языке 44 звука. Каждый звук можно обозначить условным графическим знаком – знаком *фонетической* транскрипции. Обратите внимание, что некото-

Урок 6
Обзорный

***Задание 1***

Прочитайте текст и скажите: а) о какой стране идет речь; б) что вы поняли из текста, прочитав его без словаря.

Task 1

Read the text using no dictionary and say: a) what country is spoken about here; b) what information have you got from the text.

If you go to that country it will seem to you rather an upside – down world. The seasons are the other way round. Summer is from December to February, autumn from March to May, winter from June to August, and spring from September to November. New Year is at midsummer, midwinter is in June. Hot winds are blowing from the north; cold winds are blowing from the south. The farther north you go, the hotter it gets.

Magnificent landscapes and unusual plants may dazzle you. It must seem strange to you that trees lose their bark, not their leaves, and a lot of flowers have no smell. Even stranger than plants are animals. You cannot find some of them anywhere else. There live kangaroos, koalas, echidnas, platypi and a lot of rare birds.

It is world's largest island and its smallest continent. People often call the country the “land down - under” because it lies entirely south of the equator. It is the oldest of all continents. Its mountains were once higher than the Himalayas; its desert rose from the waves of the sea millions of years ago. Its animals are ancient and unique. Its wandering aboriginal tribes still live like the men of the Stone Age.



It is the driest continent on earth. The four great deserts cover 2000000 square kilometers. There are few rivers there. Its lakes which look impressive on the map, contain much clay and salt.



It is the flattest of all continents. Unlike any other continent, it lacks mountains of truly alpine structure. Its most significant mountain chain is the Great Dividing Range running down most of the east coast.

It is the only continent that is also a country. As a country, it has the sixth largest area in the world after Russia, Canada, China, the United States and Brazil.

It is the least populated of the continents. Only 0,3% of the world's population live there. However, it is the most urbanized country in the world. Two out of there of its citizens live in the eight largest cities.

It lies so far from other continents that Europeans have dis-

- B. Paraphrase the following by means of a noun. Use the suffix -er (-or):
1. -er: a person who teaches, builds, works (at a factory), sings (in the opera), writes books, produces films;
 2. -or: a person who inspects, constructs, decorates.
- C. Give antonyms to the following adjectives. Use the prefix un-: natural, comfortable, certain, able, suitable, common, friendly, real.
- D. Find the meaning of the following words paying attention to the word-building elements: unfavorable, brilliant, coolant, activity, 'produce, pro'duce, producer, product, production, productive, productivity, inevitable, permanent, insufficiency, insufficient, childhood, friendship, friendly, various, variant, vary, variable, variability, variance, science, scientist, scientific, chemistry, chemist, chemical, bacterium, bacteriology, bacteriological, geographer, basic, basis, homeless, coldly, coldness, widely, to widen, width, equally, inequality, probably, improbable, probability, improbability, eastwards, tactful, tactless, sunny, useful, useless, uselessly, usefulness, uselessness, rewrite, resistance, irresistible, different, difference, indifferent, mechanize, mechanization, dependence, interdependent, disappear, reappear, development, undeveloped, underdeveloped, overdeveloped, highly, relative, relatively, misfortune, outstanding, frighten, Russian, famous, sixteen, the fifth, decentralize, forget-me-not, subdivide, subdivision, underestimated.

в) чередованием звуков и (или) букв:

use [s]	употребление – to use [z]	употреблять
house [s]	дом - to house [z]	вмещать
song	песня - to sing	петь
food	пища - to feed	кормить

г) словосложением:

<i>составные существительные</i>	
rail + way = railway	железная дорога
bed + room = bedroom	спальня
father + in + law = father-in-law	тесть
<i>составные прилагательные</i>	
first + class = first-class	первоклассный
dark + blue = dark-blue	темно-синий
<i>составные местоимения</i>	
some + body = somebody	кто-то
no + thing = nothing	ничего
<i>составные наречия</i>	
every + where = everywhere	езде
some + where = somewhere	где-то
<i>составные глаголы</i>	
to white + wash = whitewash	белить
to broad + cast = broadcast	передавать по радио

Task 73

A. Read the following groups of words. Mind the stresses. Translate the words into Russian: 'industry – in'dustrial; 'territory - terri'torial; ex'periment - experi'mental; 'colony - co'lonial; 'continent – conti'nental; e'conomy - eco'nomical - eco'nomical; 'history - his'toric - his'torical; bi'ology - bio'logic - bio'logical; de'mocracy - demo'cratic; a'cademy – aca'demic - aca'demical.

covered it recently in comparison with the history of mankind. You have to spend a lot of time to get there even by air.

Задание 2

Прочитайте текст, пользуясь словарем. Выпишите английские соответствия следующих слов и словосочетаний.

Task 2

Read the text using a dictionary. Write out English equivalents for the following words and word combinations: «мир, где все наоборот; земля на другом конце света; кочевое племя; каменный век; горный рельеф; Большой Водораздельный Хребет; урбанизированный».

Задание 3

Объясните структуру словообразования следующих слов, переведите их на русский язык.

Task 3

Explain the way the following words are formed, translate the words into Russian: "midsummer, midwinter, unlike, anywhere, stranger, united, running, sixth, impressive, entirely, discover".

Задание 4

Ответьте на вопросы.

Task 4

Answer the questions:

1. Почему эту страну иногда называют «страной, где все наоборот»?
2. В чем особенности растительного и животного мира этой страны?
3. Какие географические характеристики страны приведены в тексте?
4. Какую новую для себя информацию о населении страны вы узнали из текста?

5. Можно ли сказать, что по своей территории это одна из крупнейших стран мира?

Задание 5

Определите основную видовременную форму глаголов – сказуемых текста. Объясните ее использование.

Task 5

Name the main tense-aspect form of the verbs-predicates in the text. Explain its use.

Задание 6

В каком предложении форма настоящего времени употребляется вместо будущего?

Task 6

In what sentence is the form of the present tense used instead of the future?

Задание 7

Найдите в тексте предложение, в котором глагол-сказуемое представляет действие как процесс. Объясните использование этой формы.

Task 7

Find the sentence in which the verb-predicate denotes the action as a process. Explain the use of this form.

Задание 8

Найдите предложения с глаголом “to have”. Объясните значение этого глагола в каждом случае.

Task 8

Find the sentences with the verb “to have”. Explain the meaning of the verb in each case.

sub-	ниже-под-и др.	way – путь, дорога system - система	<i>subway</i> – подземная дорога <i>subsystem</i> - подсистема
over-	сверх-перед-над-	to load – нагрузить	to <i>overload</i> - перегрузить
semi-	полу-	conductor - проводник	<i>semiconductor</i> - полупроводник
inter-	между-среди-взаимо-	action - действие	<i>interaction</i> – взаимодействие
en-	(для образования глагола)	large - большой	to <i>enlarge</i> - увеличить
pre-	до-заранее	to heat - нагреть	to <i>preheat</i> - предварительно нагреть
post-	после-	war - война	<i>post-war</i> - послевоенный

Кроме этого, слова могут образовываться:

а) перемещением ударения:

экспорт	ˈexport – exˈport	экспортировать
импорт	ˈimport – imˈport	импортировать
продукция	ˈproduce – proˈduce	производить
увеличение	ˈincrease – inˈcrease	увеличивать

б) без изменения формы слова:

a place	место – to place	ставить, помещать
a rise	рост – to rise	повышать, поднимать
a dress	одежда – to dress	одевать

5. Основные префиксы (приставки):

а) префиксы с отрицательным значением

un-	не- без(с)- раз(с)-	important – важный concerned - озабоченный assuracу - точность	<i>un</i> important - неважный <i>un</i> concerned – беззаботный <i>in</i> assuracу – неточность
in-	не- без(с)-	possible - возможный legal - легальный	<i>im</i> possible - невозможный <i>il</i> legal - нелегальный
ir-		responsible - ответственный conductor - проводник	<i>ir</i> responsible - неответственный <i>non</i> -conductor - непроводник (изолятор)
non-	не- без(с)-	to close - закрыть to connect - соединять	to <i>dis</i> close - раскрывать to <i>dis</i> connect - разъединять
dis-	раз(с)- без (с)- не- и др.	to understand - понимать	to <i>mis</i> understand - неверно понять
mis-	означает «неверно»		

б) префиксы с разными значениями

re-	снова, еще раз	to write – писать to use - использовать	to <i>re</i> write – переписать to <i>re</i> use – снова использовать
super-	сверх- над-	conductive - проводимый	<i>super</i> conductive - сверхпроводимый

Задание 9

Найдите в тексте предложения, в которых действия представлены как: возможное; невозможное; вынужденное. Как Вы это определили?

Task 9

Find the sentences in which the actions express: possibility; impossibility; necessity imposed by circumstances.

Задание 10

Выпишите все прилагательные в превосходной степени; дайте их положительную и сравнительную степени.

Task 10

Write out all the adjectives in the superlative degree; give their positive and comparative forms.

Задание 11

Составьте несколько предложений по следующему образцу.

Task 11

Make up several sentences according to the model: “The farther north you go, the hotter it gets”.

Задание 12

Определите, в каких функциях употребляется в данном тексте местоимение “it”.

Task 12

State the function of pronoun “it” in the text.

Задание 13

Объясните структуру местоимения “anywhere”. Назовите местоимения, образованные по тому же принципу.

Task 13

Explain the structure of the pronoun “anywhere”. Name the pronouns formed in the same way.

Задание 14

Ответьте на вопросы.

Task 14

Answer the questions:

1. Where is Australia situated?
2. How can you get there?
3. What is the capital of the country?
4. What is the biggest city of Australia?
5. Is it a continent or a country?
6. Are the English the native people there?
7. Why is English the national language of the country?
8. What other countries have English as their national language?
9. Which of them are situated south of the equator?
10. What are their capitals?
11. Have you ever been to Australia?

Задание 15

Какую англоязычную страну Вы бы хотели посетить? Почему? Чем она интересна для Вас? Подготовьте презентацию выбранной Вами страны.

Task 15

What English-speaking country would you like to visit? Why? What is interesting for you there? Be ready with the presentation of the country.

Lesson 7

Grammar: The Passive Voice

**Task 1**

Read the text and answer the questions:

- What city is it about?

2. Основные суффиксы глаголов

-ate	active – активный	to activate – активизировать
-ify	electric – электрический	to electrify – электрифицировать
-ize	character – характер	to characterize – (о) характеризовать
-en	deep – глубокий	to deepen – углублять

3. Основные суффиксы прилагательных

-able	comfort – удобство, комфорт	comfortable – удобный
-ible	to convert – превращать	convertible – изменяемый
-ic(al)	history – история	historic(al) – исторический
-al	form – форма	formal – формальный
-ant	importance – важность	important – важный
-ent	to differ – различать(ся)	different – различный
-ful	peace – мир	peaceful – мирный
-less	home – дом (очаг)	homeless – бездомный
-ish	red – красный	reddish – красноватый
-ive	effect – влияние, эффект	effective – эффективный
-ous	danger – опасность	dangerous – опасный
-y	wind – ветер	windy – ветреный

4. Суффикс наречия

-ly	useful – полезный	usefully – полезно
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Раздел V
Словообразование
Unit V
Word-building

Наиболее распространенный способ словообразования в английском языке – **аффиксация** (при помощи суффиксов и приставок).

1. Основные суффиксы существительных

-er	to work - работать to convert – преобразовать	<i>worker</i> – рабочий <i>converter</i> – преобразователь
-or	to insulate – изолировать to translate – переводить	<i>insulator</i> – изолятор <i>translator</i> – переводчик
-ing	to begin – начинать	<i>beginning</i> – начало
-ment	to develop – развивать	<i>development</i> – развитие
-th	strong – сильный	<i>strength</i> – сила
-ion	to express – выражать	<i>expression</i> – выражение
-ation	to inform – сообщать	<i>information</i> – сообщение
-sion	to decide – решать	<i>decision</i> – решение
-ssion	to permit – разрешать	<i>permission</i> – разрешение
-ance	to assist – помогать	<i>assistance</i> – помощь
-ity	equal – равный	<i>equality</i> – равенство
-ness	happy – счастливый	<i>happiness</i> – счастье
-ancy	constant – постоянный	<i>constancy</i> – постоянство
-ence	to differ – отличаться	<i>difference</i> – отличие
-ency	to depend – зависеть	<i>dependency</i> – зависимость
-age	to break – ломать	<i>breakage</i> – поломка

- Which words helped you to answer the question?
Read the text once again and title it.

Although this city is not the capital of the United States (and not even of the state), it is the biggest and most important city of the country. Situated at the mouth of the deep Hudson River, it has been always considered the gateway to the USA. But it is more than just a door: it is also a window through which the life of the whole nation may be observed.

The city is many things to many people. It is called the financial and media capital of the world. It is the headquarters of the United Nations. It is the center of the American cultural life. The “Big Apple”, as the city is nicknamed, is a city unlike any other. It has everything for everyone.

It is known as a “melting pot”, because people of different races and nationalities make up its population of more than 7 million. About 13 of every 100 people in the city were born in another country. More than 80 languages are spoken throughout the neighbourhoods and streets of the city. There are places where the English language is hardly ever heard.



You can cross continents within this city. If you wish to go from China to Italy, you only have to cross Canal Street. It is also just as easy to go from Puerto Rico to Israel. There are more Irish and Italians there than in any other city outside Ireland and Italy. More than 80000 Chinese-Americans live in Chinatown in Manhattan. There is a district in Brighton Beach which is renamed Little Odessa by its Russian residents. Harlem is called the black capital of the country. Problems of immigrants' adaptation are being successfully solved in the city.

Task 2

Find all the sentences with the verbs-predicates in the form of the Passive Voice. Write out these predicates.

Task 3

Translate the text into Russian using a dictionary. Pay special attention to: a) the meaning of the following words and word-combinations: mouth (of the river); to nickname; melting pot; Chinatown; b) the pronunciation of the geographical names. Explain why so many of them are used in connection with this city.

Task 4

In the text there are 3 words with prefixes which change the meaning of the original words. Find them and give the meaning of the original words.

Task 5

Give the English equivalents for: “известен как; население составляют; его часто называют; город прозван; люди родились; на языках говорят; слышен английский язык”.

3. Для выделения сказуемого служит вспомогательный глагол *to do*, который употребляется с инфинитивом смыслового глагола без частицы *to*. При переводе используются слова *действительно, фактически, же* и др.

Do help me! - Помоги же мне!

She does/did speak English very well. - Она действительно очень хорошо говорит/говорила по-английски.

Task 72

A. Emphasize the meanings expressed by different members of the sentences using the above constructions:

1. Yesterday my friend helped an old woman to cross the street.
2. We returned to Ufa after our practice only at the end of the month.
3. Columbus discovered America in 1592.

B. Contradict the following statements emphatically:

1. My friend says Petrov is your group leader.
2. He says that experimenters do not need much skill.
3. He says that Newton did not make any contribution to physics.
4. She says Columbus formulated the periodic law.
5. She says that Lomonosov discovered the American continent.

C. Speak about people who have made substantial contribution to science. Begin your sentences with *It was ...who*.

2. He said that he would come on Sunday.
3. What about the information that you've got through Internet?
4. В читальном зале много студентов; те, что сидят у окна – мои друзья.
5. Это моя книга, а та – твоя.
6. Вы знаете, что завтра у нас собрание?

Часть 2. Эмфатические конструкции Emphatic constructions

Эмфатические (усилительные) конструкции служат для выделения какого-либо члена предложения, чтобы подчеркнуть его значение.

1. Усилительная конструкция *It is (was) ... that (which, who, whom)* может выделять любой член предложения (кроме сказуемого), заключенный между этими словами. При переводе ее обычно используются слова *именно, как раз* и др.

It is the information that/which is necessary for you. –

Именно эта информация нужна вам.

It was I who/that met him in the street yesterday. –

Именно я/это я встретил его на улице вчера.

It was he whom /that I met in the street yesterday. –

Именно его/это его я встретил вчера на улице.

It was in the street that I met him yesterday. –

Как раз/именно на улице я встретил его вчера.

It was yesterday that I met him in the street. –

Именно/как раз вчера я встретил его на улице.

2. Усилительная конструкция *It was not until/till ...that* обычно используется для выделения обстоятельства времени. При переводе используются слова *только в; только после; только тогда, когда*.

It was not until the end of the century that the theory was developed. –

Только в конце столетия разработали эту теорию.

Task 6

Turn the following sentences into the Passive form:
You can cross continents within this city.
People of different races make up its population.
You may see the latest plays and shows on Broadway.

Task 7

Answer the questions:

- a) Have you ever been taken to New York?
Have you ever been invited to the USA?
When were we last shown an American thriller?
By whom was America discovered?
By whom was the main man's role performed in "Titanic"?
Where will the next Olympic Games be held?
How can the English Channel be crossed?
Why are not young people allowed to attend pubs in the evening?
- b) Give short answers in English:
Лондон – столица Великобритании?
«Гамлет» написан В. Шекспиром в 1750 г.?
Дж. Вашингтон был первым президентом США?
Первый небоскреб был построен в Англии?
Вы когда-нибудь были в Новой Зеландии?
У вас есть друзья в Америке?

Task 8

Look through the text again and answer the questions:
What is the biggest city of the USA?
Why is New York considered the most important city of the country?
Why is New York often called "a melting pot"?

Task 9

Make up your own questions on the text and ask your friends to answer them.

Task 10

Give a summary of the text.

Task 11**Test. USA Quiz**

- How many states are there in the USA?
a) 48 b) 50 c) 52
- What is the American flag called?
a) Union Jack b) Union Flag c) Stars and Stripes
- When did Christopher Columbus discover America?
a) in 1492 b) in 1592 c) in 1692
- Which of the following is not a US state?
a) Alaska b) Hawaii c) Tahiti
- When is the birthday of the United States celebrated?
a) on December, 25th b) on July, 4th c) on March, 8th
- The Statue of Liberty was designed by Frederic Bartholdi and was given to the US by France in 1884 as a symbol of Franco-American friendship. But who was the model for the statue?
a) Bartholdi's wife b) Bartholdi's mother
c) Bartholdi's daughter
- Which country is bigger, Canada or America?
a) Canada b) America
- The "Big Apple" is a popular nickname – but for what?
a) Los Angeles b) New York c) Chicago
- Your American friends say to you, "Let's go see a ball game." What do they mean?
a) volley-ball b) basketball c) baseball
- Where in the United States can you find the Golden Gate Bridge?
a) San Francisco b) San Diego c) New Orleans

- ... late. ... nobody in the street.
- ... many yellow leaves on the trees. ... already autumn.
- ... a cake on the plate. ... the cake I like.

Task 70

Comment on the following proverbs and sayings:

- There is no rule without exception.
- There is no rose without thorns.
- There is no smoke without fire.
- Where there is a will, there is a way.

That

Указательное местоимение	Союз	Союзное слово	Слово - заместитель ранее упомянутого существительного
At that moment he saw a very beautiful girl. – В этот момент он увидел прекрасную девушку.	that	I know that you are a good dancer. – Я знаю, что ты хороший танцор.	Here is the book that you can help you in your work. – Вот книга, которая может помочь Вам в Вашей работе.
	that	That the tractor stopped working surprised everyone. – То, что трактор перестал работать, всех удивило.	The result of this experiment is better than that (those) of the previous one (ones). – Результат этого опыта лучше, чем результат (результаты) предыдущего опыта (предыдущих опытов).

Task 71

Translate the following sentences:

- These books are more interesting than those from the library.

There

Вводящее слово в конструкциях типа <i>there is / there are</i>	Обстоятельство места
There are 30 students in our group. - В нашей группе (есть, имеется) 30 студентов.	Our country is very big. - Наша страна очень большая.
There is no light in the room. - В комнате нет (не имеется) света.	There are many forests there. - Там (есть, имеется, существует) много лесов.

Task 68

Translate the description of the room into Russian.

It's my room. The room is large. There are two big windows in it. There is a bookcase at the wall. There are many books in it. There is also a sofa in my room. There is a picture on the wall over the sofa. There is a computer on the writing-table. The room is light, there are many flowers there. There is no TV in my room; it is in the dining-room.

Describe your room in English.

Task 69

Put in: *it is* or *there is*.

- A.
1. ... late, we must hurry up!
 2. ... a good refectory at our University.
 3. ... a beautiful park near our house.
 4. ... time to have a rest.
 5. ... very cold. Shut the window.
 6. ... pleasant to be in the open air after hard work.
- B.
1. ... a book on the table.
 2. ... snowing. ... much snow everywhere.
 3. ... a pity. ... nobody at home to help you.

11. The two largest political parties in the US are the Republicans and the Democrats. The Republican Party is traditionally represented by an elephant. What animal represents the Democratic Party?

- a) a monkey b) a donkey c) a tiger

12. What colour are the taxis in New York?

- a) black b) green c) yellow

13. What is the New York underground called?

- a) the metro b) the subway c) the tube

14. How often do American people choose a new President?

- a) every four years b) every five years c) every three years

15. British people call them chips. What do Americans call them?

- a) English fries b) German fries c) French fries

16. Which University did Bill Gates go to?

- a) Harvard University b) Yale University
c) Columbia University

17. The average American girl has ten Barbie dolls. But when was Barbie created?

- a) in 1959 b) in 1979 c) in 1989

18. What do American people call their police officers?

- a) bobbies b) cops c) dogs

Lesson 8

Grammar: The Infinitive

**Task 1**

Look through the text and say what the main topics of the text are.

Canada

Canada occupies the northern part of the continent of North America and a number of islands. The country has a total

area of 9.976 square kilometres.

The climate of Canada varies from Arctic climate in the north to moderate climate with summer temperatures up to 33 degrees Centigrade in the east and west.



The north of the country is a cold tundra with great forests to the south; the central plains form the prairies. The prairies are the main farming areas of Canada and one of the world's best wheat-growing regions. Canadian wheat is known throughout the world.

Besides wheat the country's main agricultural products are meat, dairy products and leather from the prairie regions.

Canada has many farms. Each farm is usually run by one family. Many farmers go in for cattle raising. They have to work hard to get high milk yields. Milk is processed at milk plants. Milk plants were built right in farm areas when the farmers began to breed cows. It's a good tradition that children help the grown-ups. To work on the farms taking part in different agricultural operations is useful for young people. All the agricultural processes are mechanized, the fertilizers to be applied are produced at local chemical plants.

lish one.

2. Bring me some interesting book to read. I have finished reading the one which you gave me last week.

3. I want to hear this song once more, the one you sang at the concert.

4. We saw many dances at the concert; the ones of our guests were the best.

5. My sister lives in a large town. I live in a small one.

6. We learn many different subjects at our University.

Which ones do you like more?

B. 1. Эту работу можно сделать очень быстро.

2. На том столе две книги, одна – для Вас.

3. Эта машина хорошая, а та – лучше.

4. У меня 3 сестры, старшая – замужем.

5. Мне нужно перевести два текста, второй – более трудный.

6. В нашей группе 21 студент.

Task 67

Read the joke and make your comments:

Mother: Which apple do you want, Tom?

Tom: The biggest one.

Mother: Why, Tom, you should be polite and take the little one.

Tom: Well, Mom, should I lie just to be polite?

Task 65

Translate the following sentences:

- A.
1. It is very difficult to solve this problem.
 2. I don't like it when it snows.
 3. This letter is for you, read it.
 4. Is it cold in winter in your part of the country?
 5. This is my pen, don't take it.
 6. It is a very complex task. It is for you to do it.
- B.
1. Сейчас холодно.
 2. Идет дождь, возьми зонтик. – Где он? – Он в сумке.
 3. Было необходимо прийти туда вовремя.
 4. Переведите на русский язык.
 5. Ответьте на вопрос! Это очень важно.
 6. Вытрите доску, это Ваша обязанность.

One

Числительное <i>один</i>	Неопределенно- личное местоимение	Слово-заменитель ранее упомянутого существительного
I know only one of these students. - Я знаю только одного из этих студентов	One can find this book in our library –Эту книгу можно найти в нашей библиотеке. To send a telegram one goes to the post office. - Чтобы послать телеграмму, идут на почту.	Which apple will you take? – I'll take the red one. - Какое яблоко ты возьмешь? – Я возьму красное. These books are easy for you. Read more difficult ones. – Эти книги легки для тебя. Читай более сложные.

Task 66

Translate the following sentences:

- A. 1. There are two books on the table. Give me the Eng-



The provinces of Quebec, Ontario and British Columbia, with their great forests, supply wood to produce furniture and paper. Canada's agriculture provides materials for food industries: wheat, milk and meat products. Its large ports are centres of export of canned meat, furs, timber, paper and machines to many countries. With its many lakes and rivers, Canada is rich in fish, which is exported to Europe and Asia.

Task 2

Translate the words paying attention to the meaning of the suffixes: central; agricultural, agriculturist; to produce, producer, productive, productivity; to farm, farmer, farming; to vary, various, variety, variant.

Task 3

Give the Russian equivalents for the following noun combinations: North America, summer temperature, prairie region, farming area, wheat-growing region, food industry, cattle raising, milk plants, meat products.

Task 4

Write out all the verbs-predicates in the Passive Voice grouping them according to the tense form: Present or Past.

Task 5

Read and translate the text using a dictionary. Pay special attention to the functions of the infinitive.

Task 6

Write out the words referring to:
a) cattle raising, b) crop growing.
Memorize them.

Task 7

Write out all the sentences with the infinitives in English and in Russian. State the function of every infinitive.

Task 8

Read the dialogue. Pay attention to the use of infinitives in oral speech.

Dialogue

- Have you got an experimental training farm?
- Yes, we have got a large experimental farm.
- When do you go to work there?
- We go to work there after classes and during our practice.
- What do you do on the farm?
- We grow different vegetables, fruit and flowers there.
- Do you like to work there?
- Yes, all the students like to grow different plants.
- What vegetables do you prefer to grow on your plot?
- I prefer to grow cabbage, cucumbers and tomatoes.
- When do you begin to plant your flowers?
- We begin to plant flowers in April.
- Do you go to your plot to look after the plants every day?
- Yes, we do. We water them every evening, we weed the beds.

Раздел IV***Некоторые другие лексико-грамматические трудности*****Unit IV*****Some Other Lexical and Grammatical Difficulties*****Часть 1 Многофункциональные слова****Multi-functional words*****It***

Личное местоимение <i>Он, она, оно</i> (о неодушевленных предметах)	Формальное подлежащее в безличных предложениях	Формальное дополнение	Указательное местоимение <i>это</i>
Take the book. It is on the table. – Возьми книгу. Она на столе. Where is the dictionary? – It is in my bag. – Где словарь? – Он у меня в сумке. Yesterday I got a letter from my friend. It is very interesting. – Вчера я получил письмо от друга. Оно очень интересное.	It is cold. – Холодно. It is necessary to do this work. - Необходимо сделать эту работу. It was important to see that man. – Было важно увидеть того человека.	Risk it. - Рискните. The knowledge of English makes it possible to communicate with foreign colleagues. – Знание английского языка делает возможным общение с зарубежными коллегами.	What is it? – It is a lamp. – Что это? – Это лампа.

