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INGLIZ TILI

"Tafakkur Bo'stoni"
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O'ZBEKISTON RESPUBLIKASI
OLIY VA O'RTA MAXSUS TA'LIM VAZIRLIGI

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O'zbekiston Respublikasi Oliy va o'rta maxsus ta'lim vazirligi tomonidan "Biologiya-tuproqshunoslik" yo'nalishi bo'yicha ta'lim oluvchi bakalavriat talabalari uchun o'quv qo'llanma sifatida nashrga tavsiya etilgan

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Ushbu o'quv qo'llanma biologiya-tuproqshunoslik fakulteti bakalavriat yo'nalishi o'rta bosqich talabalarining amaliy dars mashg'ulotlari hamda mustaqil ishlari uchun mo'ljallangan. O'quv qo'llanma asosan mutaxassislik va mamlakatshunoslik bo'yicha matnlar, grammatik mashqlar, testlar va leksik materiallarni o'z ichiga olgan.

O'quv qo'llanma ingliz tili fanidan nofilologik oliy o'quv yurtlari namunaviy dasturiga muvofiq tuzilgan. Unda dolzarb va mutaxassislik bo'yicha turli mavzular yoritilgan.

This manual is for ptactical and independent work for the students in the direction of bachelor on intermediate level of the biology faculty. The manual consists of texts on speciality and country study, grammar exersices, tests and lexical materials. The manual is composed according to the standard model for the unphilological departments. The manual contains actual and different themes on speciality.

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MUNDARIJA

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Articles

There are three possibilities with articles: a, an (the indefinite article), the (the definite article) and no article (the zero article): E.g. We stopped near **a** lion and **a** tiger. **The** lion noticed us but **the** tiger didn't. Lions are fascinating animals.

The indefinite article, a/an, is used:

· before a singular, countable noun when it is used for the first time, as in the example above: We stopped near a lion and a tiger. Before plural countable nouns used for the first time we use some, and before uncountable nouns either some or no article: We stopped near some lions.

I need some information.

The definite article, the, is used before singular and plural countable and uncountable nouns when it is clear what is being referred to, for one of these reasons.

· it has been referred to directly before, as in the example above: The lion noticed us but the tiger didn't.

· it has already been referred to indirectly:

I visited a zoo recently, and really enjoyed watching **the** animals. The 200 implies that there were animals there.

· it is clear from the situation

I took the children to the zoo yesterday.

Here the speaker assumes that the listener knows which children I'm referring to (probably my own) and which zoo (probably the only one where I live).

No article is used

· with uncountable nouns Zoology is a fairly popular subject.

. when something is referred to in general Lions are fascinating animals.

Exercise 1. Put a/an, the or nothing in each space:

Our earliest homes

If you were to ask a number of ... people about the homes of our prehistoric ancestors, most would probably say that they lived in .....caves. However, there is plenty of evidence that early human beings also lived in areas where no caves existed. In fact, some of the earliest homes seem to be.....round huts. In the Olduvai Gorge in Tanzania, there is circle of stones.This could be the foundation of .....shelter that may date back nearly two million years.

.....earliest shelters may have consisted of a circle of .....branches broken or cut from trees.....branches would have been leant against each other for support in the centre of ..... circle, creating a structure similar to a tent. They were probably covered with .....animal skins or leaves.

The first structures were probably very unstable, but in time, larger, stronger and more permanent structures are likely to have been created, which did not simply provide shelter, but became the

centre of .....family life. and a place where.....possessions could be kept.

Exercise 2. Put articles a, an and the:

When.....bee finds some food, it returns to it's hive and performs.....complex series of movements. .....dance indicates where.....food is located.

Binti Jua is.....gorilla living in.....zoo in Chicago ,USA. One day she rescued..... three -year -old boy who had climbed over some railings and had fallen close to her. Although zoo officials responded immediatiely. Binti reached.....unconscious child first and carried him to.....area where.....officials could attend to him. .....little boy recovered after spending four days in hospital.

Exercise 3. Use the necessary article:

Example: I see....beautiful girl.

I see a beautiful girl.

1. I cannot find ... letter which you gave me this morning.
2. They were standing on ... top of ... hill.
3. I have received ... letter of great importance.
4. I have bought ... overcoat with ... fur collar.
5. They have sold ...cargo of 5,000 tons of ... wheat.
6. He lives in ... house opposite ... station.
7. ... magazine which you lent me is very interesting.
8. This is ... picture which you will like.
9. Yesterday I met ... old friend, whom I recognized at once.
10. ... garden which is at ... back of that house has ... tennis-court.
11. Here is ... book you need.
12. He is ... man whom we all admire.
13. This morning ...postman brought me ...letter without ... stamp.
14. You can buy this book in ... bookshop round the corner.
15. I know ... man who lives in ... house where you live.

16. ... man who has no patience cannot play chess well.

17. Is that ... man whom they are looking for?

18. My son has ... very good German teacher, who knows ... language perfectly.

19. Is that ... man you spoke to yesterday?

20. ... large branch broken by ... wind lay across our path.

21. ... street which leads to ... theatre is very wide.

22. ... person who is sitting next to me is ... famous painter.

23. ... clock in ... hall is slow.

24. Yesterday I spoke to ... man who had just returned from expedition.

Exercise 4. Working on the text. Put articles a, an, the where necessary and discuss it:

Sidney Altman

Sidney Altman (born May 7, 1939) is..... Canadian American molecular biologist, who is.....Sterling Professor of Molecular, Cellular, and Developmental Biology and Chemistry at Yale University. In 1989 he shared..... Nobel Prize in Chemistry with Thomas R. Cech for their work on.... catalytic properties of RNA.

After receiving his Ph.D., Altman embarked upon.... first of two research fellowships. He joined Matthew Meselson's laboratory at Harvard University to study.... DNA endonuclease involved in.....replication and recombination of T4 DNA. Later, at..... MRC Laboratory of Molecular Biology in Cambridge, England, Altman started.... work that led to.....discovery of RNase P and.... enzymatic properties of .... RNA subunit of that enzyme. John D. Smith, as well as several post-doctoral colleagues, provided Altman with very good advice that enabled him to test his ideas. "The discovery of ....first radiochemically pure precursor to RNA molecule enabled me to get.... job as.... assistant professor at Yale University in 1971, difficult time to get any job at all.

Altman's career at Yale followed .... standard academic pattern with promotion through ....ranks until he became Professor

in 1980. He was Chairman of his department from 1983–1985 and in 1985 became ... Dean of Yale College for four years. On July 1, 1989 he returned to .... post of Professor on ....full-time basis.

Exercise 5. Learn *the new words* of the text "Biology"

climb v -	ko'tarilmoq, o'rmalab chiqmoq
immense adj -	katta
resemblance n -	o'hshashlik
vital adj-	hayotiy, juda muhim
respiration n -	nafas olish va chiqarish
digestion n -	hazm qilish
assimilation n -	o'zlashtirish
reproduction n -	ko'paytirish, qayta ishlash
apparent adj -	aniq, ko'rinuvchan
moderate v -	chidamoq
conscious n –	ong, anglash

Exercise 6. Read *the text*, *translate it* and answer the following questions:

BIOLOGY

Biology is **the** science of living things. **The** word biology" comes from two Greek words: bio — "life" and logos — "discourse" or "study". Biology includes all **the** facts and principles which have been derived from **a** *scientific study of living* things. The special

study of plants, called Botany, and of animals, called Zoology, are **the** two great subdivisions of **the** science of biology. Plants and animals are called organisms, so biology may also be defined as **the** science of organisms.

Life exists in many places on **the** earth, often in spite of very difficult conditions. In **the** Arctic regions, **the** temperature may fall to 60 degrees below zero, while in deserts it may climb to over 120 degrees. Some animals live under the immense pressure of the deep sea, and others live near **the** tops of **the** highest mountains. But no matter where they exist, all living things must have certain necessary conditions. Let us see what these are: living things need oxygen, living things must have **the** right amount of pressure, living things must have water, living things need **the** proper temperature, living things must have food. Most people think that plants are not alive in **the** same sense that animals are, or that there is some fundamental difference between plant and animal life. But this is not so. Plants and animals have much in common. Their more important points of resemblance are:

1) **The** living substance of plants and animals is organized into protoplasm.

Protoplasm is **the** basic material of all living systems and its general properties are fundamentally **the** same in each system both in plants and animals.

2) **The** living matter is organized in both plants and animals into microscopic units called cells.

3) Certain vital processes take place in plant bodies in **the** same manner as in animal bodies. These processes are respiration, digestion, assimilation, growth and reproduction.

4) Both animals and plants cannot live without water, air, food, light and moderate amount of heat. They both are of different shapes, sizes and colours. In fact, the differences are not so many as **the** likenesses although they are more apparent, for only three are important, namely: plants are not conscious, they are unable to

move about, they make their own food.

Exersice 7. Answer the following questions:

1. What is biology? Define it.
2. What do you call the science of living organisms?
3. What elements does living matter consist of?
4. Are plants and animals similar in their fundamental composition? What are the differences and similarities?
5. How can biology be difined?
6. What does the word "biology" mean?
7. Do plants and animals depend upon one another?
8. How do plants or animals differ from lifeless things?

Exercise 8. Translate the following into English:

Biologiya – tirik organizmlar haqidagi fan. U jonli tabiat sirlarini, jonli organizmlar qanday tuzilgan, qanday funkciyani bajarishini o'rganadi. Biologlarning ilmiy izlanishlarining natijalari fanning boshqa ko'plab tarmoqlarining rivojlanishi uchun katta ahamiyatga ega. Biologlarning izlanishlari zamonaviy fanning ko'plab muammolarini echishda yordam beradi. Ular barcha organizmlar va ularni o'rab turgan atrof muhit o'rtasidagi o'zaro aloqalarni tushunishga yordam beradi. Hayot mavjudligini aniqlash (essence of life) – biologiyaning asosiy vazifalaridan biridir.

Exercise 9. Put the words where necessary:

1. Biology is the science of .... who are engaged in it are called biologists.
   a) life and animal
   b) life and people
   c) body and animal
   d) organisms and people
2. Biology tells us about our .....
   a) plants

b) animals
c) body
d) people

3. Life **exists** in many places on the earth, often in spite of very …….**conditions**.
a) difficult
b) easy
c) light
d) hard

4. Plants and animals ..... in common.
a) have many
b) have much
c) had many
d) has much

5. Both animals and plants ..... live without water, air, food.
a) can
b) cannot
c) could
d) could not

Grammar: Adjectives
Exercises:
Text: The study of Microbiology

Degrees of comparison of adjectives

Comparative and superlative adjectives
Regular one-syllable adjectives have forms like these:

adjective	**comparative**	**superlative**
young	younger	(the) youngest

If an adjective ends in a single vowel and consonant (not w), the final letter is doubled, as in thin to thinner. Examples: sad, big, fat, hot, wet

Two-syllable adjectives ending in a consonant followed by the letter – y have forms like these:

adjective	comparative	superlative
dirty	dirtier	(the) dirtiest

Examples: angry, busy, easy, funny, happy, heavy, silly, tiny
• Most other two-syllable adjectives and all longer adjectives form their comparative and superlative like this:

Adjective	comparative	superlative
careful	more careful	(the) most careful

Some common two-syllable adjectives can use either of the forms above.

adjective	comparative	superlative
Simple	simpler OR more simple	(the) simplest OR (the) most simple

Examples: clever, cruel, gentle, likely, narrow
• Irregular adjectives have the following forms:

Adjective	Comparative	superlative
good, bad, far, old	better worse, farther/further | older/ elder	(the) best (the) worst (the) farthest/furthest (the) oldest/ eldest

Negative comparatives and superlatives

• To make negative comparisons we use not as ... as or less ... than. We tend to use not as ... as with adjectives that have a positive meaning, e.g.

Chips are not as good for you as baked potatoes.

We tend to use less... than with adjectives that have a negative meaning, e.g.

Some types of fat are less harmful than others.

• *To make negative superlative statements we use* the least. He always chooses the least expensive dish on the menu.

adjective	negative comparative	negative superlative
Heavy	less heavy (than) OR not as heavy as	(the) least heavy

Exercise 1. Complete the sentences using the comparative or superlative form of the word in brackets:

Example: my mother is a (good).....better.....cook than my father.

1. This is (good).....hamburger. I have ever eaten!
2. The old chef was (bad).....than the new one.
3. This restaurant is (expensive).....in London. It costs a fortune.
4. This is one of the (easy).....recipes I know- a child could make it.
5. These apples are (sweet).....than those.

6. Jose's mother always finds (cheap) .....vegetables in the market than in the supermarket.

7. People say small vegetables are (nice).....than large ones.

8. I think salad is (healthy).....than chips

9. Chips are (not expensive).....as caviar.

10. Our college canteen is (expensive).....place to eat in town three courses for only £ 5!

Exercise 2. Give degrees of comparison of the following words if possible:

I. angry, brave, bad, convenient, dry, dead, final, good, heavy, narrow, perfect, Persian, right (left), square, important, white, yellow, unique, little

II. absent-minded, easy-going, fine-looking, good-natured, high-flown, high- heeled, kind-hearted, much-spoken, narrow-minded, old-fashioned, strong-willed, well-bred.

Exercise 3. Complete the sentences using the comparative or the superlative form of the adjectives given in brackets:

1. — Boris is certainly (clever) than his brother. — Yes, and he is (attractive) than his brother Peter. In fact, he is (smart) boy I've ever taught. 2. Nothing could be (extravagant) than buying such an expensive car. You will have to be (careful) with your money in future. 3. Life is getting (hard) and (complicated) with every passing day. 4. It is (effective) method of all, but it is naturally costly. 5. Stephen is (intelligent) than any other boy in his group. 6. It has been (cold) day in Moscow for thirty years. 7. It's (little) I can do for you, I'm afraid. 8. That was (bad) than he had expected. 9. That was indeed (bad) experience in his career. 10. They naively think that things can only get (good). 11. This is (unbelievable) news I have ever heard. 12. He ate (few) French fries than you did at the picnic. 13. Angela is (little) organized than Mike. 14. If you ask me, Moscow is (beautiful) than any other city in the world. 15.

They had (little) and (little) to talk about. 16. It is axiomatic that (great) the student's individual effort, (much) thorough will be his learning. 17. The (much) original a discovery, the (much) obvious it seems afterwards. Complete the following comparisons:

Exercise 4. Translate the text into Uzbek and then back into English, compare your version with the original:

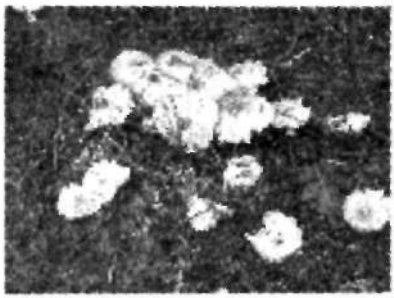
In science one of **the most important** discoveries having **a great** influence on the development of science was the fact that microscope has come into common use among scientists. The microscope gave scientists new power. Now they could see things that had been hidden. The first microscopes were very **simple**. They had only **single** lenses, some had double lenses with a tube between them. Anton von Leeuwenhoek was the first man who penetrated through these lenses into the mysterious world of the microbe. No one before his time had guessed that such **tiny** organisms existed.

Exercise 5. Learn the new words of the text "The study of Microbiology"

derive v -	kelib chiqmoq
unaided adj -	yordamga muhtojsiz
algae n -	dengiz o'simligi
fungi n -	qo'ziqorin
indispensable adj -	kerakli, majburiy
terrestrial n -	yer sathi
spontaneously adv-	o'z o'zidan paydo bo'lishlik

Exercise 6. Read the text, translate it and answer the following questions:

The study of Microbiology



Microbiology often has been defined as the study of organisms and agents too **small** to be seen clearly by the unaided eye, that is, the study of microorganisms. Because objects **less** than about one millimeter in diameter cannot be clearly seen and must examined with a microscope.

Microorganisms are **extraordinary** variety organisms- viruses, bacteria, algae and fungi. A microbiologist usually first isolates a **specific** microorganisms from a population and then cultures it. Thus, microbiology employs techniques- such as sterilization and the use of culture media- that are necessary for **successful** isolation and growth of microorganisms.

Microorganisms are **indispensable** components of our ecosystem. They make **possible** the carbon, oxygen, nitrogen, sulfur cycles that take play in terrestrial and aquatic systems. Microorganisms are not spontaneously generated from other microorganisms. Of course, many microorganisms result of human, animal and plant diseases. The first person to observe and describe microorganisms was the amateur microscopist Antony van Leeuwenhoek (1623-1723). The microbiologist L. Pasteur, R. Koch, J. Lister made **much** contribution to microbiology. Society benefits from microorganisms in many ways. They are necessary for the production of bread, cheese, beer, antibiotics, vaccines, vitamin, enzymes. The future of microbiology is **bright**.

Exercise 7. Answer the following questions:

1. How microbiology has been defined?
2. Are microorganisms extraordinary variety organisms?
3. What does a microbiologist usually first isolate?
4. What techniques does microbiology employ?
5. Are microorganisms indispensable components of our ecosystem?
6. Who the first observed and described microorganisms?

Exercise 8. Translate the following into English:

Mikrobiologiya bu organizmlarni o'rganuvchi fan sifatida aniqlangan. Mikroorganizmlar g'ayri oddiy har-hil organizmlar ya'ni viruslar, bakteriyalar, dengiz o'simliklary va qo'ziqorinlardan iborat. Mikroorganizmlar bizning ekosistemamizning tarkibiy qismidir. Mikroorganizmlarni birinchi bo'lib kyzatgan va tasvirlagan inson bu Anton van Leeuwenhoek. Mikrobiologlar L. Pasteur, R. Koch, J. Listerlar mikrobiologiyaga katta ulush qo'shishgan.

Exercise 9. Put the words where necessary:

1. Microbiology often has been defined as the study of .....

a) organisms b) microorganisms c) components d) products

2. A microbiologist usually first isolates a specific microorganisms from a .....

a) plants b) population c) animal d) people

3. Microbiology employs .....- such as sterilization and the use of culture media.

a) tools b) techniques c) machines d) culture media

4. Microorganisms are indispensable ..... of our ecosystem.

a) components b) growth c) carbons d) vitamins

5. The microbiologist L. Pasteur, R. Koch, J. Lister made many contribution to .....

a) society b) planet c) microbiology d) ecosystem

Grammar: Position of adverbs
Exercises:
Text: Microbiology

Position of adverbs

Normally at the end of the sentence

The most common position for adverbs (including adverbial phrases) is at the end of the sentence. This sentence contains two adverbial phrases:

E.g. A large number of immigrants arrived in Canada at the end of the nineteenth century.

Some adverbs can be placed at the beginning of the sentence, for emphasis.

E.g. At the end of the nineteenth century a large number of immigrants arrived in Canada.

Normally at the beginning of the sentence

A few adverbs normally go at the beginning of the sentence. Most of them add a comment, rather than being part of the main meaning of the sentence. E.g. **Perhaps** I'll go to Scotland to study.

To everyone's surprise, the climate turned out to be very good. **Frankly**, the multicultural festival was poorly organised.

Normally in the middle

Certain adverbs are placed with the verb. The most common ones include, also, almost, probably, soon, no longer, adverbs of frequency like always, often, hardly ever and other words like all and both.

Their exact position depends on the verb.

Where there is only one verb, and it is to be, the words listed above follow it:

E.g. My grandparents **were all** immigrants from Sweden.

Where there is only one verb, and it is **not** to be, the words listed above go in front of it:

E.g. Immigrants **generally went** to places where there was plenty of work.

Where there is at least one auxiliary or modal verb, the words listed above go after the first one:

E.g. A high level of immigration **would probably** have been welcomed by the Canadian government at the end of the nineteenth century.

Exercise 1. Put the words in brackets into the right form:

1. Statistics say that women drive (carefully) than men, 2. Please talk a bit (quietly) and (little) aggressively. 3. There's nothing (annoying) than losing your door key, 4. Tom prefers to be alone. He is (sociable) person in the office. 5. This time he tried (hard) than last time. 6.A big car can be parked (easily) than a small one. 7. We walked (far) than we had planned. 8. Today David acted (generously) than ever before. 9. The final exam was (little) difficult of all. 10. This month Caroline worked (badly) of all, though actually she works (well) of all the pupils of her class. 11. You don't remember some details, you should study the papers (closely). 12. They can get here at 7 o'clock at (early). It's a long way from here. 13. Changes will become necessary by the autumn, at (late). 14. Really, Alex, you could work (efficiently)!

Exercise 2. Find adverbs in column B which suit the verbs in column A. In some cases there can be more than one verb:

A	B
1. argue	a. deeply
2. behave	b. thoroughly
3. sleep	c.convincingly, forcefully
4. speak	d. spontaneously

5. explain	e. bravely
6. feel	f. truly
7. investigate	g. deeply, heavily
8. react	h. distinctly
9. sing	i. badly, stupidly
10. fight	j. softly, quietly
11. rain	k. concisely, briefly
12. remember	l. sweetly
13. love and respect	m. continuously
14. get mad	n. easily

Exercise 3. Paraphrase the sentences according to the models:

Model: That was a perfect dance. — They danced perfectly.
She is a friendly girl. — She behaves in a friendly way.