10. The forest ... surrounds our city is full of beautiful birds.

11. ... the working day in Vladivostok is coming to an end, it is early morning in Kaliningrad.

12. ... electricity had been discovered, it came into use in all branches of industry.

13. I think I know ... to do.

14. The fertilizers ... the farmers used last year have increased the yields greatly.

B. He ... knows not, and knows not ... he knows not;

He is a fool; shun him.

He ... knows not, and knows ... he knows not;

He is simple; teach him.

He ... knows, and knows not ... he knows;

He is asleep, wake him.

He ... knows not, and knows ... he knows;

He is wise, follow him.

Task 9

Learn the dialogue by heart. Dramatize it.

Task 10

Describe your vegetable garden or your garden plot. Work in pairs, thoroughly think over your questions and answers.

Task 11

Test "What do you know about Canada?"

1. Canada is ...
 - a) the largest country in the world
 - b) the second largest country in the world
 - c) the third largest country in the world
2. The capital of Canada is ...
 - a) Montreal
 - b) Toronto
 - c) Ottawa
3. Canada has two official languages. They are ...
 - a) English and German
 - b) English and French
 - c) English and Canadian
4. The country's national anthem is ...
 - a) 'O Canada'
 - b) 'My Canada'
 - c) 'Long Live Canada'
5. The national currency of Canada is ...
 - a) the Canadian franc
 - b) the Canadian dollar
 - c) the Canadian pound
6. The official colours of Canada are ...
 - a) red and blue
 - b) white and red
 - c) red and gold
7. Canadians have a special celebration in honour of this sweet drink. What is it?
 - a) Cola
 - b) lemonade
 - c) maple syrup
8. The world-famous waterfall situated in Canada is ...
 - a) Victoria
 - b) Niagara
 - c) Sutherland
9. Canada's national sport is ...
 - a) baseball
 - b) football
 - c) ice hockey
10. The Canadian head of state is ...

- a) the Queen b) the President c) the Prime Minister
11. The world-famous Canadian humorist is ...
- a) Stephen Leacock b) Mark Twain c) Roald Dahl
12. The famous Canadian pop star is ...
- a) Britney Spears b) Avril Lavigne c) Jennifer Lopez
13. A snow house built by the Inuit (Eskimos) is called ...
- a) an igloo b) a cabin c) a hut
14. The main item of Canada's export is ...
- a) nickel b) vanadium c) canadium

Lesson 9

Grammar: Infinitive Constructions



Task 1

Read the title of the text and say what the text is about.

Agricultural Education in Great Britain

The problems of feeding people from limited natural resources against a background of poverty, population growth, and environmental deterioration become more acute each year. The world needs more people trained in agriculture, horticulture, food technology, and the various sciences which are applied to them. There is also a strong demand for economics and management studies applied to the whole of the food chain. The Faculty of Agriculture and Food of the University of Reading (UK) is concerned with all of this.



ence.

3. The last sight that he saw as the tram moved slowly away was the little girl running quickly towards the square.
4. Instead of replying to my words he gave me the article he referred to in his report.
5. The delegates were asked if they themselves would select the school they wanted to visit.
6. The report he made after their delegation had visited our farm shows that he has finally realized the importance of the work we are doing here.
7. The students say the text they must translate is the most difficult one they have ever had.
8. What first surprised me was the grass which was about twenty feet high.
9. Whether it is necessary to go there at once is not difficult to learn at the Dean's office.
10. This condition demands that the material the structure is composed of must be used with maximum efficiency.

Упр. 64

Заполните пропуски в предложениях, выбрав подходящие по смыслу слова-связки: which, where, why, that, after, who, while, what, since, as, if, how, when. Укажите, в каких предложениях возможно бессоюзное присоединение.

- A.
1. I do not understand ... you are talking about.
 2. My sister has not changed ... I saw her last.
 3. ... they have finished their work, they may go home.
 4. The house ... we live in is new.
 5. He will give you the dictionary ... you bring it tomorrow.
 6. The man ... you are speaking about is in the hall.
 7. Ask the students ... they have passed all their exams.
 8. Do you know ... you will do in summer?
 9. Magellan was the first ... could go round the world.

тения растут там, где не могли бы расти другие.

3. Придаточные предложения *причины* – вводятся словами *because, since, as, for*.

As it was raining, we stayed at home. - Поскольку (так как) шел дождь, мы остались дома.

4. Придаточные предложения *цели* – вводятся словами *that, in order that, so that, lest*.

He must hurry **lest he (should) be late**. - Он должен топоропиться, чтобы не опоздать.

5. Придаточные предложения *условия* – вводятся словами *if, unless, provided (that), providing (that), supposing, in case*.

I shall do the experiment **provided I get all the necessary equipment**. - Я буду делать опыт при условии, что я получу все необходимое оборудование.

6. *Уступительные* придаточные предложения – вводятся словами *though, although*.

Though she is very young, she is a good teacher.- Хотя он очень молода, она хороший преподаватель.

Обратите внимание, что в придаточных определительных и дополнительных слова-связки *whom, which, that* могут опускаться, если они не являются подлежащим этого придаточного. Такое **бессюжное** присоединение вызывает особые трудности при переводе.

Here is the man we have spoken about. – Вот человек, о котором мы говорили.

This is the house I live in. – Это дом, в котором я живу.

He said he had done it. – Он сказал, что он это сделал.

Упр. 63

Переведите следующие предложения:

1. The captain was very kind to me and asked me to tell him what place I had come from and where I was going to.

2. What he had to say to his friend was said in my pres-

The Faculty of Agriculture and Food at Reading is believed to be the leading in the United Kingdom. It has educated and trained men and women who have worked as farmers, research workers, teachers, advisers, administrators and managers, in the agriculture, horticulture, food and other industries, in official services, or in education, in the UK, and overseas.

The Faculty is known to benefit from all the University's facilities, including the library, the University Health Service, the Computer Services Centre.

The various degree courses to be chosen by students are: Agricultural Economics; Rural Resource Management; Food Science, Food Economics and Marketing; Food Manufacture, Management and Marketing; Agriculture; Rural Resource Science; Animal Science; Crop Science; Food Science; Food Technology; Biotechnology; Landscape Management; Soil Science. Courses are divided into three parts, occupying 2, 3 and 4 terms respectively. With the approval of the Head of Department students are encouraged to spend a year gaining practical professional experience after the 2nd part of any course. Assessment is partly by written examination, but practical examinations and continuous assessment are also included. Graduates with good honours degrees (Bachelor of Science) may undertake research for a higher degree (Master of Science).

Task 2

State the meaning of the following words and word-combinations.

Pay special attention to their pronunciation: system, produce, humane, activity, course, to address, specialize, problem, limited natural resources, population, faculty, technology, economics, associated, service, industry, practical, professional, method, management.

Task 3

Read and translate the text using a dictionary.

Task 4

Find the English equivalents for: насущные проблемы, на фоне нищеты, ухудшение состояния окружающей среды, процесс производства продуктов питания, приобретать профессиональный опыт, текущий контроль знаний.

Task 5

Write out from the text all the words referring to education.

Task 6

Choose the meaning/meanings the word is used in the text:
 to develop – 1) развивать; 2) совершенствовать; 3) создавать;
 term – 1) срок; 2) термин; 3) семестр;
 faculty – 1) способность; 2) факультет; 3) дарование;
 department – 1) отдел; 2) отделение;
 to address – 1) направлять; 2) адресовать; 3) обращаться;
 4) браться за.

Task 7

Write out all the sentences with the verb-predicates in the Passive Voice and try to turn them into the Active Voice form.

Task 8

Write out from the text all the sentences with:

- simple infinitives and
- infinitive constructions. Translate them into Russian in writing. State the function of the infinitive in every case.

Task 9

Complete and retell the following episodes:

- You are a young specialist. You are applying for a job.

Придаточные подлежащие играют в сложном предложении роль подлежащего и вводятся словами *that, if, whether, who, what, which, when, where, how, why*.

Who can do it is not known. - Кто это может сделать, неизвестно.

Придаточные сказуемые играют в сложном предложении роль составной части сказуемого и вводятся теми же словами, что и придаточные подлежащие.

The question is **if (whether) he will come**. - Вопрос заключается в том, придет ли он.

Придаточные дополнительные играют в сложном предложении роль дополнения – прямого или предложного и вводятся теми же словами, что и придаточные подлежащие и сказуемые. Союз *that* часто опускается.

He said **(that) he had done it**. - Он сказал, что он это сделал.

They spoke of **what was to be done**. - Они говорили о том, что нужно (предстоит) сделать.

Придаточные определительные играют в сложном предложении роль определений и вводятся словами *who(m), whose, which, that, when, where, how, why*.

Here is the book **(which, that) we have spoken about**. - Вот эта книга, о которой мы говорили.

Придаточные обстоятельственные играют в сложном предложении роль различных обстоятельств: времени, места, цели, условия и т.п. и подразделяются соответственно на:

1. Придаточные предложения *времени* - вводятся словами *when, while, before, after, till (until), as, as long as, as soon as, since*.

She will do it **when she returns**. - Она это сделает, когда возвратится.

2. Придаточные предложения *места* – вводятся словами *where, wherever*.

These plants grow **where the others couldn't**. - Эти рас-

b) Johnny: What makes the new baby at your house cry so much, Tommy?

Tommy: It doesn't cry as much as it should: and anyway, if all your teeth were out, your hair off, and your legs so weak that you couldn't stand on them, I guess you'd feel like crying yourself.

Часть VI. Сложное предложение **The Complex Sentence**

Сложные предложения делятся на две группы.

А) **Сложносочиненное** предложение состоит из нескольких простых равноправных, соединяющихся союзами *and* – и, *a*; *or* - или; *but* - а, но; или бессоюзно.

My parents live in the village **and** I live in Ufa. - Мои родители живут в деревне, а я живу в Уфе.

My friends are also students **and** we often go to the University together. - Мои друзья тоже студенты и мы часто ходим в Университет вместе.

Mike has a dog, Nick has a cat, I have a parrot. And what about you? - У Майка есть собака, у Ника есть кошка, у меня есть попугай. А у тебя?

I've got a lot of books on this subject **but** all of them are in Russian. - У меня много книг по этому предмету, но все они на русском языке.

Б) **Сложноподчиненное предложение** состоит из главного предложения и одного или нескольких придаточных, поясняющих главное предложение. Придаточные предложения выполняют в сложном предложении роль различных членов предложения и присоединяются к главному как с помощью союзов и союзных слов, так и бессоюзным способом. Переводятся соответствующими русскими придаточными предложениями.

What does your boss want you to be able to do (to develop professional competence; to address challenging problems; to use the knowledge of English in your work)?

2. The students are in the classroom. They are having a class in English. What does the teacher see (the students – to write out the new words; to use their dictionaries; to write down their translations)?

3. These are students of the Faculty of Agriculture. What does the University expect them to do (to study well; to take part in social activities; to go in for sports)?

4. You are having your practice on a farm. What does the farmer make you do (to milk cows; to cultivate the soil; to plant crops)?

Task 10

Answer the questions:

1. What are the reasons for agricultural education to be developing?
2. What is the role of an agriculturist in modern society?
3. Where are experts for agriculture trained in our country?

Task 11

Compare the structure of training at our University and at the University of Reading.

Task 12

Comment on the proverbs:

It is never too late to learn.

It is easy to swim when another holds up your head.

Task 13

Role-play. Work in pairs. Prepare for the interview. You are going to interview a student about his/her University life. You want to find out how much he/she enjoys University. Prepare your

questions. (Look at the box for help).

Do you enjoy...?
Do you like ...?
What's your favourite...?
What do you like about...?
What do you think about...?

Lesson 10

Grammar: -Ing-forms and their functions.



Task 1

Read the text using no dictionary and say what it is about (in Russian).

Welcome to become an agriculturist!

One of every six jobs in the United States has a connection to food or agricultural science and industry, and demand for qualified graduates is expected to exceed supply by at least 5% annually in the 21st century. Jobs in marketing and sale are likely to exceed supply by 12%.

In its bulletin Penn State College of Agricultural Sciences emphasizes the tasks and purposes of its' graduates future professional activities: "As the food problem is becoming more and more important, it is clear that agriculture needs skilled professionals.

8. If you had stayed another two days, you would have had the chance of seeing my brother with his family.

9. Had you more time at your disposal, we should certainly ask you to take part in the work.

10. It is necessary that tests should be done under proper conditions.

11. Could you tell me the way to the nearest shop?

Упр.60

Отвeтьте на вопросы:

1. What would you do if your friend were ill?
2. Where would you live if you could choose?
3. If you were invited to London for a few days what would you like to see there?
4. What would you take with you if you went to China?
5. Would you recognize your schoolmate if you met him in 10 years?

Упр.61

Закончите следующие предложения:

1. If I had time
2. If I had seen her yesterday at the party....
3. Where should we go if ...?
4. What would the Dean say if ...?
5. If you had worked harder last year....

Упр. 62

Прочитайте следующие шутки и передайте их содержание на русском языке:

- a) Willie: I have an awful toothache.
Tommie: I should have taken out the tooth if it were mine.
Willie: Oh, if it were yours I would have taken it out, too.

время.

2. В трех типах придаточных предложений (помните, что в этих придаточных со всеми лицами употребляется глагол *should*, который может опускаться):

а) подлежащих (после оборотов типа *it is necessary* – необходимо, *it is possible* – возможно, *it is desirable* – желательно и др.).

It is necessary that you (**should**) **do** the work now. - Необходимо, чтобы вы делали работу сейчас.

б) дополнительных (после глаголов типа *to order* – приказывать, *to demand* – требовать, *to suggest* – предполагать и др.)

The Dean demanded that the students (**should**) **stop** smoking at the University. - Декан потребовал, чтобы студенты прекратили курить в университете.

в) цели (после союзов *so that* – так, чтобы; *lest* – чтобы не).

The boys must read these articles lest they **get** bad marks at the seminar. - Мальчики должны прочитать эти статьи, чтобы не получить плохие оценки на семинаре.

Упр.59

Переведите следующие предложения:

1. Without the sun there would be no light, no heat, no energy of any kind.

2. If I only waited there for a minute or two I should see the Dean.

3. If I were you I wouldn't spend so much money.

4. I wish he were with us.

5. According to the map, it seems as if New Zealand and Australia were quite close to each other but in reality there are many thousands kilometers between them.

6. Close the window lest you should catch cold.

7. I suggest that he should write a letter to her at once.



To improve crop quality and yields agronomists are to study the environmental factors affecting this or that crop.

Soil scientists are responsible for the analysis and classification of soils. They are known to be responsible for the conservation of both soil and water.

Agricultural economists work in areas of production financing and marketing food products by analyzing and interpreting economic factors.

We know geneticists to develop new hybrids and varieties to meet specific production and marketing.

Agricultural engineers work at finding more efficient ways to design farm machinery to process different products, increase yields and improve crops quality.

Having gained much knowledge in animal raising veterinary medicine specialists and animal breeders now know how to control most of the harmful diseases of animals and protect them against various infections.

Food technologists work to improve the flavour and texture of food without reducing their nutritional value. Their work, particularly in the field of baked goods and canned foods, often combines the sciences of chemistry, bacteriology and biology.

Agricultural service workers inform and instruct farmers in the latest discoveries and techniques developed by specialists.

Forestry specialists improve natural environment saving old forests and planting new ones, they also work at modern

methods of timber processing, those being highly efficient.”

Task 2

Group all the international words of the text into verbs, nouns, adjectives. Say how you recognize them.

Task 3

In the above text find the synonyms of the following words and word combinations: to learn, expert, effective, various, sphere, job, every year, harvest, to make better, a kind, especially.

Task 4

Find all the noun chains used in the text. Translate them into Russian.

Task 5

Read the text using a dictionary; translate it into Russian.

Task 6

Give English equivalents for: спрос и предложение, сохранность, удовлетворять потребности, консервированные продукты питания, хлебобулочные изделия, работники информационной службы, сохранять леса.

Task 7

Translate the following sentences into Russian in the written form stating the function of participle I. In the last sentence pay special attention to the meanings of the words “ones” and “those”.

Soils being the most essential component of the plants environment, soil scientists are responsible for their analysis and classification.

Having gained much knowledge in animal raising veterinary medicine specialists and animal breeders now know how to

Начальник потребовал, чтобы мы сделали эту работу вовремя.

Глагол в форме прошедшего времени сослагательного наклонения употребляется:

а) в условных придаточных предложениях для выражения действий в настоящем и будущем.

I should do this work if I **had** time. - Я бы сделал эту работу, если бы у меня было время.

б) в дополнительных придаточных предложениях после глагола *to wish*.

I wish I **were** a doctor. - Хотел бы я быть врачом / Жаль, что я не врач.

Для выражения действий в прошлом в условных придаточных предложениях глагол ставится в форму прошедшего совершенного времени.

I should have done this work if I **had had** time. - Я бы сделал эту работу (тогда, раньше, в прошлом) если бы у меня было время (тогда, раньше в прошлом).

Следует помнить, что условные придаточные предложения вводятся союзами *if* (если), *unless* (если не), *provided, providing* (that) (при условии, что), *supposing, in case* (в случае). Эти союзы могут опускаться, т.е. условные придаточные предложения присоединяются к главному без помощи союзов, если в состав сказуемого входят глаголы *had, were, could*. В этом случае они располагаются перед подлежащим.

Had we time we should translate another text. - Если бы у нас было время, мы бы перевели еще один текст.

Аналитические формы употребляются:

1. В простых предложениях и главных.

I **should do** this work (today, tomorrow). - Я бы сделал эту работу (сегодня, завтра).

I **should do** this work (today, tomorrow) if I had time. - Я бы сделал эту работу (сегодня, завтра), если бы у меня было

But that house (to pull down) after Shakespeare's death by the new owner of the house. It (to be) a pity, (to be) not it?

Late in the evening we (to show) the Shakespeare's Memorial Theatre. The theatre (to stage) only plays (to write) by Shakespeare.

I (to spend) a very interesting day in Stratford, and though I (to get) tired I (to be) very pleased.

With love, Helen.

10. *Сослагательное наклонение* *The Subjunctive Mood*

Сослагательное наклонение выражает предполагаемое, условное или желаемое действие. Форма сослагательного наклонения в русском языке передается глаголом в прошедшем времени с частицей *бы*. В английском языке сослагательное наклонение может выражаться:

а) синтетически – в настоящем времени совпадает по форме с инфинитивом без частицы *to*; в прошедшем времени совпадает с формой прошедшего времени – факта, причем глагол *to be* имеет форму *were* для всех лиц единственного и множественного числа;

б) аналитически – сочетанием глаголов *should/would* с инфинитивом без частицы *to*. Для выражения сослагательного наклонения также могут использоваться модальные глаголы *may, might, could*, причем *could* всегда сохраняет свое лексическое значение.

Глагол в форме настоящего времени сослагательного наклонения употребляется в трех типах придаточных предложений (подлежащих, дополнительных, цели) для выражения действий в настоящем и будущем.

It is necessary that he **do** this work. - Необходимо, чтобы он сделал эту работу.

The chief demanded that we **do** this work in time. -

control most of their harmful diseases and protect them against various infections.

Forestry specialists improve natural environment saving old forests and planting new ones, they also work at modern methods of timber processing, those being highly efficient.

Task 8

Analyse the infinitive construction in the sentence: "Jobs in marketing and sales are likely to exceed supply by 12 percent."

State its function. Translate the sentence into Russian in the written form.

Task 9

Find all the sentences with infinitives. Translate them into Russian in the written form. State the function of every infinitive.

Task 10

Divide all the –ing-forms into participles I and gerunds. State their function in every sentence.

Task 11

Are the following sentences true or false?

1. Supply of qualified graduates will exceed demand by at least 5% annually in the 21st century.

2. To improve crop quality agronomists study the environmental factors.

3. The food problem is of no importance in the world.

4. New forests are not planted now.

5. Agricultural engineers are to design new farm machinery.

6. It is difficult for farmers to get new information in the latest discoveries and techniques developed by specialists.

Task 12

Give the summary of the text in writing. Observe the structure of the paper:

- the text is about...
- the text describes/deals with...
- the author highlights/pays particular attention to/points out that...
- we learn about/that...
- in conclusion the author says...
- I think...
- to my mind...

Task 13**Test: Science and technology quiz.**

Think you know everything about science and technology? Test your knowledge by taking this quiz.

1. Who discovered the law of gravity when an apple fell on his head?
a) Isaac Newton b) Michael Faraday c) Archimedes
2. How many chromosomes are there in a human cell?
a) 4 b) 46 c) 406
3. Who discovered radium and later died from the effects of experiments with X-rays?
a) Marie Curie b) Albert Einstein c) James Maxwell
4. What travels at 2,997,924,580 metres per second?
a) sound b) light c) Concorde
5. The name of the first cloned sheep was
a) Dolly b) Molly c) Billy
6. Who created the periodic table of the elements?
a) Michael Lomonosov b) Dmitri Mendeleev
c) Konstantin Tsiolkovsky
7. Who made a great discovery while having a bath?
a) Archimedes b) Hippocrates c) Democritus
8. Where was the first nuclear-powered icebreaker built?

occupied the best room.

7. At the top the house there were two little rooms uncarpeted and uncurtained.
8. If heated, magnetized steel will lose its magnetism.
9. A body at rest remains at rest unless acted upon by an external force.
10. When describing modern telephones we say that additional functions can of course be arranged if required.

Упр. 58

Заполните пропуски, поставив глагол в скобках в нужную форму: причастие I, причастие II, факт в прошлом, факт в настоящем, результат в настоящем, инфинитив, результат в прошлом. Прочитайте текст и переведите его.

A Letter

My dear Ann.

I just (to visit) Stratford and now I want (to tell) you some words about this town.

Stratford-on-Avon (to be) the place where Shakespeare (to be born) and where he (to die). He (to be born) on April, the 23rd, 1564 and (to die) on the same day in 1616.

While (to approach) Stratford, we (to see) beautiful woods full of (to sing) birds, green fields (to spread) far away and a small (to wind) river.

(to arrive) at Stratford, we (to go) (to see) Shakespeare's birthplace. It (to be) a small house (to surround) by a garden.

In one room there (to be) a little wooden desk (to stand) near the window. When (to attend) a grammar school, Shakespeare (to do) his lessons there.

The flowers (to grow) in the garden (to be) all the flowers (to mention) in Shakespeare's plays.

We (to see) another place where Shakespeare (to live). (to become) rich Shakespeare (to buy) a big house in his native place.

универмаге.

He **took** the book and **put** it into his bag. - Он взял книгу и положил ее в свою сумку.

The book **read** is on the problems of ecology. - Прочитанная книга касается проблем экологии.

The articles **written** by our young researcher **were sent** to Moscow. - Статьи, написанные нашими молодыми исследователями, были посланы в Москву.

The much **spoken** pop-singer **came** to our city at last. - Поп-певец, о котором много говорят, наконец приехал в наш город.

The **lost** key **was found** in the garden. - Потерянный ключ был найден в саду.

If **sown** in dry soil the seeds won't germinate. - Если семена посадить в сухую почву, они не прорастут.

The train **was thought** come in time. - Думали, что поезд пришел вовремя.

The dinner eaten, they returned to the lecture hall. - После того, как они пообедали (пообедав), они вернулись в лекционный зал.

Упр. 57

Переведите следующие предложения:

1. When I came nearer I saw an excited crowd at the door of his house.
2. He says that the radio set bought by you is often out of order.
3. Another problem raised in the novel is the position of woman in society.
4. When acknowledged by the public Mark Twain became one of the leading journalists of America.
5. Built some hundreds years ago, the house stood still impressive.
6. A short, well-dressed gentleman arrived at the hotel and

a) in Germany b) in the USA c) in Russia

9. What is Johann Gutenberg's famous invention?

a) computer b) television c) printing machine

10. Who discovered penicillin?

a) Alexander Fleming b) Louis Pasteur

c) Dmitri Mendeleev

11. What substance has the chemical formula H₂O?

a) oxygen b) helium c) water

12. Where do veins bring blood?

a) to the heart b) from the heart c) to and from the heart

13. Who invented the telephone?

a) Bell b) Baird c) Babbage

14. What is Alfred Nobel's famous invention?

a) steam engine b) telegraph c) dynamite

Lesson 11

Grammar: -Ed-forms and their functions



Task 1

Read and translate the text using a dictionary and write out all the words concerned with plant growing, animal raising and food products. Give their Russian equivalents and memorize them.

Agriculture of the USA

Agriculture generates about 2 percent of the General National Product and employs about 3 percent of the labour force. Farming is largely mechanized and scientifically controlled, and the production of most cash crops substantially exceeds domestic needs, making the United States a leading exporter of food. About 1/10 of the arable land is irrigated, most in the southwest and west. The principal crops grown include corn (maize), wheat, soybeans, sugar-cane and sugar-beets, sorghum, hay, barley, potatoes (groundnuts). Fruits include oranges, grapes, apples, grapefruits, lemons, and limes. The country also ranks high worldwide in the

production of tobacco, avocados, pineapples, strawberries, almonds, walnuts and hops. Raw and refined sugar, wine, beer and honey are produced in large quantities.



From Virginia to Texas cotton was once king. But the big cotton plantations depended on slaves for labor and the cotton plant drained the soil of nourishment. A one-crop agriculture plus the terrible destruction of the Civil War left the Southeast the poorest area in the nation. Now it is changing rapidly. Mighty rivers that used to flood huge areas are being tamed with dams. Manufacturing, new crops, more mechanization, reforestation – all are transforming the Southeast.

The principal livestock of the United States include cattle, pigs, horses, and sheep. Dairying is well-developed: milk, cheese and butter production exceeds domestic needs – some is exported and some stored. Cattle hide and wool production supports leather and textile industries. Poultry is important.

Forestry is well-developed, and substantial areas are harvested periodically and reforested. The US is the leading producer of wood.

The US ranks among the world's leading fishing nations, and almost all of the commercial catch is marine.