1. Mr. Gibson is a creative teacher. 2. Frederick is a regular reader of "The Times". 3. They got instant access to the data. 4. That was a cowardly thing to do. 5. Little Tim is a quick learner. 6. Andy was a hard worker. 7. Helen is a very poor student. 8. She is a bad cook. 9. That was a provocative act on the girl's part. 10. Bill is a wise investor. 11. She is a slow thinker. 12. I am a good eater. 13. He is a heavy drinker. 14. You can buy cheap things in this shop. 15. It was a heroic act. 16. We had an early lunch. 17. That was a silly thing to do. 18. She is a graceful dancer. 19. You did good work. 20. They had a late dinner. 21.He is a fast driver. 22. That was a lively performance. 23. They gave a simultaneous reply. 24. Mr. Jones gave them precise instructions. 25. Susan was very competent at her work.

Exercise 4. Skim the text in order to get a general idea of what it is about:

Norman Davidson

Norman Davidson (April 5, 1916–February 14, 2002) was an American molecular biologist notable for advancing genome research, member of the National Academy of Sciences, received a National Medal of Science from U.S. President Bill Clinton, was a professor at Caltech. The New York Times called Davidson "major figure in advancing genome research ... whose groundbreaking work in molecular biology led to the earliest understanding of the overall structure of genomes". The Los Angeles Times called him "a groundbreaking Caltech chemical biologist". President Bill Clinton cited the scientist for "breakthroughs in chemistry and biology which have led to the earliest understanding of the overall structure of genomes".

Davidson was born in Chicago. He received B.S. degree in chemistry at the University of Chicago in 1937, and received another B.S. degree at the University of Oxford in 1939 as a Rhodes Scholar. In 1941 he received his Ph.D. degree in chemistry from the University of Chicago.

Exercise 5. Learn the new words of the text "The study of Microbiology"

merchant n -	savdogar
scope n -	mikroskop
reveal v -	ochmoq, ko'rsatmoq
overlap v -	qisman mos kelmoq, qamrab olmoq
enquiring adj -	qiziquvchan
approach v -	yaqinlashmoq
liaise v -	aloqani qollab quvvatlamoq
fertility n -	o'g'it
bioremediation n -	bio-davolash
biorefinery n -	bio-tozalash zavodi

Exercise 6. Read the text and translate into Uzbek:
MICROBIOLOGY

Antony van Leeuwenhoek, a Dutch merchant and science hobbyist, constructed some of the first high power microscopes. His excellent scopes revealed a world of life too small to be seen by the naked eye.

Microbiology is a vast subject which overlaps with other life sciences such as genetics, biochemistry, molecular biology and even engineering. Microbiologists can be found at work in many different places, but they are **normally** based in a laboratory.

As there are many different types of microbes there are many different types of microbiologists: bacteriologists, mycologists (who study fungi) and virologists - **all** working within **even** smaller areas of specialization; the variations are **endless**. **Obviously** you need to be interested in science and biology. An enquiring mind, a methodical approach and an enthusiasm for solving problems are **equally important.**

You should be a good communicator, as you will need to describe your findings **clearly** to other people, and be able to work **well** as a part of a team.

Scientists today **seldom** work alone and most are members of multi-disciplinary groups. In industry you will **also** have to liaise with staff from non-scientific departments.

Food, pharmaceutical, agrochemical, biotechnological, biorefinery, environmental, pollution control and bioremediation, companies **all** need microbiologists to develop new products, monitor the production of existing ones and solve problems.

In the Field Agriculture - environmental and health specialists study the role of microbes in plant disease, pest control, nutrition and

soil fertility, or monitor and control pollution and
waste treatment approaches. The field of mariculture **also** relies on microbiologists to monitor production and solve problems.

Medicine & Health Care Hospitals, public health laboratories, research institutes and pharmaceutical companies offer work in diagnosis, prevention and treatment of illnesses associated with microbes.

Education & Research Universities and colleges, as well as medical, dental and veterinary schools, **all** employ microbiologists as researchers and teachers.

Exercise 7. Answer the following questions:

1. Who was Antony van Leeuwenhoek and what did he construct?
2. Is microbiology a vast subject which overlaps with other life sciences?
3. Where can Microbiologists work?
4. Are there many different types of microbiologists and what are they?
5. Should you be a good communicator?
6. Do scientists today seldom work alone and most are members of multi-disciplinary groups?

Exercise 8. Translate the following into English:

Mikrobiologiya katta fan bo'lib u boshqa fanlarni ya'ni genetikani, biohimiyani, molekular biologiyani va hattoki mehanikani oz ichiga oladi. Mikrobiologlar ko'p joylarda ish topa olishadi, ammo ular laboratoriyalarda ishlashga asoslangan. Ko'p turdagi mikroblar bo'lganligi sababli, ko'plab mikrobiologlar ham mavjud: ular bakteriologlar, mikologlar, hamda virusologlar. Oziq-ovqat, farmacevtika, agrohimiya, biotehnologiya, atrof muhitni nazorat qilish kompaniyalari yangi mahsulotlarni rivojlantirish, mavjud mahsulotlarning ishlab chiqarishini va muammolarini echish uchun mikrobiologlarga muhtojdir.

Exercise 9. Put the words where necessary:

1. Antony van Leeuwenhoek, a …… merchant and science hobbyist, constructed some of the first high power microscopes.

a) German
b) English
c) Dutch
d) Russian

2. Microbiology is a……. subject which overlaps with other life sciences such as genetics, biochemistry, molecular biology and even engineering.

a) great
b) vast
c) high
d) popular

3. You should be a **good** ……..

a) communicator
b) engineer
c) biologist
d) teacher

4. …… - environmental **and health specialists study** the **role** of microbes in plant disease.

a) biology
b) agriculture
c) economy
d) microbiology

5. Universities and colleges, as well as medical, dental and veterinary schools, all ……..microbiologists as researchers and teachers.

a) take
b) get
c) employ
d) unemployed

Grammar: Present tenses
Exercises:
Text: Microorganism

Present tenses

Present simple

This is the most common of the present tenses. It is used for certain meanings, and also when the meaning is not covered by one of the other tenses, so use it if you are not sure which present tense is right.

Main meanings:

· frequency (how often an action is carried out) In my college. prizes are given once a year.

· a general or permanent truth (not only now)

Good teachers explain the subject in a way that their students can understand.

Present continuous

Main meanings:

· a temporary activity happening at this moment

I won't interrupt Johnny now because he's writing an assignment.

· a temporary activity happening around now

In music this year we're making our own instruments. Only verbs referring to an action, whether physical or mental, can be used in the continuous tenses. This sentence is grammatical because the verb refers to a temporary action: You're being very silly.

However this sentence is ungrammatical, because to believe doesn't refer to an action:

~~I'm believing in the importance of studying with other people.~~

This should be:

I believe in the importance of studying with other people.

Present perfect simple

This tense connects the past with the present. Main meanings:

· an action or situation that started in the past and continues to the present

Schools of some sort have existed for well over two thousand years. *I've never studied* economics.

· an action or situation that finished at an unspecified time in the past

The only foreign language I've *studied is Spanish.*

· an action or situation that started in the past, and may or may not have *finished. The emphasis* is on its result in the present. I've forgotten my password, so I can't access my emails.

The present perfect simple is generally used with just, yet and the first/only time.

I haven't finished reading this book yet.

That was a *really* good lecture - it's the first time I've understood the subject.

Present perfect continuous

This combines the meanings of the continuous and perfect tenses. Main meanings:

· actions which have lasted for some time and are likely to *continue.* Often a length of time is given.

I've been studying chemistry for three *years and there's* another year to go.

· actions *which have lasted for* some time and have just stopped. Usually no length of time is given.

I've been reading about colleges in this area, and there are several that offer the qualification I want. Like the *present* continuous, this tense can only be used with verbs referring to a physical or mental *action.*

Exercise 1. Complete the sentences with the words from the box using them in the proper form of the Present Indefinite Tense:

look go have start take speak be seem rain snow with

1. The child,___to school every day. His father___him there in his car, 2. She always___ lunch at school. 3. Richard's life in Paris is a bit difficult. He___only English. 4. What's the matter? You__ very sad. 5. Liz is good at tennis. She___every game. 6. It___quite reasonable. 7. Winter is warm here. It___very seldom. But sometimes it___. 8. Helen is on a diet. She___a little. 9. He___ in a hurry. 10. The exams at school___ in April.

Exercise 2. Open the brackets and put the verb into the correct tense, either the Present Indefinite, the Present *Continuous or the Present Perfect:*

1. As a rule, I (have) porridge for breakfast, but this morning I (order) an omelette. 2. This is the house where I (live). I (live) here since childhood. 3. Stop smoking! The room (be) full of smoke which (come) from your pipe. Usually nobody (smoke) here as Mother (not let) it. 4.1 (write) letters home once a week, but I (not write) one this week, so my next letter must be rather long. 5. No wonder she (look) tired after the strain under which she (be) for a month. 6. Why you (not shave) this morning? — I (shave) every other day. 7. Research (show) that lots of people (absorb) new information more efficiently at some times of day than at others. A biological rhythm (affect) different people in different ways. 8.1 just (look) at the barometer and (see) that it (fall) very quickly. 9. Don't shout so loudly. Father (not finish) work and he hates if anybody (make a noise) while he (work). 10.1 regularly (see) him at the tram stop, but I (not see) him these two or three days.

Exercise 3. Change the following sentences to present perfect continuous tense. Use since or for:

Example: I work in a factory, (two years)
I have been working in a factory for two years.
She is learning to drive. (last December)
She has been learning to drive since last December.
1.He is writing some letters, (two hours)
2.I live in Istanbul. (I was born)
3.It is raining, (yesterday)
4.He teaches English, (five years)
5.She is doing the washing, (two hours)
6.They are talking about economy, (nine o'**clock)**
7.He builds houses, (a long time)
8.They are playing football, (half an hour)
9.He is learning English, (six months)
10.We are waiting for the bus. (fifteen minutes)
11. Ali is studying chemistry, (last September)
12.She is wearing glasses. (1986)
13.They are standing in front of the gate. (10.30)
14.He doesn't smoke, (five days)
15.The baby is sleeping, (last night)
16. I am looking for my dictionary, (a few weeks)
17. He drinks a lot (his wife died).
18. She is doing the crossword puzzle, (half an **hour)**
19. He doesn't feel very well, (last week)
20. They repair cars, (fifteen years)
21. They are talking (two hours)
22. She is sleeping (nine o'clock)
23. He is fixing the TV (more than **an hour)**
24. He is eating (fifteen minutes)

Exercise 4. Translate the text without a dictionary, entitle it and formulate the main idea in one sentence:

Man **has been engaged** in breeding and selecting plants and animals for thousands of years. During that time **he has been** able to develop a great many varieties. Breeders **are** always anxious to increase production. They **try** to get more and better varieties of berries from each bush, more milk per cow, and more eggs per chicken. In many cases, the breeder **has found** it possible to develop new varieties that **resist** high or low temperature and diseases. They **use** three chief methods in the effort to increase quality and production. These **are** selection, cross breeding and the use of mutations. The breeder **tries** most of all to understand the heredity of the animals and plants with which he **works**. He **carries** out many experiments to learn about the genes and how they are inherited. Then he **tries** to get a combination of genes that will give him the qualities he **desires**. Such experiments may be long, difficult and costly.

Exercise 5. Learn the new words of the text "Microorganism"

prior n -	prior
protista n -	protistalar, oddiy bir hojayrali organisnlar
unicellular adj -	bir ho'jayrali
earth's crust n -	er qobig'i
invade v -	qamrab olmoq. zabt etmoq
encompass v -	o'rab olmoq, hulosa qilmoq
habitat n -	o'simlik va hayvonlarning mamlakati
sustain v -	chidamoq
ophidian adj –	ilonlar oilasiga kiruvchi

Exercise 6. Working on the text. Pay attention to the Present tenses:

Microorganism

A microorganism (also spelled as microorganism) or microbe **is** an organism that **is** microscopic (too small to be seen by the human eye). The study of microorganisms is called microbiology. Microorganisms **include** bacteria, fungi, algae or protista, but not viruses and priors, which **are** generally classified as non-living. Most microorganisms **are** single-celled, or unicellular, but some **are** microscopic, and some unicellular protista **are** visible to the average human. Microorganisms **live** almost everywhere on the Earth where there **is** liquid water, including hot springs, on the ocean floor, and deep inside rocks within Earth's crust. Microorganisms **are** critical to nutrient recycling in ecosystems as they **act** as decomposers. As some microorganisms can also fix nitrogen, they **are** an important part of the nitrogen cycle. However, pathogenic microbes can invade other organisms and **cause** diseases that **kill** millions of people every year. Microorganisms can be found almost anywhere in the taxonomic organization of life on the planet. Bacteria and algaes **are** almost always microscopic, while a number of eukaryotes **are** also microscopic, including most protista and a number of fungi. Viruses **are** generally regarded as not living and therefore **are** not microbes, although the field of microbiology also encompasses the study of viruses. Habitats and ecology Microorganisms are found in almost every habitat present in nature.

Even in hostile environments such as the poles, deserts, geysers, rocks, and the deep sea, some types of microorganisms **have adapted** to the extreme conditions and sustained colonies; these organisms are known as extreme ophidians. Extreme ophidians have been isolated from rocks as much as 7 kilometers below the earth's surface, and it has been suggested that the amount

of living organisms below the earth's surface may be comparable with the amount of life on or above the surface.

Extreme ophidians have been known to survive for a prolonged time in a vacuum, and can be highly resistant to radiation, which may even allow them to survive in space.

Many types of microorganisms **have** intimate symbiotic relationships with other larger organisms; some of which **are** mutually beneficial (mutualism), while others can be damaging to the host organism (parasitism).

If microorganisms can **cause** disease in a host they are known as pathogens. Microorganisms **are** vital to humans and the environment, as they **participate** in the Earth's element cycles such as the carbon cycle and nitrogen cycle, as well as fulfilling other vital roles in virtually all ecosystems, such as recycling other organisms' dead remains and waste products through decomposition.

Exercise 7. Answer the following questions:

1. What is microorganism (also spelled as microorganism) or microbe?
2. What do microorganisms include?
3. Where do microorganisms live?
4. Are microorganisms critical to nutrient recycling in ecosystems? Why?
5. Can pathogenic microbes invade other organisms and cause diseases that kill millions of people every year?
6. Where have extreme ophidians been isolated?
7. Have many types of microorganisms intimate symbiotic relationships with other larger organisms?

Exercise 8. Translate the following into English:

Mikroorganizmlar yoki mikroblar ko'zga ko'rinmas organizmlardir. Mikroorganizmlarni o'rganish – mikrobiologiya deb ataladi. Ko'p mikroorganizmlar bir to'qimali yoki to'qimasiz bo'lib, lekin ba'zilari mikroskopda kuzatiladi, ba'zi to'qimasiz oddiy bir ho'jayrali organismlar esa insonga ko'rinuvchandir. Hatto

adovatli atrof muhitda ya'ni sahrolarda, geyzerlarda, qoyalarda va chuqur dengizda mikroorganizmlarning ba'zi turlari favqulotdagi sharoitlarga moslashgan. Mikroorganizmlar inson va atrof muhit uchun juda muhim.

Exercise 9. Put the words where necessary:

1. The study of microorganisms is called .....
a) bacteriology
b) mycology
c) microbiology
d) botany

2. ..... microorganisms are single-celled, or unicellular.
a) many
b) much
c) most
d) lot

3. Viruses ..... generally regarded as not living and therefore are not microbes.
a) is
b) was
c) are
d) were

4. If microorganisms ..... cause disease in a host they are known as pathogens.
a) could
b) can
c) need
d) have to

5. Even in ..... environments such as the poles, deserts, geysers, rocks, and the deep sea, some types of microorganisms have adapted to the extreme conditions.
a) friendship
b) hostile
c) enemy
d) hostess

Grammar: Past tenses
Exercises:
Text: Biotechnology

Past tenses

Past simple

This is used to talk about events which:

- began and ended in the past

The USA became independent in the late 1700s.

This indicates a completed action in the past with a fixed time phrase.

- happened regularly

The archaeologists returned to the site every summer.

Past continuous

This is used to talk about events which:

- were unfinished at a particular time in the past

The islanders were fishing when the explorers first saw them.

Past perfect

This is used to talk about events which:

- happened before a particular time in the past

Kim took some photos of the palace after he had taken ones of the temple.

Note that the past perfect needs to be used when it is important to show a time difference. Sometimes it is omitted if it is not important to the sense of the sentence.

Exercises 1. Open the brackets and give the proper forms of the Past Indefinite Tense:

1. The building of the trade centre (begin) a month ago. 2. It (be) bitterly cold yesterday. I (put) on my warm coat but I (catch) a cold still. 3. The postman (bring) the morning mail only at 10 o'clock. 4.I (see) you the other day coming out of the library with

a stack of books. Are you preparing for the exams? 5. We (have) a picnic yesterday, but the rain (spoil) the whole pleasure. 6. You (go) to the South when you (be) a child? 7. As soon as I came up, they (get) into a taxi and (go) away. 8. What sights you (see) when you (be) in Egypt? 9. Every winter Nick (go) to the Swiss Alps to ski. 10. He (come) in, (take) off his hat, (move) a chair to the table and (join) the conversation. 11. When he (arrive)? — The plane was delayed and he (come) two hours later. 12. How much your bag (cost)? - I (pay) $80 for it.

Exercise 2. Past simple and Past continuous:

1. I (to play) computer games yesterday.
2. I (to play) computer games at five o'clock yesterday.
3. He (to play) computer games from two till three yesterday.
4. We (to play) computer games the whole evening yesterday.
5. What Nick (to do) when you came to his place?
6. What you (to do) when I rang you up?
7. I (not to sleep) at nine o'clock yesterday.
8. What he (to do) yesterday? – He (to read) a book.
9. What he (to do) the whole evening yesterday? – He (to read) a book.
10. She (to sleep) when you came home?
11. My brother (not to play) tennis yesterday. He (to play) tennis the day before yesterday.
12. My sister (not to play) the piano at four o'clock yesterday. She (to play) the piano the whole evening.
13. When I came into the kitchen, mother (to cook).
14. She (to cook) the whole day yesterday.
15. We (to wash) the floor in our flat yesterday.
16. We (to wash) the floor in our flat from three till four yesterday.
17. You (to do) your homework yesterday?
18. You (to do) you homework from eight till ten yesterday?

19. Why she (to sleep) at seven o'clock yesterday?
20. He (to sit) at the table the whole evening yesterday

Exercise 3. Present, Past Simple , Past Continuous:

1. Nina (to celebrate) her birthday yesterday. Her room looked beautiful, there (to be) many flowers in it. When I(to come) in, somebody (to play) the piano, two or three pairs (to dance).
2. Listen! Somebody (to play) the piano.
3. I (to like) music very much.
4. When I (to look) out of the window, it (to rain) heavily and people (to hurry)
along the streets.
5. What you (to do) at 7 o'clock yesterday? – I (to have) supper.
6. When I (to come) home yesterday, I (to see) that all my family (to sit) round the table.
7. Where you (to be) yesterday? – I (to be) at home the whole day. – How strange. I (to ring) you up at 2 o'clock, but nobody (to answer).
8. What you (to do) at 5 o'clock yesterday? – I (to work) in the library. – I (to be) there, too, but I (not to see) you.
9. Yesterday I (to work) at my English from 5 till 7.
10. It (to rain) the whole day yesterday.

Exercise 4. Translate the text with a dictionary, pay attention to the past tenses:

V. Michurin is known to be a famous selectionist and practical gardener in our country. His scientific tegacy is immense. "We cannot wait for favours from nature. We must wrest them from her"— he used to say. Boldly remaking nature in the interest of man, Michurin evolved more than 300 new varieties of fruits and berries, flowers and decorative plants. Having moved southern plants far to the North he **bred** new varieties of fruits. For example, Michurin **remade** the warmth-loving grape, adapting it to the conditions of

Leningrad and Kirov, the Moscow area, and many other central and northern regions, where it produces good yields. His efforts **made** possible fruit cultivation on a large scale in northerly areas and Siberia. Problems of hybridization **held** an important place in his researches. Studying the complex biological phenomena **manifested** in hybridization Michurin **developed** new methods, not known before him either in biological science or in the practical work of plant or animal breeders. Of special significance for biology is Michurin's teaching about the mentor. Its substance consists of the following: if a young plant is to be grafted on an older one, it will acquire the properties of the mentor. The mentor method **employed** by him **helped** to breed new remarkable varieties of apples and many other valuable fruits. The subjugating of the forces of nature to the will of man **was** the idea to which I. V. Michurin **dedicated** his entire life. This idea lives and triumphs in the deeds of the millions of scientists, and **had become** the foundation of agriculture in our country.

Exercise 5. Learn the new words of the text "Biotechnology"

device v -	moslashmoq
cure v -	davolamoq
treat v -	davolamoq
prevent v -	oldini olmoq, xalaqit bermoq
science n -	fan
competitive adj -	baxslashuvchi, raqobatdosh
research n -	tekshirish, ilmiy izlanish, tadqiqot
knowledge n -	bilim, tanish, xabar, ma'lumot
prefer v -	afzal kormoq

Exercise 6. Working on the text. Translate the text and answer the questions:

BIOTECHNOLOGY

Biotechnology (sometimes shortened to "**biotech**") is the use of living systems and organisms to develop or make useful products, or "any technological application that uses biological systems, living organisms or derivatives there of, to make or modify products or processes for specific use" (UN Convention on Biological Diversity)

Pharmaceuticals: Pharmaceuticals are medical products that are chemically developed to cure, treat, find or prevent any number of diseases our bodies may develop in our lifetime.

Biopharmaceuticals: Biopharmaceuticals are biologic drugs made from living organisms, created through bioengineering or biotechnological processes. These biological molecules known as proteins or biopolymers are becoming increasingly significant in modern medicine because they make new treatment methods possible. For example, biopharmaceuticals can be used to treat illnesses that occur when the body produces insufficient hormones, such as insulin. These products are manufactured through the science of biologic technology (biotechnology)

Biotechnology: Biotechnology is not one kind of technology, but many. The three kinds of biotechnology tools are working with cells, working with proteins, and working with genes. Biotechnology is a toolbox filled with many different kinds of living cells and their component molecules, and different ways to use them. Because there are millions of different species of plants,

animals and microorganisms in the world, each having cells and molecules with unique characteristics, there are a lot of potential tools in this toolbox. This is why biotechnology is so powerful and can be applied in many different ways.

Careers in Biotechnology Research and Development involve bioscience research and development as it applies to human health. These scientists may study diseases to discover new treatments, invent medical devices used to directly assist patients or to improve the accuracy of diagnostic tests.

The pharmaceutical industry is also an expanding one in terms of size and employees. Some pharmaceutical companies have large research facilities with national and international locations employing hundreds and thousands of workers, while others have fewer than 20 people. So whether you prefer to work in a large corporate building, or a small quiet facility, or something in-between you can find the environment that is right for you.

There are a wide variety of not just jobs, but career opportunities that will be available for many years to come because the demand is not going away anytime soon. There is a need to find qualified workers in a variety of environments including research facilities in university settings, business incubation centers, and small research companies, to name a few.

If working with tomorrow's technology to save lives excites you, biotechnology or the pharmaceutical industry may be the right choice for you. These industries will offer you many opportunities to acquire new knowledge, remain competitive, and learn new skills both now and throughout your career.

Exercise 7. Answer the following questions:

1. What is biotechnology?
2. What is the difference between pharmaceuticals, biopharmaceuticals and biotechnology?
3. Is the pharmaceutical industry also an expanding one in terms of size and employees?

4. Have pharmaceutical companies large research facilities with national and international locations?

5. How many workers do employ there?

6. Is there a need to find qualified workers in a variety of environments?

Exercise 8. Translate the following into English:

Biotehnologiya-foydali mahsulotlarni ishlab chiqarishda yoki rivojlantirishda jonli sistema va organizmlarning qo'llanmasidir. Farmacevtika tibbiy mahsulot bo'lib, u bir qancha kasalliklarni topishda, ularning oldini olishda, hamda davolashda himiyaviy tarzda rivojlangan. Biofarmacevtika yashovchi organizmlardan tarkib topgan biologik dori darmon. Biotehnologiya instrumentining uchta turi to'qimalar, oqsillar va turlar bilan ishlamoqda. Dunyoda o'simlik, hayvon va mikroorganizmlarning millionlab turli-hil turlari mavjud. Ularninig har biri bir biriga o'hshamaydigan to'qima va molekulalarga ega. Biotehnologiya shunchalik kuchliki u turli yo'llarda qo'llanila oladi.

Exercise 9. Put the words where necessary:

1. Biotechnology is the use of living systems and organisms..... or make useful products.

a) develop
b) had developed
c) to develop
d) is developing

2. Pharmaceuticals are..... products that are chemically developed to cure, treat, find or prevent any number of diseases.

a) medical
b) chemical
c) biological
d) useful

3. Biopharmaceuticals are biologic ..... made from living organisms, created through bioengineering or biotechnological processes.

a) medicine
b) drug
c) drugs
d) product

4. Biotechnology **is not one kind of ....., but many.**

a) industry
b) technology
c) agriculture
d) science

5. There are a ..... **variety of not just jobs.**

a) narrow
b) huge
c) wide
d) big

Grammar: Future tenses
Exercises:
Text: Animals and plants

Talking about the future

There are many ways of talking about the future, usually reflecting the speaker's attitude. These are the main ones:

shall/will/'ll

· a decision or offer made at this moment

If you want to sell some furniture, I'll put an ad in the local newspaper for you.

· a prediction

This poster will definitely attract people's attention.

present continuous

· something already arranged or (less often) decided

I'm being interviewed on the radio tomorrow about my new book.

present simple

· time and conditional clauses introduced by if, unless, when, as soon as, etc.

I'll show you my proposal for the advert as soon as I get to the office.

· a timetable, usually not involving the speaker (this is much less common that the structures above)

My train leaves in ten minutes.

future continuous

· a temporary event in the future

future perfect

· an event or situation that will be finished before a particular time in the future

I'll have finished this project by Friday.

This time tomorrow I'll be working on my next commercial.

- a future event that will happen as a matter of course, independently of the wishes or intention of anyone concerned I try to avoid Jeremy Matthews as much as possible, but I'll be seeing him at the marketing conference.

Exercises 1. Put the verbs in brackets into a suitable future tense:

1. Tomorrow afternoon at this time, we ... (fly) over the Black Sea.2) ... you ... (stay) in Moscow for long? 3) Do you know at what time Lizzy ... (return) tomorrow? 4) I ... (live) with my sister while I am in Yalta. 5) Look! Those cars... (collide) in a minute. 6) When ... Mary (take) her examination? – I don't know. We ... probably (find out) tomorrow when we see her. She's an undecided sort of person, isn't she? Her lecturer should say to her "You ... (take) this examination next June, whether you want to or not." 7) I wonder when they ... (be) back. 8) My sister ... (come) to visit us tonight. 9) Hurry up or you ... (be) late for your appointment. 10) I ... (leave) a message on the table fir him. 11) I ... (be) twenty – one tomorrow. 12) I think it ... (rain) heavily soon. 13) Your train ... (arrive) there at 6 a.m. tomorrow. 14) I ... (meet) you here at seven o'clock tomorrow.

***Exercise 2.* Make sentences in future continuous tense as in the example:**

Example: She-wash the dishes-at 3 o'clock
She will be washing the dishes at 3 o'clock.
They-pack the suitcases-this time tomorrow.
They will be packing the suitcases this time tomorrow.

1. the postman-deliver letters this time tomorrow
2. we-study English this time Thursday

3. he-cut wood all day tomorrow
4. the typist-type letters all afternoon
5. I-do my homework at 9 this evening
6. he-study for the exam all night
7. they-play basketball at 4 o'clock tomorrow
8. he-stay in a hotel all next month
9. he-do military service all next year
10. she-play tennis this time tomorrow
11. we-travel in Europe during the summer
12. they-ski all day tomorrow
13. he-have a rest during the holiday
14. she-study chemistry during the next term
15. the teacher-teach present perfect tense all next week
16. the lawyer-talk to his client at 10 a.m. tomorrow
17. I-fly to the USA tomorrow afternoon
18. Tom-work all day tomorrow
19. he-learn Arabic all next year
20. we-watch the football match on TV this time tomorrow
21. they-wait for you at the usual time
22. I-live in Germany in four years' time
23. she-watch TV after dinner
24. they-work from 2 until 4.30.

***Exercise 3. Open the brackets and put the verbs into the* Future Indefinite, the Future Perfect, the Present Indefinite or the Present Perfect Tense:**

1. By 8 o'clock they (have) dinner. 2. By the end of the week he (finish) the translation. 3, Before you (come) I (do) all the work. 4, She (look) through the article by 12 o'clock. 5. They (receive) our letter by Monday. 6. By the time we (get) to the forest the rain (stop), 7.I think he (answer) the letter by this time. 8. We (begin) to work after we (read) all the instructions, 9. We (not do) anything until he (take) necessary steps. 10. The committee (prepare) the

plan by tomorrow. 11.I suppose when my letter (reach) you I already (return) from your voyage, 12. He (pass) an exam after he (learn) all the material. 13.I am afraid they (not discuss) all the questions by the time they (come). 14. We (not be able) to start the experiment before we (obtain) the necessary data. 15. The secretary already (look) through all the papers before the boss (come). 16. My train (leave) by the time you (come) to the station.

Exercise 4. Read the text and discuss it:

James Albert

James S. Albert is a professor of biology at the University of Louisiana at Lafayette. Dr. Albert is an author of over 80 scientific papers on the evolution and diversity of fishes and is an expert in the systematics and biodiversity of Neotropical electric fishes. Dr. Albert and his colleagues have described 50 new species. He is co-editor with Roberto E. Reis of the book Historical Biogeography of Neotropical Freshwater Fishes. which explores the evolutionary forces underlying the formation of the Amazon and Neotropical fish faunas.The fish faunas of continental South and Central America constitute one of the greatest concentrations of aquatic biodiversity on Earth, consisting of about 10 percent of all living vertebrate species. "Historical Biogeography of Neotropical Freshwater Fishes" explores the evolutionary origins of this unique ecosystem. The chapters address central themes in the study of tropical biodiversity. What roles do ecological specialization. speciation. and extinction play in the formation of regional assemblages? How do dispersal barriers contribute to isolation and diversification? Focusing on whole faunas rather than individual taxonomic groups. this volume shows that the area's high regional diversity is not the result of recent diversification in lowland tropical rainforests. Rather, it is the product of species accumulating over tens of millions of years and across a continental area.

Exercise 5. Learn the new words of the text "Animals and plants"

pierce v -	oqib kirmoq
track n -	iz
flesh n -	go'sht
claw n -	panja, tirnoq
capture v -	kuch bilan ushlamoq
prey n -	hayvonlar o'ljasi
sponger n -	parazit
spiny-skinned adj -	tikon terili
stem n -	qo'shimcha ildiz
chlorophyll n -	hlorofil
seaweed n -	dengiz o'simliklari

Exercise 6. Working on the text. Read and translate the text:

No one knows how many different kinds of plants and animals there are. Some scientists estimate the number at three million. Many of them provide us with food, clothing, shelter and medicines. Some, including several kinds of insects, pierce our skin and feed on the blood. Others, both plants and animals, even live and grow inside our bodies. In this way they may cause disease. You can see why scientists study living things with great care. Our lives may depend on how much we have learned about the living things around us.

Because there are so many different kinds of plants and animals, the task of the biologists is not an easy one. Up to the

present time it was named and described more than 840,000 kinds of animals and 345,000 kinds of plants. To keep track of this great number of living things a system of classification has been set up. Plants and animals are sorted into groups according to the way they are built. For example, the tiger, the leopard, and the lion will be all grouped together. All of them belong to the cat family. All the members of the cat family, in turn, belong to a larger group that includes such meat-eating animals as the dog, the bear. They have teeth that are built for tearing and cutting flesh. Their sharp claws help them to capture and eat their prey. In this way, all plants and animals were classified by their structure. All living plants and animals were divided into two kingdoms: the animal kingdom and the plant kingdom.

Among the smallest and simplest living things there are some that are difficult to classify. There are tiny plant-like cells that can swim about actively in the water. In some cases, the classification of these is still in doubt.

The animal kingdom, as we have seen, includes many thousands of different animals. Scientists classify them further as follows:

Animal kingdom:
A. Invertebrates (Animals without backbones)
One-celled animals
Spongers
Cup animals (jelly-fishes and corals)
Spiny-skinned animals (starfishes and their relatives)
Worms
Mollusks (oysters, snails, squids)
Join ted-legged animals (lobster spiders, insects)
B. Vertebrates
(Animals with backbones)
Fishes
Amphibians (frogs,-toads, salamanders)

Reptiles (snakes, lizards and turtles)

Birds

Mammals

The plant kingdom includes tiny one-celled plants that can be seen only with a powerful microscope and the great redwood and seqtioia trees of the Pacific coast, the oldest and the largest living things on earth.

Down through the ages, man has relied upon plants for many of his needs. The beauty of plants enriches our lives. Most important of all is the fact, that the other living things in our world could not exist very long without their plant neighbours.

Some plants have no roots, stems or leaves. Some of them consist of only one cell. Others, like the giant seaweeds may be more-than 100 feet long. They are divided into two main groups. The algae have green chlorophyll. They can make their own food. The fungi ['fAngai] have no chlorophyll. They must get their food from other plants and animals.

Exercise 7. Answer the following questions:

1. How many different kinds of plants and animals are there today?
2. How do they ptovide us?
3. Why do scientists study living things with great care?
4. What is the task of the biologists?
5. Does the animal kingdom, as we have seen, include many thousands of different animals?
6. How do scientists classify them further?

Exercise 8. Translate the following into English:

Olimlar o'simlik va hayvonlarning millionlab turlari borligini aniqlashgan. O'simlik va hayvonlar bir birlaridan hajmi, turi va rangidan farq qilishadi. Agar o'simliklarni, o'tlarni, darahtlarni, gullarni va turli sudraluvchilarni, qushlarni, baliqlarni, odamlarni

taqqoslaydigan bo'lsak bu farqlar yaqqol namoyon bo'ladi. Barcha farqlarga qaramasdan tirik organizmlar ko'p umumiylikga ega. O'simliklar singari hayvonlar ham bir biridan yashash funkciyasini qo'llab quvvatlash orqali bog'likdir.

Exercise 9. Put the words where necessary:

1. Many of them ..... us with **food, clothing, shelter** and **medicines.**

a) give
b) provide
c) supply
d) include

1. There are so many **different kinds of ....., the task of the** biologists is not an easy one.

a) fishes and animals
b) animals and insects
c) plants and animals
d) plants and trees

2. All the members of the .....family, in turn, belong to a larger group that includes such meat-eating animals as the dog, the bear.

a) dog
b) cat
c) cow
d) pig

3. They have ..... that are built for tearing and cutting flesh.

a) tooth b) tail c) teeth d) mouth

4. Some plants have no roots, stems or leaves.

a) Haven't b) have no c) had no d) has no

Grammar: The passive
Exercises:
Text: Varieties of social organization

The passive

The passive is used:

- when the action is more important than the person doing it The World Wide Web was invented by Tim Berners-Lee.
- when we don't know who did something Paper was invented in China.
- when reporting the news, and in academic and scientific writing where we are more interested in events and processes than in the person doing the action

The conference on Internet marketing is held every year in September.

Formation of the passive

The passive is formed with *be* + **past participle of a transitive verb**.

For modals it is formed with the modal + be + past participle.

present simple	It is made
present continuous	It is being made
present perfect	It has been made
past simple	It was made
past continuous	It was being made
future simple	It will be made

Compare these sentences:

A Martin Cooper made the first public mobile phone call.

B The first public mobile phone call was made by Martin Cooper.

*Sentence A is active and follows the pattern of Subject (*Martin Cooper), Verb (made)

and Object (the first public mobile phone call). *Sentence B is passive and the pattern*

is Subject (the first public mobile phone call), *Verb* (was made) *and Agent* (by Martin Cooper).

Exercise 1. Read this article about the history of the mobile phone. Decide if the verbs need to be active or passive and put them in the right form:

The first public telephone call on a portable radiotelephone (make) .....on April 3rd, 1973 by Martin Cooper, one of a team of engineers in Motorola's Communications Systems Division. Previously, people could only phone someone from a building or a car, Martin Cooper says, 'As I 2 (walk) down the street talking on the phone, New Yorkers 3 (look) ..... amazed at the sight of someone actually moving around while making a phone call, The phone that Cooper 4 (use).....looked like a large brick. In 1983 the 28-ounce 'DynaTAC' phone, the world's first commercial handheld cellular phone, 5 (introduce).....by Motorola, Each phone 6 (cost).....the consumer $3,500.

Today there 7 (be).....more mobile subscribers than landline phone subscribers in the world, and mobiles 8 (weigh)..... very little and 9 (can buy) for as little as $35.

Mobile phones today 10 (use).....to send photos and receive e-mails as well as for making phone calls and text messaging, In the future, who knows what else mobile phones 11 (use) .....for? Certainly, most people 12 (not seem) .....able to leave home without one.

Exercise 2. Complete these sentences using the verb in brackets in the right form of the passive:

EXAMPLE: *My* phone (make).....in the USA.

1. It (think) .....that more text messages (send) .....by girls than boys.

2. Bill Gates (say).....to be the richest man in the world today.

3. One mobile phone (steal) .....every three minutes in the UK.

4. Mobile phones (should / switch off) .....in the cinema.

5. Yesterday, Helen (tell)..... ....to switch her phone off during lectures.

6. When mobile phones (first design)..... ..... security was a big issue.

7. Text messaging (often use).....because it is cheaper than phoning.

8. I (just call)..... by an old friend I haven't seen for ages.

9. Mobiles (carry) ..... virtually everyone in the near future.

10. The photos (take) ..... at the party last night using Alex's mobile.

Exercise 3. Read a sentence and write another sentence with the same meaning:

Example: We can solve the problem. The problem *can be solved.*

1. They had to postpone the meeting because of illness.

The meeting .....

2. An electrical fault could have caused the fire.

The fire .....

3. Somebody might have stolen your car if you had left keys in it.

Your car .....

4. Somebody stole my friend's bag in the shop.

My friend's bag .....

5. The police have arrested three men.

Three men .....

6. People don't use this road very often.
This road .....

Exercise 4. Translate the text into Uzbek and discuss it:

In this rich varied world there are large plants, like trees, some of which are the largest -things. There are plants, thousands of which can live in a small drop of water. There are helpful plants that man cultivates, and harmful ones. Plants that live in water, and those that live only on land; plants that produce flowers and fruit, and others that do not: plants that live for hundreds of years and plants that live for only a few hours.

Green plants are so common that you may never stop to think how wonderful and how important they are. A good way to begin our general study of plants is to compare them with animals.

What Life Functions are. As we study more about plants and animals and how they live, we shall see that all of them perform several functions in common. These are called life functions. One way of studying animals and plants is to begin with their life functions. These life functions are: sensation (irritability), motion, food-taking, nutrition (digestion, absorption, circulation, assimilation), respiration, excretion and reproduction.

Exercise 5. Learn the new words of the text "Varieties of social organization"

solitary adj -	yolg'iz
mate n -	erkak
rear v -	boqmoq
chick n -	jo'ja
herring n -	seld
gull n -	chayka
flock n -	to'da
hierarchy n -	ierarhiya
peck v -	tumshug'i bilan o'ymoq
pride n -	fahr

wasp n -	ari
hive n -	asalari to'dasi
intruder n -	chaqirilmagan mehmon
ant n -	chumoli

Exercise 6. Translate and discuss it:
Varieties of social organization

The palalo - a worm which lives on rocks in the sea - is one of very few animals which never have contact with other members of the same species. Others, such as spiders, are normally solitary, meeting only to mate (that is, to reproduce).

Some species form social links only for the period while they are rearing their young. Among birds, European robins raise their chicks in a pair, away from other members of their species, while herring gulls form larger groups (*colonies*) consisting of many pairs living close together, each pair raising their chicks independently.

Many species of fish and birds form large groups, called *schools* and *flocks*, respectively, and swim or fly together. Hens attack each other, and eventually establish a hierarchy based on their individual strength. Those at the top of the 'pecking order' get to eat before the others.

Finally, some animals spend most or all of their lives in social groups in which individuals co-operate. Lions, for instance, usually live in a relatively permanent group, called a pride, where some activities, such as hunting, are social, and others, like sleeping, are solitary.

Bees, wasps and ants live in stable, co-operative groups in which every activity is communal and organized. Worker bees (which are all female) have several jobs in succession, depending on their age. They begin with cleaning duties, and later become

soldiers to defend the hive against intruders. Finally they fly out of the hive to collect food. There is a highly complex social organization.

Exercise 7. Answer the following questions:

1. Where does the palalo - a worm live?
2. Which birds do raise their chicks among birds?
3. Why do some animals spend most or all of their lives in social groups?
4. Why do lions, for instance, usually live in a relatively permanent group?
5. How do bees, wasps and ants live?
6. Is there a highly complex social organization.