Task 2

Give English equivalents for: валовой национальный продукт, товарная культура, промысловый улов, научно-обоснованное сельское хозяйство, страна занимает одно из ведущих мест в мире по производству ..., лес на значитель-

Подобно причастию первому, причастие второе может входить в состав сложных конструкций, так называемых «оборотов с причастием», которые употребляются с глаголами to assume, to expect, to think - полагать, to consider - считать, to see - видеть, to hear – слышать и др. оборот «**объектный падеж с причастием**» (*accusative with the participle*) состоит из существительного в общем падеже или личного местоимения в объектном падеже и причастия (иногда с союзом *as*). Переводится придаточным предложением с союзом *как* или *что*.

They thought it (the problem) **solved**. - Они считали, что она (задача) решена.

Оборот «**именительный падеж с причастием**» (*nominative with the participle*) состоит из существительного в общем падеже или местоимения в именительном падеже и причастия (иногда с союзом *as*), которому предшествует один из вышеуказанных глаголов в страдательном залоге.

It (the problem) was thought solved. - Считали, что она (задача) решена.

Причастие второе также может входить в состав независимого причастного оборота (*the absolute participle construction*). Его структура и способы перевода аналогичны этой конструкции с причастием первым.

The text translated, we went home. - После того, как текст был переведен, мы пошли домой.

Как вы могли заметить, до сих пор функции причастия второго описывались на примере правильных глаголов, у которых признаком 2-й и 3-ей формы является - *ed*. Важно помнить, что неправильные глаголы, у которых нет единого формального признака 2-ой и 3-ей формы, выполняют в предложении те же самые функции:

This jacket **was bought** in the Central department store. - Эта куртка была куплена (эту куртку купили) в центральном

9.- Ed - формы и их функции -Ed - forms and their functions

В английском языке суффикс –ed может оформлять:

1) II форму глагола (факт в прошлом). В предложении является сказуемым, отвечает на вопрос *что делал?*

In September the students **worked** in the fields. - В сентябре студенты работали на полях.

2) III форму глагола – причастие прошедшего времени (причастие второе). Оно обладает свойствами как глагола, так и прилагательного. В предложении выполняет те же функции, что и причастие первое:

1. Часть сказуемого. Переводится глаголом в личной форме.

This student **has passed** all his examinations. - Этот студент сдал все экзамены.

Many new trees **are being planted** in front of our University. - (Сейчас) напротив нашего университета сажают много деревьев.

2. Определение (левое и правое). Переводится:

- глаголом в форме пассивного причастия с окончанием –ный, –мый, –тый или определительным придаточным предложением.

The **raised** question (the question **raised**) was very important. - Поднятый вопрос был очень важен. Вопрос, который был поднят, очень важен;

- причастным оборотом или определительным придаточным предложением при наличии относящихся к –ed-форме дополнений:

The question **raised** in his report was very important. -

Вопрос, поднятый в его докладе, был очень важен.

3. обстоятельство. Вводится словами *if, when, while, though* и переводится придаточным предложением.

When **asked** he always answers correctly. - Когда его спрашивают, он всегда отвечает правильно.

ных территориях вырубается и восстанавливается, основные сельскохозяйственные животные.

Task 3

Write out from the text all the 2nd forms of both regular and irregular verbs and state their functions.

Task 4

Translate the sentence “Mighty rivers that used to flood huge areas are being tamed with dams” in writing. Pay special attention to the meaning of “used to”.

Task 5

Make up sentences using “used to” to illustrate your past habits:

When I was a little child I always went to bed at 9 o'clock = I used to go to bed at 9 o'clock.

Task 6

Write out from the text all the 3rd forms of both regular and irregular verbs and state their functions.

Task 7

Choose the correct form:

From Bakersfield, near Los Angeles, (stretching, stretched) northward, is the fertile region (called, calling) the Coast Valleys. The Pacific Coast, from San Francisco to Seattle, was first (reached, reaching) by English, Russian and other explorers. In the northern coastal valleys they found rich soil, abundant in water and mild climate. These snug valleys (were, been) ideal for orchards and dairies and even wheat. In California the Great Central Valley had water, too, but in (raging, raged) rivers that could not be (controlled, controlling). Now a series of dams, canals and irrigation pipes makes this one of the richest farm areas in the US.

Task 8

Match the following statements with the sentences from the text:

Only a small portion of the American population is engaged in agriculture.

The country sells much of its farm produce abroad.

Agriculture in the south of the country is rapidly changing now.

Much attention is paid to breeding geese, turkeys and chickens.

Sea is used for commercial purposes, too.

Task 9

Answer the questions:

1. What are the principal crops grown in the USA?
2. Is bee-keeping popular in the USA?
3. In what part of the country is irrigation widely practised?
4. What has made the USA the leading producer of wood?
5. Does the country use modern methods of farming and new technologies?
6. What are cattle used for?

Task 10

Work in groups or pairs. Do some research on the state and problems of farming in your country (Republic, region, district, village).

Упр. 54

Ответьте на вопросы, используя герундий.

1. What do you take interest in?
2. What kind of sports do you go in for?
3. What do you prefer doing in your free time?
4. When do you begin doing your homework?
5. What do you do on coming home from the University?
6. What is your favorite method of learning English?

Упр. 55

Замените придаточное предложение герундием.

1. I know that my cousin will come on Sunday.
2. The children were surprised when they heard their teacher's story about the life of crocodiles.
3. I was happy when I saw my fellow students on TV.
4. Many people say that they go to pop music concerts almost every month.
5. Do you know that his brother is in London now?
6. He did not remember that he had ever been in that place before.

Упр. 56

Составьте английские пословицы, правильно соединив части предложений из левой и правой колонок. Дайте их возможные русские эквиваленты.

It is no use

There is

Seeing

When there is no wind

it is hard sailing

is believing

crying over spilt milk

no accounting for tastes

5. обстоятельство (всегда с предлогом). Переводится существительным, глаголом в форме деепричастия или глаголом в форме инфинитива.

She went there **for studying** mathematics. - Она поехала туда (для того, чтобы) изучать математику.

Она поехала туда для изучения математики.

He left the room **without saying good-bye**. - Он ушел из комнаты, не попрощавшись.

Сочетание герундия с предшествующим ему существительным или местоимением называется *герундиальным оборотом (Construction with the Gerund)*. Переводится придаточными предложениями, вводимыми местоимением *то* в соответствующем падеже и союзом *что* или *чтобы* (то, что, того, чтобы и т.д.), при этом существительное или местоимение, употребляемое перед герундием, переводится как подлежащее, а герундий как сказуемое.

The teacher insisted on **their (the students') doing** it. - Преподаватель настаивал на том, чтобы они (студенты) сделали это.

Упр. 53

Переведите следующие предложения:

1. In three weeks I had made great progress in learning their language.
2. By thoroughly working the soil the farmers obtained a record crop.
3. On his returning to his native country he worked as an economist for several years.
4. We were sorry for not having visited our friend.
5. I know of Ann's going to Moscow next week.
6. His being late made the teacher angry.
7. Are you fond of making sandwiches?
8. As for me, I have many hobbies but in general I prefer playing computer games.

Lesson 12

Grammar: Subjunctive Mood



Task 1

Read the text using a dictionary. Pay special attention to the text grammar.

The Research Student

Due to the tendency to include more and more in undergraduate courses it is probable that students could be engaged in research work from the first years of their studies. The investigation done by students would be more effective if it were connected with solving a practical problem with foreseeable result.



What would experienced scientists wish for the youth who devote themselves to science? Here are the words of a Nobel Prize winner addressed to students: "First of all, persistence. Your work would never be fruitful were you not persistent and systematic in amassing knowledge. Never reach for the next step without having first mastered the preceding one. Study, compare and accumulate facts. No matter how perfect a bird's wing, it could never raise the bird aloft if it were not supported by air. Facts are the air of the scientist. Without them you would never be able to soar.

Yet, while studying, experimenting, observing, try not to stop only at the surface of facts. Seek persistently the laws governing them.

Second, modesty. Never think that you already know everything. No matter in what high esteem you are held, always have

the courage to say to yourself: “I am ignorant”.

Don't allow yourself to be overcome by pride. Pride might make you reject useful advice and friendly assistance and you could lose your sense of objectivity.



Third, passion. Remember, science requires your whole life. Even if you had two lives to give, it would still be not enough. Science demands of men effort and supreme passion.

Be passionate in your work and in your quests.

I would never have achieved any results if I had not followed those rules when I was a student”.

Task 2

Write out all the sentences with the verb-predicate in the form of Subjunctive Mood: a) underline these predicates; b) state the meaning of each predicate (supposition, condition); c) translate the sentences into Russian; d) change the verb in the Subjunctive Mood into the Indicative Mood form. How is the meaning of the sentence changed?

Task 3

Read the following sentences.

1. Never reach for the next step without having first mastered the preceding one.
2. Study, compare and accumulate facts.
3. Seek persistently the laws governing them.

the examination.

б) *Герундий* обладает свойствами как глагола, так и существительного. Его формы совпадают с формами причастия первого. Характерными признаками герундия являются стоящие перед ним предлог, притяжательное местоимение или существительное в притяжательном или общем падеже. Формы герундия Indefinite (Active и Passive) выражают действия, одновременные с действием сказуемого. Формы Perfect (Active и Passive) выражают действия, предшествующие действию сказуемого.

В предложении герундий может выполнять следующие функции:

1. Подлежащее. Переводится существительным или глаголом в форме инфинитива.

Walking is useful. - Ходьба пешком полезна. Ходить пешком полезно.

2. Часть сказуемого. Переводится либо глаголом в форме инфинитива, либо существительным.

My favourite occupation is **reading**. - Мое любимое занятие – читать. Мое любимое занятие чтение.

3. Дополнение. Переводится существительным или глаголом в форме инфинитива.

They started **translating** the text. - Они начали перевод текста. Они начали переводить текст.

4. Определение – левое или правое (правое – обычно с предлогами). Переводится либо существительным, либо прилагательным, либо глаголом в форме инфинитива.

His **working** place is always in order. -

Его рабочее место всегда в порядке.

The **boiling** point of water is 100°C. -

Точка кипения воды - 100°C.

There are many ways of **solving** this problem. - Существует много способов решения этой задачи.

Существует еще один оборот с причастием, который, в отличие от других оборотов, отделяется запятой, какое бы место в предложении он ни занимал. Поскольку он не связан ни с одним из членов предложения, он называется «**независимый причастный оборот**» (*the absolute participle construction*). Данный оборот состоит из существительного в общем падеже или личного местоимения в именительном падеже (перед которыми может стоять предлог *with*) и причастия. Переводится при помощи придаточных обстоятельственных предложений, начинающихся со слов *так как, если, когда* и других, если стоит в начале предложения; в конце предложения переводится самостоятельными предложениями, обычно с союзами *причем, и, а* и др.

The weather being fine, we went for a walk. - Так как погода была прекрасной, мы отправились на прогулку.

Many crops are grown by our farm, **wheat being the most important**. - Многие культуры выращиваются нашим хозяйством, причем пшеница является наиболее важной (из них).

Упр.52

Переведите следующие предложения:

1. The question being too difficult, no one could answer it.
2. To translate the text without a dictionary was very difficult for him, the text having many unknown words.
3. It was a nice spring day, the Sun shining brightly.
4. I have two friends, one of them studying at our University.
5. Fertilizers being applied regularly, we got high crop yields.
6. Shakespeare's first original play, written in about 1590, was *King Henry VI*, the first part having been written earlier.
7. Power is the basis of civilization, all industry and transport being dependent on power in some form.
8. The subject being very interesting, all the students passed

What is common in their grammatical structure? Have you ever come across such structures in this book? Give some examples.

Task 4

Answer the questions:

1. What are the three most important conditions for fruitful scientific work?
2. Are these conditions important for studies?
3. Do you know any other conditions?
4. Why are they so important?
5. Which of your friends possess these qualities?
6. Would you like to be engaged in research work?
7. What qualities would you like to have?

Task 5

Read the dialogue in pairs in English and in Russian.

Dialogue

- Good morning!
- Good morning! You have come to exchange books, I suppose.
- Yes, I have. I wish I had an interesting book to read. Could you recommend me something?
- Certainly, I can. Here is a book of anecdotes about famous scientists.
- I suppose it should be very interesting. I would take it with pleasure but I am to make a report on the development of British science in the past decade.
- Oh, I see. Wouldn't you like to look through the catalogue yourself?
- Of course, if you don't mind.

Dramatize the dialogue.

Task 6

Complete the phrases:

I wish...

I suppose...

Could you...?

I would like to...

Task 7

Write out all the words referring to man's character.

Do they characterize researchers only or all other people as well? Analyse your behaviour and say if you've got all the above characteristics. What other characteristics would you like to have to find your place in today's life?

Task 8

Comment on the following sayings:

- a) "The roots of education are bitter, but the fruit is sweet" (Aristotle);
 b) "I think and think, for years, ninety-nine times the conclusion is false. The hundredth time I am right" (A. Einstein);
 c) "It is fun to do the impossible" (W. Disney).

Lesson 13

Grammar: Complex Sentences.

**Task 1**

Read and translate the text using a dictionary and write out all the words concerned with plant growing, animal raising and food products. Give their Russian equivalents and memorize them.



That American agriculture is a highly productive sector of

sider - считать, to see - видеть, to hear - слышать, to feel - чувствовать. Переводится придаточным предложением с союзами *как* или *что*.

We see **them (the boys) playing** football.- Мы видим, как они (мальчики) играют в футбол.

He regards **it (this method) as affording** good results. - Он считает, что он (этот метод) дает хорошие результаты.

Оборот «**именительный падеж с причастием**» (*nomi-native with the participle*) состоит из существительного в общем падеже или личного местоимения в именительном падеже и причастия (иногда с союзом *as*), которому предшествует один из вышеуказанных глаголов в пассивном залоге. Переводится придаточным предложением, которое вводится неопределенно-личным оборотом (видят, что ..., считают, что ... и т.п.).

They (the boys) are seen playing football. - Видят, как они (мальчики) играют в футбол.

It (this method) is regarded as affording good results. - Считают, что он (этот метод) дает хорошие результаты.

Упр.51

Переведите следующие предложения:

- a) 1. We heard the woman saying something to her son.
 2. Suddenly I felt somebody touching my arm.
 3. I know him writing a new poem this week.
 4. In the morning I like to watch the sun rising over the river.
 5. The cat is seen playing with a mouse.
- б) 1. Я видел, как мой друг переходил улицу.
 2. Он чувствовал, как его нога скользит.
 3. Считают, что эта маленькая девочка хорошо играет на пианино.
 4. Ты знаешь, что мой прадедушка слышал, как поет Шалляпин?
 5. Мне нравится наблюдать, как моя мама готовит обед.

Упр.50

Переведите следующие предложения:

- а) 1. He was sitting by the fire at the hotel, drinking tea and talking to an old man smoking a pipe.
 2. While going along the road he saw a flower lying on the ground.
 3. Being written by a talented writer, the book was a success.
 4. Having received his mother's letter he wrote the answer at once.
 5. Do you know the man standing at the window?
 6. The running boy is my friend; he doesn't want to be late for his classes.
 7. A student being asked at the exam is always very nervous.
- б) 1. Что ты здесь делаешь? – Я жду своего друга.
 2. Улыбающийся человек всегда красив.
 3. Девушки, поющие на сцене, студентки нашего факультета.
 4. Он сидел на лекции, думая о своей подруге.
 5. Закончив свою работу, он пошел в кино.
 6. Будучи хорошим студентом, он всегда получает хорошие оценки.
 7. Прочитав книгу, мы рассказали о ней своим друзьям.

Подобно инфинитиву причастие I может быть частью сложных конструкций, так называемых «оборотов с причастием», и, если инфинитив в таких оборотах подчеркивает факт совершения действия, то причастие подчеркивает его процесс.

Оборот «*объектный падеж с причастием*» (*accusative with the participle*) состоит из существительного в общем падеже и причастия (иногда с союзом *as*). Употребляется после глаголов *to assume, to expect, to think* – полагать, *to con-*

the US economy is a well-known fact. Farming nowadays has become an extremely efficient, highly mechanized industry requiring huge investments. In the past 30 years, agricultural land has been concentrated into fewer and fewer hands as large-scale specialized farms replace small family farms.

The high efficiency and productivity of American agriculture has its negative side. Farming has become too productive to be profitable to many American farms. Low crop prices, which have resulted from overproduction, often do not bring farmers enough income to live on. Another difficulty the American farmer faces is the decline of agricultural exports. Farmers depend heavily on exports, so one third of the cropland in the United States is planted in crops destined for export. Since the markets of the European Community expand the market for these export crops is shrinking.



Increased mechanization of American farming is threatening the existence of the small farmer. Small farmers are unable to compete with large agribusiness farms that usually have the capital needed to sustain themselves through periods marked by low crop prices and high interest rates. Many farmers insist on emergency aid from the government because as many as 200 farms have to declare bankruptcy every day. A variety of governmental and private programs, including crop insurance, loan guarantees and price supports, has been set up to assist farmers. The problems of the American farm economy are not unique. Farmers in the European Economic Community are facing many of the same problems.

The trend in modern agriculture towards large-scale enter-

prise conforms to the overall pattern in American business. Small corporations are being consumed by larger ones while large corporations become even greater.

Task 2

Analyse the structure of the following words. What do they have in common?

Agriculture, nowadays, large-scale, overproduction, agribusiness, well-developed, southwest, soybean, groundnut, worldwide.

Task 3

Group the following words into antonymic or synonymic pairs: small, export, to aid, to expand, import, many, to increase, low, to assist, to shrink, few, to harvest, to decline, high, to sustain, large, to plant, giant, to support.

Task 4

Find all the complex sentences in the text. How did you recognize them?

Task 5

Analyse the grammar structure of the sentence “Another difficulty the American farmer faces is the decline of agricultural exports”. Translate the sentence into Russian in writing. What is special about it?

Task 6

Explain the presence in the text of a large number of Perfect and Continuous tense verb forms.

Task 7

Title the text.

Формы причастия	Активный залог	Пассивный залог
Indefinite	Asking спрашивающий; спрашивая	Being asked спрашиваемый, будучи опрошенным
Perfect	Having asked спросив	Having been asked после того как спросили; когда спросили; так как спросили

В предложении причастие первое употребляется в функциях:

1. Части сказуемого и переводится глаголом (действие-процесс):

He is **writing** a paper. - Он пишет статью.

2. Определения (левого и правого). Переводится причастием с окончанием –щий, а правое определение соответствует причастному обороту или определительному придаточному предложению в русском языке:

The **playing** boy is my son. - Играющий мальчик – мой сын.

The boy **playing** in the garden is my son. - Мальчик, играющий в саду, мой сын. Мальчик, который играет в саду, мой сын.

3. Обстоятельства. Переводится деепричастием, обстоятельственным оборотом или придаточным обстоятельственным предложением:

Reading he made notes. - Читая, он делал заметки. Пока/Когда он читал, он делал заметки.

Having finished his breakfast he went to the Institute. - Закончив завтрак, он пошел в институт.

но переводится обстоятельством придаточным предложением, вводимым союзом *чтобы*, а также простым предложением.

He spoke loudly **for them (the people) to hear** him. - Он говорил громко, чтобы они (люди) его слышали.

It is necessary **for us to do** this work in time. - Нам необходимо сделать эту работу вовремя.

Упр. 49

Переведите следующие предложения:

- а) 1. For the experiment to be finished in time, the students must work hard.
2. He explained the scheme once again for us to understand it.
3. It's for you to decide.
- б) 1. Мама обычно читает моему младшему брату сказки, чтобы он заснул быстрее.
2. Тебе здесь жить.
3. Мой друг дал мне несколько книг, чтобы я смог подготовить доклад.

8.- Ing-формы и их функции

The -Ing-forms and their functions

Формы на *-ing*, образованные от глагола, столь многофункциональны, что их распознавание и, соответственно, перевод в тексте вызывают определенные затруднения. Следует помнить, что суффикс *-ing* оформляет: а) причастие настоящего времени (причастие первое) и б) герундий.

а) *Причастие I* обладает свойствами как глагола, так и прилагательного и имеет следующие формы:

Task 8

Write down the translation of all the complex sentences with subordinate clauses. Analyse their structure.

Task 9

Dramatize the situation: you meet an American agriculturist and start a talk about American agriculture.

Lesson 14

Material for revision and control



Task 1

Read the text "New Zealand" and say what the main information units of the text are.

New Zealand

New Zealand which is situated in the South Pacific Ocean south-east of Australia is an island country.

The land is the most important resource of New Zealand being ideal for crop farming, dairy farming and the raising of sheep, all of which predominate in the economy. Numerous mineral deposits are found throughout the main islands, including coal, gold, sand, etc.



Sheep raising and gold mining were the main sources of the country's wealth in the latter part of the 19th century. The introduction of refrigerated ships in 1882 enabled New Zealand to export fresh meat, thus stimulating settlement and more intensive farming in the country. There are many forests rich in indigenous species of plants, about 1500 are found nowhere else in the world. The country is world known to have exotic animals and birds. Should you enter a New Zealand forest you would be surprised at seeing kiwi, a flightless bird which has become the symbol of the country, tuatara, a lizard like reptile which is believed to be a pre-historic survival. You would be greatly pleased to find only few annoying insects and no snakes there.



Most of New Zealanders are of European (mainly British) origin and about 9 percent are Maori. English and Maori are the official languages, English being predominantly spoken and only 15 percent are considered to be fluent Maori speakers. The Maori had come to the North of New Zealand from other Pacific islands prior to the first white settlers. Now they have adapted themselves to the society and work in all areas of industry and professions.

New Zealand may be considered a prosperous country with a high standard of social services. One mustn't forget that the economy is affected by any negative fluctuation in world prices and demand. As for agriculture, it makes 10 percent of the General Domestic Product. Productivity of the country is among the highest in the world as modern methods and machinery are being extensively used on New Zealand farms. The land is suited for dairy farming and for raising sheep and beef cattle, because farmers do

информация неверна.

в) сочетание глагола to be с прилагательным (to be likely - вероятно, to be unlikely - маловероятно, едва ли, to be sure, to be certain - наверное, несомненно, обязательно).

They are unlikely to come in time. - Они вряд ли придут вовремя. Или: Маловероятно, что они придут вовремя.

Оборот «именительный падеж с инфинитивом» переводится сложноподчиненным предложением с союзом «что» (а, б), а также простым предложением с вводными словами *как известно, как видно, по-видимому, вероятно* (а, б, в).

Упр.48

Переведите следующие предложения:

- а) 1. "Hamlet" is considered to be the summit of Shakespeare's art.
 2. G. Washington is known to be the first USA President.
 3. All the delegates are reported to have been already registered.
 4. The years that he had spent in England seem to have taught him much.
 5. He is supposed to be one of the greatest writers of our time.
 6. He appeared to be quite another man.
 7. My brother is sure to graduate from the University with honours.
 8. The students are said to have practice in the country.
- б) 1. Известно, что он – лучший студент в группе.
 2. Говорят, что весной мы поедем в спортлагерь.
 3. Считают, что жизнь в деревне труднее, чем в городе.
 4. Вероятно, они не будут принимать участие в этой конференции.

Оборот «*for+существительное*» (*for-phrase*) состоит из предлога for, существительного в общем падеже или личного местоимения в объектном падеже и инфинитива. Обыч-

It Is Not the First Time

Kate's father was going along the corridor. Suddenly, as he was passing the bathroom, he heard his daughter ... in a kind voice to somebody. The father didn't expect his daughter ... in the bathroom at that time, and he looked in.

To his surprise, he saw his daughter ... a cat and ... its teeth with her father's toothbrush.

Kate didn't hear her father ... the room and continued her work. Kate's father got angry and asked his wife ... and ... what the matter was. Kate's mother made her daughter ... the cat

But the little girl turned to her saying in a hurt voice, "I'm sure Daddy needn't ... such a fuss about it. It isn't the first time I've done it".

To go, to speak, to enter, to hold, to make, to see, to be, to clean, to let, to come.

Оборот «**именительный падеж с инфинитивом**» (**nominative with the infinitive**) состоит из существительного в общем падеже или личного местоимения в именительном падеже и инфинитива, причем инфинитиву могут предшествовать:

а) глагол в форме пассивного залога (to assume, to expect, to think - полагать, to consider - считать, to see - видеть, to hear - слышать, to report - сообщать, to say - говорить, to know - знать, to find - находить, to suppose - предполагать).

She (the girl) is considered to be beautiful. - Считают, что она (девушка) красивая.

The boys (they) are seen to play football. - Видят, что мальчишки (они) играют в футбол.

б) глагол в форме активного залога (to seem, to appear – по-видимому, казаться, оказываться; to happen, to prove, to turn out - оказываться).

The information proved to be wrong. - Оказалось, что

not have to provide livestock with winter housing, grass growing nearly all the year round. New Zealand ranks second only to Australia in wool production. Farm horses have been almost completely replaced by tractors.

Task 2

Read the text again and translate it into Russian. You may use a dictionary if it is necessary.

Task 3

Analyse grammar structure of every sentence of the text; find the subject and the predicate.

Task 4

Find all the sentences with infinitives, participles and gerunds and state the functions of these verb forms.

Task 5

Answer the questions:

1. Where is New Zealand situated?
2. New Zealand is an island country, isn't it?
3. Does New Zealand lie to the north-west of Australia?
4. Can you get to New Zealand by train?

Task 6

Make up your own questions on the text. Ask your friends to answer them.

Task 7

Read the text without a dictionary and comment on its contents.

Martian Vegetables

New Zealand scientist Michael Mautner at Lincoln University has grown the world's first Martian vegetables. The tiny as-

paragus and potato plants didn't arrive on a spaceship. They were grown successfully in Martian soil, here on Earth.

How did Mautner get soil from Mars? He made it by grinding up slices of two Martian meteorites that had landed on Earth from the Red Planet. One was found in the Sahara Desert, the other in Antarctica. Mautner mixed ground-up rock with water and put tiny bits of asparagus and potato plants into the mixture. And the plants started to grow! "It was exciting to see the vegetables grow so well in Martian soil," Mautner says, "In the future, people starting a colony on Mars could use the soil there to grow food."

Task 8

Read and translate the poem. What can you say about teaching and learning a foreign language?

The Teacher and the Student

(A few words of warning for prospective students of English)

By David Wilson

The teacher and the student went walking hand in hand
through the bitter grammar to the promised land.
They walked along the sea of words until quite close at hand
they saw some Pretty Pronouns playing in the sand.
"Oh Pretty Pronouns if you please, won't you come and
play within the Present Perfect wood until the light of day?"
And so the Pretty Pronouns were never seen again
and if you too should travel into that grammar land
make sure you have a clever guide to hold you by your hand.

Task 9

Quiz. Are the following statements true or false?

1. New Zealand is a large country.
2. The country's nearest neighbour is India.
3. The official languages of New Zealand are English and Maori.

to let - позволять. Переводится простым предложением.