Exercise 8. Translate the following into English:

Chuvalchang dengiz qoyasida yashovchi kam uchraydigan hashorotdir. U shu turdagi boshqa a'zolari bilan hech qachon muloqotda bo'lmagan. Baliq va qushlarning ko'p turlari katta guruhlarni tashkil etib, ular to'dalar deb ataladi. Ba'zi hashorotlar ko'p yoki butun hayotini ijtimoiy guruhlarda o'tkazishadi. Arilar, asalarilar, chumolilar hamkorlikda mustahkam yashashadi. Ishchi asalarilar yoshiga qarab bir qancha ishlarga ega. Ular ovqat topish uchun inlarini tark etishadi.

Exercise 9. Put the words where necessary:

1. Which of these animals spends most, but not all, of its life alone?

a) palalo
b) herring gull
c) spider
d) wasp

2. European robins and herring gulls are different with regard to

a) how many birds help to bring up each chick.

b) the social organisation in which pairs bring up their young.

c) how long they spend together.

3. What point is made about hens?

a) The best fighters eat different kinds of food from weaker hens.

b) They live in larger groups than most other species of birds.

c) Their social structure gives certain individuals advantages over others.

4. What do you think are the advantages and disadvantages for animals of living in groups?

Consider

a) bringing up the young

b) finding food

c) protection against other animals

d) conflict

5. Worker bees (which are all female) .....several jobs in succession, depending on their age.

a) have

b) had

c) has

d) have been

Grammar: Modal verbs
Exercises:
Text: Advantages of social co-operation

Modal verbs

May/might (not)

These refer to a present or future possibility. May is usually slightly more certain than might.

In England, unexpected guests may/might be offered some tea. In future, people may/might not need to travel to business meetings.

May/might (not) have

The modal perfects refer to a past possibility.

Life when my parents were young may/might have been less demanding than it is now.

Must and can't

Look at the two clauses in this sentence:

Jackie has travelled a great deal, so she must know a lot about different countries.

In the first clause the speaker means 'it is a fact that Jackie has travelled a great deal'.

In the second clause the speaker means 'I am sure Jackie knows a lot about different countries because I have worked it out from the evidence (the fact that she has travelled a great deal).' Can't is used to show that the speaker has considered the evidence and is sure that something isn't true:

Jackie has only spent a few days in Canada, so she can't know much about the country.

Must have done and can't have done

These are used to come to similar conclusions about the past: Jackie must have been to South Africa because she's got a lot of photographs of Cape Town.

Jackie's told me about every country that she's visited, and she's never mentioned Egypt, so she can't have been there.

Should, had better, ought to

These are used to give advice, or say what we think would be a good thing to do now or in the future.

• Should and ought to mean the same, but should is used much more often.

The team should spend / ought to spend less time chatting, and more time training.

• Shouldn't is used to give advice about what not to do. Oughtn't to is also possible, but is used less and less.

The team shouldn't spend so much time chatting.

• Had better (usually shortened to'd better) normally refers to the present situation, rather than the future, and is more informal than the other two. It is used in speech more than in writing. We'd better do some more practice before the match.

Should have done and ought to have done

These refer to the past, and are often used for criticism because an action didn't happen.

We should have spent / ought to have spent longer practicing.

Shouldn't have done and (occasionally) oughtn't to have done

These refer to the past, and are often used for criticism because an action happened.

We shouldn't have spent so long chatting. (We've missed our train.)

Exercise 1. Make the sentences negative and interrogative to express:

Model He is lying. — Can he be lying? He can't be lying.

1. The night before the exam I went to a party. 2. She's drinking her tea from a saucer. 3. The bride is dressed in black. 4. The kid is drinking wine. 5. I left the gas on. 6. Angela threw

the receipt away. 7. Brian is always late for work. 8. The judge sent an innocent man to prison. 9. It's late but the children are still watching the telly. 10. He has been in love with her all those years. 11. Her name is also Tamara. 12. Violet has been so rude to her friends. 13. I'm afraid we've missed our stop. 14. What a shame! We've run out of salt again! 15. We don't believe them. It's not like her to behave so!

Exercise 2. Fill in the blanks with *can* or *may* in the correct form:

1. David ... do the work. He is competent enough. 2. You ... take the last copy if nobody needs it. 3. ... I ask you to look after the child? 4. ... you tell us of the final diagnosis? 5. You ... never tell what... come to her mind. 6. A fool ... ask more questions than a wise man ... answer. 7. You ... trust me, and who knows, you ... need me one day. 8. Helen ... grasp the idea, She ... have been thinking of something else. 9.1 never thought that they ... get lost in the area. 10. Alexei .. sometimes forget things, but he ... always admit his fault, 11. —...I smoke here?—No doubt you ..., but you certainly ... not! 12. ... you lend me your bicycle for today? 13. You ... read this paper, it's not secret. 14. -, Why ... she agree to join our party? — She ... be busy or unwell. 15. ... you please open the door? ... I ask you for such a small service? 16. You ... never go back to your past: you have got to move on.

Exercise 3. Read and translate the following sentences with concessive clauses:

1. However rich you may be, you cannot be sure of happiness. 2.1 will not believe it, though an angel may come and say it. 3. However kind he may be, we cannot count on it. 4. However badly he may work, we must give him a chance. 5. However wise she may be, she won't cope with the task. 6. However powerful a king may be, he cannot buy happiness. 7. Though he may live to be a

hundred, he will never learn to be patient. 8. However little money I may have, I'll survive. 9. However much he may try, I still don't believe him. 10. Whatever may happen, life will still go on. 11. Accidents will happen, however undesirable they may be. 12. He is suffering, however hard he may try to hide it. 13. However badly he may have behaved to you in the past, he still remains your brother. 14.I would gratify all your wishes, however unreasonable they may be.

Exercise 4. Reading for comprehension:

As a student you'll need to read a great many articles, books and texts on the Internet, so make sure you can do it effectively. Before you start reading, decide what your, purpose is. Then you should choose the most suitable reading method. For instance, if you need to find something specific, such as information about a particular person or topic, scan the text until you find the person's name or a mention of the topic, then read just the relevant section. Scanning is the most rapid form of reading. If you need to find out the main theme and ideas of the text, you'll need to read more of it. First spend two or three minutes looking at the title, subheadings, introduction and summary, if there is one. Write down the questions that you want answers to, for example, *Why did such-and-such happen?* or *What, was the result of such-and-such an event?* Then read the first sentence of each paragraph: if it's relevant, read the rest of the paragraph. Otherwise go on to the next. Also use the writer's linking phrases as a guide, words like *the first point, however, to sum up,* and so on.

Above all, interact with what you're reading. Work out how it relates to what you already know. Make sure you can follow the writer's thought processes. Make notes about the topic, using your own words rather than copying what you have read. Reading effectively means using your brain - simply moving your eyes across the words is a waste of time!

Exercise 5. Learn the new words of the text "Advantages of social cooperation".

benefit n -	foyda
rear v -	boqmoq
emerge v -	paydo bo'lmoq
consume v -	iste'mol qilmoq
surround v -	qurshab olmoq
cub n -	зоол. bolacha
resistance n -	qarshi kurash, immunitet
disease n -	kasallik
hive n -	asalari ini

Exercise 6. Translate into English:
Advantages of social co-operation

Social co-operation **can** provide a number of benefits. Groups of male frogs sing to attract females, and large groups generally attract more females per male than smaller groups, making it easier for the males to find a mate.

The young **can be** reared more safely in social groups. Birds in a colony tend to lay their eggs at around the same time, so all the chicks emerge from the egg almost simultaneously. As an individual predator (an animal that kills and eats other animals) **can** only consume a finite number of eggs or chicks, each individual is

less likely to be eaten. Groups of adult elephants surround all their young, giving each one much greater protection than its parents alone could provide.

Groups are also more effective in bringing up the young. In some species of apes and monkeys, female 'aunties' help to look after the young which are not their own, while learning how to raise their own young in the future. Lion cubs drink the milk not only of their mother but also of other lionesses in the group, and the range of antibodies that different females provide increases their resistance to disease.

A group that spreads out in search of food is likely to be more successful than an animal searching alone. When one has found food, others **may** simply join it, but some species have developed a highly complex form of communication. When a honeybee finds some food it returns to its hive and performs a complex dance to indicate the location of the food to others.

Exercise 7. Answer the following questions:

1. Can social co-operation provide a number of benefits?
2. Can females choose a mate more easily?
3. Why do groups of adult elephants surround all their young?
4. Are groups also more effective in bringing up the young?
5. Why does it return to its hive when a honeybee finds some food?

Exercise 8. Translate the following into English:

Ijtimoiy hamkorlik bir qancha foydani ta'minlab bera oladi. Erkak qurbaqalar guruhi urg'ochi qurbaqalarni jalb etish uchun kuylashadi. Sher bolalari faqatgina o'zlarining onalaridan emas, balki boshqa ona sherlardan sut ichishadi. Qachonki birortasi ovqat topadigan bo'lsa boshqalari osongina unga qo'shilishi mumkin. Qachonki asalari ovqat topsa u o'z iniga qaytib raqs namoyish etib beradi.

Exercise 9. Which FIVE of these advantages of social co-operation are mentioned in the above passage?

1. A) Females can choose a mate more easily.

B) More eggs can be laid.

C) Eggs are more likely to survive.

D) There are more adults available to protect the young.

E) Individuals can develop skills for later use.

F) The young are likely to be healthier.

G) Individuals can eat food which others have found.

H) The group is more likely to live close to a source of food.

2. The young …….. reared more safely in social groups.

a) could be

b) can be

c) may be

d) might be

3. Groups are also more effective ……bringing up the young.

a) in

b) on

c) at

d) for

4. When one has found food, what others may do?

a) When one has found food, others may simply join it.

b) When they find some food they return to their hive and performs a complex dance.

c) When one has found food, others couldn't simply join it.

d) When they find some food they return to their hive.

5. …….. drink the milk not only of their mother but also of other lionesses in the group.

a) tigers

b) cats

c) lion cubs

d) dogs

Grammar: Non-finite forms. Participle 1

Exercises:

Text: How similar are animals and human beings?

-ing forms and infinitives

-ing forms

-ing forms can be the subject or object of a clause or sentence: **Analysing** the results took them all day. (subject)

I enjoy **working** with computers, (object)

-ingforms are used:

• after certain verbs and expressions, especially those expressing liking/disliking I don't mind sharing a flat. Other examples are:

love	can't stand	miss
enjoy	dislike	imagine
adore	don't mind	finish
feel like	avoid	it's not worth
detest	suggest	it's/there's no use
hate	consider	there's no point

· after adjective and preposition combinations My landlady is fantastic at cooking.

Other examples are: good/bad at, pleased, worried about, afraid, terrified of, interested in, keen on

· after verb and preposition combinations

I don't approve of having parties every night. Other examples are: look forward to, object to, insist on, believe in, succeed in, apologise for, accuse someone of, consist of congratulate someone on

· after phrasal verbs

The college took over running the hostel from a private landlord.

The infinitive

The infinitive is used

· after certain verbs

I can't afford to pay too much rent.

Other examples are: agree, hope, promise, ask, want, expect, choose, intend, prefer, help and pretend

· after certain adjectives

I was surprised to see him making his bed.

Other examples are: difficult, possible, happy, certain, simple

· after verbs with the pattern: verb + someone + to do + something

I asked her to open the window.

Other examples are: encourage, permit, allow, persuade, teach, force

· to express purpose

I went to Australia to study economics.

The infinitive without to

This is used after modal auxiliaries (can, must), after let, had better and would rather. Make has no to in the active, but adds to in the passive: I made him go to school. / He was made to go to school. Help is followed by the infinitive with or without to. Let me help you (to) move into your new flat.

Exercise 1. Complete the sentences using a verb from the box in the correct form:

Buy, pay, finish, reduce, have, share, live, visit, look, work, make.

Example: Michael has decided **to buy** Lizzie a lamp for new flat.

1. It's not worth me……..for a house to buy-they are all too expensive.

2. Paul insisted on the builders…… the job on time.

3. I'm quite good at..... accommodation with other students during term- time.

4. Tania can't afford..... too much for a room in the hostel.

5. Can you imagine.....in an apartment on the top floor of a skyscraper?

6. Foster has succeeded in ..... modern architecture popular in Britain.

7. I adore..... old buildings.

8. I used..... ....in an office just near the Eiffel Tower in Paris.

9. The house warden made us all.....noise levels in the evenings.

10. My sister has always wanted..... a houseboat on the River Thames.

Exercise 2. Correct these sentences:

1. The architect made the builder to use triangle-shaped glass.
2. You had better to do your essay before to go out.
3. I gave up to live with my parents years ago.
4. Have you finished to do the cleaning?
5. He suggested to rent the apartment next year.
6. I object to pay such high rent.
7. I look forward hear from you in the near future.
8. The college wouldn't let me to move out of the hostel.
9. I'm interested to go to see the house tomorrow.
10. The estate agent advertised in the paper to getting more people seeing the house.

Exercise 3. Complete this passage with the-ing form or infinitive of the verbs in brackets:

Too much choice

As soon become wealthier, the number of choices people need to make seems I (grow)..... .

I once spent two years in a country where buying milk

meant 2 (get)..... to the store at six in the morning and 3 (be)..... thankful if there was any milk- or indeed, anything else- on the shelves. When I returned to my own, more affluent, counter, I soon stopped 4 (worry)..... about whether there would be anything to buy. There were now five or six types of milk 5 (choose)..... from, and it was more a question of not wasting time choosing, and just remembering 6 (buy)..... full-cream for my cat and semi- skimmed for myself. I'd like 7 (say)..... that I appreciated the choice of food and clothing- not to mention telephone, gas and electricity companies- but 8 (be).....honest, I generally spent too long trying 9 (make)..... up my mind. I soon regretted 10 (complain).....about the lack of choice during my two years abroad.

Exercise 4. Translate the text into Uzbek and discuss it:

Living things grow, move and reproduce. Each of these activities requires energy and so plants and animals must have food to supply the energy. The secret of the world's food production is found inside the green leaves of plants. For in this laboratory of nature, water from the soil and carbon dioxide from the air are chemically united. In this process the energy of sunlight is used.

This ability of green plants to capture the radiant energy from sunlight and with it convert water and carbon dioxide into food may be the most important ability in our world. Animals do not have this ability. Therefore, it follows that without green plants neither people nor any other animal life could live on the earth. We are all dependent upon green plants for our very lives.

Exercise 5. Learn the new words of the text "How similar are animals and human beings?"

charge v -	ayblamoq
execute v -	qatl qilmoq

punish v -	jazolamoq
guilty adj -	aybdor
outcome n -	natija
aware adj -	bilimdon
bleat v -	ma'ramoq
invert v -	aylantirmoq
triangle adj -	uchburchak
resemble adj -	o'xshash
avoid v -	o'zini chetga olmoq
release v -	halos qilmoq
prove v -	isbotlamoq
fear n -	qo'rquv
possess v -	egalik qilmoq
ape n -	maymun
apply v -	qo'llamoq

Exercise 6. Reading for comprehension:
How similar are animals and human beings?

Over the centuries, a number of animals have been charged with a crime, tried in a court of law, found guilty and punished even executed. The last time was as recently as 1906. Animals were thought to be like human beings - able to decide their actions and morally responsible for the outcomes.

Then ideas about animals changed, and they were thought lack awareness of their own internal states and relationships to others. They were therefore considered incapable of true **suffering** and of criminal behaviour. But new research suggests that animals have far more complex cognitive and social skills than we thought. The focus in recent decades has been on wildlife, but it now seems that something similar is also true of farm animals pigs, sheep, cows, chickens.

First for some findings. In 2004, researchers in Cambridge. UK, reported that when individual sheep were isolated from the flock of sheep that they belonged to, they experienced stress. This was shown by increases in heart rate, stress hormones and **bleating** - a sheep's call. But **showing** them pictures of familiar sheep faces reduced all three measurements. The same effect was not produced when they were shown pictures of goat faces or inverted triangle; Donald Broom, professor of animal welfare at the University of Cambridge, says that cows often form long-lasting, cooperative partnerships. They also show a physiological response on **learning** something new. He and colleague Kristin Hagen put young cows in a situation where they had to press a panel to open a gate and gain access to food. Those that learned the task were more likely to experience a sudden increase in heart rate and to run around than those that did not. This was called 'the eureka response', and resembles the human reaction to **making** a discovery. Other research has shown that if offered a choice of two places to feed, pigs will avoid the one where they had previously been shut in for several hours after eating, and go for the one that they were released from quickly. None of these findings proves that animals feel pain or joy in the same way that humans do, but according to Broom, the

evidence suggests that animals may be aware of what has happened in the past, and capable of acting on it in the future. That awareness is the basis of collaboration among human beings - for instance, **knowing** not to attack a familiar face. In animal communities too, it now seems, animals with big teeth, or **weighing** several tonnes, will move carefully so as not to damage others. In the past, this was explained as their fear that if they accidentally hurt another animal, it will attack them. According to Broom, however, this is not true in every case. He claims that a great deal of this behaviour has a more general aim of **ensuring** that the society will function. American animal rights lawyer Steven Wise has gone a step further. He argues that people have basic civil liberties because they possess a sense of self, plus the ability to want something and to have the intention of **gaining** what they want. The great apes, dolphins, African grey parrots and other animals also appear to have this ability. Now, he says, it seems to apply to some farm animals too. He claims that these animals therefore deserve basic rights such as freedom from being raised as food for human beings. Wherever developments in our understanding of animals takes us, however, it seems unlikely that we will again try them for criminal behaviour.

Exercise 7. Answer the following questions:

1. What point is made in the first paragraph?
2. Were animals able to decide their actions and morally responsible for the outcomes?
3. Why did the ideas about animals change?
4. What is suggested by the research into sheep?
5. What can you tell us about other experiments?

Exercise 8. Translate the following into English:

Asrlar davomida bir qancha hayvonlar jinoyat bilan ayblangan. Hayvonlar insoniyatga o'xshash deb o'ylangan. Keyinchalik hayvonlar haqidagi fikrlar o'zgardi. Ulkan maymunlar,

delfinlar, Afrika kulrang to'ti qushlari va boshqa hayvonlar qobiliyatga ega ekanligini namoyish etdi.

Exercise 9. Put the words where necessary:

1. The belief mentioned in the second paragraph is that animals

a) Behave better than people.

b) Are not aware of other animals.

c) Do not experience mental pain as people do?

2. What point is made in the third paragraph?

a) Further research is needed into comparing the skills of wild and farm animals.

b) Skills are being found among farm animals as well as wild animals.

c) Farm animals are proving to be more interesting than wild animals.

3. What is suggested by the research into sheep?

a) They suffer stress if they are placed with animals of different species.

b) They cannot distinguish between goats and abstract symbols.

c) They can recognise other sheep in photographs.

4. Research into pigs has shown that they

A) forget previous experiences when they want food.

b) remember which types of food they like.

c) can base their behaviour on earlier experiences.

5. Prof. Broom believes that animals try not to harm others

a) when the other animal is more powerful.

b) to avoid being attacked by another animal.

c) even if they will not benefit themselves.

Grammar: Conditional sentences
Exercises:
Text: Mycology

Conditional sentences

Conditional clauses state the condition which must be satisfied before the main clause may be true. There are four main types:

Zero conditional

If + present tense / present tense

Not a true conditional, as the events described both happen. If I go shopping alone, I spend too much money.

first conditional

If+ present tense / future tense with will

Used to talk about something that will probably happen in the future, if something else happens.

If I have enough money, I'll study abroad.

I'll go to the party on my own, if you don't make a decision soon.

Second conditional

If+ past tense / would, could, might

Used to talk about unlikely or impossible situations. Were instead of was is often used after if. This is common in both formal and informal styles. Some people consider were is more correct, especially in American English.

If I inherited some money, I'd go on an expensive holiday. I wouldn't watch TV if there was/were something better to do.

Third conditional

If+ past perfect / would have, could have, might have + past participle Used to speculate about what could have happened in the past. If we had had a choice, we wouldn't have left school at 16. If Marisa had caught the right train, she wouldn't have been late for class.

Other words with the same meaning as if.

- Unless has a similar meaning to if not, in the sense of except if. I never wear a suit unless it is absolutely necessary.
- As/so long as, providing (that), provided (that), on condition that are all used to make conditions.

They were given permission to build the office block as long as they provided adequate parking facilities.

Exercise 1. Match sentences 1-10 with their endings a-j:

1. I would have bought a faster car,	a if the flight costs too much.
2. If Marisa were unhappy,	b you should ring the emergency services.
3. If I sold my bike,	c you won't feel better.
4. If there is a fire	d I wouldn't get much for it.
5. We can take the train,	e would you give any away?
6. Unless you take more exercise,	f as long as I can find a bargain.
7. If you inherited some money,	g you wouldn't have been any happier.
8. If you had studied law,	h if I have any problems,
9. I'll get a new coat,	i if I had had a choice.
10. I'll ring you straight away,	j she'd say so.