The Sun **causes the snow to melt**. - Солнце заставляет снег таять. (Под солнцем снег тает)

Упр.45

Переведите следующие предложения:

- a) 1. We expect him to come tomorrow with his sister.
 2. He heard the woman say something to her son.
 3. Do you want me to go with you?
 4. Suddenly I felt somebody touch my arm.
 5. We supposed all the details of the plan to have been explained to you long ago.
- b) 1. Преподаватель хочет, чтобы его студенты не опаздывали.
 2. Я вижу, что мой друг переходит улицу.
 3. Мы считаем, что эти идеи уже стары.
 4. Новая лаборатория позволяет нам использовать современные методы в нашей работе.
 5. Не заставляйте его ложиться спать рано.

Упр. 46

Закончите следующие предложения:

1. Do you want ...?
2. Do you expect ...?
3. Do you hear ...?
4. Do you feel ...?
5. Do you make ...?
6. Did you hear ...?

Упр. 47

Заполните пропуски подходящими по смыслу инфинитивами в соответствующей форме. Прочитайте и переведите шутку.

arms. Then we wanted a coat ... on the scarecrow. This time I was the first ... an old coat. Then little Kate took a balloon and wanted ... it to the top of the stick. But she was too small ... it. Tom took the balloon, painted two big eyes, an ugly nose and a large mouth on it ... the birds ... and placed it at the top of the stick.

We had great fun. Now, whenever I come ... my uncle, I like ... at the scarecrow.

to manage, to eat, to see, to help, to find, to take a look, to frighten smb. off, to fix, to make, to put, to tie.

Обратите внимание, что инфинитив может быть частью сложных конструкций, так называемых «инфинитивных оборотов».

Оборот «**объектный падеж с инфинитивом**» (**accusative with the Infinitive – сложное дополнение**) состоит из существительного в общем падеже или личного местоимения в объектном падеже и инфинитива. Этот оборот в зависимости от глаголов, после которых он употребляется, может подразделяться на три типа:

а) с глаголами *to assume, to expect, to believe, to think* – полагать, *to consider* – считать, *to want* – хотеть. Переводится придаточным дополнительным предложением.

He **considers the girl (her) to be** beautiful. - Он полагает, что девушка (она) красива.

б) с глаголами *to see* – видеть, *to hear* – слышать, *to feel* – чувствовать, *to watch, to observe* – наблюдать, *to let* – позволять, *to make* – заставлять. Переводится также придаточным дополнительным предложением. При этом инфинитив употребляется без частицы *to*.

We **see them (boys) play** football. - Мы видим, что они (мальчики) играют в футбол.

в) с глаголами *to allow, to permit* – разрешать, *to enable* – давать возможность, *to cause, to make* заставлять, вызывать,

4. Sheep breeding is not common in the country.
5. The kiwi, a flightless bird, is the national emblem of New Zealand.
6. The native flora and fauna of New Zealand are not found anywhere else in the world.
7. The country's national sport is rugby.
8. New Zealand is a republic.

Раздел II***Введение в специальность*****Unit II*****Introduction to Speciality. General Purpose Texts*****Наука и сельское хозяйство****Science and Agriculture****What is agriculture?**

Agriculture is an important branch of economy. Economic growth of any country depends on the development of agriculture, which supplies people with food and clothing and industry with raw materials.

The word “agre” is a Latin word. It means the cultivation of fields in order to grow crops. Now agriculture also includes the use of land to breed farm animals.

We do not know when people began to grow crops. It was many thousand years ago. Now crop production and animal husbandry are highly developed branches of agriculture.

Life is impossible without plants. They play a highly important role in everyday life of people. Plants that are grown by farmers are known as farm crops. They are used for many different purposes. Most of them are used directly as food for people, some are consumed by farm animals, others are used in industry and medicine.

In order to increase crop yields and animal products our farms apply widely intensive technologies.

Two branches of agriculture

There are two main branches of agricultural production – crop production and animal husbandry.

Crop production is the practice of growing and harvesting crops. The most important crops grown by man are grain crops,

- b) 1. Читать полезно.
 2. Чтобы хорошо говорить по-английски, Вы должны много заниматься.
 3. Вы любите петь?
 4. Ваша задача состоит в том, чтобы выполнять работу вовремя.
 5. У меня обычно уходит 3 часа, чтобы подготовиться к занятиям.
 6. Том был первым, кто задал вопрос лектору.

Упр. 43

Ответьте на вопросы, используя инфинитивы:

1. Who was the first to fly into space?
2. Who was the first to make the table of the chemical elements?
3. Who was the first to reach America?
4. What do you need to prepare a sandwich?
5. Why do you come to the University?
6. Where may I smoke in the University?
7. What do you do to be a good student?
8. What will you be doing at this time tomorrow?

Упр. 44

Заполните пропуски, выбрав нужный инфинитив из предлагаемых ниже (некоторые из них могут повторяться). Прочитайте текст и переведите его.

Can You Make a Scarecrow?

“Are the rooks ... all my flower seeds as soon as I sow them?” complained my uncle.

My brother and I decided ... him as we were sorry ... him so sad. One day we came to his place ... a scarecrow. My brother Tom was the first ... to good sticks. ... them together was not difficult. We took a string and tied together so as ... the body and the

Или: ... для получения высоких урожаев.

To know English better I read many English books. – Для того, чтобы знать английский язык лучше, я читаю много английских книг.

д) Определение:

I have no wish to go there. - У меня нет желания (какого?) идти туда.

Last year he was always the first to come to the University. - В прошлом году он всегда приходил в Университет первым.

Инфинитив, определяющий существительное, часто переводится определительным придаточным предложением с оттенками модальности, что приводит к добавлению слов *надо, должен, следует*.

We spoke about the new club **to be built** next year. – Мы говорили о новом клубе, который должен быть построен в будущем году.

Упр.42

Переведите следующие предложения:

- a) 1. In 1847 Dickens began to publish one of his most popular novels "Dombey and Son".
2. My first impulse was to put the letter into my pocket.
3. The first person to come out of the house was my friend.
4. There are many beautiful pictures to be seen at the National Gallery in London.
5. To translate the text without a dictionary is difficult for him.
6. To get to the University in time I always take a bus.
7. The manager to be spoken to will be back in a few minutes.
8. I am sorry to have taken your book.
9. Why should I be doing this work here while I can nicely do it at home?
10. You could have done it on Sunday.

vegetables and grasses. In order to obtain high yields crops are grown under favorable soil and climatic conditions.

Animal husbandry is a branch of agriculture including the breeding of farm animals and their use. Dairy and beef cattle, hogs, sheep, and poultry are widely bred throughout the world. Farm animals are highly important sources of food for man. They are kept for the production of such nutritious products as meat, milk and eggs.

Many crops grown by man are used in feeding livestock. At the same time manure produced by farm animals is an important source for the maintenance of soil fertility. Most of the nutrients taken by plants from the soil are thus returned. Applying manure, farmers improve the physical conditions of the soil.

Thus, crop production and animal husbandry are closely connected with each other.

How science contributes to agriculture

One science may help make, or contribute to another science. What sciences contribute to agriculture?

Botany contributes to agriculture, for botany is the science of plants, and plants are important in agriculture. Bacteriology, dealing with bacteria, contributes to agriculture. Zoology, the science of animals, contributes to agriculture, as does entomology, which treats of insects. In our study of how plants make their food, we touch on chemistry, the science that treats of the composition of things and the changes that take place in them.

Physics had told us most of what we know that has helped us to develop machines and power for use in farming.

Geography, the science of the earth and its life, makes contribution to agriculture. So does economics, the science that treats of the production to distribution, and consumption of things.

Controlling insects. Man could not control insects unless he knew their nature and habits, their food, their life history, their enemies. This represents a vast amount of knowledge gained and

proved. The modern farmer knows how to control most of the harmful insects.

Controlling plant and animal diseases. Many diseases of plants and animals are caused by bacteria and fungi. It is probable that we would have no crops or animals without our knowledge of controlling plant diseases and animal diseases. Take hog cholera, for example. This disease used to kill as high as \$100,000,000 worth of hogs in the United States in some years. Today but few hogs die of cholera, because we know how to control it.

Improvement of plants and animal through breeding and selection. Man's knowledge of breeding has enabled him to develop hundreds of new varieties of field crops superior in many ways to the older varieties. Some of the new varieties of field crops are of higher quality than the older varieties, some are higher yielding, and some are able to resist diseases and insects.

Through the science of breeding, dairy cattle have been developed for high production of milk, and beef cattle for production of beef. Likewise, there is improvement in other kinds of livestock.

Feeding farm animals. Science has made it possible for us to know how to feed any kind of farm animal for any purpose. We not only know how to produce growth, or gain in weight, or milk, or eggs, but we know the effect of the different feeds on the health of the animal and we know how to combine the feeds so as to give the animal what it needs and at least cost.

Soils. Without knowledge of soils and fertilizers, which we have gained and proved, agriculture would be poor indeed. Without science, we would not know that we should grow legumes in order to take nitrogen from the air, nor would we know how to fertilize intelligently.

We are making much progress in learning how to control soil erosion.

Forest. Forest farming is today recognized as an important part of agriculture. Modern scientific principles of forestry are be-

Continuous (Progressive) - Инфинитив-процесс – выражает длительное действие, продолжающееся одновременно с действием сказуемого	To be doing - делать (в определенный момент)	-
Perfect – Инфинитив-результат – выражает действие, предшествующее действию сказуемого	To have done – (уже) сделать (до какого-либо определенного момента)	To have been done – (уже) быть сделанным (до какого-либо определенного момента)

Функции инфинитива в предложении:

а) Подлежащее (переводится неопределенной формой глагола или существительным в именительном падеже).

To master English is very important. – Овладеть (овладение) английским очень важно.

б) Часть составного сказуемого (переводится неопределенной формой глагола, нередко с союзом *чтобы*).

Their plan **was to visit** Great Britain. – Их план заключался в посещении Великобритании (в том, чтобы поехать в Великобританию).

He **could play** football well last year. – В прошлом году он умел/мог хорошо играть в футбол.

в) Дополнение (переводится неопределенной формой глагола).

He likes **to speak** with us on this subject. – Ему нравится говорить с нами на эту тему.

г) Обстоятельство цели или следствия (для того, чтобы; для...).

They use fertilizers **to get** higher yields. – Они используют удобрения для того, чтобы получить высокие урожаи.

Упр. 40

Ответьте на вопросы:

1. Are you often asked at the seminars?
2. What book was recommended to you by your professor?
3. Have you ever been told fairy tales?
4. When will the results of the examinations be discussed?
5. Why has your work not been done in time?
6. Where are English books sold in your city?

Упр. 41

Скажите по-английски:

1. Когда был основан наш университет?
2. Меня попросили перевести этот текст.
3. На эту информацию часто ссылаются.
4. Эта научная проблема не может быть решена в ближайшем будущем.

7. Неопределенная форма глагола (инфинитив)**The Infinitive**

Как вам уже известно, признаком инфинитива является частица **to** перед глаголом: *to work* - работать, которая отсутствует после модальных глаголов: *I can __ speak English*.

Как любой глагол инфинитив может обозначать действие-факт, действие-процесс, действие-результат в активном и пассивном залогах.

Формы инфинитива

Группа времен	Активный залог	Пассивный залог
Indefinite (Simple) - Инфинитив-факт – выражает действие, происходящее одновременно с действием сказуемого	To do – делать (вообще)	To be done – быть сделанным (вообще)

ing widely applied. We know how trees live and grow, what their enemies are, the best methods of cutting under varying conditions. Much knowledge is being gained and proved about the relation of forests to climate, stream flow and erosion, and about various problems of management. Also, new uses are being found for the products of the forests.

Экономика сельского хозяйства
Agricultural Economics

Economics: the study of scarcity and choice

Since there is not enough of everything to go around, everyone – individuals, business firms, and government – needs to make choices from among the things they want. In the process they will try to **economize**, to get the most from what they have. With this in mind, we can define **economics** as the social science that describes and analyzes how society chooses from among scarce resources to satisfy its wants. The need to choose is imposed on us all by our income, wealth and ability to borrow. Individuals and families are limited by the size of their personal income, savings and ability to borrow. Similarly, business firms are limited by their **profits**, savings and borrowing power, and governments by their ability to tax and borrow. Income, savings, profits and taxes enable people, institutions and government to purchase **goods**, products you can see or touch, and **services**, work performed for pay that benefits others. The problem that each must face, however, is that once the decision has been made to choose one set of alternatives, one loses the opportunity to choose the other.

Factors of production

The resources that go into the creation of goods and services are called the **factors of production**. The factors of production include **natural resources**, **human resources**, **capital** and

entrepreneurship. Each factor of production has a place in our economic systems, and each has a particular function. In the American economic systems people who own or use a factor of production are entitled to a “return or reward”. This generates income, which, as it is spent, becomes a kind of fuel that drives the economy.

Natural Resources or “Land”. Natural resources are the things provided by nature that go into the creation of goods and services. They include such things as mineral, wildlife and timber resources, as well as the air we breathe. Our country has been especially rich in natural resources. Economists also use the term “**land**” when they speak of natural resources as a factor of production. The price paid for the use of land is called **rent**. Rent becomes income to the owner of the land.

Human resources or “labor”. Economists call the physical and mental effort that people put in the creation of goods and services **labor**.

The price paid for the use of labor is called **wages**. Wages represent income to workers, who own their labor.

Capital. To the economist, physical capital (or “capital” as it is commonly called) is something created by people to produce other goods and services. A factory, tools and machines are capital resources because they can be used to produce other goods and services. So, too, is the truck that delivered gasoline to the local service station. The term *capital* is often used by business people to refer to money they can use to buy factories, machinery and other similar productive resources. Payment for the use of someone else’s or capital, is called **interest**.

Entrepreneurship. Closely associated with labor is the concept of **entrepreneurship**, the managerial or organizational skills needed by most firms to produce goods and services. The entrepreneur brings together the other three factors of production. When they are successful, entrepreneurs earn profits. When they are not successful, they suffer losses.

предлоги «**by**» и «**with**».

Breakfasts are usually prepared by my Mother.

The book was written by Ch. Dickens in 1872.

Grain is harvested with combines.

Упр. 38

Переведите:

1. Many interesting books were translated from English into Russian.
2. This problem is paid much attention to.
3. The experiment has already been done.
4. The new hotel will not have been built by the end of the year.
5. The new models of combine harvesters are being developed at the laboratory of our University now.
6. I think he will be asked a lot of questions at the seminar.
7. He was told to prepare a report for the conference.
8. Why do you not answer when you are spoken to?
9. I was shown the way to the library.
10. This book is often referred to.

Упр. 39

Раскройте скобки, поставив глагол в нужную форму:

1. The delegation (to meet) at the station yesterday by our Rector.
2. This book on problems of agriculture often (to refer to) in diploma papers.
3. Next year he (to send) for practice in the USA.
4. When we came the store (to close) already.
5. At the University examinations (to take) usually twice a year.

В следующем году на этой улице построят новый дом.

Look, a new house is being built in the next street. -

Посмотри, на соседней улице строят новый дом.

Посмотри, на соседней улице строится новый дом.

Last year our house was still being built at this time. -

В прошлом году в это время наш дом еще строился.

В прошлом году в это время наш дом еще строили.

The house has been already built. -

Дом уже построен.

Дом уже построили.

The house had been built before winter came. -

Дом был построен до прихода зимы.

Дом построили до прихода зимы.

The house will have been built by the New Year. -

Дом будет построен к Новому году.

Дом построят к Новому году.

Как видно из примеров, английскому предложению с глаголом-сказуемым в форме пассивного залога в русском языке соответствуют: а) неопределенно-личные предложения (строят, строили, построят); б) безличные предложения (строится, строился, будет строиться).

Неопределенность исполнителя действия, его неизвестность, незаинтересованность в нем, нежелание упоминать его по каким-то причинам, большая заинтересованность в объекте действия, чем в том, кто его выполняет, и обуславливают особенности употребления пассивного залога.

Ср.: I am told...	Мне сказали...
He was asked...	Его спросили...
We'll be given...	Нам дадут...
The problem has been solved.	Проблема решена.

При необходимости в предложении с пассивом указывается производитель действия; для этого используются

The reward to entrepreneurs for the risks, innovative ideas and efforts that they have put into the business are **profits**, whatever remains after the owners of land, labor and capital have received their payments.

The history of economic thought. The first modern economists

“The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else.”

John Maynard Keynes.

The Mercantilists. Between the 16th and 18th centuries, the major countries of Europe believed in the economic theory of *mercantilism*. Mercantilists argued that nations should behave as if they were merchants competing with one another for profit. Accordingly, governments should support industry by enacting laws designed to keep labor and other production costs low, and *exports* (sales to foreign countries) high. In this way the nation could achieve what was called a “*favourable balance of trade*”.

“Favourable balance of trade” described a situation in which exports exceeded imports. The excess, which was like profits to a merchant, would result in an increase in the nation’s supply of silver. And, as most people agreed in those days, the true measure of a nation’s wealth was its hoard of gold or silver.

To achieve favourable trade balances, the major European powers sought to acquire colonies. Colonies, it was thought, could provide the “mother country” with cheap labor, raw materials and a market for its manufactured goods.

In an effort to attain these goals in their American colonies, the British, for example, enacted *the Navigation Acts*. *The Navigation Acts* protected British industry prohibiting the colonies from producing certain goods like hats, woolen products and wrought iron. The laws also listed certain “enumerated articles” (mostly raw materials), which could not be sold to buyers in countries

other than England.

Resentment towards the Navigation Acts was so great that they are regarded as one of the principal causes of the Revolutionary War.

Today there are people who still argue that our country should promote a “favourable balance of trade, that the federal government should do what it can to restrict imports and promote exports. For that reason, they are often described as *neo-mercantilists* or “new” mercantilists.

The physiocrats. For one group of 18th century French philosophers and economists, the suggestion that nations should go out of their way to protect business and industry made no sense at all. These were the *physiocrats*.

The physiocrats argued that the products of agriculture and other natural resources were the true source of wealth. Since these were God-given, it made little sense for government to go out of its way to help business and industry increase profits. For similar reasons, they opposed government efforts to promote a “favourable balance of trade”.

In other words, since real wealth came from the land, it followed that the wisest thing government could do would be keep its hands off business and let nature take its course. This idea was expressed in the slogan “*laissez faire*” (let people do as they choose).

Interestingly, the 200-year-old argument between those favoring regulation of the economy and those supporting *laissez faire* is still with us. Whether the problem involves individuals (like those living in poverty and unemployment) or institutions (such as a rising tide of business or bank failures), there are those who find the solution in government intervention, and others who favor “*laissez faire*”, letting natural economic forces take their course.

звали, что подлежащее, к которому они относятся, означает лицо или предмет, само выполняющее это действие, являющееся активным.

Рабочие строят новые дома. – Workers build new houses.

Если же глагол-сказуемое относится к подлежащему, обозначающему лицо или предмет, которое само действие не выполняет, т.е. является пассивным, то глагол-сказуемое имеет форму пассивного залога.

Новые дома строятся рабочими.

Формула образования пассива: *to be+ III*

время действия	характеристика действия		
	неопределенное (факт)	продолженное (процесс)	совершенное (результат)
настоящее	to be (am, is, are) + III	to be (am being, is being, are being)+ III	to be (have/has been) + III
прошедшее	to be (was, were)+III	to be (was being, were being) + III	to be (had been) + III
будущее	to be (shall/will be) + III	-	to be (shall/will have been)+III

Many new houses are built in our city. -

В нашем городе строится много новых домов.

В нашем городе строят много новых домов.

Last year many new houses were built in our city. -

В прошлом году в нашем городе было построено много новых домов.

В прошлом году в нашем городе построили много новых домов.

Next year a new house will be built in this street. -

В следующем году на этой улице будет построено новый дом.

Прошедшее совершенное время обозначает завершенность действия к определенному моменту в прошлом, который может быть выражен:

- а) другим, более поздним по времени действием, стоящим в форме прошедшего неопределенного времени;
- б) обстоятельством времени с предлогом **by**.

Проанализируйте следующие предложения и скажите, как образуется прошедшее совершенное время:

I **had translated** the text when you came.

We **had** already **translated** the text by 5 o'clock.

Будущее совершенное время обозначает завершенность действия и его результат к определенному моменту в будущем, который выражается другим, более поздним по времени действием или обстоятельством времени с предлогом **by**.

Проанализируйте следующие предложения и скажите, как образуется будущее совершенное время:

Don't worry, I **shall have cooked** dinner by 6.

We'll **have finished** the work when you come.

Упр. 37

Переведите:

1. Yesterday he told me that he had not solved that problem yet.
2. It was last Friday afternoon and Peter had done his homework.
3. I had studied English for 6 years before I entered the University.
4. We had waited for a long time before they came.
5. I think I'll have finished the work by the end of the year.

6. Пассивный (страдательный) залог

Passive voice

В частях 1-5 данного раздела, посвященного английскому глаголу, рассматривались предложения, в которых глаголы-сказуемые стояли в форме активного залога, т.е. пока-

The basic economic problem

The central problem of economics is to determine the most efficient ways to allocate the factors of production and solve the problem of scarcity created by society's unlimited wants and limited resources. In doing so, every society must provide answers to the following three questions:

- *What* goods and services are to be produced, and in what quantities are they to be produced?
- *How* are those goods and services to be produced?
- *Who* will receive and consume (get to use) those goods and services?

Let us take a closer look at each of these basic economic questions.

What goods and services are to be produced and in what quantities are they to be produced? Individuals and societies can obtain things by producing them themselves, exchanging things that they already own for them, or receiving them as gifts. Since a society cannot have everything, it must decide which goods and services it will have now and which ones it is willing to postpone having or give up completely. For example, there are those who say that the United States should put more of its efforts into improving production of basic commodities, such as automobiles and steel. They wish to prevent the further loss of trade to competitors such as the Japanese. In order to achieve this goal, they urge our nation to devote more effort to developing basic goods and services rather than luxury items.

Sometimes the choices can be quite difficult. For example, there are nations today, known as less-developed countries (LDC's) that are so poor it takes the effort of most of most of their labor forces just to feed and clothe their people. For such a society to raise its living standards it would be necessary to increase production beyond present levels. But if everyone in the country is already working at a full-time job, how can total production be increased?

One way to increase total production *in the future* would be to modernize. This might require shifting workers out of the production of food and clothing into the production of additional capital such as machines, tools and factories. To do so, however, would mean that less food and clothing would be produced for present use in order to increase output some time in the future. For a nation with large numbers of people living in poverty even the slightest reductions in the food supply could trigger widespread hunger. Fortunately, there are many international agencies and generous nations that have provided aid to the LDC's, helping modernize while feeding their people.

How are those goods and services to be produced?

There is more than one way to build a home or a school, manufacture an automobile, or farm a piece of land. Will the school consist of many stones or one floor? Will the automobile assembly line use robots? How much farmland will be used for corn and how much for wheat?

With the exception of the school building, which in most instances would be a government project, all these questions would be answered in this country by private individuals. In other parts of the world, however, how to manufacture an automobile might well be a decision made by the government. As for farming practices, some societies leave that to government to decide, others follow long-honored traditions, while in still others the farmer decides.

Who will get to use the goods and services produced by the economy? Since there will not be enough produced to satisfy everybody's wants, some way will have to be devised to determine how the output is divided. Who, for example, will get to ride in limousines; who will have to use public transportation; and who will have to walk?

Society has answered these questions in many ways. In some countries those of noble birth are entitled to a larger share of the nation's output than others. In other countries membership in a

3. Where have you bought this jacket?
4. When have you had your dinner today?
5. Have you lived in Ufa all your life?
6. Why have you come to the University so early?
7. How many times have you read the text at home?
8. What have you already done in class?

Упр. 34

Закончите предложения:

- | | |
|-----------------------|---------------------------------|
| 1. I have just | 4. I haven't ... yet. |
| 2. We have never | 5. Have your parents ...? |
| 3. My friend has | 6. I haven't seen him since.... |

Упр.35

Ответьте на вопросы, используя настоящее время-результат.

1. Nick is out. Where has he gone?
2. There is a letter on the table. Who has written it?
3. The window is shut. Who has shut it?
4. Supper is ready. Who has cooked it?
5. My pen is not on the desk. Who has taken it?
6. Ann has given my book to her sister. Why has she done it?

Упр. 36

Ответьте на вопросы, используя одно из настоящих времен: факт, процесс, результат.

1. Are you eating anything? When do you usually have your dinner? Have you already had your breakfast?
2. Is Ann dancing now? Do you dance on Sundays? Have you ever danced on stage?
3. Is Peter sleeping now? When do you usually go to bed? Have you ever slept in the open air?
4. What are you doing here? Do you learn English here? Have you already learned many English words?

5. Совершенные времена (результаты): настоящее, прошедшее, будущее

Present, past, future perfect tenses

Настоящее совершенное время обозначает завершенность действия и его результат к настоящему моменту. Для образования этого сложного времени используется III форма основного глагола, поскольку именно ей присуще значение завершенности действия (done – сделавший, сделанный; asked – спросивший, спрошенный); это неизменная часть глагола-сказуемого. Показателем лица, числа и времени, т.е. изменяемой частью сказуемого, является вспомогательный глагол **to have**.

I **have read** the book, you may take it.

He **has** already **seen** this film, he will not go with you.

I **haven't done** my homework yet, so I have no time to talk to you.

Have your parents **come** to Ufa? – Yes, they **have**/No, they **have not (haven't)**.

Помните, что эта глагольная форма используется также:

а) для обозначения действия, которое началось в прошлом и продолжается в настоящий момент:

We **have known** each other since 1995. – Мы знакомы с 1995 г.

б) в предложениях со словами *today, this week, this month* и т.п., если время совершения действия еще не истекло.

Have you seen Pete today? – No, I **haven't** but I saw him yesterday.

Упр. 33

Ответьте на вопросы:

1. Have you seen our new teacher? When did you see him?
2. Have you ever been to London?

particular political party has been the key to wealth.

Here, in the United States, the market system and the ownership of wealth are the key elements in determining who will be rich, middle class or poor.

Farmers and their problems

One of the saddest scenes on the six o'clock news in recent years has been that of rural families whose farms were taken from them because they couldn't pay their debts. In 1985, some 400,000 farmers went into bankruptcy or quit farming because of financial troubles. They did so despite the fact that American farmers are the most efficient in the world, and despite the more than \$20 billion spent that year by the federal government to assist them.

There is nothing new about these problems. Farmers have been leaving the land ever since the end of the World War I. In 1920 about 31 million Americans lived on 6,5 million farms. By 1987 this had shrunk to 5 million living on 2 million farms. Despite the shrinkage in the number of farms and farmers, however, the total output of the nation's farms increased!

Economic sources of the farm problem

With the number of farmers decreasing, their output constantly, and federal aid to farmers reaching all-time highs, one might wonder why farmers have been having such difficulty. Let's explore the sources of the farm problem and the efforts that have been made to solve it. As we do, look for answers to the following questions:

- What are the economic causes of the farm problem?
- How has the global economy added to the farmer's woes?
- What has the government done to help the farmer?
- Why is government aid to the farmer a controversial issue?

Farmers sell in competitive markets but buy in admin-

istered markets. Much American industry is concentrated in the hands of a few large producers. Aircraft, motor vehicles, and farm machinery, for example, are produced by only a few industrial giants. There are so few producers that it is possible for supply and prices in those industries to be controlled and stabilized.

By contrast, farmers, numbering in the millions, work in conditions of nearly perfect competition in agriculture. As a result, farmers are not able to control supply and prices. When crop yields are high, farm prices are bound to fall. For that reason the prices received by farmers decline while the prices they pay for their needs go up, remain steady, or drop very little.

Farmers have difficulty controlling production. Many factors place farmers at a disadvantage, compared with industry, in planning and controlling output. Suppose, for example, that the demand for cotton clothing drops. Textile manufacturers can lay off workers, shut down plants or shift to the manufacture of cloth made of artificial fiber. In this way the supply of cotton cloth will be reduced and its price maintained. For cotton farmers, however, it is a quite different story. With thousands of farmers scattered throughout states, it would be impossible for them to agree to limit production.

Farmers are at the mercy of nature. Once the crop has been planted, there is not much they can do except harvest it when it matures and take whatever price they can get for it. Weather also poses problems. Sun and rain may have little or nothing to do with the operations of a manufacturing establishment, but they can mean life or death to the farmer.

Farmers' costs are mostly fixed costs. In many industries a large percentage of total costs are variable. Such costs can be eliminated when things are slow. Factory output, for example, can be reduced and workers lay off to reduce operating expenses. For the farmer, however, it is not unusual to find that nearly all costs are fixed, at least in the short run. Most farm labor is supplied by farmers and their families, so they can

Упр.30

Прочитайте предложения, раскрывая скобки.

1. When I met them they (to go) to the library.
2. I'll visit you tomorrow at 8. – Oh, I (to have) my classes at this time.
3. What you (to do) here? - I (to wait) for a bus.
4. Listen, somebody (to knock) at the door.
5. Look, your friends (to cross) the street.
6. Wait a minute, I (to do) my homework.

Упр.31

Дайте краткие английские ответы:

1. Are you writing?
2. Do you write letters to your parents every week?
3. Were you watching TV at this time yesterday?
4. Is your friend playing football now?
5. Are you married?
6. Will you spend the Sunday in the village?
7. Will you be having your practice for two weeks?
8. Are you taking your exam now?

Упр. 32

Ответьте на вопросы:

1. What are you doing now?
2. What do you do every day?
3. Why are you smiling?
4. Where were you running to when I saw you?
5. What were you doing at the bus stop yesterday?
6. Whom were you going to visit last Sunday?
7. Who is singing in the corridor?
8. Who is your best friend?
9. How many people are you going to invite to your birthday party?
10. When does your friend get up in the morning?

сказуемого. Показателем лица, числа и времени, т.е. изменяемой частью сказуемого, является вспомогательный глагол **to be**.

I am speaking.

Are you speaking? – No, **I am not speaking, I am listening** to you.

What is he doing now? – **He is reading.**

Прошедшее продолженное время представляет действие как процесс в определенный момент или период в прошлом. Посмотрите на следующие примеры и сделайте вывод о том, как оно образуется:

Was he sleeping when you phoned him? – No, he **was not sleeping, he was eating.**

Обратите внимание, что оборот **to be going + I форма глагола** употребляется для выражения намерения совершить действие в ближайшем будущем.

I am going to visit my parents. – Я собираюсь навестить своих родителей.

We are going to buy a new TV-set. – Мы собираемся купить новый телевизор.

My friend is going to see this film. – Мой друг собирается посмотреть этот фильм.

При употреблении в форме прошедшего времени этот оборот выражает запланированное, но несостоявшееся действие:

I was going to visit my parents but I fell ill. – Я собирался навестить своих родителей, но заболел.

Будущее продолженное время представляет действие как процесс в определенный момент или период в будущем. Посмотрите на следующий пример и сделайте вывод о том, как оно образуется:

We'll be having a lecture at this time tomorrow.

save little by laying off workers. Nor can they lay off their cows, hogs or sheep.

The demand for farm products is relatively inelastic

The demand for farm products does not change as readily as the demand for many other types of products. Our need for food changes little, whatever our level of income. If our income doubles, we may improve the quality of our food and perhaps have a little more, but we will not double our total intake. The reverse is also true. If farm prices should fall, the inelasticity of demand would result in less-than-comparable increases in the demand for farm products. This means that the farmer does not share in our increasing national prosperity to the same extent as producers of other goods. In fact, per capita food consumption in America today is exactly what it was in 1925 (about three-fourths of a ton annually).

Farmers are often debtors. Few farmers have enough money of their own to buy a farm; purchase equipment, seeds and fertilizers; hire farmhands and put in a crop. Farmers typically borrow for these things, hoping to pay off the mortgage on the farm in two or more decades and repay the loan for seeds and fertilizers when the crop is harvested and sold.

Crop failure, for whatever reason, can be a source of ruin because those who lend money expect to be repaid, regardless of the size of the farmer's crop. We have seen, too, that bumper crops can bring on unexpectedly low prices, once again making it difficult for farmers to repay their loans.

When prices are high and demand is strong, the farmer may decide to go into debt still further: to buy more land, construct new buildings, and purchase more machinery. Then, if prices should fall, the burden of debt becomes heavier still as new loans must be repaid in addition to old ones. This is exactly what happened to many Midwestern farmers in the late 1970's. A worldwide grain shortage at that time induced many farmers to

borrow in order to expand their productive capacity. Then, in the mid-1980's, the shortage disappeared and grain prices fell. Unable to meet their mortgage payments, thousands of farmers were forced into bankruptcy and had to give up farming.

Events in rural Iowa have been typical. In 1980 the average Iowa farm was valued at \$523,000. By 1985 this had *shrunk* by nearly \$200,000 to \$325,000 per farm. Meanwhile Iowa farm debt had risen to \$16 billion – a figure larger than the national debt of Peru!

Overproduction at home and abroad. It is almost inevitable that farmers will produce too much. If the price of a certain crop is high, many thousands of farmers will try to increase their output of that commodity, and farmers who had been producing something else will switch to that item. Since farmers are generally scattered, poorly organized, and producing on an individual rather than a group basis, each will be thinking of his or her own gain and will pay little attention to the fact that great numbers of competitors are doing the same thing. In time the market will be flooded as farmers strive to increase their income by producing more. The results, of course, will be that prices will fall. Instead of discouraging production, however, quite the opposite might happen. Since most of their costs are fixed, many farmers will try to make up for falling prices and cover their costs by producing even greater quantities.

Агрономия

Agronomy

Plant, its parts and their functions

Plants are highly important sources of food for man and farm animals. They also supply people with clothing, shelter and many other things as well.

To obtain high yields of farm crops it is necessary to

- б) 1. Вы умеете говорить по-английски? – Да, умею.
 2. Вы не должны опаздывать.
 3. Студенты могут брать книги в библиотеке.
 4. Можно взять вашу ручку? – Нет, нельзя.
 5. Мне бы хотелось увидеть этот фильм.
 6. Вам следовало бы учиться лучше.

Недостаточность форм для выражения модальных значений в будущем (*can, may, must*) и прошедшем (*must*) обусловливает наличие у этих глаголов эквивалентов, которые могут выражать эти значения во всех трех временах:

can = to be able to

may = to be allowed to

must = to be to (запланированное должествование)
 = to have to (вынужденная необходимость).

We **are able to do** this work. We **were able to do** that work some days ago.

We'**ll be able to do** this work in a week.

I **am allowed to use** their telephone. I **was allowed to use** their telephone last year. I think I'**ll be allowed to use** their telephone.

We **are to take** our examinations in spring.

I live in the hostel so I **have to prepare** my meals myself.

4. Продолженные времена (процессы): настоящее, прошедшее, будущее

Present, past, future continuous (progressive) tenses

Настоящее продолженное время представляет действие как процесс в настоящий момент или период речи. По форме образования это сложное время. Для его образования используется IV форма (-ing форма) основного глагола, поскольку именно ей присуще значение процесса (*running* - бегущий, *writing* - пишущий); это неизменяемая часть глагола-

He **can speak** English but he **cannot (can't) write** it very well.

Can/May I smoke in here? – Yes, you **can/may**. No, you **must not (mustn't)**.

You **must be** back by 10 o'clock.

He **could not speak** English last year.

We **might go** to the concert yesterday.

Обратите внимание, что *could* и *might* могут выражать возможность и разрешение в настоящем:

Could you **show** me the way to the nearest shop? -

Не могли бы Вы показать мне дорогу до ближайшего магазина?

We **could/might go** to the cinema but we have no money. -

Мы могли бы пойти в кино, но у нас нет денег.

Для выражения мягкого долженствования, рекомендации, совета используется глагол *should*. Желательность, предположение выражаются с помощью глагола *would*.

You **should read** more English books. – Тебе следует читать больше английских книг.

I **would like** to have a cup of tea. – Мне бы хотелось чашку чая.

He **would help** us but he is busy now. – Он бы помог нам, но он занят сейчас.

Упр. 29

Переведите:

- a) 1. You must come to the University in time.
2. This information might be interesting for you.
3. Should I translate the whole text?
4. Could you tell me how to get to the National Library?
5. I cannot play the piano.
6. We would translate the text but we have no dictionary.

study the principal parts of the plant and their functions.

The principal parts of a plant are the root system and the above ground portion consisting of stems, leaves, flowers and seeds.

The root performs two main functions. It absorbs plant nutrients as well as water from the soil and anchors the plant. There are two types of roots: fibrous roots and taproots. All grain crops have fibrous roots, while taproots are typical of legumes and root crops. Alfalfa and sugar beets are examples of crops having taproots.

As to stems and leaves they are usually above the ground. To support leaves and to conduct water and nutrients from the roots to the leaves are the main functions of the stem. The food used by green plants is produced in the leaves through the process known as photosynthesis.

A flower is the part of the plant where seeds are produced. Thus, to produce seeds the plant must have flowers.

All parts of a plant must be developed well in order to function properly. If conditions for plant growth are not favorable the plant will be weak to develop its parts well.

Classification of field crops

Crops are variously grouped and classified. They may be classified as cultivated crops such as potatoes and corn or as non-cultivated crops such as wheat or barley.

Crops may also be grouped according to the duration of their growth. Annual crops complete their life cycle in one growing season. Biennials require two seasons to produce seed. Perennials grow for more than two seasons, producing seed each year.

According to their use field crops may be classified into many groups. The most important of them are:

Cereal or Grain Crops. A cereal is a grass grown for its edible grain. Wheat, corn, rye, barley, oats and rice are to be mentioned as the most important grain crops.

Legumes for Seed. The principal legumes grown for seed are field peas, field beans and soybeans. Sometimes the aim of growing them is to improve soil fertility because they are able to fix atmospheric nitrogen through the bacteria living on their roots.

3. *Forage Crops.* These are the crops used as feed for farm animals in the form of pasture, hay or silage. Most of them are perennials.

4. *Root Crops.* Unlike cereals root crops are grown because of the food value of their roots. There are many root crops grown by man. They are sugar beets, carrots, radishes and others. They are biennials.

5. *Tuber Crops.* The most important tuber crop cultivated throughout the world is potato. Like root crops they are biennials but people grow them as annuals.

Factors affecting the development of plants

All plants require certain conditions of the environment for their best growth and development. The most important of them are water, soil, sunlight and temperature.

Man cannot regulate the amount of rainfall but he can prevent the loss of moisture from the soil by proper cultivation or by irrigation.

Proper temperature is also essential for crop production. The optimum temperature for germination and growth varies with different kinds of crops. Grain crops such as wheat and barley, for instance, grow at a lower temperature than cotton or corn. Many crops are more adapted to the temperate conditions than to colder or warmer environment.

Without sunlight many important processes in plants do not take place. One of them is photosynthesis by which plants produce food from inorganic materials.

Besides water the soil in which crops are grown is to be provided with air and all the necessary nutrients. The most

Запомните, что для выражения будущего действия в придаточных предложениях времени и условия после слов *if* – если, *when* – когда, *till/until* – до тех пор, пока – глагол-сказуемое ставится в форме настоящего неопределенного времени.

We **shall go** for a walk **if** the weather **is** fine.

When I graduate from the University I **ll be** a farmer.

Упр. 28

Скажите по-английски:

1. Наши каникулы начнутся через 3 дня. Если погода будет хорошая, мы поедем в деревню. – Вы будете помогать родителям, – Да, будем.

2. Если у меня будет свободное время, я пойду в кино. – Ты пойдешь со своим другом? – Да, когда он придет.

3. Ты будешь читать эту книгу? – Нет, не буду. – А почему ты не будешь ее читать? – Я думаю, она неинтересная.

3. Модальные глаголы

Modal verbs

Глаголы, которые не выражают ни действия, ни состояния, а показывают отношение к этому действию или состоянию, называются модальными. Особенности их значения находят отражение в их основных формах:

I	II	III	IV	
can	could	-	-	умение, позволение, возможность
may	might	-	-	позволение, возможность
must	-	-	-	долженствование, необходимость

Модальные глаголы не используются со вспомогательными глаголами, не принимают личных окончаний, а основной глагол, стоящий после них, употребляется без частицы *to*.

то используются следующие обозначения времени: tomorrow - завтра, next week - на следующей неделе, in an hour - через час, in 2015 - в 2015 году, on Monday - в понедельник.

Для ее образования требуется I форма основного глагола без частицы to, перед которой становится вспомогательный глагол *will* для всех лиц единственного и множественного числа. На юге Британии с первым лицом единственного и множественного числа используется вспомогательный глагол *shall*. Использование *shall* со 2-м и 3-м лицом придает действию оттенок долговременности, приказа; использование *will* с 1-м лицом придает действию оттенок желания, намерения, согласия, обещания.

Tomorrow I **shall (I'll) get up** at 7 o'clock and **go** to the University.

He **will (he'll) become** an engineer in 4 years.

I **will go** to the cinema.

Проанализируйте отрицательные и вопросительные предложения с глаголом-сказуемым в будущем неопределенном времени и сделайте вывод о том, как они образуются:

How old **will** you **be** tomorrow? – I **shall be** 18.

Will you **go** to the library on Sunday? - No, I **shall not (shan't) / will not (won't)**.

The students **will not learn** in August.

Упр. 27

Раскройте скобки, обращая внимание на указатели времени.

1. Last year I (to live) in village.
2. I (to be, not) a student 2 years ago.
3. Next week I (to visit) my parents.
4. ... you (to go) to the cinema on Friday?
5. Our holidays (to begin) in 5 days.
6. My father (to read) newspapers every day.

important plant nutrients are nitrogen, phosphorus and potassium, there are at least 14 elements that are essential for proper plant growth. Farmers have to apply the nutrients taken by growing crops from the soil.

In order to produce highest yields crops should not only be provided with enough water, proper soil and necessary nutrients but they should be well adapted to both soil and climatic conditions.

The soil

Soil Formation. Soil is produced from rock by the process of weathering and by the activities of plants, animals, and man. Primitive or igneous rocks, formed by the solidification of the magma in the process of the cooling of the earth consist of aggregates of mineral crystals which are large or small according to the rate at which cooling took place. Each mineral is a chemical compound with specific chemical and physical properties. As soon as igneous rocks are exposed to changing temperatures, moisture etc. slow processes of disintegration and decomposition begins.

The weathering of a rock is generally due to a combination of physical and chemical actions. The weathered products of rock alone do not constitute a soil. Plants establish themselves very soon after weathering begins and the mineral material thus becomes mixed with plant remains.

These remains, in the process of decay, form an addition to the products of rock weathering. Soil is therefore a mixture of organic and inorganic material containing a large and complex population of living things.

The general character of a soil depends to a considerable extent on the nature of the parent material. Thus a coarse grained sandstone will generally produce a sandy soil, and a stratum of shale a "heavy" soil.

Constitution and general properties of soils

Soil and Subsoil. Natural soils that have been long undisturbed are composed of rather clearly defined layers or “horizons”. Soil scientists distinguish three main horizons - viz, the uppermost from which material has been removed by leaching; the second, in which has been deposited some of the material removed from the 1st horizon; and the third which consists of the parent material, e.g. the partly disintegrated rock.

The topsoil is dark because of its high content of decaying vegetable matter (humus) while the subsoil varies from reddish or yellowish to a pale grey tint. Another usual difference is that the topsoil is coarser grained than the subsoil, the difference being caused by the washing down of proportion of the finer clay and silt particles.

In general, the topsoil will be richer in nitrogen and phosphate than the subsoil, since manures and fertilizers are largely held in the former, but the subsoil may frequently contain more potash.

Soil Particles. Typical soils (excepting peats and black fen types) are composed largely of particles and fragments of mineral matter. We must remember that these particles are not all free one from another – indeed it is obvious that they are often bound together to form clods or crumbs. Nevertheless the character of a soil depends very much upon the sizes of the particles of which it is composed.

An important distinction is to be drawn between sand and silt on the one hand and clay on the other. The coarser fractions in general form the “skeleton” of the soil.

Essential elements of the soil

Primary elements. Of the eleven essential elements obtained from the soil by plants, six are used in relatively large quantities.

Упр. 24

Прочитайте по-английски, раскрывая скобки:

1. He (to get up) at 7 o'clock yesterday. Then he (to go) to the University. He (to have) much time and he (not, to take) a bus but he (to walk) there.

2. My father (to become) a student of our University in 1988. He (to study) at the Faculty of Agronomy. He (to be) the best student of his group. He (to begin) to work on our farm 5 years ago.

Упр.25

Сделайте следующие предложения: а) отрицательными, б) вопросительными, дайте краткие ответы на них.

1. I went to the cinema yesterday.
2. We were happy to see our friends.
3. 5 years ago he worked at school.
4. I took this book in the library.
5. There were some students in the classroom 5 minutes ago.
6. He had many problems with his examinations.

Упр. 26

Задайте следующие вопросы на английском языке.

1. Когда вы начали изучать английский язык?
2. Почему Вы ездили домой на прошлой неделе?
3. Где Вы провели свои каникулы?
4. Кто был вчера на лекции?
5. Сколько учеников было в Вашем классе?
6. Что Вы делали вчера?
7. Когда Вы закончили школу?
8. Какой предмет Вы любили в школе?

Будущее неопределенное время представляет действие как факт в будущем. В предложении, в котором глагол-сказуемое имеет такую форму, помимо указанных выше, час-

Упр. 23

Скажите по-английски.

1. Я студент аграрного университета. Наши занятия начинаются в 8.30. Каждый день у нас бывает 2 лекции и 2 практических занятия. Обедаю я обычно в общежитии.

2. Моего друга зовут Айдар. Ему 17 лет и он тоже студент. Он не живет в общежитии. Он любит смотреть телевизор и читать книги.

3. Я живу в общежитии. В нашей комнате 3 кровати, стол и 4 стула. На стенах нет картин, но много фотографий.

Прошедшее неопределенное время представляет действие как факт в прошлом. В предложении с глаголом-сказуемым в такой форме, помимо указанных выше, часто используются следующие обозначения времени: yesterday - вчера, last week - на прошлой неделе, an hour ago - час назад, in 1945 - в 1945 г., during the holidays - во время праздников. Как указывалось ранее, форма прошедшего неопределенного времени представляет собой II форму глагола.

I **was** a schoolboy in 1995.

We **came** to the University an hour ago.

During the holidays I **visited** my parents.

Проанализируйте отрицательные и вопросительные предложения с глаголом-сказуемым в прошедшем неопределенном времени и сделайте вывод о том, как они образуются:

I **didn't go** to the library yesterday.

He **didn't do** his homework last week.

Did you live in Ufa last year? – No, I **did not (didn't)**.

Did your friend speak at the conference? – Yes, he **did**.

I **was not** a student 2 years ago.

Were you at home last evening? – No, I **was not (wasn't)**.

I **had** no dog last year.

Were there many people at the lecture on Monday? – No, **there were not (weren't)**.

They are nitrogen, phosphorus, potassium, calcium, magnesium and sulphur. Because they are used by plants in relatively large amounts they are sometimes called the primary elements. Plant growth may be retarded because these elements are lacking in the soil, because they become available too slow, or because they are not balanced by other nutrients. This is very often true with nitrogen.

When nitrogen, phosphorus and potassium are artificially applied to the soil, they are usually added as farm manure and especially as commercial fertilizers. Therefore, they are often called fertilizer elements. In the same way calcium and magnesium are applied as lime and are called lime elements. Sulphur usually goes into the soil as an incidental ingredient of such fertilizers as farm manure, superphosphate, and sulphate of ammonia.

Microelements. The other nutrient elements (iron, manganese, copper, zinc and boron) are used by higher plants in very small amounts and therefore are sometimes called trace or microelements. These elements are just as important for the growth of plants as the primary elements.

Fineness of Soil Particles. We shall examine that part of the soil which is cultivated and which is called the topsoil.

What are the effects of the constant ploughing, harrowing, rolling, and other operations of tillage on this portion of the soil? Examine a handful of soil. You will see that it contains particles of various sizes. Small stones, gritty particles, and a certain amount of very fine earth will be present. Rootlets will also be seen and the mass will have an earthy smell. It is due to the presence of vegetable matter, the dark stuff that coats all the soil particles. Soils are classified according to the fineness of the particles present. The coarse particles are those of gravel and sand.

Soils in which these predominate are not fertile; they cannot retain water and contain little plant food. The finest particles in the soil are the clay particles. As the proportion of these increases the nature of the soil changes. If the soil is mostly sand

but has sufficient clay and vegetable matter it may have some value as a market garden. With more clay and other favourable conditions potatoes can be grown as on sandy loams. Loams are soils with sufficient sand, clay, and vegetable matter.

When the proportion of clay is very large, then the soil becomes more difficult to cultivate. Often such soils have to be drained. They are more suited for crops such as wheat and mangels. When they are too difficult or too expensive to be cultivated they are left down to grass, and are often greatly improved by applications of lime.

By cultivating the soil its surface area is greatly increased. It can absorb water to a greater extent; air can enter and bring about necessary chemical changes; the plant roots have not to draw the food they require from the small surface of a large lump or clod which they try to penetrate but can spread over the vast area made by the surface of the fine particles to which the root hairs become so firmly attached.

Movement of Water in the Soil. Water passes down the cracks in soil and through the pore spaces in sands and silts. It has been found that if the water level was 12 inches below the surface the growth of grass was good, but was poor when the water was at 20 inches depth and that grass failed when the water was 26 inches below. A clay soil may be seen cracking with drought when only a few feet away from a stream.

Formerly it was thought that the rise and movement of water was brought about by capillarity, by the agency of thin films of water, and the transfer of water from thick films at lower depths to the thin films near surface where water had been lost by evaporation. It was considered that water could rise in this way several feet.

While it is still true that capillarity impedes the downward flow of water by gravity, it is not sufficient to bring the water to the surface nor to distribute the water.

The supply of water to the plant depends on the rainfall

Упр. 21

Составьте предложения из следующих слов:

1. get up, 7 o'clock, morning, in, the, I, at.
2. we, 3, 4, have, usually, classes, day, every, or.
3. a, brother, is, my, Institute, student, of, our.
4. I, do, have, in, the, dining-room, dinner, not, Institute, of, the.
5. is, a, student, your, sister?
6. friend, to, by, University, my, goes, the, bus.
7. smoke, not, he, does.
8. how, usually, free, your, spend, do, you, time?

Упр. 22

Ответьте на вопросы:

- a) 1. Are you a first year student?
2. Is your father an engineer?
3. Have you got many friends at the University?
4. Do you learn at the farm mechanization department?
5. Does your friend speak English?
6. Is there a pencil on your table?
7. Are there any flowers in this classroom?
8. Has your sister got a family of her own?
- b) 1. Where do you come from?
2. What books do you like to read?
3. When do you come to the University?
4. Why do you learn at this University?
5. Who has a cat in your group?
6. Whose book is this?
7. Whom do you see in the classroom?
8. What do you usually do on Sunday?
9. How do you get to the University?
10. How many students are there in this classroom?

There is a book on the table.	- На столе есть книга.
There are many books on the table.	- На столе есть/имеется много книг.
There is usually much snow in winter.	- Зимой обычно бывает много снега.
There are 15 students in the classroom.	- В аудитории находится 15 студентов.
There are many textbooks on this subject.	- Существует много учебников по этому предмету.

Упр. 20

Переведите:

- а) 1. There are two lecture halls in building 2; there are also many classrooms there.
 2. There are many students in our group.
 3. There is a very interesting way of solving this problem.
 4. There is a new department at our university.
- б) 1. В этой аудитории 3 окна и 2 двери.
 2. В лекционном зале есть большая доска.
 3. В каждой лаборатории много ламп.
 4. Там также много специальных столов.

Вопросительная и отрицательная форма оборота there is/are:

Is there a pen on the table? – Yes, there is.

Is there a book in your bag? – No, there is not (there isn't).

Are there any new books in your library? – No, there are not (there aren't).

There are no new books in the library; there are some new journals there.

and the absorbing and retaining power of the soil. The value of humus or organic matter for this purpose will therefore be realized.

Soil Acidity. In order to understand this important problem we must first consider the electrical properties of water. Water is an exceedingly poor conductor of electricity. If a little salt is added to the water, it becomes a good conductor. Why is this? When the salt dissolves in water it furnishes positively charged sodium particles or atoms and negatively charged, chlorine atoms. These carry the electric current; the former travel to the negatively charged plate connected to a battery and the latter to positively charged plate or electrode when these are inserted in the solution. In water there are positively charged atoms of hydrogen and negatively charged coupled atoms of hydrogen and oxygen or hydroxyl (OH). These charged atoms or groups of atoms are called ions. They are the carriers of electricity. The very poor conductivity of water is due to the fact that the number of ions or carriers is exceedingly small. In solutions of acids, bases and salts they are very numerous.

Water is a neutral liquid because the acid hydrogen ions are balanced or neutralized by an equal amount of alkaline hydroxyl ions.

In acid solutions the hydrogen ions are in excess. If a liquid contains one-hundredth of a gram of hydrogen ions for a litre of water, the concentration of hydrogen ions is 1/100 or 10^{-2} . The intensity of the acidity is stated to be 2. The symbol pH is used to denote acidity in this way. In this case PH or power of the hydrogen is 2.