Exercise 2. With a partner, discuss how you could finish sentences:

Unless you wear something smart, you…

I would have bought a new CD ...

If I were you,...

If I had had the chance, ...

As long as you let me choose the film, I ...

If I had to choose between studying at hi studying abroad, I ...
I won't go shopping unless ...
I'll buy... if...

Exercise 3. Correct the errors:

It be best if the children were in bed whe out tonight.
You will not go wrong if you chose her fc secretary.
If I ever will have money, I will be spend.
What would happen if the cheque would missing?
If you would choose to live in the town a you'd need to pay more.
Unless we will hurry, we will be late.
I would appreciate it if you would have w back to me.
I would be grateful if you reply as soon as possible.

Exercise 4. Translate the text without a dictionary trying to guess the meaning of the unfamiliar words from the context:

Biology gives us an acquaintance with the world of living things and an understanding of some of the great fundamental laws and processes of nature. There are many special fields of knowledge and principles to which elementary training in general biology is essential. These include medicine, physiology, agriculture, horticulture, forestry, sanitation, hygiene and many others. Because man is an organism subject to the same laws which govern all living things and is built according to the same plan as other higher animals, an elementary knowledge of biology gives us a basis for an understanding of our own body.

Exercise 5. Learn the new words of the text "Mycology"

fungus n -	qo'ziqorin
property n -	mulk

tinder adj -	chirigan daraxt
poisoning n -	zaharlanish
grasp v -	qattiq ushlamoq
branch n -	tarmoq
harmful adj -	zararli
harmless adj -	zararsiz
species n -	tur
nuisances adj -	noxushlik
beneficial adj -	foydali
inside n -	ichki tomon
suffer v -	jabr ko'rmoq
tumors n -	shish
desirable adj -	xohlagan, istagan
trait n -	xususiyat
yeast n -	achitqi
contamination n -	ifloslanish, buzilish

Exercise 6. Read and discuss the text:

MYCOLOGY

Mycology (from the Greek mukēs, meaning "fungus") is the branch of biology concerned with the study of fungi, including their genetic and biochemical properties, their taxonomy and their use to humans as a source for tinder, medicinals (e.g., penicillin), food (e.g., beer, wine, cheese, edible mushrooms) and entheogens, as well as their dangers, such as poisoning or infection

Mycology is the study, or the branch of botany, that focuses on fungi. This field of study could be broken down into a number of other areas such as medical or clinical mycology, mold mycology.

and others. The purpose of the study is to understand more about the characteristics and growth patterns of fungi, and how they may affect humans either for the good or the bad. Some may help people, but others can be extremely harmful.

In essence, mycology is the root of many different types of studies, including the study of beer, wine, cheeses, medicine, and a number of other things. Without a firm grasp into what fungi are, understanding how best to use it when making these products is difficult. Fungi are essential in making all of these things.

This branch of science has identified as many as approximately 200,000 species of fungi, though not all are subject to extensive study, and less than 1 percent are known to cause problems for humans. Those that do are sometimes simple nuisances, such as the fungus responsible for athlete's foot (Tinea pedis). Others may cause more serious problems, such as tumors, that require immediate medical attention. Even seemingly harmless fungi could, if left untreated, cause problems that lead to other types of infection. Therefore, medical mycology studies these fungi and attempts to discover better treatment methods.

Medical mycology also may seek to determine what types of fungi may be beneficial for human use, either as a food source or as a source of medicine. For example, even early humans understood the importance of studying some types of fungi, and learned early on that some have desirable traits, such as yeast, which is used in breads. Yeast is also used as an antibiotic drug for those suffering various infections. Mycology made it possible to take the cost of penicillin from $20 US Dollars (USD) a dose back in 1943, down to $.50 USD just a few years later by increasing yields of the mold. This helped make the medicine affordable for individuals all over the world.

In some cases, where fungus is thought to be the source of a health problem in humans or animals, mycologists could help determine the source of the contamination. In such cases,

the mycologist looks for a fungus and then tries to determine the species. Depending on what is known about the fungus, this may also help isolate the source, which is important for eliminating the problem. This has application not only inside of people's homes, but also in protecting entire food systems.

Exercise 7. Answer the following questions:

1. What is Mycology?
2. Does Mycology break down into a number of other areas?
3. Is Mycology the root of many different types of studies?
4- What is a Fungus?
5- How many species of fungi this branch of science has identified?
6. Do fungus cause serious problems?
7. Are they beneficial for human use?

Exercise 8. Translate the following into English:

Mikologiya biologiyaning tarmog'idir. Mikologiya botanikaning tarmog'i yoki fan bo'lib, u qo'ziqorinlarni o'rganadi. Bu fan bir nechta guruhlarga ya'ni tibbiy yoki klinik mikologiyaga bo'linadi. Bu fanni o'rganishdan maqsad; qo'ziqorinlarning o'sish va ularning hususiyatlarini tushunishdir. Qo'ziqorinlarning ba'zilari inson uchun foydali bo'lib, ba'zilari esa zararli hisoblanadi. Fanning bu tarmog'i qo'ziqorinlarning tahminan 200,000 turini aniqlab berdi. Tibbiy mikologiya inson iste'moli uchun qo'ziqorinlarning qaysi turlari foydali bo'lishi mumkinligini aniqlash izlanishida. Zamburug'larning orasida parazit turlari ham juda ko'p. Ular o'simlik, hayvon va odamlarda turli yuqumli kasalliklarni keltirib chiqaradi.

Exercise 9. Put the words where necessary:

1. Mycology (from the Greek mukēs, meaning "fungus") is the branch of .....

a) botany
b) biology
c) mycology
d) cytology

2. This branch of science has identified as many as approximately .....*species of fungi.*

a) 200,000
b) 250,000
c) 320,000
d) 225,000

3. Medical mycology also may seek.....what types of fungi may be beneficial for human use.

a) to determine
b) determine
c) has determined
d) determined

4. In some cases, where..... is thought to be the source of a health problem in humans or animals, mycologists could help determine the source of the contamination.

a) fungi
b) fungus
c) plants
d) animals

5. The..... of the study is to understand more about the characteristics and growth patterns of fungi.

a) the purpose
b) purpose
c) aim
d) obligation

Grammar: Relative clauses
Exercises:
Text: Cytology

Relative clauses

There are two types of relative clause:

Defining: gives essential information about the noun it relates to, making it clear what the noun refers to.

Many people of all ages enjoy TV commercials which rely on humour. This means something different from Many people of all ages enjoy TV commercials.

Non-defining: gives additional, non-essential information. If this information is omitted, it is still clear what exactly the noun refers to. In recent years, advertisers have had considerable success with viral marketing, which probably dates from 1996. As the examples show, commas are used in non-defining clauses, but not in defining clauses. It is important to use punctuation correctly in relative clauses, as inaccurate use can change the meaning of the sentence.

A manufacturer of sports clothes has cancelled its advertisements which have been criticised by the public.

A manufacturer of sports clothes has cancelled its advertisements, which have been criticised by the public.

In the first example, only the advertisements which have been criticised have been cancelled, and the manufacturer's other advertisements will continue. In the second example, all the advertisements have been cancelled because they have all been criticised.

Relative pronouns

In **defining relative clauses,** you can use:

- who or that when referring to people

I'm going to a talk to be given by an athlete who/that appeared in a TV commercial for running shoes.

- which or that when referring to things

whose

Whose is used to refer to people and - less often - things. Our next speaker is Sharon Cooper, whose book on the history of advertising was published last year.

A commercial whose strength lies in humour is more likely to be remembered than a more straightforward one.

whom

Whom is mostly used in fairly formal language. It can be the object in a clause, or follow a preposition.

The group whom the government wishes to protect from the effects of advertising is children.

To whom it may concern: Stephanie Allen has been employed at this advertising agency since September 2003.

where, when, why

These words can be used instead of a relative pronoun after appropriate nouns. It is possible to omit when and why in defining relative clauses, as in these examples:

The launch of a new product is the time (when) you see if all your hard work has been successful.

The brilliant advertising campaign for these running shoes is the reason (why) sales have rocketed.

Exersice 1. Complete the sentences. Choose the most suitable ending from the box and make it into a relative clause using *who, which* or *that:*

EXAMPLE: **I** work on Madison Avenue, **which** is the centre of the advertising industry in New York.

1. I work on Madison Avenue
2. My colleague is always late for work

3. The archaeologists have found the tomb of the king
4. We went to see the film
5. I am writing a book review
6. Archaeologists are people
7. I don't like advertisements
8. What was the name of the company

1. It won an Oscar this year.
2. it makes my boss really angry.
3. it is the centre of the advertising industry in New York.
4. it might upset the author.
5. It gave all its workers a bonus last year.
6. he ruled the country in 4500 BC.
7. they often have to work in difficult conditions.
8. they don't tell the truth.

Exercise 2. Add commas to sentences containing a non-defining relative clause. Sentences with defining relative clauses do not need commas:

EXAMPLE: Richard Branson who is a very successful businessman was invited to speak at the conference.

Richard Branson, who is a very successful businessman, was invited to speak at the conference.

- My wife who lives in New York works in advertising.
- The Dorchester HoteLwhich is near Hyde Park is very comfortable.
- I know a lot of people who are archaeologists.
- The boy who played the part of Peter in the play goes to my college.
- The people who built the Pyramids must have worked long and hard.
- My manager who is very strict about punctuality has been with the company for years.

Exercise 3. Read the following text and be ready to retell it:

What can you see when you examine different organs under the microscope?

One thing will quickly stand out. No matter what part of the body you examine, you will find cells. They are the smallest living units of the body, just as bricks are the smallest units of a brick wall. Like other animal cells, each has cytoplasm, a nucleus and a thin cell membrane. The cells of the body are built in such a way that they can do their special work best. For example, muscle cells are long and elastic. Nerve cells are very sensitive. They have many branches which connect with other nerve cells or with muscles or glands.

Our body consists of many different kinds of cells. These cells make up our tissues, which make up the organs. A tissue is nothing more than a group of similar cells all doing the same job. We have nerve, muscle, bone and blood tissues among others.

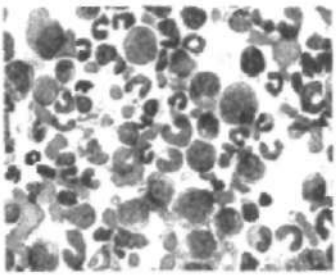
Exercise 4. Learn the new words of the text "Cytology"

Barely adv -	arang, oddiy
Thyroiditis n -	qalqonsimon bez
Responsible adj -	javobgar, ma'sul
Infection n -	zararlanish, infek
Presence n -	ishtirok etish, qatnashish
Hence adv-	bu yerda, hozirdan
Antibody n -	antitana
Provide v -	ta'minlamoq, yetkazib bermoq
Cancer n -	saraton (kasallik)
Refer v -	yubormoq, yo'naltirmoq
Retardation n -	kechiktirish
Fatigue n -	holdan toyish
Obesity v –	ichaklarni yuvmoq

Ultimately adv -	nihoyat
Irreversible adj -	o'zgarmaydigan
A pap smear n -	ko'krak uchidagi dog'
biopsies of lumps n -	shish biopsiyasi
precede v -	shug'ullanmoq

Exercise 5. Read the text and translate it into Uzbek:

CYTOLOGY



Cytology, more commonly known as *cell biology*, studies cell structure, cell composition, and the interaction of cells with other cells and the larger environment in which they exist. The term "cytology" can also refer to *cytopathology*, which analyzes cell structure to diagnose disease. Microscopic and molecular studies of cells can focus on either multi-celled or single-celled organisms.

That fact that we as humans are made up of millions of tiny cells, and that other life forms around us are similarly constituted, now barely needs explanation. The concept of the cell is relatively new, however. The scientific community did not accept the idea of the existence of cells until the late 18th century. Cytology became, in the 19th century, a way to describe and identify cells, and also to diagnose certain medical diseases.

Recognizing the similarities and differences of cells is of the utmost importance in cytology. Microscopic examination can help identify different types of cells. Looking at the molecules which form a cell, sometimes called molecular biology, helps in further description and identification. All fields of biology depend on the understanding of cellular structure. The field of genetics exists because we understand cell structure and components.

Another important aspect in the discipline of cytology is examining cell interaction. By studying how cells relate to other cells or to the environment, cytologists can predict problems or examine environmental dangers to cells, such as toxic or cancer-causing substances. In humans and other multi-cellular structures, cytology can examine the presence of too many of one kind of cell, or the lack of enough of a certain kind of cell. In a simple test like a complete blood count, a laboratory can look at white blood cells and identify the presence of an infection, or it may examine a low level of certain types of red blood cells and diagnose anemia.

Certain autoimmune disorders can be diagnosed by abnormal cell reactions. Hashimoto's thyroids, for example, is an autoimmune condition caused by abnormal cell reaction. Instead of white blood cells recognizing the presence of normal thyroid cells, these antibodies attack them, causing low thyroid. If untreated, this condition can result in retardation, extreme fatigue, obesity, and ultimately death. Through cytology, the abnormal reactions of these antibodies can be recognized, and treatment can be undertaken long before this condition creates irreversible problems.

Cytopathology has similar aims, but tends to look for cells that should not be present in an organism. Urinalysis and blood tests, for example, can scan for the presence of parasites or bacteria which can cause illness and death. Hence, in cytology, understanding single-celled organisms like many forms of bacteria is as important as understanding multi-cellular structures.

This is also one of the main diagnostic tools for detecting cancer. A woman's yearly gynecological exam almost always involves a pap smear, a collection of tissues that are analyzed at the cellular structure to detect early formations of cancer cells. Early detection can lead to greater survival rates. Similarly, needle biopsies of lumps in the breast or elsewhere can detect cancer cells and provide an excellent means for diagnosis.

The recognition and the study of cells represent huge improvements in medical care and diagnostics. Cytology, by studying cell

interaction, helps us to understand ways in which we can care for humans, animals and plants. Though biology precedes cytology in its development, cytologists are responsible for our modern view of biology and all other life sciences.

Exercise 6. Answer the following questions:

1. What does Cytology study?
2. Is the concept of the cell relatively new?
3. Can cytologists predict problems by studying how cells relate to other cells or to the environment?
4. What is Cytopathology?
5. Is this also one of the main diagnostic tools for detecting cancer?

Exercise 7. Translate the following into English:

Sitologiya hujayra biologiyasi sifatida tanilgan. U hujayra tuzilishini, tarkibini, boshqa hujayralar bilan o'zaro aloqasini o'rganadi. Sitologiya termini sitopatologiyaga taalluqli bo'lib, u kasallikni tekshirishda hujayra tuzilishini analiz qilib beradi. Hujayralarning o'hshashligini va farqlarini tan olishda sitologiya muhim rol o'ynaydi. Mikroskopik tekshirishlar hujayra turlarini aniqlab berishda yordam bera oladi.

Exercise 8. Put the words where necessary:

1. ....., more commonly known as *cell biology*, studies cell structure, cell composition.

a) mycology
b) histology
c) cytology
d) biology

2. Recognizing the similarities and differences of ..... is of the utmost importance in cytology.

a) tissues
b) cells
c) diagnostics
d) deseases

3. Another important aspect in the discipline of cytology is ..... cell interaction.
a) examining
b) checking
c) looking
d) finding

4. This is also one of the main diagnostic ..... for detecting cancer.
a) instrument
b) tools
c) goods
d) thing

5. The recognition and the study of cells represent huge improvements in ..... care and diagnostics.
a) chemical
b) diagnostic
c) medical
d) genetic

Grammar: Non-finite clauses
Exercises:
Text: Histology

Non-finite clauses

Non-finite clauses contain an infinitive (e.g. to do), present participle (e.g. doing) or past participle (e.g. done). In these examples the non-finite clauses are underlined. I hope to write a best-selling novel.

Using international road signs reduces the risks when people drive in another country.

Books printed in the early days of the printing press are very valuable. These clauses are ungrammatical on their own: they have to be part of a larger sentence, where they can function in a number of ways. In the first sentence above, the non-finite clause is functioning as the object (what I hope); in the second it is the subject (what reduces the risks) and in the third it is a relative clause, describing books (shortened from which were printed ...). The main difference in meaning is that the present participle generally has an active meaning (people use road signs), and the past participle generally has a passive meaning (books are printed).

When a non-finite clause functions as the subject of a sentence, it normally uses a present participle:

Writing in Chinese is difficult for foreign learners.

Alternatively, the clause can be replaced by it and moved to the end

of the sentence. In this case it normally uses an infinitive:

It is difficult for foreign learners to write in Chinese.

Exercise 1. Complete each sentence with the present or *past participle of the verb in brackets:*

I have some queries (concern).....the use of laptops in the library.

With reference to your letter (date).....18 February, I am pleased to

give you the information you require.

These measures, (introduce)..... to simplify English spelling, have not been effective.

(attend).....by a record number of delegates, the conference was a great success.

(attend).....a conference in Rome. Mary found that someone else was carrying out very similar research to her own.

Exercise 2. Here are some more uses of non-finite clauses. Translate into English:

C Jane spent the day in the library *working on an assignment.*

= When Jane spent the day in the library she was working on an assignment.

D You should check your spelling carefully *when writing an essay.*

= ... when you are writing an essay.

E *Not knowing where to begin,* Jane asked her tutor for help.

= Because she didn't know where to begin, ...

F *Having grown up in Korea,* Will could speak Korean fluently.

= Because Will had grown up in Korea,.

G *After writing an essay,* you should look for ways to improve it.

= After you have written an essay, ...

H Having written an essay, you should look for ways to improve it.

= After you have written an essay, ...

I *Asked for advice on studying effectively,* Karl didn't know what to say.

= When he was asked ...

Exercise 3. Complete this passage with the -ing form or infinitive of the verbs in brackets:

As societies become wealthier, the number of choices people need to make seems 1 (grow).....I once spent two years in a country where buying milk meant 2 (get).....to the store at six in the morning and 3 (be).....thankful if there was any milk - or indeed, anything else - on the shelves. When I returned to my own, more affluent, country, I soon stopped 4 (worry).....about whether there would be anything to buy. There were now five or six types of milk 5 (choose).....from, and it was more a question of not wasting time choosing, and just remembering 6(buy)..... full-cream for my cat and semi-skimmed for myself. I'd like 7 (say)..... that I appreciated the choice of food and clothing - not to mention telephone, gas and electricity companies – but 8(be).....honest, I generally spent too long trying 9 (make).....up my mind. I soon regretted **10** (complain).....about the lack of choice during my two years abroad.

Exercise 4. Translate the text and discuss it:

Sugars and starches. Sugars, and starches are important sources of energy in your food. They are present in candies, cakes, potatoes, bread and many other common foods. Most of the starch and sugar you eat is changed to simple sugars like glucose in your digestive system. When they travel through the blood stream, some of the sugars are stored, but others will be burned in the cells to produce the energy we need for life. It is possible to measure the amount of energy produced by a food by burning it outside the body. The heat given off is measured very carefully. The unit of heat energy in food is called a calo- Fats. They, give much, more energy than do starch or sugar. (You -can easily burn fatty foods peanuts or walnuts by lighting them with a match.) Fats do not burn this way in your body cells, but they are used to produce heat and energy. Fats do more than simply supply calories. They are necessary for

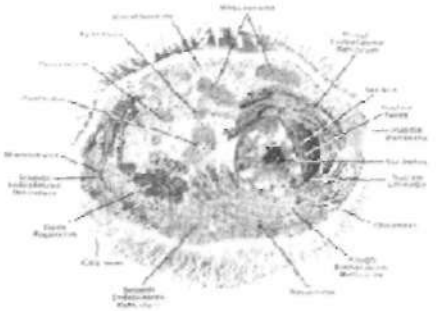
the continued health of the cells, are unable to grow on a fat-free diet. Children who have no fat in their diet do not properly either and were very weak and underdeveloped.

Exercise 5. Learn the new words of the text "Histology"

cut v -	kesmoq
stain v -	rang bermoq, bo'yamoq
fluid n -	suyuqlik
malignant adj -	yuqumli, yomon sifatli
solute n -	qorishma
suspend v -	to'xtatmoq
albumin n -	albumin
hazard n -	havf
drum n –	baraban, quti
conjunction n -	konyunksiya, birikish
allay v -	tinchlantirmoq, og'riqni kamaytirmoq
require v -	talab qilmoq, muxtoj bo'lmoq
patience n -	sabr, sabrlilik
intricate adj -	murakkab, adashgan

Exercise 6. Translate the text and answer the questions:

HISTOLOGY



The microscopic study of animal or plant tissues. Histology is the study of animal or plant tissues microscopically by way of cutting and staining thin sections of tissue for examination. The study of individual cells is called cytology. Body fluids are a bit more difficult. There are several

different disciplines that can be useful in the study of a body fluid. In a body fluid can be found malignant cells (cytology), white cells and micro-organisms (microbiology and hematology) and various solutes and suspended particles such as electrolytes and albumin, respectively (biochemistry).