Soil solution. There are nine elements used in abundance by plants: carbon, hydrogen, oxygen, phosphorus, nitrogen, sulphur, calcium, magnesium, and potassium.

Carbon, hydrogen, and oxygen are taken by the plants from the air and water. The other six elements used in abun-

dance must come into the soil solution from the mineral and organic components.

Six elements used in only minute amounts are called minor elements. They are iron, boron, manganese, copper, zinc and molybdenum.

As previously pointed out, the soil solution contains only a small part of the available nutrients. Furthermore, the available amount of each element is small in comparison to the total of each element. The soil solution contains an appreciable quantity of dissolved carbon dioxide (CO₂).

Carbon dioxide and water combine to form a very weak acid called carbonic acid (the same as the carbonated water in soft drinks). This formation of carbonic acid is very important from the standpoint of availability of plant nutrients. Such compounds as tricalcium phosphate or calcium carbonate are practically insoluble in water but are soluble in weak acids.

Soil Air. While the atmospheric air contains about 20 per cent oxygen and only 0.03 per cent carbon dioxide, the soil air contains less oxygen than the atmospheric air and considerably more carbon dioxide.

As a matter of fact, the soil air may contain more carbon dioxide than oxygen does, and at times may contain practically no free oxygen. This large amount of carbon dioxide in soil air is due to the respiration of plant roots and microorganisms. Both take in oxygen and liberate carbon dioxide just as do human beings in breathing. As the content of oxygen in soil goes down, the carbon dioxide content goes up.

The large amount of carbon dioxide in the soil air causes an appreciable amount of the gas to be dissolved by the soil solution to form carbonic acid.

The soil air is at practically 100 per cent saturation with water in the soil. However, there is always diffusion of atmospheric air into the soil of soil air into the atmosphere.

The exchange of soil air for atmospheric air causes re-

	to be				to have		
I	am			I			
You	are	We		You	have	He	
He		You	are	We		She	has
She	is	They		They		It	
It							

При образовании вопросительных и отрицательных предложений с глаголом to be вспомогательный глагол не требуется.

I am a student. Are you a student, too? – No, I am not.

Is your father a teacher? – Yes, he is.

Упр.19

Прочитайте по-английски, раскрывая скобки:

1. I (to get) to the University by bus, I (to walk, not) there.
2. My brother (to be, not) a schoolboy. He (to learn) at a college.
3. Your parents (to live) in Ufa? – No, they (to do, not).
4. My father (to be) an engineer. He (to have) much work every day.
5. He (to do, not) his homework in the hostel. He usually (to do) it in the reading-room of the University.
6. (to be) you a student of the Medical University? – No, I (to be, not).

Обратите внимание, что для указания на наличие или пребывание в определенном месте или в определенный отрезок времени лица/предмета, обозначенного существительным, используется оборот **there is/are**. Существительное при этом не употребляется с определенным артиклем, а весь оборот имеет значение «есть», «имеется», «находится». В этом обороте подлежащее следует за сказуемым.

имеет следующий порядок слов:

I do not (don't) go to the University every day.

He **does not (doesn't)** get up at 7 o'clock.

В вопросительном предложении do/does выдвигается на первое место. Начинаясь с глагола вопрос требует краткого ответа и называется общим.

Do you go to the University every day? - Yes, I **do** / или No, I **do not (don't)**.

Does he get up at 7 o'clock? - Yes, he **does** / или No, he **does not (doesn't)**.

Вопрос, начинающийся с вопросительного слова, называется специальным и требует полного ответа. Запомните вопросительные слова:

who -	кто	where -	где, куда
whom -	кого, кому	why -	почему
whose -	чей, чья, чье, чьи	which -	какой, который
	что (перед глаголом)	how -	как
what -	какой (перед существительным)	how many -	сколько
when -	когда	how much -	

When do you go to the University? – I go to the University every day.

Where do you go every day? – Every day I go to the University.

Who goes to the University every day? – I go.

Запомните особенности глаголов **to be** и **to have** в настоящем неопределенном времени: в отличие от всех других глаголов и тот, и другой имеют специальные формы:

removal of water from the soil but has the beneficial effect of removing excess carbon dioxide and bringing in a fresh supply of oxygen.

The stirring of a soil by cultivation opens the surface to permit a more free exchange of soil air with atmospheric air. Roots must have oxygen, and so must the microorganisms, which bring about the transformation of mineral and organic materials from an unavailable to an available form.

Physical Properties of Soils. Soils are classified and mapped generally on the basis of physical characteristics, which the surveyors can recognize by visual inspection. Many of the important chemical and biological properties are reflected by the physical properties of the soil. Furthermore, the physical properties of soils determine to a large extent their productive capacity. The aeration and moisture relations, as well as area of root penetration, are determined largely by the physical makeup of soil profile. Some of the physical properties are: texture, structure porosity, colour and temperature relations.

Soil Texture. Texture refers to size of soil particles. Based on size of soil particles there are three fractions: sand, silt and clay. The sand fraction is further divided into five groups, resulting in a total of seven size groups. The seven groups are designated as seven soil separates.

Fraction	Soil Separate
Sand	Fine gravel
Coarse sand	
Medium sand	
Fine sand	
Very fine sand	
Silt	Silt
Clay	Clay

The determination of the proportionate amounts of sand, silt and clay is called mechanical analysis. There are two laboratory methods of analysis. Both methods are based on the determination of the settling velocity of suspended particles in water.

The coarse materials settle rapidly, while the fine materials settle slowly.

Humus. The humus, which consists of the colloidal residue of organic matter, has great effects on soil texture and fertility.

Whenever it is present in considerable quantity it imparts its black or dark-brown colour to the soil, and since dark-coloured materials absorb more of the sun's heat than light-coloured ones, its presence tends to raise the soil temperature. Moreover, in well-aerated soils humus is constantly undergoing oxidation, with liberation of simple compounds of nitrogen, which can be taken up by plant roots. Most important is the fact that humus has many of the properties of mineral colloids - it increases the soil's power of retaining moisture and it absorbs and holds plant nutrient substances. When organic matter is added to light soils the resulting humus tends to bind the mineral particles into crumbs, which absorb and hold water like miniature sponges.

It has already been noted that "raw" humus in the absence of lime imparts to the soil a strongly acid reaction, which is unfavourable to the growth of most of higher plants.

If the humus content is to be maintained at a high level, repeated applications of organic matter have to be made.

The means of maintaining the humus content include the use of manure and composts and the ploughing in of "green manuring" crops.

Упр. 18

Пользуясь словарем, найдите II и III формы следующих глаголов, выпишите их, переведите и запомните: to be, to do, to have, to go, to take, to see, to speak, to read, to make, to give, to write, to come, to begin, to get.

Основная функция глагола в предложении – сказуемое, т.е. выражение действия или состояния лица или предмета, обозначенного подлежащим. Поскольку действие и состояние непосредственно связаны с понятием времени, то глагол-сказуемое может быть или в настоящем, или прошедшем, или будущем времени. Представляя действие в одном из трех времен, английское сказуемое своей, в каждом случае конкретной, формой характеризует это действие или как постоянное, обычное, повторяющееся (факт) – *usually* - обычно, *every day* - каждый день, *often* - часто, *seldom* - редко, *sometimes* - иногда, или как незаконченное, длительное действие в процессе его совершения (процесс) – *now* - сейчас, *at the moment* - в данный момент, или как закончившееся к определенному моменту (результат) – *just* - только что, *already* - уже, *yet* - еще.

2. Неопределенные времена (факты): настоящее, прошедшее, будущее

Present, past, future indefinite (simple) tenses

Настоящее неопределенное время представляет действие как факт в настоящем. Для его образования используется I форма глагола без частицы **to**, в 3-м лице единственного числа (**he, she, it**) к этой форме добавляется суффикс -s.

I **go** to the University every day.

He **gets up** at 7 o'clock and has his breakfast.

Для образования отрицательной формы используется вспомогательный глагол do/does. В этом случае предложение

Часть V Глагол
The Verb

1. Глагол обозначает действие или состояние со всеми его характеристиками и свойствами. В предложении глагол может выполнять функцию любого его члена, при этом сохраняя присущую ему процессуально-временную ориентацию. Все многообразие этих функций строится с помощью *четырёх основных форм глагола*:

I - инфинитив	infinitive (inf.)
II – прошедшее неопределенное время	past indefinite (past)
III – причастие прошедшего времени	past participle (p.p.)
IV – причастие настоящего времени	present participle (pres. p.)

По способу образования II и III форм английские глаголы делятся на правильные и неправильные. Правильные глаголы образуют II и III формы при помощи суффикса *-ed*. Неправильные глаголы образуют эти формы по-разному, поэтому каждую из них надо искать в словаре и запоминать отдельно.

Примеры форм правильных и неправильных глаголов:

I	II	III	IV
<u>to plant</u> сажать	<u>planted</u> сажал	<u>planted</u> посаженный, сажавший	<u>planting</u> сажающий
<u>to grow</u> выращивать	<u>grew</u> выращивал	<u>grown</u> выращенный, выросший	<u>growing</u> выращивающий

Как видно из примеров, признаком I формы является to, признаком IV формы является -ing для всех глаголов, признак II и III формы правильных глаголов -ed, единого признака II и III форм для неправильных глаголов не существует.

Механизация сельского хозяйства
Farm Mechanization

Agricultural Machinery and Implements

At the dawn of history we find man practising the most elementary method of modifying soil conditions. He broke up the surface and prepared a seedbed, using for this purpose the most primitive of all cultivating devices, a digging implement like a hoe. In early times the principal crops were cereals or pulse and a fibre crop - flax.

The greatest mechanical advance during these early days of agriculture was the evolution of the plough from the primitive hoe. The advent of the plough enabled man to supplement his labour by animal power and is one of the great landmarks of agricultural progress.

The plough is the most important tillage tool, and it has been brought to its present state of scientific perfection only after tireless experimentation.

During the Middle Ages the variety of implements had advanced but little, though the roller was known but was not employed generally in agriculture.

In the 18th century there was conscious and organized attempt to improve agricultural implements. New methods and inventions were being applied to most farming operations, and new conditions were being created favourable for the great advance which followed.

By the 19th century such a complexity of implements had been introduced as to justify the term “agricultural machinery”. In agriculture, as in industry, the use first of water-power and then of steam had immensely stimulated the invention of machinery supplementing or replacing manual labour. A threshing machine was invented late in the 18th century and was gradually coming into use early in the 19th. It was driven by water or wind, some-

times by horse labour, and later by steam.

In still more recent times an important practical contribution to the mechanization of the farm came from the discovery of the internal-combustion engine. Used first of all to drive stationary machinery, as chaff-cutters, root-cutters and corn-mills in the barn, in the second decade of the 20th century the internal-combustion engine also made headway as a source of power for field operations. Steam engines, though widely used for traction on the road, suffered the disadvantage of being heavy for use on the land for the direct haulage of machinery and implements; and it was not until the internal-combustion engine had been perfected that agricultural tractors made their appearance.

But a still newer source of power on the farm is electricity. Although employed at first principally for lighting, electricity is extensively used in agriculture.

Agricultural implements and machines are now very numerous and very diversified and may be considered under five main groups, namely: 1) prime movers, i.e. engines of all kinds, tractors, etc.; 2) cultivating machinery, including ploughs of all kinds, harrows, rollers, cultivators, manure-distributors, drills, etc.; 3) harvesting machinery, including mowers, self-binders, threshing-machines, combines, elevators, potato-diggers, etc.; 4) stationary or barn machinery, including such food-preparing machines as chaff-cutters, grinding-mills, root-cutters, etc.; 5) dairy machinery, including milking-machines, separators, churns, sterilizing-machines, etc.

In addition there are a number of miscellaneous machines, including sprayers and sheep-shearing machines.

Importance of machinery and energy in agriculture

More and more machines are used on farms today replacing hand labour and increasing labour productivity. With machines and power available farmers not only can do more work

Местоимения **some** и **any** употребляются для обозначения неопределенного (небольшого) количества предметов или вещества. Обычно они определяют существительное и заменяют артикль, но могут употребляться и самостоятельно, причем **some** употребляется в утвердительном предложении, а **any** – в вопросительном и отрицательном. В отрицательном также может использоваться и местоимение **no**. Запомните, что **any** может употребляться и в утвердительном предложении в значении «любой», «всякий», «каждый».

I have some interesting books to read. – Can you give me any?

Pass me some butter, please. – Sorry, but there is no butter on the table.

I have many books on biology. You may take any of them.

Упр. 16

Прочитайте диалог по-английски, раскрывая скобки.

A: Have you got (какие-нибудь) CDs of English pop singers?

B: Yes, I have (несколько). I can give you (любой).

A: Could you give me (какой-нибудь) CD with the latest songs of Elton John?

B: Sorry, I have (никаких) CDs with his songs.

Упр. 17

Переведите следующие предложения, обращая внимание на подчеркнутые местоимения; объясните, как они образованы.

1. Is there anything interesting on TV tonight? – I think, there is something but you'd better take the program.
2. Is anybody missing? – Nobody is.
3. Nothing is more important for a student than to study well.
4. Somebody telephoned you 5 minutes ago.

Личные местоимения		Притяжательные местоимения
Именительный падеж (подлежащее)	Объектный падеж (дополнение)	определение
I	me	my
you	you	your
he	him	his
she	her	her
it	it	its
we	us	our
you	you	your
they	them	their

My friend's name is Peter. He is a student of our University. His parents live far from Ufa. He often visits them. Peter has a little sister and he always brings presents for her.

Указательные местоимения **this** (этот, эта, это), **these** (эти), **that** (тот, та, то), **those**(те) могут быть в предложении:
 подлежащим – These are tables.
 определением – This table is new and that table is old.
 дополнением – Do this tomorrow.

Упр.15

Заполните пропуск, выбрав соответствующее местоимение; объясните свой выбор.

1. Peter is an engineer. ... works on a farm. ... is in Chishminsky district.
2. Where is Helen? ...is in the library. Go and find ... there.
3. This letter is for... . Take
4. I have no dictionary. Could you givedictionary?
5. ...student is from America and ...students are from Germany.

and do it more economically, but they can do higher-quality work and the work may be finished in a shorter and more favourable time.

Machines that are used for crop production include those that till the soil, plant the crops, perform various cultural practices during the growing season and harvest the crops.

Many machines are known to be powered by tractors. Implements such as plows, cultivators and planters may be mounted on a tractor or they may be pulled by a tractor.

However, an increasing number of farm machines are now self-propelled. These machines are grain combine harvesters, cotton pickers, forage harvesters, and many other specialized farm machines.

Machines that do not require mobility are usually powered with electric motors. Such machines include silage unloaders, livestock feeding equipment and milking machines.

Farm machines we use today are quite different from those the farmers used two or even one decade ago. The tractors, tractor-drawn planters and drills were smaller and less productive. They could plant fewer acres per day than the machines do now.

Cultural practices

Before planting a grower has to perform some tillage operations that insure proper environment for germination. The first tillage operation is plowing. It may be done either in the fall or in spring, depending on the crop and the region. Harrowing and rolling are the operations that are known to insure a level and firm seedbed.

Nowadays the traditional tillage practices are increasingly replaced by minimum tillage. Under minimum tillage the number of operations is reduced. Farm machines can prepare the soil, apply fertilizers, and plant the seed in one operation. Main advantages of this method are lower soil compaction and lower

labour and energy costs.

Planting the seed is usually done when the soil and the air are warm enough. For cereals to germinate well two factors must be controlled during planting: depth and rate. Everybody knows the depth of planting seed to depend largely on the type of the soil and the size of the seed. The coarse seeds of corn and peas are to be planted much deeper than fine seeds of clover or alfalfa. The establishment of high-quality stand is also favoured by a proper seeding rate. Too thick or too thin sowing lowers grain production.

Harvesting is the last cultural practice. Mechanical harvesting helps farmers obtain highest yields of good quality.

Mechanization of crop production

Tillage practices vary with soil and climatic conditions and the crop that is to be grown. Tillage includes plowing, harrowing and rolling the soil. There are some purposes of tilling the soil. They are to improve the aeration and temperature conditions, to produce a firm soil and to control weeds. Different types of plows, harrows and rollers are now available to till the soil.

Seed should be sown in a firm, moist soil and covered at a proper depth to germinate rapidly and uniformly. Many various types of grain drills and planters have been developed to suit varying farm requirements. Some modern drills are equipped with attachments for seeding legume and grass seed and for spreading fertilizers. So, seed can be sown and fertilizer spread in one operation. Fertilizers can also be broadcast before planting. Recently attachments have been added to planters for applying insecticides and herbicides to the soil.

Harvesting crops is the final field operation. Combines that harvest and thresh small grains and some other crops have displaced most threshing machines or threshers. For harvesting to be successful, one should grow a variety that is adapted to mechanical harvesting. The plants should be of uniform height

Упр.14

Прочитайте предложения по-английски, раскрывая скобки.

1. Who is the (самый ленивый) student in your group?
2. His father lives (дальше) from Ufa than my father.
3. Pete is my (лучший) friend.
4. The weather today is (хуже) than it was yesterday.
5. The article about Ch. Darwin is (более интересная) than the article about I. Newton.
6. Do you think that it is (труднее) to speak English than to speak German?
7. Cats, usually, are (меньше) than dogs, aren't they?
8. Look, there is so (много) snow in the street!
9. The (длиннее) are the nights, the (короче) are the days.
10. The (ближе) is the summer, the (теплее) is the weather.

Часть IV Местоимение The pronoun

Местоимения употребляются вместо имен существительных (личные) и прилагательных (притяжательные, указательные).

Личные местоимения в общем падеже – I, you, he, she, it, we, you, they – в предложении выполняют функцию подлежащего. Личные местоимения в объектном падеже – me, you, him, her, it, us, you, them – с предлогами или без них выполняют функцию дополнения.

У каждого личного местоимения есть соответствующее притяжательное местоимение, выражающее принадлежность и отвечающее на вопрос whose? – чей?

Запомните:

big-bigger-biggest	good-better-best
fat-fatter-fattest	bad-worse-worst
wet-wetter-wettest	little-less-least
	many/much-more-most
dry-drier-driest	far-farther-farthest (самый далекий)
heavy-heavier-heaviest	far-further-furthest (дальнейший)
lazy-lazier-laziest	late-later-latest (самый поздний)
dirty-dirtier-dirtiest	late-latter (последний из упомянутых)-last (самый последний, прошлый)

Упр.13

Прочитайте предложения вслух по-русски, раскрывая скобки.

1. Этот район республики (driest).
2. Посадка этой культуры будет производиться в (later) сроки.
3. Июнь (hottest) месяц в году.
4. Как развивались (further) события?
5. У вас дорога (worse), чем в нашем районе.
6. В (last) году она получила (least) зарплату, работая в (farthest) хозяйстве.
7. Сегодня (happiest) день моей жизни.
8. Дежурный, почему аудитория (dirty)?
9. Я знаю, что существует два способа уборки хлопка: ручной и машинный. Я предпочел бы (latter).

Обратите внимание, что английские предложения типа "The more we read, the better we know English" переводятся на русский язык следующим образом: «Чем больше мы читаем, тем мы лучше знаем английский язык».

and should mature uniformly. Root crops and potatoes are harvested with root lifters and potato diggers respectively.

Tillage accessories and other machines

Tillage Accessories. After a good job of plowing, the planter runner will often give enough tillage in the row to provide a good seed-bed. For difficult soil conditions or for more complete soil pulverization, a number of attachments can be used on the planter or plow. These devices are quite effective because they are operated in fresh-plowed soil that has the correct moisture for easy pulverizing. They till the soil in the row beyond the seed depth, and some act as leveling devices to bring about more uniform planting depth.

Other Tillage Machines. Research has demonstrated that normally the mold-board plow is the most efficient machine for pulverizing the soil and covering the trash to provide a satisfactory seed-bed. Extra tillage can be obtained during the plowing and planting operations so that no additional trips over the field are necessary. Other tillage machines have been studied however, and deserve mention.

On soils that are easy to pulverize, a seed-bed can be prepared with a field cultivator without using a plow. Narrow chisels on the machine make it possible to till deeper with less power. These chisels tend to leave the soil open, which is an advantage in the fall because rain and snow can enter the open soil easily. If chisels are used in the spring, however, moisture may be lost from the open soil, so it is desirable to pull a harrow behind the cultivator to level the soil.

For the operations just before planting, it is good to use narrow sweeps to leave the soil level. More sweeps on the cultivator will require more power, but if the field is weedy, the extra sweeps are needed to remove the soil from the roots.

Powered rotary tiller machines can be used to prepare a seed-bed in one or two trips over the field. The rotating blades

cut the soil loose, pulverize it, and mix the residue throughout the tilled layer. These actions result in what appears to be a satisfactory seed-bed. However, more of the row width is tilled to a finer clod size than is necessary. This finely pulverized soil tends to be quite loose under normal conditions, but after a heavy rain it becomes very compacted and crusted, sometimes to the point of retarding germination.

Since the machine has a high power requirement, travel speed is slow even with a large tractor and labour per acre is greater than for most of the other methods.

Equipment designed to minimize compaction

Considering that soil compaction by traffic is presently increasing there are certain things which can be done to assist in the elimination or design machinery with a viewpoint of minimizing compaction.

Structure destroying forces are being applied to the bottom of the furrow, which is a zone where the soil preparation is already completed. The next furrow slice will cover the soil damage, which is caused at the time of plowing. If this wheel were to ride on the unplowed surface along the edge of the furrow, those forces would be applied to soil, which would in general be drier and therefore less susceptible to damage. A more important point, however, is that any damage inflicted by the wheel would be removed to a great extent by the tillage in progress. The farmer is not able to remove this wheel from the plow furrow. If necessary it would be possible for implement manufacturers to design equipment so that this wheel could be taken from the furrow.

Design may also be such that it minimizes the forces applied to the soil regardless of where they are applied. It has been shown that compaction by two such contrasting tires as the normal tire, which applies a high pressure over a small area and the larger low pressure over tire or track, which applies a low pres-

4. Strong	whisky beer wine
5. Precious	gold platinum silver
6. Wide	motorway lane road
7. Deep	puddle river stream
8. Fast	train plane bicycle
9. Popular	cinema TV theatre
10. Young	baby teenager infant

Упр. 12

Прочитайте предложения вслух по-английски, раскрывая скобки.

1. This is (самый продуктивный) method of solving the problem.
2. My brother is (трудолюбивее) than my sister.
3. This apartment is (больше) than my brother's apartment.
4. Their bread is the (самый дешевый) in Russia.
5. In summer the days are (длиннее) than in winter.
6. (самые дорогие) things are not always (самые лучшие).

ского языка, не меняется ни по родам, ни по числам, ни по падежам, но, как и русское прилагательное, имеет степени сравнения, образующиеся с помощью: - **er/est** или **more/most**. Выбор способа образования зависит от длины слова: к короткому добавляется **-er** (в сравнительной степени) и **-est** (в превосходной степени), длинные (многосложные) прилагательные требуют слов **more** и **most**.

nice	beautiful	красивый
nicer	more beautiful	красивее, более красивый
nicest	most beautiful	красивейший, самый красивый

It is the nicest house in the village.

My friend lives in the most comfortable hostel of the University.

The shoes are too expensive, I need a cheaper pair.

It is a more interesting book, take it.

The most industrious student gets the best marks.

Упр. 11

Расположите слова по убыванию указанного именем прилагательным признака. Составьте предложения, используя прилагательное в сравнительной и превосходной степени.

1. Large sea Ocean, sea, lake. An ocean is the largest. A sea is larger than a lake.
2. Important captain
 sergeant
 major
3. Big city
 village
 town

sure over larger areas, may compact soil at deeper depths to essentially the same degree. Thus, if one considers the maximum force which the soil could withstand and yet produce an economic yield one might be able to design equipment from the standpoint of what the soil could bear. This approach is different from that in which one starts with a heavy machine which must be supported and attempts to reduce the soil compaction by increasing wheel or track size to achieve low unit pressures on the soil.

Feeding systems for livestock farms

Mechanical feeding systems are becoming increasingly important in livestock farming. For a long time farmers have enjoyed the use of low cost power and machinery in crop production, but until very recent years feeding has been an unmechanized and inefficient operation. The present availability and convenience of electric power at low cost makes it possible for every farm to eliminate shovel and basket feeding in favor of electrical and mechanical feeding systems. Such developments not only increase the individual farmer's output per man/hour but change his role of a manual labourer.

A mechanical feeding system uses the energy of a machine to do work that was formerly done by human muscle power. An automatic feeding system supplies controls to machines so that they may function by themselves. A mechanical feeding system, to be ideal, should indeed be completely automatic, to move from storages to the feed bunk without any manual attention from the livestock operator. Such an ideal system -where grinders, blenders, conveyors, and distributors are perfectly coordinated so that no manual attention is necessary - is sometimes unattainable, but should always be considered the goal when planning mechanical systems

Электрификация сельского хозяйства
Farm Electrification

Electric motors

Characteristics. The electric motor is a simple machine, which will provide power quietly and smoothly, without fumes. It is a clean source of mechanical power, requires very little attention, and can be run continuously for long periods at a constant speed and with the minimum of maintenance.

Electric motors can be started and stopped by the touch of a button and full power is available from the moment that the motor is started. The fire risk is very low and the motor can be placed almost anywhere. Electric motors use energy only while they are running.

The open frame type of electric motor is the simplest design but it is recommended for use on farms. Most farm motors need to be of the surface-cooled type, which prevents dust and moisture from entering the windings.

A motor may be chosen with regard to the maximum load to be placed on the motor: this may lead to the equipment being over-motored with consequent loss of efficiency, coupled with a lower power factor.

A motor may be chosen with regard to the normal running condition but neglecting conditions of overload. This may well result in undermotoring. Motors, which run at the higher speeds, e.g. 1,450 and 2,850 rpm, are generally more efficient and, as they are of smaller dimension and less costly, consideration should be given, wherever possible, to their use.

Principal types of motors

All electric motors can be said to operate due to the interaction of two electro-magnetic fields, one produced by a stationary system of electro-magnets (stator) and the other by a

11. He helps his parents on ... farm.
12. ... parents would like ... boy to be ... farmer too.
13. They have ... family farm.
14. I was on ... farm ... month ago and liked it very much.
15. I would like to become ... farmer, too.
16. I have ... brother. He will work with me.
17. My brother has ... wife and ... children.
18. ... family will work together.

Упр. 10

Прочитайте предложения по-английски вслух, раскрывая скобки. Помните, что при переводе Вам могут потребоваться артикли.

1. My cousin has (ребенок). (Мальчик) goes to school.
2. My (родители) are pensioners. They live in (деревня) not far from Ufa. My (мама) grows (помидоры).
3. Our (страна) is rich in (нефть) and (газ).
4. I have (сестра).
She is (школьница).
She would like to become (экономист).
5. Where are (студенты)? – They are in (библиотека).
6. (Хлеб) is used to prepare sandwiches.
7. The farm has built (новые теплицы).
8. The farm has bought (новый комбайн).
(Фермеры) use (старый комбайн), too.

Часть III Прилагательное
The Adjective

Основная функция прилагательного в предложении – служить определением к существительному:

The farmer has bought a new tractor.

The student learns the English language at the Agrarian University.

Прилагательное в английском языке, в отличие от рус-

We have planted an apple tree in our garden.	Мы посадили в своем саду яблоню.
I have a class of English a day.	Каждый день у меня бывает по одному уроку английского языка.
Will you give me a book to read?	Не дашь ли ты мне почитать какую-нибудь книгу?
My brother is a farmer.	Мой брат – фермер.
He bought a tractor and two trucks last year.	В прошлом году он купил трактор и два грузовика.
I like apples.	Я люблю яблоки.

Как видно из примеров, в большинстве случаев артикли от отдельным словом не переводятся.

Запомните, что артикли употребляются только с нарицательными существительными. Названия водоемов, горных цепей, небесных тел и некоторых стран употребляются с определенным артиклем: the Black Sea, the Atlantic Ocean, the lake Baikal, the Caucasus, the USA, the United Kingdom of Great Britain and Northern Ireland.

Упр. 9

Вставьте артикль там, где это необходимо.

1. I have ... friend.
2. He is ... peasant.
3. His name is ... Nick.
4. ... Nick became ... farmer last year.
5. ... farm is not large.
6. He keeps ... cows and ... horse.
7. His wife milks ... cows every day.
8. Nick will buy ... tractor.
9. Nick has ... son.
10. ... boy is ... pupil.

rotating system (rotor). The electro-magnetic fields are produced by different arrangements of windings and these differentiate one form of motor from another. These forms can be divided broadly into the following classes: AC induction, AC synchronous, AC variable speed, DC motors.

Modern electric motors are designed to operate at much higher temperature levels. The reduction of frame sizes for given up ratings has led to the situation where the electric motor is, when running at full load, on its maximum rating.

In modern farming conditions the totally enclosed fan-cooled motor is to be preferred for practically every application on the farm. The possible exceptions to this statement are in the case of milking machines and machinery, which is working in conditions where no dust or moisture is present.

Difference between A.C. and D.C.

A direct current (D.C.) flows continuously through a conducting circuit in one direction only, although it may not be steady so far as magnitude is concerned. It is unidirectional in character. An alternating current (A.C.) on the other hand, continually reverses in direction, as its name implies. Starting from zero, it grows in one direction, reaches a maximum, dies down to zero again, after which it rises in the opposite direction, reaches a maximum, again dying down to zero. It is thus continual changing in magnitude as well as direction, and this continual change causes certain effects of far-reaching importance.

It can be shown that high voltages are desirable for the economic transmission of a given amount of electric power. Take, for example, the transmission of 1000 kW. If the transmission voltage is 100 volts the current must be 10,000 amperes, but if the transmission voltage is 10,000 volts the current is only 100 amperes. The cross-section of the cables transmitting the power is determined by the current to be earned, and so in the former case the cables would need to be very much larger than in the latter

case. It is true that the high-voltage cable would need to have more insulation, but even so, it would be very much cheaper than the larger low voltage cable. A high voltage is therefore essential for the economic transmission of electric power.

Again, A.C. generators can be designed and built for much higher voltages than can D.C. generators, the voltage of the latter being limited by the problem of sparking at the commutator, a component which is absent in the A.C. generator. Then there is the most important factor that it is easy to transform A.C. power from one voltage to another by means of the transformer, an operation that is denied to the D.C. system. The transformer also enables the voltage to be stepped down at the receiving end of the transmission line to values which can readily be used by the various consumers. If necessary, it can be converted to the D.C. form for actual use, although this is not often necessary. There are certain processes for which D.C. is either essential or at any rate desirable but the utilization of electric power in the A.C. form is growing steadily. At the present day, by far the greater part of the generation, transmission, and utilization of electric power is carried out by means of A.C.

Voltage and current

Electric power is generated at power stations, but it is usually needed in far-off places. How is the current taken to these far-off places?

Thick wires usually carry it across the country, and steel pylons hold the wires above the ground. The pylons are so high that nobody can touch the wires at the top. The wires are not usually copper wires; they are made of aluminum, and thirty wires together form one thick cable. Aluminum is so light that the pylons can easily hold the cables up.

It would not be cheap to drive very large currents through these cables. Large currents need very thick wires. If thin wires are used, they get hot or melt, and so the currents ought to be as

Nike's book
Wells' novel
Moscow's theatres

книга Ника
Роман Уэллса
театры Москвы

Основным определителем существительного является артикль: **a, an** (неопределенный артикль), **the** (определенный артикль). Оба артикля в некоторой степени сохранили значения тех слов, от которых произошли.

Определенный артикль **the** происходит от **that** (тот) и используется, когда речь идет об известном или единственном в своем роде предмете (предметах), он имеет индивидуализирующее значение:

This is my village. There are many new houses in **the** village. Это моя деревня. В (этой) деревне много новых домов.

The houses my friends live in are in **the** centre of the city. Дома, в которых живут мои друзья, находятся в центре города.

Where is **the** lecturer? Где лектор?

The students are waiting in **the** hall. Студенты ждут в зале.

Неопределенный артикль **a** происходит от **one** (один) и поэтому имеет ограниченные возможности употребления: он может стоять только перед исчисляемыми существительными в единственном числе, если речь идет о новом, неизвестном для читателя или слушателя предмете и имеет классифицирующее значение (один из, какой-то, любой):

My father is **an** agronomist.

Мой отец – агроном.

Wheat is **a** grain crop.

Пшеница – зерновая культу-

числа: единственного (словарная форма) и множественного (словарная форма + «s»):

The student worked in the field. Студент работал в поле.
The students worked in the fields. Студенты работали в полях.

Запомните!

potato-potatoes
tomato-tomatoes

family-families
country-countries

life-lives
leaf-leaves
calf-calves

sheep-sheep
deer-deer

man-men
woman-women
child-children
tooth-teeth
foot-feet
goose-geese
ox-oxen
criterion-criteria

crisis-crises
analysis-analyses
thesis-theses
datum-data
phenomenon-phenomena

Английское существительное имеет два падежа: общий падеж, не оформленный специальными окончаниями, и притяжательный – ‘s. Обратите внимание на некоторые особенности образования и употребления притяжательного падежа:

my friend’s dog собака моего друга
my friends’ dogs (the dogs of собаки моих друзей
my friends)

small as possible. Can we send a lot of power if we use a small current? We can do so if the voltage is high. We need a small current and a high voltage; or a large current with a low voltage. The small current is cheaper because the wires need not be thick.

The result is that the voltage has to be very high. The pressure in the aluminum cables may be 132,000 volts, and this is terribly high. The voltage of a small battery which we carry in our pockets is usually between 1 and 9 volts. A car battery has a voltage of 6 or 2 volts. In a house the pressure in the wires may be 230 volts, or something like that. Even 230 volts is high enough to kill a person, so what would happen if we touched one of the aluminum cables? The high voltage would drive a heavy current through our bodies to the earth.

When the wires lead down to a house or a railway, the voltage is made lower. It can be changed easily; but if the voltage is lower, the current must be higher. If it is not, we shall lose power. So the wires have to be thicker.

The wires must never touch steel pylons. If they did that, the current would escape to the earth through steel. Steel is a good conductor of electricity, so are most metals. We have to separate the wires from the pylon, and we do this with insulators.

Человек и окружающая среда

Man and his environment

Man and his environment

The problem of man and his interaction with the environment has now become one of the most difficult problems for many sciences not because it is fashionable but because of its great significance for the whole of mankind. We see at present the signs of ecological imbalance, which may cause a crisis if due measures are not taken.

The air we breathe, the earth we live on and its rivers and

seas are becoming polluted. The biosphere is strongly affected by all sorts of human activities. For example, man creates new compounds, new substances, pure chemical elements which are unknown to biosphere. They do not belong to the natural cycle of matter. They weaken the capacity of natural processes for self-regulation. Though not changing biologically, we change the environment in which we live. The Russian great scientist Vladimir Vernadsky was the first in the world to realize the necessity for quite a new approach to the biosphere as early as the midforties.

The increasing noise level is a special problem nowadays. We need silence as much as we need fresh air and unpolluted water. Noise does not only do physical damage to the hearer but can weaken his energy and break down his nerves.

Transport is a major source of environmental pollution. Every car consumes many tons of air. Its exhaust gases contain poisonous carbon dioxide which makes difficult the emission of the earth's heat into space. Many cities now are too noisy to live in. Los Angeles in the USA and Osaka in Japan are known to be the air pollution champions among major industrial cities.

Pollutants are not only harmful to health but to buildings as well. Our cities are dying physically. In most city centers some of the oldest and fine buildings are falling in pieces. On one hand, the foundations are being shaken by all the heavy traffic and, on the other hand, the bricks are being eaten away by fumes from the traffic. It is a slow process but it is going on even though you can't see it.

One more aspect of the problem is water pollution. Sea- and rivergoing ships pollute sea and river water with various oil products. At a rough estimate, no less than five million tons of oil are discharged into seas and oceans each year and one ton of oil can spread over about twelve square kilometers of the water surface as a thin film which prevents air - water oxygen exchange. One litre of oil makes one million litres of fresh water unfit for

5. You can buy this book in every book store.
6. Russia imports cane sugar.
7. Canada exports grain crops.
8. Our republic does not grow sugar cane.
9. There are many pig and poultry farms in the country.
10. Rice is a very important food crop in India.

Упр.5

Переведите «цепочки существительных» из упражнения 4.

Упр. 6

В упражнении части I есть «цепочки существительных». Найдите предложения с этими «цепочками», прочитайте их вслух и переведите.

Упр. 7

Переведите: farm machines, field crops, grain crops, family farm, farm animals, village house, winter wheat, spring wheat, sheep breeding, vegetable growing, sheep farms, fruit growing, export products, grain production, meat products, milk plants, university hostel, state university hostel, state university, university library, state university library, university computer centre, Moscow State University, sugar beet production, hand labour, world market prices, labour productivity, labour organization, farm produce, production process, a ten-year old girl.

Упр.8

Скажите по-английски: сельскохозяйственные машины, производство зерна, государственный магазин, ручной труд, общежитие нашего университета, городская школа, зимние каникулы, производство молока, каменная стена.

Существительное в английском языке имеет формы

Часть II Существительное The Noun

В предложении существительное может выполнять любую функцию, т.е. быть любым членом предложения. Чаще всего существительное является подлежащим и дополнением, и в этих функциях оно не вызывает особых затруднений при переводе.

Некоторые трудности могут возникнуть при переводе существительного в функции одного из видов определения. В этом случае оно стоит перед другим существительным и, не соединяясь с ним предлогом, составляет с ним так называемую «цепочку существительных». Чтобы грамотно перевести такую «цепочку», необходимо правильно задать вопрос каждому из существительных. На обычные для существительного вопросы: *кто?* или *что?* отвечает только последнее существительное, а к стоящему перед ним следует задать вопрос: *какой? какая? какое?* или *какие?* Подобных существительных-определений в «цепочке» может быть несколько.

The students of agricultural Institutes usually leave village schools.
This family farm keeps farm animals.

Студенты сельскохозяйственных вузов обычно оканчивают сельские школы.
Эта семейная ферма выращивает сельскохозяйственных животных.

Упр.4

Найдите существительные - определения.

1. The team grows field crops.
2. Our republic grows sugar beet.
3. Many countries produce beet sugar.
4. He always speaks in a business tone.

drinking. We must stop the contamination of our waterways which comes from so many sources: chemical waste from factories, thermal waste from power stations, domestic waste from cities and towns and so on.

The earth

In relation to the vast expanse of the universe our planet is no more than a grain of sand. In relation to the human body the earth seems limitless, and because people see it in those terms its resources seem inexhaustible.

Man has turned everything in this world of ours to account, in one way or another. Today the whole area of the planet contributes to man's well being: the atmosphere, the oceans and deserts, the Polar Regions, the water we drink and the air we breathe. It therefore behoves us to use the greatest care in our treatment of the treasures of the earth that are necessary for our survival.

Most of the processes and products of modern civilisation are not in keeping with nature and actually destroy nature. The laws and cycles of nature cannot be ignored without retribution being exacted sooner or later.

But the surface of the earth and its riches are, like air and water, of finite quantity. We know how to split atoms and how many light years separate us from other galaxies. We make no exceptions in our observance of the physical laws of nature. And yet life itself is subject to laws, and failure to observe them brings destruction. Are we not prepared to acknowledge this fact?

Today raw materials - tomorrow waste

Raw materials such as metals, mineral oil, gas and coal are not available for our use in inexhaustible quantities. Since the industrial revolution mankind has been exploiting reserves at a rate that more and more accelerates their exhaustion. Man has always looked upon the earth's treasures as something that could

be taken for granted. They have been wantonly and ruthlessly exploited in the belief that they were there forever. It was thought that the world was so big, so infinitely big, that there was more than enough for everyone. If a particular mineral was used up in any one country what did it matter? There were plenty of other countries where the same mineral was available. It is only in the last few years that we have come to realise that our resources are not inexhaustible. And yet they are now being used up even faster owing to population growth and the steadily increasing demands for a higher standard of living.

The question arises whether these riches belong to our generation alone. Do they not also belong to succeeding generations? Have we the right to bequeath to these generations only rubbish dumps and poisonous substances in the place of resources?

Day by day these raw materials find their way on to the rubbish dump in the form of waste products or into the atmosphere in the form of waste gases. One day therefore all raw materials will be waste materials, that is poisonous gases and waste.

**Sooner or later the last barrel of oil
and the last ton of copper ore will be used up**

Mineral raw materials appear in the earth's crust in greatly varying concentrations. The extraction limits are subject to constant change. For instance, in the last century the limit for copper was 4 per cent, whereas today it is already below 0.5 per cent. That means that when we work copper ore of 0.5 percent today, we need eight times as much as we would if it had a copper content of 4 per cent. And that means that we need eight times as much energy.

For this reason information as to the current state of deposits and their statistical duration cannot be definitive. Of course statistics have to be corrected year by year but it remains true that none of these minerals is inexhaustible.

Упражнение 1 (Упр.1)

Найдите сказуемое в каждом предложении.

1. I'll answer your question tomorrow.
2. The farmers grow potatoes.
3. Yesterday the students of our faculty worked in the field.
4. This store sells high-quality foreign goods.
5. These goods are produced in different countries of the world.
6. To buy high-quality goods made in England we need a lot of money.
7. Modern equipment produced abroad is used to do this important work.
8. I learn at the Bashkir State Agrarian University.

Упр. 2

Расположите предлагаемые слова в соответствии с порядком слов английского повествовательного предложения. Прочитайте полученные предложения.

1. Cucumbers, grows, farmer, this.
2. Not, smoke, does, he.
3. Agriculture, sons, in, his, work.
4. The field, tractor drivers, tomorrow, these, will plow.
5. In, the shoes, China, were made.
6. Vegetable-growing, will learn, she.
7. Of, jacket, cotton, my, is made.
8. Am, the University, a student, of, I.

Упр. 3

Скажите по-английски:

1. Я студент. Я учусь в университете.
2. Я живу в деревне. Завтра поеду к родителям.
3. Вчера работали мы в поле.
4. Наши студенты учат английский.
5. В кино хожу я редко.

Раздел III
Английская грамматика
в правилах и упражнениях
Unit III
English Grammar in Rules and Drills

Часть I Предложение
The sentence

Английское предложение имеет твердый порядок слов. Оно строится в строгой последовательности подлежащего и сказуемого: подлежащее всегда стоит перед сказуемым.

Подлежащее – это слово (существительное или местоимение), которое обозначает то, о чем говорится в предложении, т.е. все то, о чем можно спросить: *кто?* или *что?*

Подлежащее – это существительное или местоимение без предлога, стоящее в предложении на первом месте и отвечающее на вопрос *кто?* или *что?*

Сказуемое - это слово, которое обозначает то, что говорится о подлежащем, и отвечает на вопросы: *что делает подлежащее?* или *что (кто) оно такое?*

Наши студенты изучают английский язык в университете. - Our students learn the English language at the University.

Подлежащее и сказуемое называют главными членами предложения. Второстепенными членами предложения являются определение, дополнение, обстоятельство. Они обычно занимают в предложении те же места, что и в русском языке.

Our students learn the English language at the University.

I live in the village.

This farmer grows vegetables.

Tomorrow he will work in the field.

Our modern advanced society is drowning and suffocating in its own waste. Everyone comes across it, sees it, smelts it and senses it in his daily life. We all know what this means: we can read about it in the newspaper or see it on television. There is no need to reproduce press articles on the subject here.

Step by step we are moving to the time when we shall have no raw materials left because they have all been turned into waste, gas and poison. The consequence will be a rubbish mountain, which can be disposed of only by methods that encroach even more on our soil, water and air.

But is what we are talking about really waste? Or does it consist of valuable materials? What we call waste was originally raw materials that were acquired at enormous expense and used for the manufacture of various products. Then the day came when these wonderful, important products became “waste”. It is difficult to find room to dispose of all this waste. Perhaps we shall sooner or later have to look for the places where we have buried it, and then at enormous cost dig it up again. Every effort will be made to restore materials from what has been thrown away. Only the waste that has been burned will elude our endeavors.

Instead “today raw materials-tomorrow waste” we must understand that wastes are de facto valuable materials in a new form. The raw materials must be used in such a way that they can be used again and again. In the same way as we have factories where we are using raw materials for different productions, in the same way we must have factories who are able to transform waste in useful materials.

From the history of dam construction

Less than thirty miles from Cairo, in the Wedi-el-Garrawi one can still see the abutments of a huge dam. Its failure was so catastrophic that nothing of the sort was attempted again till over 3,000 years passed. It is supposed to have been built from 2950 to 2750 B.C. by some unknown Pharaoh with an architect far ahead

of his time.

For an initial experiment in dam construction the size of the structure is surprising. It is 348 feet long at the top and about 265 feet at the base. It originally had a height of 40 feet. The construction of so huge a dam must have occupied the energies of many hundreds of men and animals for a whole season in this desert place. Quite possible the construction took place in summer to avoid interruption by floods. The dam was faced on the upstream side with a carefully laid covering of limestone blocks of about 50 lb weight.

Except for the carefully laid upstream face, the dam appears to have been built in haste, particularly the downstream portion or, rather, what remains of it. One obtains the impression that the architect was pressed for time. He didn't think that the impounded water might one day overflow the dam and ruin the structure.

One observes, too, no spillways were provided to carry off-surplus water. This absence of spillways leads us to the conclusion it was never intended to fill the reservoir completely. The problem before the ancient engineer was to build a dam large enough to withstand and contain any flood that was likely to come down the Wadi-el-Garrawi. The ancient Egyptian had an empirical formula for computing the volume of a cylinder and may have had some rough idea of how much water their reservoir would hold, if filled.

Evidently the dam had been erected to provide drinking water for the workers and beasts at alabaster quarries.

How much rain was it reasonable to expect? We, moderns, have an advantage over the designer of the Wadi-el-Garrawi dam. We know the area of the catchment upstream the dam and we have rainfall records for over forty years. To estimate the proportion of runoff to rainfall is always difficult since it depends on the intensity as well as the actual amount of the fall. The slope of the catchment is very important; as well as absorption on a parched desert surface, the latter being a diminishing factor.

supplements, as well as the market for so called functional foods. Margarine, which contributes to low cholesterol content, and probiotic products with special bacteria that are supposed to be healthy, are examples of functional food. But that's not what it will be called in the future. It will rather be something like: "Products that qualify for specific health claims." New legislation is on the way. The distinction between the food and drug industries is on its way to begin erased in some specific areas.

People are paying more attention to how safely foodstuffs are being handled. They want to be assured that animals have been treated well and that the producer has handled foodstuffs properly.

The production of meal products with a high health value

The technology of processing of meat products contributes significantly to the supply of high-quality food of animal origin, because, varying from region to region, up to 50% of the meat is processed to meat products. The market demands a broad variety of products, which should have mainly an unrestricted health-value and a high eating quality. There exist the following demands on meat products:

1. No substances, which may be hazardous to the health (high health value).
2. Few additives or few non-meat substances (little “chemistry”).
3. Tastiness (high eating quality).
4. Freshness, keepability.

The fundamental prerequisite to produce “healthy” meat products undoubtedly is the utilization of raw materials, which are free from harmful substances and, to a large extent, free from residues. Building on that it is the task of the processing technology to search for methods and ways to utilize better the natural attributes of the raw materials and today’s technology in order to be able to do without additives or to minimize their usage. Additives are among others: curing salts, components of wood smoke. Today products with reduced fat and salt content as well as products without curing salts are included in the “healthy” meat products category.

Convenient, wholesome and safe at the table of the future

Quick, inexpensive and readily available, food of the future must fit people on the go, and origin, ethics and morals in handling of foods is becoming more and more important.

There will be extensive development of the market for health foods, which includes natural medicines and food

A rainfall of 10 millimeters or over in a single day occurs on the average in three years out of four in that place. During forty years there were 20 such falls, 10 of which exceeded 20 millimetres. The ancients were obviously ignorant of the fact that a single millimeter of runoff from the catchment area of the Wadi-el-Garrawi is represented by a volume of water of 185,000 tons.

And so we came to the catastrophe. Not long after the dam was finished, perhaps with the very first flood to come down the Wadi - there is no silting upstream the dam - a breach took place. A fall of 20 millimetres, of which there have been ten in forty years there, would be quite sufficient. Of those 20 millimetres, 8 would be immediately absorbed and a quarter of the remainder, between 500,000 and 600,000 tons would go rushing down the Wadi, fill the reservoir and overflow the dam. In a thundering cataract it was pouring down the downstream face and in a few hours the dam was destroyed. The contents of the dam would then rush down the Wadi to the cultivated lands and the Nile. So, in a few hours and probably at night were destroyed all the results of the labour of many hundreds of men and animals and the reputation of the engineer.

For us, situated at the distance of 5000 years, it is hard not to feel sympathy with the unknown engineer who so boldly attempted the impossible - for that age. Had he made use of mortar, had he provided a spillway, had he chosen a wadi with a gentler slope, how different might have been the history of Egyptian irrigation.

Water pollution

Water is considered polluted when it cannot be used for its intended purpose, such as drinking, recreation, farming, or manufacturing. Pesticides and chemical fertilizers used by farmers and homeowners pollute streams, rivers, and ground water when they are transported by rainwater runoff. Sewage sludge and detergents add to water pollution near population centers. Strip-

mining of coal causes acid to run off into neighboring streams and rivers, and acid rain adds to water pollution.

American industry uses enormous amounts of water in manufacturing processes. The wastewater may contain metallic solids, oils, acids, organic solids, or a variety of other pollutants. Some factories discharge heated water back into rivers this is called thermal pollution.

A survey in 1970 revealed that 41 percent of the nation's water supply system were delivering water ranging from "inferior" to "potentially dangerous". The Water Quality Improvement Act of that year made petroleum companies liable for most clean-up costs in the event of oil spills into the water. It also strengthened restrictions on pesticides in streams and thermal pollution caused by nuclear power plants. Most significantly for business in general, the Water Pollution and Control Act Amendments of 1972 set a national goal to eliminate pollution discharged into water. Both industries and local governments were made responsible for cleaning up. If your town has a sewer system that was built parallel to a river in the 1970's, it was probably built on federal EPA orders with three-fourths paid with federal funds.

Land pollution

Modern technology produces massive amounts of wastes. Unlike ordinary household and commercial garbage that can be safely disposed of in open pits or other types of dumps, industrial wastes are often toxic (poisonous). The disposal of these wastes has created thousands of hazardous dumpsites all across the United States. Wastes deposited at these sites have contaminated the land, air, and groundwater in the immediate area and threaten the health and well-being of those who live nearby.

In 1980 the Comprehensive Environmental Response, Compensation, and Liability Act, or as it is more commonly known, "Superfund" was enacted. Superfund's principal goal was to provide for cleanup at sites where hazardous wastes had been

decorated with a thin film of silver.

Modern Cooking

The first closed cooking range was introduced in 1795 by Sir Benjamin Thompson, an America-born physicist who fled to England after American Revolution. For the first time it was possible to control the fire and regulate the temperature. During the 19th century, stoves were developed to burn coal and gas, and incorporated burners or hot-plates, ovens, and boilers for heating water. Electric cookers did not become commonplace until the 20th century.

Cooks in the modern world have a variety of appliances to help them, many of which are worked by electricity. Thus one person can do the work that in previous centuries was done by slaves and servants and in poor homes by children. Mixers and blenders can beat eggs into a light foamy mixture for a cake or dessert in a few minutes, whereas this job took far longer when it had to be done by hand. There are also chemicals available to help.

Refrigeration and freezing have also revolutionised cooking in the 20th century. With refrigeration, food can be stored for short periods of time before it needs to be kept for several months without any real deterioration.

One of the disadvantages of freezing is that some frozen food takes time to defrost. However, with microwave, or electronic ovens the process of defrosting has been speeded up. The food cooks in a very short time compared to the time taken in an ordinary oven. A joint of meat can be roasted in 30 minutes and a potato can be baked in as little as five minutes.

Microwave ovens are used extensively in restaurants and other places where food has to be produced quickly. The food can be cooked in advance and then re-heated when the customer wants it.

is also drunk before and after the meal. Fish is generally brought to the table at the end of the meal.

Japanese cooking has some similarities with Chinese cooking, in particular, the cooked rice, which is sticky, or glutinous. But the dominant feature is that many of the foods are raw or very lightly cooked. Many dishes have fish or seafood as an ingredient and, like Chinese food, there is very little dairy produce. Bean curd, made from soya beans, is a source of protein, and ginger is one of the dominant flavours. There are also sweet dishes made of a paste of red beans. A typical meal might include, in the following order, pickled fish, raw fish, boiled fish, and seaweed, simmered food, grilled and fried food; and end with fruit.