There are physical hazards from the knives to the lifting of large drums of chemicals. There are chemical hazards: virtually all of the stains used (based on benzene) and fixatives (well, they do kill tissue) are either toxic or hazardous. Last but not least are the biological hazards: you never know where that tissue has been.

Histotechnicians (HTs) and histotechnologists (HTLs) are members of a laboratory team who employ histologic technology to diagnose diseases, to conduct research, or to instruct others in the science.

Histotechnologists play a fundamental role in the allied health profession. A histotechnologist will prepare very thin slices of human, animal or plant tissue for microscopic examination. This is an important part of the intricate process of scientific investigation used in establishing and confirming patient diagnosis. Because of the histotechnologist's skillful application of sophisticated laboratory techniques, the seemingly invisible world of tissue structure becomes visible under a microscope.

The tasks performed by the histotechnologist require patience, mechanical ability, knowledge of biology, immunology, molecular biology, anatomy and chemistry. It requires five basic steps, each an integral part of the histotechnologist's job.

Exercise 7. Answer the following questions:

1. What is Histology?
2. Who are Histotechnicians (HTs) and histotechnologists?
3. Why will a histotechnologist prepare very thin slices of human, animal or plant tissue for microscopic examination?
4. What tasks is it required by the histotechnologist?

Exercise 8. Translate the following into English:

Histologiya bu o'simlik va hayvonlar hujayralarini o'rganadigan fan. Histologiya- tekshirish uchun hujayralarning yupqa bo'laklarini kesish va bo'yash yo'li orqali hayvon va o'simliklarni mikroskop orqali o'rganishdir. Yakka to'qimalarni o'rganish sitologiya deb ataladi. Qon suyuqligi biroz qiyin. Bizning tana suyuqligimizning o'rganishning foydali tomonlari bor. Tana suyuqligida yomon sifatli to'qimalar ham bo'ladi. Histotehniklar laboratoriya a'zolari bo'lib, ular kasallikga tashhis qo'yish, ilmiy ish olib borish yoki fanda boshqalarni nazorat etish uchun histologik tehnologiyalarni ishlatishadi.

Exercise 9. Put the words where necessary:

1. The microscopic ..... of animal or plant tissues.
a) learn b) know c) study d) find out

2. ..... fluids are a bit more difficult.
a) organism b) body c) plant d) blood

3. Histotechnologists .....a fundamental role in the applied health profession.
a) played b) had played c) play d) plays

4. The tasks performed by the histotechnologist..... patience, mechanical ability, knowledge of biology.
a) ask b) require c) supply d) claim

5. It requires five basic steps, each an integral part of the histotechnologist's .....
a) work b) job c) task d) duty

Grammar: Cause, purpose and result
Exercises:
Text: Children and toxicomania

Cause, purpose and result

Cause

Because and because of are used to express the cause of an event or state.

Because *is a conjunction, so it must be followed by a finite clause:* Edinburgh attracts a lot of visitors during the summer because the festival is very popular.

Because of is a compound preposition ('compound' means that it consists of more than one word). It is most often followed by a noun phrase:

Many people prefer cities to the countryside because of the night life. Because of *can also be followed by a clause beginning with a* wh - *word, usually* what.

I visited the museum because of what I'd been told about it. *A more formal alternative to* because of *is* on account of.

Purpose

The purpose of an action (that is, what is hoped for as a result of the action) can be expressed by using so that (usually so in informal language). It is followed by a finite clause, often containing could or would.

I booked a hotel room in advance so (that) my friends could meet me there as soon as I arrived.

Notice that in this example, the two subjects (/and my friends) are different, and that we don't know whether my friends met me or not: all we know is that that was my purpose, or intention.

Result

Unlike a purpose, a result is something that actually happens. It can be expressed with so **(not** so that). So is a conjunction and is followed by a finite clause.

All the hotels seemed to be full, so I stayed in a youth hostel. Be careful not to confuse the purpose and result meanings of so. I booked a cheap hotel at a distance from the city centre so I could save money, but I spent a lot on taxis, so I didn't save anything. The first so introduces a purpose; the second one - a result. In formal language, results are usually expressed in other ways: The city's advertising campaign led to / resulted in a big increase in the number of tourists.

The bridge was closed, with the result that traffic came to a standstill.

Exercise 1. Complete each sentence 1-6 with the correct ending a-g from the box below. Think about both the grammar and the meaning. There is one extra ending which you will not need to use.

1. Castle Rock has been inhabited-for nearly 3,000 years because of ...
2. The Forth Bridge was constructed so.....
3. You must be reasonably healthy to swim with sharks, because.....
4. The Forth Bridge was made particularly strong because.....
5. A lot of interactive exhibits were used in Our Dynamic Earth so that....
6. Our Dynamic Earth is popular with children because of.....

a) it seems more like entertainment than education.

b) trains could cross the river.

c) it would appeal to children.

d) its good position.

e) the interactive exhibits.

f) it can be pretty terrifying!

g) many people were afraid it would collapse.

Exercise 2. Decide if *so* in each of these sentences introduces a purpose (when *so that* is also possible, particularly in writing) or a result (when so *that* isn't possible).

In two sentences, both meanings are possible.-

Our Dynamic Earth was constructed on a former industrial site so it would help to improve that district of Edinburgh.

The Forth Bridge is a striking structure so it is well known around the world.

The water in Deep Sea World is heated so tropical fish can survive there.

Castle Rock is an extinct volcano so there is no danger of an eruption.

Our Dynamic Earth offers plenty of exciting activities so visitors have the experience of a lifetime.

Exercise 3. Text for discussion:

Nancy Andrews

Nancy C. Andrews (born November 29, 1958) is an American biologist noted for her research on iron homeostasis. Andrews is currently Dean of the Duke University School of Medicine.

Andrews grew up in Syracuse, New York. She earned a B.S. and M.S. from Yale University. She began her graduate studies with Joan Steitz at Yale University, studying molecular biophysics and biochemistry, before transferring to work with David Baltimore, earning an M.D.-Ph.D. at Harvard Medical School and M.I.T. (1985). She completed her postdoctoral work at Children's Hospital Boston.

Andrews then joined the faculty at Harvard University in 1991, assuming an endowed chair in 2003, a position at the Dana-Farber

Cancer Institute, and a position as Dean for Basic Sciences and Graduate Studies at Harvard Medical School. In 2007, Andrews left to take a position as the first female Dean of Medicine at Duke University. In this position, she is the only woman heading any of the top ten medical schools in the U.S.

Andrews studied treatments for and molecular processes governing iron disease, such as anemia (iron deficiency) and hemochromatosis.

She is married to fellow biologist Bernard Mathey-Prevot. She is the great granddaughter of New York Court of Appeals Judge William Shankland Andrews and Mary Raymond Shipman Andrews, and also a direct descendant of Charles Andrews and Frederic Dan Huntington.

Exercise 4. Learn the new words of the text "Children and toxicomania"

glue n —	yelim
to sniff v —	hidlamoq
nail polish remover n —	lak ketgazadigan suyuqlik
vapour n —	bug'
to inhale v —	nafasi bo'g'ilmoq
to feel dizzy, light-headed v —	bosh aylanishini his qilmoq
tremendous adj —	ulkan
index n —	ko'rsatgich
substance n —	modda
to become unconscious v —	hushidan ketmoq
extremely adv—	favqulodda
solvent adj -	eruvchan
addiction n —	..ga tobe bo'lmoq

Exercise 5. Read and translate the text:

CHILDREN AND TOXICOMANIA

Such products as glue, butane gas, solvents are made on solvent base. That is why they can be used for sniffing and then receiving post effects of visual hallucinations.

Solvents are usually commercial products, like glue, nail polish remover, aerosols, gas lighter fuel and petrol, which give off a vapour. When the vapour is inhaled, it can make you feel light-headed, happy, and dizzy. The effects can last up to an hour, depending on what, and how much was inhaled. Solvents are depressant drugs.

It is estimated that one of five young people in Britain have used solvents. It is the second most commonly used drug for this age group. Talking about our country, there is no exact statistics concerning this fact, but it is not a secret that the number of «sniffers» is growing and yet has reached a tremendous index. It happens, because such substances are the most available and cheap.

Because solvents are often sniffed from a plastic bag, sometimes covering the head, there is a risk of suffocation, if the user becomes unconscious.

Solvent use is extremely dangerous. Nobody knows exactly how many children die in our country, because of solvent addiction. For example, in Great Britain in 1999 thirty nine young people died as a direct result of inhaling butane lighter fluid. This is ten times more than die from Ecstasy.

In Great Britain it is prohibited to sell solvent-based products to children under 18s. It is illegal there. Here, in our country, there

is no such legislation concerning this problem, which is becoming worse day after day.

Exercise 6. Answer the following questions:

1. Why can solvents be used for receiving post effects of visual hallucinations?
2. What are solvents?
3. What are the effects of sniffing solvents?
4. Why is the number of «sniffers» growing in our country?
5. Why is there a risk of suffocation for people sniffing solvents?

Exercise 7. Translate the following into Uzbek:

Such products as glue, butane gas, solvents are made on solvent base. That is why they can be used for sniffing and then receiving post effects of visual hallucinations.

Solvents are usually commercial products, like glue, nail polish remover, aerosols, gas lighter fuel and petrol, which give off a vapour. When the vapour is inhaled, it can make you feel light-headed, happy, and dizzy. The effects can last up to an hour, depending on what, and how much was inhaled. Solvents are depressant drugs.

Exercise 8. Put the words where necessary:

1. Solvents are usually commercial .....

a) products
b) drugs
c) goods
d) commodity

2. It is estimated that one of five .....people in Britain have used solvents.

a) young

b) old
c) children
d) middle aged

3. Solvent use is extremely .....
a) useful
b) interesting
c) dangerous
d) wonderful

4. ..... knows exactly how many children die in our country, because of solvent addiction.
a) nobody
b) every one
c) all
d) somebody

5. In Great Britain it is .....to sell solvent-based products to children under 18s.
a) advised
b) prohibited
c) given
d) refused

TEXTS FOR HOME—READING

Read these texts as quickly as you can and get a general idea of what it is about.

BIOLOGY

Biology is the science of life and people who are engaged in it are called biologists. They study the secrets of living things. Their discoveries are of great value to all mankind. Biology tells us about our body: how it is constructed and how it functions. It gives us important information about other living things and how their

lives affect mankind. A knowledge of biology will help you to keep healthy. It will be your guide in solving many of everyday living and scientific problems. Biologists have made a great contribution to science. They have increased our food supply, they have developed new and better varieties of plants and animals. Scientific methods of farming have given us much more food. Biologists control many diseases. They have saved millions of lives by discovering the causes of these diseases and methods of prevention and cure. Vaccines, penicillin and sulfa are products of the biological laboratory.

Biologists have solved many mysteries of the body. They have discovered how blood circulates, how food is digested and many other secrets of life. They are now working in different fields of biology and their studies may lead to a solution of many problems.

A biologist's laboratory is a fascinating place. In it you may find a variety of plants and animals, some of which are invisible to the naked eye. There are powerful microscopes and other instruments. One of the most important tools of a scientist is his laboratory notebook. He always keeps very complete and accurate records of his observations and experiments.

In carrying out his work biologists use the scientific method that is:

· They find out everything that is known about the problem by reading or by discussing the matter with others.

· They think of several possible explanations or solutions. Some of these will prove to be wrong. One or more of the others may be right.

· They test all the possibilities by experiments. They repeat the experiment several times. They make every effort to prevent errors.

· When they have reached a conclusion, they inform other scientists who may repeat the work.

VOCABULARY:

Engage v	shug'ullanmoq
Mankind n	insoniyat
Supply n	ta'minlash
Disease n	kasallik
Invisible a	ko'rinmas
Prove v	isbotlamoq

DRUGS

More people are abusing drugs today than in any other time in history of mankind, and many of those people are youth.

Understanding what drugs are is fundamental for understanding their potential abuse. Drugs are a psychoactive substance. A psychoactive substance is something that people take to change the way they feel, think or behave. Some of these substances are called drugs and others, like alcohol and tobacco, are considered dangerous, but are not called drugs. The term drug also covers a number of substances that must be used under medical supervision to treat illnesses.

I am going to talk about drugs as those man-made or naturally occurring substances used without medical supervision, basically to change the way a person feels, thinks or behaves.

In the past, most drugs were made from plants. That is, plants were grown and then converted into drugs such as coca paste, opium and marijuana. Over the years, these crude products were further processed to drugs like cocaine and heroin and finally, in the 20th century, people found out how to make drugs from chemicals. These are called man-made or synthetic drugs and include ecstasy, LSD, etc. These were initially manufactured for largely experimental reasons and only later were used for recreational purposes. Now, however, with the increased size and scope of the drug trade, people set out to invent drugs especially for human consumption.

For the first time in human history, a whole industrial complex creates and produces drugs that are meant to be used for the

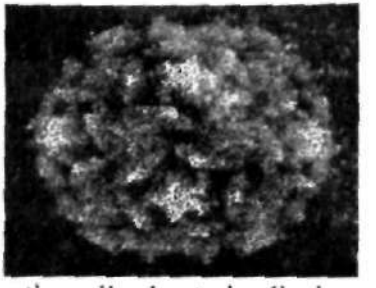
sole purpose of «having fun.» People use drugs just to escape the reality, to have fun. The majority of them are young, even very young, who do not understand what might happen to them because of drugs.

VOCABULARY:

Abuse v	yomon niyatda iste'mol qilmoq
Supervision n	nazorat
Convert v	aylantirmoq
Opium n	opium
Crude a	nam, islanmagan
escape v	qochmoq

Bacterial Pathogens Carry Specialized Virulence Genes

Bacteria are small and appear structurally simple. Most can be classified broadly by their shape as rods, spheres, or spirals and by their socalled **Gram-staining** properties. Their relatively small size and simple range of shapes belies their extraordinary molecular, metabolic, and ecological diversity.



At the molecular level, bacteria are far more diverse than eucaryotes, and they can successfully occupy ecological niches in extremes of temperature, salt, and nutrient limitation that would daunt even the most intrepid eucaryote. Although they lack the elaborate morphological variety of ucaryotic cells, bacteria display a surprising array of surface appendages, which enable the cells

to swim or adhere to desirable surfaces. Their genomes are also small, typically between 1,000,000 and 5,000,000 nucleotide pairs (compared to 12,000,000 for yeast and more than 3,000,000,000 for humans). As already emphasized, only a minority of bacterial species have the ability to cause disease in humans. Some of those that do cause disease can only replicate inside the body of their host and are called *obligate pathogens*. Others replicate in an environmental reservoir such as water or soil and only cause disease if they happen to encounter a susceptible host; these are called *facultative pathogens*. Many bacteria are normally harmless but have a latent ability to cause disease in an injured or immunocompromised host; these are called *opportunistic pathogens*. As discussed previously, whether or not a particular bacterium causes disease in a particular host depends on a wide variety of factors, including the overall health of the host; many normal flora, for example, can cause severe infections in people with AIDS.

VOCABULARY:

Property n	xususiyat
Belie v	qarshi chiqmoq
Diverse a	har-xil, farqli
Niche n	mos joy
Daunt v	bezamoq
Intrepid a	muhim
Array n	massa, ko'p
Susceptible a	ta'sirli
Latent a	yopiq holatda

AIDS

AIDS is an insidious and up to the present moment incurable but less contagious disease than measles or hepatitis B. AIDS is thought to be caused primarily by a virus that invade white blood cells (lymphocytes) and certain other body cells, including the brain. In 1983 and 1984, French and US researchers independently

identified the virus believed to cause AIDS as an unusual type of slow-acting retrovirus now called «human immunodeficiency virus» or HIV. Like other viruses, HIV is basically a tiny package of genes. But being a retrovirus, it has the rare capacity to copy and insert its genes right into a human DNA. Once inside a human host cell, the retrovirus using its own capacities begins to copy its genetic code into a DNA molecule which is then incorporated into the host's DNA. The virus becomes an integral part of the person's body. But the viral DNA may sit hidden and inactive within human cells for years, until some trigger stimulates it to replicate. Thus HIV may not produce illness until its genes are «turned on» five, ten, fifteen or perhaps more years after the initial infection.

During the latent period, HIV carriers who harbour the virus without any sign of illness can unknowingly infect others. On average, the dormant virus seems to be triggered into action three to six years after first invading human cells. When switched on, viral replication may speed along, producing new viruses that destroy fresh lymphocytes. As viral replication spreads, the lymphocyte destruction virtually sabotages the entire immune system. In essence, HIV viruses do not kill people, they merely render the immune system defenseless against other infections, e.g. yeast invasions, toxoplasmosis, cytomegalovirus, massive herpes infections, special forms of pneumonia that kill in half of all AIDS patients.

That is AIDS. There are several types of AIDS. No one has been cured up to the present moment.

VOCABULARY:

Insidious a	makkorlik bilan qilingan
Package n	qop, tugun
Trigger n	impulsiv
Harbour v	bekitmoq, sir tutmoq
Dormant a	uxlab yotgan, harakatsiz

Sabotage v	to'sqinlik qilmoq

THE BIOSPHERE

The idea of the biosphere was introduced into science rather casually almost a century ago by the Austrian geologist Eduard Suess, who first used the term in a discussion of the various envelopes of the earth in the last and most general chapter of a short book on the genesis of the Alps published in 1875. The concept played little part in scientifie thought, however, until the publication, first in Russian in 1926 and later in French in 1929 (under the title La Biosphere), of two lectures by the Russian mineralogist Vladimir Ivanovitch Vernadsky. It is essentially Vernadsky's concept of the biosphere, developed about 50 years after Suess wrong that we accept today. Vernadsky considered that the idea ultimately was derived from the French naturalist Jean Baptiste Lamark, whose geochemistry, although archaically expressed, was often quite penetrating.

The biosphere is defined as the part of the earth in which life exists, but the definition immediately raises some problems and demands some qualifications considerable altitudes above the earth's surface the spores of bacteria and fungi be obtained by passing air though filtrers. In general, however, such aeroplanka do not appear to be engaged in active metabolism. Even on the surface of the end there are areas too dry, too cold or too hot to support metabolizing organisms (except technically equipped human explorers), but in such places also spores and commonly found.

VOCABULARY:

Casually adv	to'satdan
Ultimately adv	natijada
Penetrate v	ichkariga kirmoq
Support v	qo'llab quvvatlamoq
Altitude n	balandlik

HEALTHY FOOD

All food is made up of nutrients which our bodies use. There are different kinds of nutrients: carbohydrates, proteins, fats, vitamins and minerals. Different foods contain different nutrients.

Before we cut down on fat, sugar and salt, we have to know a bit more about the kind of food these things might be in. The biggest problem comes when these things are hidden in other foods: biscuits, crisps, sausages, meat pies, soft drinks and so on. The best way is to get into the habit of checking the ingredients and nutritional value on the sides of packets although this isn't always easy to do. Another thing to know is, for example, that we do need fat to live, it's an essential part of our diet and physically we couldn't exist without it. But we all know that to eat much fat is bad for our health. The matter is that there are different kinds of fat. There are fats that are good for us and fats that are bad for us. Eating less of the bad ones and more of the good ones can actually help us to live longer! Bad fats are the saturated fats, found in animal productions, like red meat, butter and cheese.

Friendly fats are the unprocessed fats found naturally in foods like nuts and seeds, olives, avocados and oily fish, including tuna.

One more thing to know is that when food is cooked, its structure changes. It can change the vitamin and nutrient contents of food.

More and more people feel strongly about the way, their food is produced. Nowadays so much of the basic food we eat — meat, fish, fruit and vegetables — is grown using chemicals and additives. Although fertilizers and pesticides have greatly increased the quantity of food and helped to improve its appearance, there is a growing concern about the effects of these chemicals in the food chain. This concern has led to a growth in the demand for organically grown products.

Today there is another problem. It is modified food, which is cheaper that ordinary one. There is a rumour that such food can

cause cancer and other problems. Nobody knows, either is just an imagined fear or a real problem. This problem could be solved and examined, but it will take some time.

The food we eat depends on lots of things. Taste is a big factor. Culture, religion and health also play a part in what food we eat. Advertising and social factors also have a big influency.

Income is also an important factor. That is why not surprisingly, money, rather than a lack of knowledge about how to eat well, is at the heart of the problem.

Finally, there are three main messages to follow for health eating:

First, we should eat less fat, particularly saturated fat.

Secondly, we are to cut down on sugar and salt.

Thirdly, we must eat more fresh fruit and vegetables.

VOCABULARY:

Saturate v	to'yintirmoq
content n	tarkibi
Chain n	sistema, zanjir
Modify v	o'zgartirmoq
There is a rumour n	aytishicha
Income n	foyda

Cells and Genomes

The surface of our planet is populated by living things—curious, intricately organized chemical factories that take in matter from their surroundings and use these raw materials to generate copies of themselves. The living organisms appear extraordinarily diverse. What could be more different than a tiger and a piece of seaweed, or a bacterium and a tree? Yet our ancestors, knowing nothing of cells or DNA, saw that all these things had something in common. They called that something "life," marveled at it, struggled to define it, and despaired of explaining what it was or how it worked in terms that relate to nonliving matter. The discoveries

of the past century have not diminished the marvel—quite the contrary. But they have lifted away the mystery as to the nature of life. We can now see that all living things are made of cells, and that these units of living matter all share the same machinery for their most basic functions. Living things, though infinitely varied when viewed from the outside, are fundamentally similar inside. The whole of biology is a counterpoint between the two themes: astonishing variety in individual particulars; astonishing constancy in fundamental mechanisms. We then survey, briefly, the diversity of cells. And we see how, thanks to the common code in which the specifications for all living organisms are written, it is possible to read, measure, and decipher these specifications to achieve a coherent understanding of all the forms of life, from the smallest to the greatest.

VOCABULARY:

Curious a	g'ayri oddiy
Intricately adv	murakkab
Surrounding a	yaqin, qo'shni
Marvel v	hayratlanmoq
Despair v	umidni yoqotmoq
Counterpoint n	kontrapunkt
Constancy n	qattiy
Decipher v	kelishib olmoq
Coherent a	bog'langan, aniq

GLOBAL WARMING

Global warming is sometimes referred to as the greenhouse effect. The greenhouse effect is the absorption of energy radiated from the Earth's surface by carbon dioxide and other gases in the atmosphere, causing the atmosphere to become warmer. Each time we burn gasoline, oil, coal, or even natural gas, more carbon dioxide is added to the atmosphere. The greenhouse effect is what

is causing the temperature on the Earth to rise, and creating many problems that will begin to take place in the coming decades.

Today, however, major changes are taking place. People are conducting an unplanned global experiment by changing the face of the entire planet. We are destroying the ozone layer, which allows life to exist on the Earth's surface. All of these activities are unfavorably changing the composition of the biosphere and the Earth's heat balance. If we do not slow down our use of fossil fuels and stop destroying the forests, the world could become hotter than it has been in the past million years. Average global temperatures have risen 1 degree over the last century. If carbon dioxide and other greenhouse gases continue to spill into the atmosphere, global temperatures could rise five to 10 degrees by the middle of the next century. Some areas, particularly in the Northern Hemisphere, will dry out and a greater occurence of forest fires will take place. At the present rate of destruction, most of the rain forests will be gone by the middle of the century. This will allow man-made deserts to invade on once lush areas. Evaporation rates will also increase and water circulation patterns will change. Decreased rainfall in some areas will result in increased rainfall in others. In some regions, river flow will be reduced or stopped all together completely. Other areas will experience sudden downpours that create massive floods.

If the present arctic ice melting continues, the sea could rise as much as 2 meters by the middle of the next century.

Large areas of coastal land would disappear. Plants and other wildlife habitats might not have enough time to adjust to the rapidly changing climate. The warming will rearrange entire biological communities and cause many species to become died out.

The greenhouse effect and global warming both correspond with each other. The greenhouse effect is recalled as incoming solar radiation that passes through the Earth's atmosphere but prevents much of the outgoing infra-red radiation from escaping into infrared space. It causes the overheat of the air and as a result, we have the

global warming effect. As you see, greenhouse effect and global warming correspond with each other, because without one, the other doesn't exist.

VOCABULARY:

Refer v	ta'alluqli bo'lmoq
Spill v	quyulmoq
Occurrence n	hodisa
Lush a	to'yingan
Downpour n	jala
Rearrange v	moslashmoq
Infra-red a	infra-qizil

THE CELL

The unit of protoplasmatic organization is the cell. The word "cell" is not a very good choice in this connection, but it has significance in the history of biology. The name was given by Robert Hooke, one of the first scientists having used a newly developed biological tool, the microscope, to the tiny divisions that he saw in thin slices of cork. The cork slice, "through his microscope, appeared, to be made up of many small compartments, arranged in rows and reminded him of the tiers of monks cells in English monasteries. He therefore called each compartment a cell and the name has survived, although it does not accurately convey the picture of a living unit. What Hooke actually saw in the nonliving wall which had once surrounded the living protoplasm, was not the protoplasm itself. His microscopic studies of some other materials, such as feathers, fish scales, molds, snow crystals and fabrics, brought him closer to the sight of living cells but not close enough to see the living substance.

Observations of the classical microscopes and those of their successors on individual cells as parts of organisms, both plant and animal, led to one of the greatest and for a time most useful of biological generalizations, the cell theory. This concept was first

brought to general attention in 1838.

It was a natural outcome of the many observations that had been made during the early part of the nineteenth and the preceding centuries. Briefly, it states that all organisms are composed of cells or of a single cell and that all cells, and hence all organisms, arise from the division of pre-existing cells. This theory was to biology, at that stage of its development, what Dalton's atomic theory was to chemistry.

VOCABULARY:

Division n	bolinish
Monk n	monax
Monastery n	monastir
Convey v	olib otmoq
Mold n	toqimali qoziqorin
Hence adv	shundan beri

OUTSTANDING BIOLOGISTS:

Here is some information about biologists. Read about them and discuss with a partner why they are popular.

Sidney Altman

Sidney Altman (born May 7, 1939) is a Canadian American molecular biologist, who is the Sterling Professor of Molecular, Cellular and Developmental Biology and Chemistry at Yale University. In 1989 he shared the Nobel Prize in Chemistry with Thomas R. Cech for their work on the catalytic properties of RNA.

After receiving his Ph.D., Altman embarked upon the first of two research fellowships. He joined Matthew Meselson's laboratory at Harvard University to study a DNA endonuclease involved in the replication and recombination of T4 DNA. Later, at the MRC Laboratory of Molecular Biology in Cambridge, England, Altman started the work that led to the discovery of RNase P and the enzymatic properties of the RNA subunit of that enzyme. John

D. Smith, as well as several post-doctoral colleagues, provided Altman with very good advice that enabled him to test his ideas. "The discovery of the first radiochemically pure precursor to RNA molecule enabled me to get a job as an assistant professor at Yale University in 1971, difficult time to get any job at all.

Altman's career at Yale followed a standard academic pattern with promotion through the ranks until he became Professor in 1980. He was Chairman of his department from 1983–1985 and in 1985 became the Dean of Yale College for four years. On July 1, 1989 he returned to the post of Professor on a full-time basis.

While at Yale, Altman's Nobel Prize work came with the analysis of the catalytic properties of the ribozyme RNase P. RNase P is a ribonucleoprotein particle consisting of both a structural RNA molecule and one (in prokaryotes) or more (in eukaryotes) proteins. Originally, it was believed that, in the bacterial RNase P complex, the protein subunit was responsible for the catalytic activity of the complex, which is involved in the maturation of TRNAs. During experiments in which the complex was reconstituted in test tubes, Altman and his group discovered that the RNA component, in isolation, was sufficient for the observed catalytic activity of the enzyme, indicating that the RNA itself had catalytic properties, which was the discovery that earned him the Nobel Prize. Although the RNase P complex also exists in eukaryotic organisms, his later work revealed that in those organisms, the protein subunits of the complex are essential to the catalytic activity, in contrast to the bacterial RNase P.

Norman Davidson

Norman Davidson (April 5, 1916–February 14, 2002) was an American molecular biologist notable for advancing genome research, member of the National Academy of Sciences, received a National Medal of Science from U.S. President Bill Clinton, was a professor at Caltech. The New York Times called Davidson "major

figure in advancing genome research whose ground-breaking work in molecular biology led to the earliest understanding of the overall structure of genomes". The Los Angeles Times called him "a ground-breaking Caltech chemical biologist". President Bill Clinton cited the scientist for "break-throughs in chemistry and biology which have led to the earliest understanding of the overall structure of genomes".

Davidson was born in Chicago. He received B.S. degree in chemistry at the University of Chicago in 1937, and received another B.S. degree at the University of Oxford in 1939 as a Rhodes Scholar. In 1941 he received his Ph.D. degree in chemistry from the University of Chicago.

John Avise

John Charles Avise (born 1948) is an American evolutionary geneticist, conservationist, ecologist and natural historian. He is a Distinguished Professor, Ecology & Evolutionary Biology, University of California, Irvine, and was previously a professor in the Department of Genetics at the University of Georgia.

Born in Grand Rapids, Michigan, he has been elected to the National Academy of Sciences and is a winner of the Brewster Medal from the American Ornithologists' Union. Avise was the first to use the term phylogeography and is widely credited with early development of the discipline. The primary research focus of his laboratory shifted in the late 1990s to study the genetic parentage and mating systems of fishes and other creatures. He was elected a Fellow of the American Academy of Arts and Sciences in 1994.

James Albert

James S. Albert is a professor of biology at the University of Louisiana at Lafayette. Dr. Albert is an author of over 80 scientific papers on the evolution and diversity of fishes and is an expert in the systematics and biodiversity of Neotropical electric fishes (Gymnotiformes). Dr. Albert and his colleagues to date have

described 50 new species. He is co-editor with Roberto E. Reis of the book Historical Biogeography of Neotropical Freshwater Fishes, which explores the evolutionary forces underlying the formation of the Amazon and Neotropical fish faunas.

• Albert's profile at the University of Louisiana at Lafayette

The fish faunas of continental South and Central America constitute one of the greatest concentrations of aquatic biodiversity on Earth, consisting of about 10 percent of all living vertebrate species. "Historical Biogeography of Neotropical Freshwater Fishes" explores the evolutionary origins of this unique ecosystem. The chapters address central themes in the study of tropical biodiversity: why is the Amazon basin home to so many distinct evolutionary lineages? What roles do ecological specialization, speciation, and extinction play in the formation of regional assemblages? How do dispersal barriers contribute to isolation and diversification? Focusing on whole faunas rather than individual taxonomic groups, this volume shows that the area's high regional diversity is not the result of recent diversification in lowland tropical rainforests. Rather, it is the product of species accumulating over tens of millions of years and across a continental arena.

Archie Carr III

Archie Carr III, Ph.D. is an American biologist instrumental in establishing the Cockscomb Basin Wildlife Sanctuary in the nation of Belize. Carr worked closely with American biologist Alan Rabinowitz in convincing the government of Belize of the importance of that land area to the survival of the jaguar species; in fact, Carr was the original mentor of Rabinowitz in preparing the young Rabinowitz for research in the tropics. Carr has been associated with the Wildlife Conservation Society and has authored numerous papers and monographs on biology in Central America; he is a board member of Caribbean Conservation Corporation. Carr is the son of eminent American zoologist Archie Carr.

R. Tucker Abbott

Robert Tucker Abbott (September 28, 1919 – November 3, 1995) was an American conchologist (seashells) and malacologist (molluscs). He was the author of more than 30 books on malacology, which have been translated into many languages.

Abbott was one of the most prominent conchologists of the 20th century. He brought the study of seashells to the public with his works, including most notably: *American Seashells* (1974), *Seashells of the World* (1962), *The Shell* (1972), and *The Kingdom of the Seashell* (1972). He was an active member of the American Malacological Union and Conchologists of America. Tucker Abbott was born in Watertown, Massachusetts. His interest in seashells began early; he collected them as a boy and started a museum with a friend in his basement. After having spent part of his youth in Montreal, he went to Harvard University and became a student of William (Bill) James Clench (1897–1984). In 1941, they started the journal *Johnsonia*, which specialized in western Atlantic molluscs. He graduated in 1942.

During World War II, Abbott was first a Navy bomber pilot, and later worked for the Medical Research Unit doing research on schistosomiasis. He documented the life cycle of the schistosome in the *Oncomelania*, a small brown freshwater snail, which he studied in the rice fields of the Yangtze valley.

He married fellow malacologist Mary M. Sisler on February 18, 1946.

After World War II, Abbott worked at the National Museum of Natural History, Smithsonian Institution (1944–1954) as Assistant Curator and Associate Curator of the Department of Mollusks. During this time, he earned his Master's and Ph.D. at George Washington University and wrote the first edition of *American Seashells*.

He then went to the Academy of Natural Sciences in Philadelphia (1954–1969). He was chair of the Department of Mollusks, and held the Pilsbry Chair of Malacology. During that time he went on a number of shelling expeditions to the Indo-Pacific

region. He also started his own journal, "Indo-Pacific Mollusca". He also was an active editor on "The Nautilus"

In 1969, Abbott accepted the DuPont Chair of Malacology at the Delaware Museum of Natural History. He also headed the Department of Mollusks, and was Assistant Director. In 1971 he became editor-in-chief of *The Nautilus*.

Abbott was the Founding Director of The Bailey-Matthews Shell Museum on Sanibel Island. He died from pulmonary disease in 1995, two weeks before the museum opened. He is buried in Arlington National Cemetery.

Nancy Andrews

Nancy C. Andrews (born November 29, 1958) is an American biologist noted for her research on iron homeostasis. Andrews is currently Dean of the Duke University School of Medicine.

Biography

Andrews grew up in Syracuse, New York. She earned a B.S. and M.S. from Yale University. She began her graduate studies with Joan Steitz at Yale University, studying molecular biophysics and biochemistry, before transferring to work with David Baltimore, earning an M.D.-Ph.D. at Harvard Medical School and M.I.T. (1985). She completed her postdoctoral work at Children's Hospital Boston.

Andrews then joined the faculty at Harvard University in 1991, assuming an endowed chair in 2003, a position at the Dana-Farber Cancer Institute, and a position as Dean for Basic Sciences and Graduate Studies at Harvard Medical School. In 2007, Andrews left to take a position as the first female Dean of Medicine at Duke University. In this position, she is the only woman heading any of the top ten medical schools in the U.S.

Andrews studied treatments for and molecular processes governing iron disease, such as anemia (iron deficiency) and hemochromatosis.

Personal life

She is married to fellow biologist Bernard Mathey-Prevot. She is the great granddaughter of New York Court of Appeals Judge William Shankland Andrews and Mary Raymond Shipman Andrews, and also a direct descendant of Charles Andrews and Frederic Dan Huntington.

Jerry Adams

Jerry McKee Adams (born 17 June 1940) is a molecular biologist whose research into the genetics of haemopoietic differentiation and malignancy, led him and his wife, Professor Suzanne Cory, to be the first two scientists to pioneer genecloning techniques in Australia, and to successfully clone mammalian genes. Adams currently shares (with Andreas Strasser) the position of Joint-Head of the Molecular Genetics of Cancer Division at The Walter and Eliza Hall Institute of Medical Research (WEHI) in Melbourne (Australia).

Their research, following that by Susumu Tonegawa, also led to the discovery that antibody genes encode as bits and pieces, that can recombine in a myriad of ways to help fight infection; they also confirmed earlier work by Shen-Ong Cole, Leder, Hood, Croce, and Hayward that genetic mutation leads to Burkitt's lymphoma, a malignancy of antibody-producing cells, called "B lymphocytes".

It was in Adams' lab that his Ph.D. student, David Vaux, made the connection between apoptosis (programmed cell death) and cancer, while studying bcl-2 gene in follicular lymphoma, the most common human lymphoma.

After completing his Ph.D. Adams was awarded the Helen Hay Whitney Fellowship to pursue post-doctoral training. He spent a year working under Professor James Watson at the MRCL of Molecular Biology in Cambridge, England. He then moved to the *Institut de Biologie Moléculaire*, at the University of Geneva, where he trained under Professor A. Tissiéres. During this stay

in Geneva, he met Suzanne Cory, and started their long-term collaboration. Adams and Cory subsequently moved to Australia, and began working at WEHI where they established the Institute's first molecular genetics laboratory.

Their research first looked into how lymphocytes could produce so many different antibodies, providing insights into the constant and variable segments of antibodies, and how they are rearranged and deleted. Next, Adams and his team moved into the study of the genetics of cancer.

In 2007, Adams was appointed member of the Medical Research Advisory Committee at the Australian Cancer Research Foundation (ACRF). He is part of a group of leading scientists who assess applications for grants for medical research received by the ACRF.

Howard I. Adler

Howard I. Adler **(July 1, 1931-March 12, 1998) was an American biologist.**

Early life and education

Adler grew up in New York City and attended Cornell University for his undergraduate degree, earning the valedictorian title for his graduating class. He also completed his Ph.D. in Microbiology at Cornell.

Career

Adler worked for most of his career at Oak Ridge National Laboratory, serving as the head of the laboratory's biology division. In his later years at ORNL, Adler was researching the factors that facilitated the recovery of radiation-damaged cells. During his research, he found that some parts of organelles contained respiratory enzymes that generated anaerobic environments, meaning parts of cells could create environments with no oxygen. Adler realized that the creation of anaerobic environments could be produced on a mass scale. He co-founded Oxyrase, Inc., which

produces and markets oxygen reducing agents, in 1987. He worked with the company after his retirement from ORNL.

Howard Adler died in 1998 from pancreatic cancer.

Angelika Amon

Angelika Amon, Ph.D. (b. 1967) is an Austrian American molecular and cell biologist and professor at the Massachusetts Institute of Technology (MIT) in Cambridge, Massachusetts, United States. Amon's research centers on how chromosomes are regulated, duplicated, and partitioned in the cell cycle.

Background

Amon had an early interest in plant and animal biology as a child, keeping a notebook full of newspaper clippings, and was motivated to study biology after learning about Mendelian genetics in middle school. She received her B.S. from the University of Vienna and continued her doctoral work there under Professor Kim Nasmyth at the Research Institute of Molecular Pathology, receiving the Ph.D. in 1993. She completed a two year post-doctoral fellowship at the Whitehead Institute in Cambridge, Massachusetts and was subsequently named a Whitehead Fellow for three years. She joined the MIT Center for Cancer Research and MIT's Department of Biology in 1999 and was promoted to full professor in 2007.

Amon won a Presidential Early Career Award for Scientists and Engineers in 1998, was named an associate investigator at the Howard Hughes Medical Institute in 2000, and was the 2003 recipient of the National Science Foundation's Alan T. Waterman Award. Amon also shared the 2007 Paul Marks Prize for Cancer Research and won the 2008 National Academy of Sciences Award in Molecular Biology.

Amon is married and has two daughters.

Research

Amon's research has investigated how cells control and

organize the segregation of their chromosomes during cell division. More specifically, her research examines the regulation of exit from mitosis, the regulation of the meiotic cell cycle, and effects of aneuploidy on normal physiology and tumorigenesis.

As a student under Nasmyth, Amon demonstrated that CDC protein kinase is not required for the metaphase to anaphase transition and CLB proteolysis continues until reactivation of CDC toward the end of G1.

The Amon lab primarily investigates yeast as a model for understanding the controls that govern cell-cycle progression. As a Whitehead Fellow, her team discovered that CDC plays a crucial role in cell division. Her Whitehead team identified an interaction between phosphatase and CDC which initiates the exit of cells from mitosis to the G1 phase. Amon's team demonstrated that CDC is the target protein in the spindle checkpoint during mitosis.

Her research group recently created haploid yeast cells containing extra copies of chromosomes and discovered that these aneuploid strains elicit phenotypes independent of the identity of the additional chromosome such as defects in cell cycle progression, increased energy demands, and interference with protein biosynthesis. Amon has also examined trisomy in the mouse as a model of mammalian cell growth and physiology and demonstrated that mammalian aneuploidy results in a stress response analogous to yeast aneuploidy. Amon's aneuploidy research has potential *applications to cancer research.*

CHARLES DARWIN (part 1)

Gharles Darwin was born in Shrewsbury, England. In those days schools did not teach science as they do today. Twelve-year old Darwin, who wanted to spend his time out of doors collecting plants and watching animals, had to stay inside and learn how to write poetry. He was very bad at it — so bad, in fact, that his father once wrote him angrily — "You care for nothing, but shooting dogs

and rat-catching and you will be a disgrace to yourself and all our family".

Charles's father then decided that he should be a doctor and sent him to a medical school. But it soon became obvious that young Darwin was not at all interested in medicine. So his father tried to make a clergy man out of him and sent him to the University of Cambridge. Still Darwin couldn't make himself care for anything but hunting and natural history.

As soon as he graduated, one of Darwin's professors, a scientist, who understood him better than his father urged him to apply for the job of naturalist aboard of the H.M. S. Beagle. The ship was to make a voyage around the world, surveying trade routes and looking for ways to improve trade for British merchants in the far-off corners of the earth. The captain was willing to give up part of his own cabin to any young man who would go without pay as naturalist. Today no one remember members how much the Beagle helped British merchants. The information the trip yielded about trade was far less important than the knowledge that was to change people's way of thinking. It was during his trip on the Beagle that Darwin first began to, develop his theory of evolution. Everywhere he sailed he collected facts about rocks, plants the old idea that each species had been separately created.