Indian and Pakistani food is characterised by the use of many spices, often producing “hot” flavours: the “hotness” of the food is determined by the amount of chilli used. There may be as many as six or seven other spices used in a dish. Some are used whole, others are crushed or ground into a paste. Rice accompanies dishes in southern India, where coconut oil is used for cooking. Rice can also be used as a flour to be made into a pancake. In the north and in Pakistan and Bangladesh chapattis or parathas (thin round unleavened bread, cooked on a special metal hot-plate) are usually served. Pooris are similar, but are deep fried. Indians usually eat meals with their fingers. Meat is eaten frequently in the north where more Moslems live; in the south many people are Hindu and vegetarian, or eat fish instead of meat. The Tandoori method of cooking is used in northern India where food, usually chicken, is marinated in a very hot clay oven charcoal. A type of flat bread called nan is often cooked and served with it, and the whole dish is accompanied by lemon slices and salad.

Many Indian sweets are made of milk cooked for a long time with spices, and some are made of semolina, the kind of wheat used in making pasta. On special occasions they may be

abandoned, or where past disposal practices had contaminated the environment. Administration of the Superfund was put in the hands of the Environmental Protection Agency.

Between 1980 and 1986, the EPA surveyed some 21,000 dump sites for toxic wastes. Hundreds of dangerous dumps have been identified and efforts to render them safe have begun. The size of the cleanup program has also led to an increase in the size of the fund.

The Hanford nuclear weapons plant in the state of Washington is an environmental nightmare. Underground tanks have been leaking radioactive plutonium. In addition, some 200 billion gallons of hazardous wastes stored in unlined pits have been seeping into the groundwater. But Hanford is not subject to EPA regulation because it is federally owned, and the Superfund law exempts the federal installations. This was a terrible oversight, according to critics, because some of the nation's most hazardous waste sites are those located at its nuclear weapons plants and military installations. There are 3,000 toxic sites at 17 nuclear weapons plants and 6,000 hazardous dumps located at 600 military installations around the country. The cost of cleaning up the mess has been estimated as high as \$130 billion. Unfortunately, even if the federal government could afford the cost of the cleanup (which it cannot), some areas would have to be permanently removed from public or private use because no one really knows how to clean them up.

ЛЕСОВОДСТВО

Forestry

Forest

Trees are one of man's best friends. They are beautiful; they save the soil; they conserve water; they supply us with much of our building material, paper, and fuel; they soften the climate; they furnish shade; they furnish a home for birds and other wild-

animal life; and they even supply us with part of our clothing, since rayon is made from wood.

Trees, especially when the leaves are on, keep the rain from hitting the ground too hard; they also carpet the ground with leaves and twigs, which hold the water and keep it from running away too fast. In a study made in California, litter-covered soil was found to absorb five to ten times as much water as was absorbed by bare soil. The water run-off was ten to thirty times greater from bare soil than from litter-covered soil. From 100 to 1,000 times more soil was swept away from bare soil plots than from forest-covered plots. The harder the rains, the greater the rate of erosion.

With hillsides naked of forests, rains run off quickly, floods increase in rainy seasons, and streams become lower in dry seasons; the top soil is eroded from fertile acres; streams, dams, and harbors are filled with the soil carried into them by the swift streams.

By holding the water back, not letting it run off so quickly, the forests save water for the streams in dry weather.

Trees are perhaps the largest plants you are acquainted with. They are woody plants, and therefore are firm or hard. They also live longer than most other plants.

Different kinds of trees differ a great deal from each other. The trunk of some kinds is straight with many side branches, as the pine, the trunks of other kinds of trees divide into several divisions, as the oak. Some kinds of trees branch at a wide angle, and some at a narrow angle. The size, shape, arrangement and colour of the leaves are different on different kinds of trees. The flowers of some trees are large and showy, while the flowers of other trees are so small that many people never see them and believe that these trees do not produce flowers. Some trees are deciduous, that is, they drop their leaves in the fall, and some are evergreen. The trees which drop their leaves in the fall are known as hardwoods, while the evergreens are known as softwoods. The

imagine the Western diet without, for example, potatoes, chocolate, or tomatoes.

Oriental Cookery

It is interesting to compare the cooking methods in China, Japan, and India with those of Europeans and people of European ethnic origin in North America.

In some ways Chinese cooking is similar to Italian cooking. This is because it probably evolved in much the same way. As in Italy, there was a shortage of timber available for fuel and so the food had to be cooked quickly over a hot fire. The ingredients were carefully prepared beforehand so that a minimum of cooking was necessary. Many meals are accompanied by noodles, which are a form of pasta. The Chinese were eating pasta long before Marco Polo discovered it and introduced it to the Italians in 1295.

Most Chinese food is stir-fried (a mixture of frying and steaming) or steamed. The pot they use has a round base and is called a wok. It can be used simply for frying, but is deep enough for deep-frying or boiling. Food can be steamed over it in baskets. Food already cooked can be kept warm in rack placed over one side of the pan while other things are being cooked underneath. If the ingredients are all prepared beforehand the whole meal can be produced very quickly, and all in one pan.

Dairy produce is not used in Chinese cooking. One of the characteristic flavours is sauce, which has a salty taste and is made from soya beans. The Chinese also use monosodium glutamate (a flavour enhancer often used in processed food) just as Europeans would use salt and pepper.

In Chinese meals food is served in small bowls with serving spoons and eaten with chopsticks. The basis of the meal is a dish of rice. Little meat is eaten at home-cooked meals. Fish and vegetables are the most common foods. Soup is usually served at a fairly late stage during the meal and drunk slow until the end. Tea

The next stage was to build ovens above ground, with an outlet for smoke, a draught, and a stone across the front to hold in the heat. People also learned how to boil food in pits lined with a large hide or skin. This was filled with water and heated to boiling point by red-hot stones. They learned to smear clay over reed baskets and let it harden. These “kettles” were placed over the fire, either with or without water. So the two main methods of cooking were developed: baking in dry heat, and boiling or steaming in moist heat.

Earth ovens are still common in some parts of the world. In Papua New Guinea, for example, the Wola people have two kinds of earth ovens, one for cooking vegetables for a small number of people, and the other, a long pit to cook pork for large numbers at a pig kill.

Culinary Influences from America

Although cooking of the Western world developed in Europe, many of the ingredients which came to be used in European cooking came from other lands, including the Americas. From the end of the 15th century, explorers such as Christopher Columbus were going from Europe to North, Central, and South America, originally because they wanted to find a quick route to the East. One of the main reasons for going to the East was to bring back the spices that were becoming important in cooking. In the course of their travels westwards to the East they discovered all sorts of other foods - potatoes, tomatoes, chocolate, maize or sweet corn, melons, pineapples, pumpkins, sweet peppers, turkey, and many kinds of beans were all found in the American continent. Many of them were introduced first into Spain, as that was where the first explorers set out from, and they still form an important part of the traditional cooking of that country. It is said that there are as many ways to cook potatoes in Spain as there are days in the year, and many traditional Spanish dishes use red pepper as a colouring and flavouring. It is certainly hard to

fruit is different on different kinds of trees, there being winged seeds, cones, acorns and nuts, pod fruits, and fleshy fruits. A tree does not get larger in diameter by growth in the centre, and a tree does not increase in height by growth at the bottom. A tree increases in diameter by growing a layer of wood just outside the last layer of wood. This layer of wood is known as an annual ring. When an annual ring is formed, its position in the tree is never changed. In most trees the inner wood becomes darker and harder with age and is known as heartwood, while the outer wood is lighter in colour, is softer, and is known as sapwood.

National Forests of America

The Forest service is USA's largest agency. It administrates 187 million acres in 41 states. The National Forests are many things to many people - timber, water and forage, scenic beauty, the recognition of wildlife as a cultural and ethnic value as well as a resource for hunting enjoyment; the identification and protection of botanical, biological and geological features.

The department of Agriculture sister's agency, the Department of Interior, administrates some 27 million acres through its Park Service. This agency's primary purpose is to preserve choice, superlative examples of natural beauty and historic significance for observation, appreciation and study. Geological features, plant and animal life are protected. The National Parks and National Monuments are outdoor museums in which commercial operations and hunting are prohibited.

The National Forests and National Grasslands, covering seven times as much land as the National Parks are dedicated to the principle of conservation through use, a variety of balance or multiple uses protecting the watersheds of hundreds of cities, furnishing timber, rangeland for livestock, homeland for wildlife, sources for minerals, breathing space and roaming room for a growing nation. On numerous trips to areas where National Parks and National Forests adjoin you may find rangers working

harmoniously to solve their common problems. They are establishing joint visitor centers, exchanging personnel at campfire lectures, coordinating the flow of visitors into campgrounds, conducting joint studies of wildlife migrations and habitat.

The National Forests face staggering challenges if they are to meet the demands of the future. Sky rocketing US population, higher incomes and more leisure time means an estimated 100 per cent increased demand for recreation in the next 30-40 years. The same forces by the year 2010 will double the demand for food and wood products and triple the demand for water. And all of this increased demand - for recreation and for natural resources - must be satisfied from a fixed amount of American Land.

Although we live in an expanding economy, the amount of land available to each of us is, in effect, shrinking: in 1990, if one had divided the total amount of U.S. land evenly among the population, each American would have had 25 acres; today only 9,7 acres.

By the year 2010, each American will be able to command only 6,4 acres to feed, clothe and shelter him, to produce the industrial products and natural resources he needs; to find the recreation that is almost a necessity in an increasingly mechanized world.

The National Forests - 187 million acres of them - will be a treasure almost beyond price for the nation of 300 million souls that the United States will become in the nearest future.

But beyond that the National Forests can play a key role in a new national purpose - to resettle the deserted hinterland, to discover ways of moving people and jobs away from megapolis before it becomes both uninhabitable and ungovernable.

Tree Species

There are different tree species in the National Forests depending on different soil and climatic conditions. In the harsh habitat of the desert, all life forms struggle for their share of the

writer, James Boswell, defined man as a "Cooking Animal". "No beast can cook," he said. "Man alone can dress a good dish; and every man whatever is more or less a cook, in seasoning what he himself eats".

Each country has its own traditional ways of cooking based on, among other things, the food available, the people who have lived there at different periods of history, the climate, and the religions and customs practiced there.

Since the 17th century French cooking has dominated kitchens of the Western world, and so French terms are often used in cooking and menus are often written in French. However, it could be said from looking around many towns and cities in the Western world today, where there are so many different styles of cooking available that there is no longer any dominant style. We can take our choice, try everything, and go home to learn how to cook it ourselves.

Cooking in Early Times

We know about how early man cooked from prehistoric discoveries, which include fragments of pottery, flint, bones of animals, and so on. Early people hunted animals and gathered berries, fruits, leaves, and roots, and ate raw what they found in nature, because they had no way of cooking food. They also did not know how to preserve food and had to look each day for food to eat. When they discovered how to make fire they used it for warmth and to frighten away wild animals. They probably discovered by accident that food could be improved by cooking it over a fire.

The simplest way of cooking was to roast meat on sticks over the fire. Later, people learned how to cook on hot stones and food may have been wrapped in leaves and steamed over the embers. Cereals were made into a pulp-like porridge, which was then toasted on hot stones to make a simple kind of bread. Early ovens were pits lined with stones and glowing coals.

abdomen only just projects beyond the tips of the folded wings. Its tongue is long and well developed while on its hind legs it has spiny structures known as pollen baskets and when these are full of pollen the worker appears to be wearing coloured trousers. The worker has rudimentary ovaries and under special circumstances can lay about a dozen eggs which, if they hatch, produce drones since workers can never mate.

The duties of a worker vary with its age and the order in which these duties are undertaken is remarkably constant. Here is the life schedule of the average worker.

First six days. Attending to the queen, cleaning cells, feeding older larvae (or grubs).

Sixth to fourteen days. Workers of this age are known as nurse bees because certain glands become active and they are able to secrete a special food upon which young larvae are fed. Early in this period the worker takes its first flight outside the hive.

Fourteenth to twenty-first days. The wax-making glands become active and the main duty of this age is to produce wax.

Twenty-first to forty-second day (or until death). Bringing nectar, pollen and water. Bees of this age are generally known as foragers. Once a bee has begun to forage probably it never again reverts to earlier duties.

The reception and ripening of nectar and the storage of pollen are duties undertaken by bees of all age.

Технология переработки продуктов сельского хозяйства Farm Products Processing Technologies

Why and How Have Humans Cooked?

Cooking is not only done out of necessity. Many people who cook for themselves, their families or friends, as well as those who cook for a living, do it for pleasure. Although cooking is a science, it is also a form of art, and part of the art of cooking is presenting the food so that it looks good to eat. The Scottish

scant food and water supply. They must adjust to a hot, dry world - plenty of sunlight, but not much water. Certain plants become dormant, seemingly lifeless during dry periods, then suddenly sprout leaves when the moisture level rises. Others, the succulents, store water in their stems, roots or leaves. The cacti have adapted to life without leaves in order to reduce transpiration, or exhaling.

The gigantic saguaro cactus, the largest tree in American desert, draws in immense quantities of moisture. In excessive rainfalls, some greedy saguaros drink so much they split open at the seams. The saguaro dwells in the Lower Sonoran life zone ranging from Mexico to the Arctic Circle. In Coronado National Forest saguaros stand in large groves. But they are very beautiful when blooming with creamy white flowers in springtime.

White Mountains is the remotest region in California. Here, in the Pine Forest are the oldest known living things on earth. Some of the trees found at this location have been growing more than 4,000 years. The bristlecone pines have survived the most adverse conditions on exposed ridges of shallow, rocky soil, with little rainfall and high winds as an almost constant companion.

Limber pines appear at the lower levels of an Ancient Forest. The Limber is the younger tree. It can be differentiated from the bristlecone by the short tufts of needles at the end of branchlets; while the needles of the back run for a foot or more like foxtails.

On the Olympic Peninsula, the massive Olympic Mountains intercept rain, snow and mist from the ocean winds. The combination of climate and moisture makes the part of this peninsula a kingdom of evergreen giants. The mightiest tree of this part is the Douglas fir, exceeded in size only by the California giant sequoia and coast redwood. The Douglas fir grows to heights of 250 and sometimes 300 feet. In age, the larger trees may be from 400 to 1000 years old. For years this unique conifer was a botanical puzzler, having been called spruce, hemlock, balsam and

even pine. It was discovered in 1791 by Dr. Archibald Menzies, but was named for David Douglas, the Scottish botanist, who carried a specimen to England for Royal Horticultural Society.

As a timber, Douglas fir is probably the world's most valuable species of conifer, but in the Quimalt Valley, a part of the Olympic National Forest, luxuriant rain forest community is protected. Trees here are nearly 300 feet in height and four centuries in age. The forest is filled with soft green light and shadows. Trees, shrubs, flowering plants, giant ferns, fungi, mosses, lichens, animals and birds are all parts of life in this rain forest.

There are 100 species of hardwood trees in National Forests. One can see sycamore, oaks, birch, walnut, maples, basswood, cheery and buckeye. Each tree has a personality and usefulness of its own. The yellow poplar or tulip tree, one of the tallest, bears tulip-shaped leaves. Its large greenish-yellow flowers are among the early spring arrivals, a source of nectar to honeybees. The beech is another giant, clothed in the silvery gray smooth bark with pear shaped straight veined leaves. Far below the crown of the ancient forest grow smaller trees and shrubs and a myriad of humble plants and herbs.

There are dozens of important forest associations in the National Forest worthy of study and appreciation - the Southern pines, hardwood - conifers of New England, second growth forests and plantations in the Lake States, white pine of Idaho and the Northwest, high alpine forests, majestic redwoods of California. Over a quarter century the American forestry Association began a nationwide search to identify the largest specimen of several hundred trees. The objective was then - and remain today - to halt the tragic disappearance of important natural landmarks.

These trees are found under all kinds of land ownership: National Forests, National Parks, state parks, county and city parks, college campuses, cemeteries, Indian reservations, arboretums, commercial timber-lands and private residential

introduced to the United States circa 1883.

In addition to these races of bees there are hybrid bees, which can be crosses between races of bees or between selected strains within a race. Some common hybrids are Starline (inbred Italians), Midnite (inbred Caucasians), and Mraz (selectrian Italians).

Colony Life

A hive is the house in which the bees live. The inhabitants together with their combs are known as a colony, a small, newly formed colony is often called a nucleus.

A small colony will contain 10,000-15,000 bees, an average colony 20,000-40,000 while very strong colonies contain as many as 60,000 bees.

Recent discoveries have shown that through certain formal movements, known as dances, bees can communicate with one another so some of the visible activity may be put down as conversation. We must hesitate before thinking that any of their comings and goings are aimless since all activity generates muscular heat and this is the bees' method of keeping the hive warm.

There are three different types of honey bees in a colony: the queen, the infertile female workers, and the male bees or drones. The queen, under normal conditions, is responsible for laying all the eggs for the colony and, through the release of chemical signals called queen substances or pheromones, can exert marked influence on the behavior of the workers and the drone. The drones are the male bees that mate with virgin or newly mated queens to provide queens with the semen needed to lay the fertilized eggs. Bee colonies are usually monogynous, having only one egg producer - the queen.

The Workers

Of the three types of bee the worker is the smallest and its

death of the animal.

Vitamin A deficiency in young cattle is well-known. The main signs are failure to thrive and night blindness. In pigs, vitamin A deficiency leads to paralysis of body parts and staggering gait. Rickets, the disease caused by vitamin D deficiency, is characterized by a failure of the animal to lay down calcium and phosphorus in its bones, etc. In man vitamin C deficiency causes scurvy, vitamin B deficiency – a disease called beriberi, etc.

From what has been said it will be clear that vitamins are essential for people as well as for livestock. The potency of animal foods depends upon the supply of vitamins in an animal's diet. We would know far less than we now know about vitamins, their importance, and how to secure them in our food if much had not been learned through feeding farm animals.

The Races of Bee

The races of honey bees (*Apis mellifera*) can be divided into three groups: the European, Oriental and African races. The European race can be further divided into four groups: Dark, Italian, Carniolan and Caucasian bees.

The Dark bees were first brought across the Atlantic by the early American colonists about 1630.

Over two centuries later, in 1859, the first Italian queens were imported to America. This variety was quickly recognized as superior to the German Dark Bee, and today the Italian honey bee is the most widely distributed bee in the western hemisphere. Italian honey bee has several color types. Generally, yellow with dark bands on the abdomen, the "goldens" have five bands while the "leathers" have three.

Caucasian honey bees are black with grey hairs; they were introduced into the United States from Russia, circa 1905.

Carniolan honey bees have lighter hair than the Caucasians and black-bands; they are originally from Yugoslavia and were

property.

Parks

A park is a place for rest and recreation for the people. Parks are called "the lungs" of the towns, as they refresh the air and purify it from smoke and dust. They include areas ranging in size from the small square in a city to large preserves including thousands of acres.

In parks there must be broad lawns, flowers and shrubs, but above all trees, especially long-lived trees that will tell the children of the future that their grandfathers had thought of them.

The landscape picture of a park, even if it has been completed, is always changing, because it is alive. It looks one way in winter, another in early spring, still another in summer, and yet another in various stages of the fall. And it changes year by year.

When trees are planted for decorative purposes in the park, care must be taken to select suitable kinds, and they must be given ample space for their full development. Conifers should not be chosen for parks in or about manufacturing towns, where the atmosphere is filled with smoke. The planting of deciduous trees gives better results, trees that bear beautiful blossoms, such as the horse chestnut, lime or acacia, now take the place of some of the commoner trees, which do not bear conspicuous flowers.

Lilacs, laburnum, jasmine and rhododendrons are old friends that for generations have found their place in parks.

Parks include areas with an educational purpose, such as botanical gardens, arboreta, and zoological parks.

Наземный транспорт
Land Transport

THE HISTORY OF LAND TRANSPORT

Introduction

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 motorcars. The American word for the same thing is *transportation*, and the remark "transportation is civilization" was made by an American, the motorcar manufacturer Henry Ford. The history 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 current. 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.

Porters and pack animals

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

Pasteur's studies on chicken cholera and swine plague helped to further general acceptance of the germ theory of disease. The germ theory is the basis for our modern medicine and modern surgery.

Pasteur discovered a way to destroy undesirable germs sometimes found in milk and cream, thus making the milk and cream safe to use as food. This process, named after Pasteur, is called pasteurization. It consists of heating the milk or cream to a certain temperature for a definite time.

Without pasteurization, the large cities would find it difficult to obtain an adequate supply of wholesome milk.

Vitamins

The discoveries made during recent years concerning the importance of vitamins are among the outstanding discoveries in science.

Vitamins are organic compounds, which are required by man. Vitamins are compounds, which are effective in small amounts. They do not furnish energy and are not utilized as building units for the structure of organisms. Nevertheless they are essential for the transformation of energy and for the regulation of general metabolism.

The vitamins are classified as either fat-soluble or water-soluble. The fat-soluble group includes vitamins A, D, E and K, and the water-soluble group, vitamin C and the numerous members of the vitamin B complex.

Generally speaking, vitamins occur in plant materials and are found in animal organisms only as a result of food intake. Among the many other factors, which influence the vitamin content of vegetable foods are the species, the time of harvesting, and the soil.

Each vitamin has its particular function in an animal body, and deficiency may cause ill health, various diseases and even

will give as high returns for dairy by-products consumed as the hog, and no feed gives a finer quality of bacon than dairy by-products. Where mixed farming is practiced, the hog consumes any dairy by-products, small potatoes and various other substances which otherwise would be wasted.

The hog is the most efficient of all farm animals in producing meat for human consumption. His efficiency as a meat producer is almost double that of cattle.

Poultry. The term poultry is usually regarded as comprising any of the domesticated birds kept for the sake of their flesh and eggs. Poultry includes hens, turkeys, ducks, and geese. The breeds of poultry are numerous. Broadly, however, they may be grouped into those that have been developed primarily for egg production, those that have been selected for meat production, and the dual-purpose varieties that are suitable for both purposes.

Louis Pasteur

The agricultural contributions of Louis Pasteur are of untold importance to all people. In the second half of the 19th century in some parts of France, a disease known as anthrax killed from 25 to 30 per cent of the sheep and cattle, and in many parts of Europe the disease attacked both man and beast. It was an occasion famous in history when Pasteur, in 1881, demonstrated that vaccinated sheep would remain well while unvaccinated sheep would die from the disease. This was indeed a great triumph for Pasteur, and for the world. Here was knowledge gained and proved, which served as a basis for further work in vaccinating against many diseases in animals and in man. Thus, we see that vaccination is a contribution to agriculture. Were it not for vaccination, which includes inoculation, diseases would spread and perhaps wipe out our hogs and sheep and cattle; and there could be no dense population of human beings. Such diseases as smallpox and typhoid fever would kill millions and millions of people.

dragging sledges in the Arctic because of their lightweight.

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 wagons 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.

There were two problems to be solved - first, how to make good roads, 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 cab 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 traveled, shows the fare due at any moment. It is also controlled by a clock so that waiting time too is charged for.

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 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 Indians 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 team 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 kilometers an hour and carry passengers cheaper than horses carried them. Eleven years later Stephenson was operating a railway between Stockton and Darlington. The steam locomotive was a success.

of both meat and milk. A considerable majority of breeds may be said to be dual-purpose and purely beef breeds are few and relatively unimportant.

Sheep are valued for their mutton and wool. With some breeds, such as Merino, wool is the primary product, while other breeds are kept mainly for mutton - wool being a secondary, if still an important consideration.

The characteristics of the wool fibre on which its value mainly depends are as follows: length, uniformity, strength and elasticity, fineness, crimp, colour, lustre, etc.

According to the characteristics of their wool, sheep may be divided into fine-wool breeds, short-wool breeds, and long-wool breeds.

III

Hogs. Hogs are valued almost solely as meat producers, but meat may be utilized in different ways and different types have been bred to meet the varying requirements,

There are two well-defined types of hogs, namely the fat or lard type and the bacon type. The fat or lard type of hog is more common in countries where corn is the principal hog feed. This may be explained by the fact that corn feeding has a tendency to produce fat at the expense of the muscle or lean meat. Most of the lard-type hogs of the United States are grown in the great corn-producing States. This type plays an important part in the exports of the country. Bacon hogs cannot be produced successfully under a system of corn feeding, and hence we find the bacon hog produced in great numbers in countries where the feed for the hog is more varied in character, and where the conditions are less favorable for producing the lard hog.

Generally speaking, the hog is an exceptionally economical producer of meat. Consuming the by-products of the farm, he is successfully grown in all kinds of farming.

The hog fits in especially well with dairy farming, where skim milk, butter-milk, and whey are available. Perhaps no animal

have value because they furnish human food. This is true of cattle, swine, and poultry. Farm animals furnish us with meat - pork, beef, veal, mutton; lard, milk, butter, cheese and eggs. Much of our clothing is made from the wool, hair, or skin of farm animals. Leather is made from skin.

For ages animals have been used by man in doing his work. Horses and mules are the principal work animals; oxen are also sometimes used for work. Much of the work of these animals goes into the producing of crops.

Two thousand years ago the farmer learned that he must keep up the fertility of his soil if he expected to have good yields of crops; so he used the manure from farm animals. Except in some great river valleys, like the Nile, which are enriched by overflow, no agricultural region has continued to secure abundant harvests without the aid of manure. As a rule, where the farmers keep the most livestock, the crops are the best. As much as 80 or 85 per cent of the plant food elements in a feed are returned in the manure. Manure also makes the soil porous, mellow and easily worked.

II

Cattle. The history of domesticated cattle begins with the history of civilization. There are many breeds established by generations of cattle-breeders. For practical purposes, however, we classify cattle according to the object or objects for which they are kept, i.e. for labour, beef, milk, or any two, or all three. In most countries oxen are rarely used for work purposes, and therefore our classification is into beef, dual-purpose, and dairy types.

Ideal beef cattle as a rule are small milk producers, while high-class dairy cows, on the contrary, are very inferior meat producers. The characteristic feature of good beef animals is their stocky form showing good meat producing capacity. The females of the dairy cattle, however, are notable for large udders capable of great milk production. Dual-purpose cattle are equal producers

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 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. The first Russian locomotive was, of course, a "baby" compared with the locomotives of today. Under the boiler 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.

The early days of the automobile

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.

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 motorcars met with great opposition in Great Britain. Further development of the motorcar 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.

In Russia there were cities where motorcars 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".

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 motorcars 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, 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 tyres, for there were no repair or filling stations to serve them. After World War I it became possible to achieve greater reliability of motorcars, 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.

Like most other great human achievements, the motorcar 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 restriction. Huge capital began to flow into the automobile industry.

From 1908 to 1934 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.

There are about 3.000 Americans who like to collect antique cars. They have several clubs 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 specialise in a single type of car such as glorious Model "T". A number of museums have exhibitions of antique 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.

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.

Ветеринария и зоотехния Veterinary Medicine and Zootechnics

Farm animals

I

Farm animals are important to man because of: 1) the food they supply, 2) the clothing they make possible, 3) their use in doing work, 4) their relation to soil fertility.

Nearly all of our farm animals except horses and mules