CHARLES DARWIN (part 2)

The more he wandered and observed, the more he began to realize there was only one possible answer to the puzzle. If all these species of plants and animals had developed from common ancestors, then it was easy to understand their similarities and differences. At some time, Darwin thought, the common ancestors of both the island and main land species must have travelled from the main land to the inlands. Later, all the species in both places, through slow changes, became different from each other. After the Beagle returned to England, Darwin began his first notebook

on the origin of species. During the next twenty years he filled notebook after notebook with still more facts that he and others discovered about the world of living things. These facts all led to one conclusion, that all living things are descended from common ancestors.

Darwin proved the truth of evolution, the descent with change of one species from another. Where others before him have failed, Darwin succeeded in convincing the world that he was right about evolution. He succeeded for two reasons. He collected an enormous number of facts and put them together so that they told the whole story. And he not only declared that evolution occured but he also explained how it worked and what caused it. This he called the theory of natural selection.

Nearly a hundred years have passed since Darwin's great book, "The Origin of Species by Means of Natural Selection", was published. People have found out new facts about evolution, and especially about inheritance. These facts have made more precise our ideas of how natural selection works. This does not mean the theory was wrong. On the contrary, a true theory is alive; like everything else in the world it changes and grows. Only a dead, useless theory stays the same down to the last detail.

TIMIRYAZEV (part 1)

Kliment Arkadyevich Timiryazev was born on May 22, 1843 in St. Petersburg. He got his initial schooling at home . His mother was an excellent linguist and taught her children French and English which they spoke fluently. In later life Timiryazev, then a mature scientist, spoke on many occasions before audiences of French and English scientists, reading his papers in their own language and surprising his hearers by the beauty of his style and the wealth of his vocabulary. When Timiryazev reached the age of 15 his father was dismissed from his post because of his anti-monarchy views. From then on Timiryazev was obliged to earn his own living by

translating from English into Russian first newspaper articles and later books by such famous English writers as Charles Dickens and George Elliot, in 1860 he entered the St. Petersburg University. At the University he became more and more imbued with the ideas of revolutionary, democracy and enthusiastic patriotism advocated by N. G.Chernyshevsky, A. I. Herzen, N. A. Dobrolyubov. Timiryazev's views on botany and general biology were formed under the influence of eminent Russian scientists I. N. Beketov and D. I. Mendeleev. Timiryazev began to study individual biology problems during his student days. In the competition held in 1864 he was awarded a gold medal for his scientific work. He studied Darwin's book, which then was not available in Russian translation, and read a paper on it at the meeting of the students' science circle, directed by Beketov. This paper served as material for his work "Darwin's book, its critics and commentators published in 1864. Having graduated from the University Timiryazev became a teacher at the biology department in Petrovsky Academy of Agriculture and Forestry. This offer entirely suited the scientist's wishes.

TIMIRYAZEV (part 2)

Work at the Academy meant the opportunity not only to investigate personally highly important theoretical and practical problems relating to the increase of crop yields but also to impart scientific knowledge to the younger generation. During the whole of his work Timiryazev never ceased his research in agronomy, in vegetable physiology and in the history of science; at the same time he carried on an enormous amount of work in popularizing science. As an experimentor Timiryazev concentrated on aerial alimentations of plants, i.e. the processes by which the green leaves of plants assimilate solar energy and carbonic acid from the atmosphere, and the formation of complex organic combinations

in the cells of the leaf. This phenomenon afterwards became known in science as photosynthesis. He proved that animate,

nature is subject to the law of conservation and transformation of energy. His research clearly showed as he himself said, "the cosmic role of the plant". In the process of photosynthesis plant absorbs the energy of solar rays that fall on the earth. This energy is then transmitted together with vegetable food to the bodies of animals and men. It is also preserved in coal, oil, peat and other fuels and is used to set in motion all the powerful technique created by man. He called the plant the intermediary between sun and life on our planet. "The green leaf, or, to be more precise, the microscopic green grain of chlorophyll, is the focus, the point in the world to which solar energy flows on one side while all the manifestation of life on earth take their source on the other side. "The plant is the intermediary between sky and earth. It is a real Prometheus, stealing fire from heavens"—wrote Timiryazev.

I. P. PAVLOV (part 1)

If you visit the Pavlov Biological Station at Pavlovo near Sanct Peterburg, you will see a very interesting monument there. It is a monument to the dog. The dog as you know played a very important part in all Pavlov's experiments on the activity of the higher nervous system. In the name of science and humanity, Pavlov wanted to thank the dog; so this monument was put up. Then if you go to see Pavlov's study room in which the great scientist worked for so many years, you will notice another dog, a toy one, standing on the bookcase. This toy dog has a very interesting history. It comes from Cambridge, England, where there is one of the oldest Universities in the world. On the 18th of July 1912, a group of students stopped before the window of a toyshop in Cambridge and looked at the toy dogs there. "There is the thing we want", said one of them, and he pointed to a big white dog in the shop window. They entered the shop and asked for this toy to be packed. Soon they came out with a parcel containing the big white dog. Then, laughing and talking, they hurried to the

laboratory of their physiology professor and showed the dog to him. The professor did not understand what it was all about until Archibald Hill, now one of the greatest physiologists in the world told him about their plan. It was this. They knew that the next day some foreign scientists were to come to Cambridge. Among these was Ivan Petrovich Pavlov, the great Russian experimenter and physiologist. So the students wanted to present Pavlov with a toy dog. "Where did you get the idea from" — asked the professor. "I think it's an excellent one". "I got it from the grandson of Charles Darwin, who is now a student here", answered Hill. "When Darwin got his doctor's degree at Cambridge, the students of that time gave him a toy monkey. That was how they showed that they supported his theory of the origin of man. Now we shall honour Pavlov in the same way?" The next day was a great holiday of Cambridge. Thousands of people came to see the foreign scientists receive their diplomas. The students watched the ceremony from the gallery. When the Speaker had made his speech, which was in Latin, the chancellor gave the doctors their diplomas one by one and they sat down at the great table on the platform. Now it was Pavlov's turn. As he was moving slowly forward under the gallery, the students let the dog fall right down into his arms. He looked up, saw all the young, smiling faces above him and immediately understood what they meant. The students knew him too. It was one of the happiest moments in his life.

I. P. PAVLOV (part 2)

As this was taking place, an old professor on the other side of the hall said to his neighbour: "Look, the students are giving Pavlov a toy dog. Did you see Darwin get his diploma? Do you remember him standing there with a toy monkey in his arms nearly forty years ago? History repeats itself, doesn't it?" Ivan Petrovich Pavlov set out to find out how the food made the stomach juice flow. Did it work through chemicals, or nerves, or what? Was this flow of juices influenced by what a person ate, how the food looked

and tasted, by the person's thoughts? Doctors, Pavlov realized, had to know the answers to these questions if they were going to make people healthier or even save their lives. Here is what Pavlov did: he anesthetized a dog — that is, he gave it some medicine that would keep it from feeling any pain. He made an opening in the outside wall of the dog's abdomen. Then he took a part of the dog's stomach and made a pouch of it. This pouch had all the nerves and blood vessels that the rest of the stomach had Pavlov made a separate opening in the pouch that led out through the hole in the abdominal wall. Then Pavlov fed the dog. As soon as food got into its mouth, juice began to pour into the stomach. Some juice also poured into the pouch, and the scientist collected it in a little bottle through the opening in the abdominal wall. This experiment was one more proof that food itself starts its own digestion going. Pavlov showed that the presence of food in the mouth started nerve impulses that went to the brain and then to the cells of the stomach, then secreted or poured out juices. When he cut the vagus nerves, which bring impulses from the brain to the stomach, the dog's mouth could be stuffed with food yet no juices would be secreted in the stomach. Just as you don't have to think in order to breathe, you don't have to think to digest. You can drink a glass of hot milk before you go to bed, and it will be digested long before morning. It is digested while you are asleep. We call such an activity of the body, which involves nerves and happens automatically, a reflex. When food enters the mouth, a nerve impulse goes to the medulla. This is then "reflected" back by the nerves to the stomach. When the impulse reaches the stomach, the muscles contract and the cells secrete their juices. Physically and chemically, digestion has started. Pavlov also showed that the sight, the smell, even the thought of food could start the reflexes going and the stomach secreting. At the thought of a nice thick steak, you could really say: "My stomach waters". This kind of reflex Pavlov called a conditional reflex.

TEXTS FOR COUNTRY STUDY SCOTIAND

Scotland is a country in the north of Great Britain. It is a part of the United Kingdom. Scotland is divided into three natural regions: the Southern Uplands, the Central Lowlands and the Highlands and islands. A lot of places in Scotland are a natural paradise, still untouched by man.

The capital of Scotland is Edinburgh, well known for its castle. Glasgow is the industrial capital of Scotland. It is the third largest city in Great Britain. The typical products of Scotland are timber, whisky, salmon. Golf is the Scottish natural sport and it seems to have originated in this country.

Scotland is also the land of myths and mysteries; every castle has its ghost. Glam is Castie is said to have nine of them. And of course everyone knows about the Loch Ness Monster. «Nessie» is said to be about six meters long, with a long, thin neck. The first report of the monster in Loch Ness was in 565 A.D. Since 1934 thousands of people claimed to they had seen the monster. Scientists have investigated the Loch and taken pictures but no scientific explanation of the mystery has been given.

QUESTIONS:

- Where is Scotland situated?
- How many regions are there in Scotland?
- What is the capital of Scotland?
- What is the industrial capital of Scotland?
- What are typical products of Scotland?
- What are Scottish castles famous for?
- What is Loch Ness Monster?

VOCABULARY:

paradise	jannat
untouched	yetmagan
castle	qasr
ghost	ruh

to claim	talab qilmoq
mystery	sir

TV in the USA

Unlike many other countries, in the United States broadcasting is predominantly commercial, owned by private corporations with three giant networks controlling the industry: the Columbia Broadcasting System(CBS), The American Broadcasting Cooperation(ABC), The National Broadcasting Cooperation(ABC).

For commercial TV, time is a commodity which is sold just like any other product. Major corporations buy time on TV programs to advertise their goods and services. The price for TV time depends on the Hooper Rating. Prime time programs are the most expensive.

Today US TV with its system of numerous channels has developed into a practically indispensable amenity of everyday life.

Better quality and more channels are offered to American viewers by cable TV. Right now it is technically possible to deliver on the cable wire more than 100 channels to every home with a TV set, and there are, at present, special cable TV stations: such a HBO (Home Box Office), ESN (Entertainment and Sports Programmer Network), USA, and others.

VOCABULARY:

deserve	...ga loyiq(sazovor) bo'lmoq
fate	taqdir
to accuse of	ayblamoq
to prohibit	man qilmoq
live programme	jonli efir
network	tarmoq
drug	narkotik
to shoot	otmoq, filmga tushirmoq
on the air	efirda
to get rid of	nimadandir,kimdandir qutulmoq

QUESTIONS:

1. Why is it correct to say that American TV is highly commercialized?
2. What is American television criticized for?
3. What do you think about the disadvantages of TV?

Holidays in the USA

American holidays are various in character. Some of them are religious, some are connected with American history. There are eight main holidays of the USA. They are:

1. Christmas. It is a religious holiday as well. It is celebrated on December 25 as the birthday of Christ. It is a family holiday and every house tries to have a Christmas - tree, which is brightly decorated. As a rule the presents for children, relatives and close friends are placed under the tree.

2. New Years Day. It is celebrated on the 31st of December. At midnight bells ring, horns blow and friends exchange kisses. Everyone stays up late to celebrate the arrival of another year. New Year's Day is traditionally the occasion for starting new programmers and giving up bad habits.

3. Easter. It is a religious holiday, which comes on a Sunday between March 22 and April 25. It marks the end of winter and the beginning of spring. As a rule, just before Easter the schools and colleges are closed. On Easter Sunday in the streets one can see colorful processions of people dressed in bright new spring clothes, which is called "Easter Parade".

4. Memorial or Decoration Day. It comes on May 30 and is dedicated to the servicemen who gave their lives in past wars.

Schools, clubs and churches decorate the cemeteries on that day and hold memorial services. They hang up American flags on the main streets of the towns.

5. The Fourth of July-Independence day. It is the biggest national holiday of the USA. It is celebrated as the birthday of the Country. On that day Americans march in parades, decorate the graves of their dead soldiers.

6. Labor Day. It is the holiday dedicated to the American working class and comes on the first Monday of September. It marks the beginning of autumn and is the last real holiday of summer.

7. Veterans' Day. It comes on November 11 and is usually marked by parades and ceremonies in which the people pay tribute to those who gave their lives for their country.

8. Thanksgiving Day. The holiday comes on the fourth Thursday in November and is a national holiday too. It is the day of giving thanks to God for various reasons.

9. The Fourth of July-Independence day. It is the biggest national holiday of the USA. It is celebrated as the birthday of the Country. On that day Americans march in parades, decorate the graves of their dead soldiers.

Vocabulary

horn	qo'bizcha, surnaycha
arrival	kelish, yetib kelish
occasion	voqea, hodisa; holat sharoit
to give up	nimadandir bosh tortmoq
bad habits	yomon odatlar
colorful processions	rang-barang tantanali marosim
cemetery	qabriston
to dedicate to	bag'ishlamoq
a serviceman	harbiy xizmatchi
tribute	hurmatlash
various reasons	turli sabablar

grave	qabr
dead	vafot etgan

QUESTIONS:

1. How many holidays are there in the USA?
2. What are they?
3. What kind of holiday is Christmas?
4. When do the people of the US celebrate it?
5. When is New Years Day celebrated in the USA?
6. What does Easter mark?
7. What holiday is dedicated to the servicemen who gave their lives in past wars?
8. When is Independence Day celebrated in the USA?
9. What does Labor Day mark?
10. When is Veterans' Day celebrated in the USA?
11. What kind of holiday is Thanksgiving Day?

NATIONAL HOLIDAYS- 1

Day of independence (September, 1st)

The main national holiday of the Republic of Uzbekistan is the Day Independence. This holiday is celebrated annually on the 1st September, is ceremonial and colorful. This national holiday personifies all dreams and expectations of all Uzbek people which lean on main principles friendliness, solidarity, charity, mutual respect.

Representatives of the various nations living in Uzbekistan, despite of a nationality, religion, the social status all actively celebrate a holiday in each street, the area and the people living in mahallas and in regions.

Representatives of art arrange various shows on the areas, and also in parks of city. Many foreign visitors and tourists participate in various unforgettable traditional entertainments and representations.

Day of teachers and instructors (October, 1st)

Annually on the 1st October in Uzbekistan Day of Teachers and Instructors is solemnly celebrated. The deep respect for the teacher has taken roots in our territory during old times. "Domlo", "Muallim", "Ustoz" - these words during many centuries with gratitude and respect the pupils received from the teachers not only knowledge on subject matters said, but also manuals about the valid attitude to people, love to the Native land, about high morals and spirituality.

Pupils of schools and educational institutions deeply esteem all those who have given them the first vital knowledge. This day pupils with gratitude give flowers and gifts.

The Constitution Day (December, 8th)

The constitution is the main law of the state, the document which possesses a high validity. The constitution of the Republic of Uzbekistan is accepted by the Oliy Majlis on the 8th of December, in 1992. The constitution consists of 6 sections, 26 chapters and 128 articles. This holiday is celebrated across all Uzbekistan, and carries out various actions, devoted to the constitution day.

Ramadan Hayit (Iyd ul Fitr) and Qurbon Hayit (Iyd ul Adha) are also the national holidays, but dates of celebration depend on the Lunar Calendar in each year.

Ramadan Hayit (Iyd ul Fitr)

This holiday is known as Ruza Hayit, it coincides with 9-th month (Hidjriy) on a Muslim calendar. This holiday includes religious practice as Ruza which lasts 30 days and it is considered a ceremony of spiritual and moral purification. Conditions of the ceremony the following: from sunrise up to decline not to eat food and also water; will be kept from evil thoughts, assumptions; with all surrounding to be in respect and make whenever possible more than goods to associates.

After performance of this ceremony last day the holiday which lasts three days - Ramadan Hayit begins. The first day of a holiday «Ramadan Hayit» is considered not working day, and all establishments have a vocation in this holiday.

Qurbon Hayit (Iyd ul Adha)

Religious holiday Qurbon Hayit this is the one of the greatest holidays in the World which is celebrated by Moslems. Sources of this holiday are ancient histories which are connected with prophet Ibrohim who in honor of the belief wished to sacrifice to "Allah" of the own son, but his actions have stopped kind spirits and instead of this have told to him to sacrifice other animals such as: sheep, camels, etc. Since this moment all Moslems began to sacrifice animals in these holidays. The holiday lasts three days and these days all Moslems celebrate this holiday with their family with natives and close. Especially in these holidays people visit native and close, and also sick and requiring in the help. The first day of a holiday «Qurbon Hayit» is considered not working day, and all establishments have a vocation in this holiday.

QUESTIONS:

1. What is the main national holiday of the Republic of Uzbekistan?
2. How do we celebrate the Independence Day?
3. Do we celebrate the day of teachers and instructors every year?
4. Are Qurbon Hayit (Iyd ul Adha) and **Ramadan** Hayit (Iyd ul Fitr) our national holidays?
5. What do people do on this day?

NATIONAL HOLIDAYS- 2

New Year is widely celebrated worldwide and at various times year. A symbol of New Year is the Grandfather a frost and the Snow Maiden, and also the dressed up fur-tree. Exactly at midnight

from 31st December till 1st January, when hours solemnly beat 12 hours, there comes long-awaited New Year. People at this time celebrate and widely mark this holiday with native and close behind the covered elegant table. Also gifts and surprises are traditionally presented each other.

Day of defenders of the Native land (January, 14th)

This holiday in independent Uzbekistan is celebrated in honor of creation of own Army forces. The parliament of the country on 14th January, 1992 has made a decision on transition of all parts and connections, military educational institutions and other military formations deployed in territory of the country, under jurisdiction of the Republic of Uzbekistan. So the beginning was necessary to creation of own Army forces. On 29th December, 1993 January 14th has been declared by Day of defenders of the Native land.

Women's day (March, 8th)

The international women's day is a holiday of beauty, tenderness and feminity. On March, 8th also it is known as "Mothers day". People celebrate this holiday, as a holiday of love, kindness and beauty. We are once again convinced and deeply we realize, concepts of spring and the Woman as they supplement each other are how much harmonious. The nature not has disposed of gift so, that the female holiday coincides in the first days of spring as beauty of the woman compare to a gentle flower. Men give this day to the mothers, wives and daughters flowers and gifts with sincere wishes.

Navruz (March, 21st)

The most ancient national holiday Navruz ("Holiday Navruz"), in translation with Persian Navruz designates "new day". Navruz which is marked {celebrated} on March, 21st, it is considered the beginning of new year. As is known on March, 21st is a day a spring equinox. Day length and nights is identical - 12 hours. On

March 21st the Earth enters during the World astronomical equality. And still, this day seasons on hemispheres vary, if in a southern hemisphere there comes autumn, northern - spring. This holiday is celebrated in the beginning of spring when all plants and trees blossom and get a new spring kind. In the beginning of this holiday many Uzbek family prepare for national dishes such as: Sumalak, Halim, Somsa from plant, Pilov and others. These Uzbek dishes contain many vitamin substances which are useful to a human body.

With the obtaining of the country's independence ancient customs and traditions of Uzbek people have revived, holiday Navruz also has been restored, and celebrating has got new scope and depth. It became a national holiday of friendship, unification, brotherhood of all people. In the bright dramatized representations of philosophic and poetic judgment of Navruz, it places in national history reveals. Now Navruz is celebrating annually on Alisher Navoi's square.

Day of memory and honor (May, 9th)

In 1999 majestic Square of Memory has been opened in capital of Uzbekistan on 9th May and since then Day of memory and honor on May, 9th is celebrated. This holiday in independent Uzbekistan is celebrated in honour of memory of our compatriots which during centuries heroically, self-denyingly protected our native territory, its freedom and independence, a peace life of our people.

Concept "Day of Memory and honors" has very deep sense. This famous day a duty is to recollect and glorify those people who took part in fights against fascism, showed heroism and sacrificed a life in the name of protection of the Native land, and also such national heroes as Tumaris, Shiroq, Spitamen, Jaloliddin Maguberdi, Najmiddin Kubro, Namoz-batir which have sacrificed the life in the name of freedom of which during centuries people dreamed, to recollect such self-denying representatives of our nation as Kadiri, Behbudi, Munavar-kori, Chulpon, Avloniy, Fitrat, Usman Nosir.

People esteems that who has taken place through many tests and difficulties in a life, has not regretted the life in the name of the Native land, and senior generation, which and today among us.

Questions

1. What do you know about Uzbek holidays?
2. What holiday do you like the best?
3. What holidays do our people celebtate in spring?
4. Write some sentences about the other holidays.

VOCABULARY

create	yaratmoq
deploy	kengaytirmoq
feminity	ayollik
convince	ishontirmoq
dispose	ixtiyorida bo'lmoq
coincide	mos kelmoq
equinox	teng kun
hemisphere	o'rta shar
revive	uyg'onmoq

English Character

One of the most striking features of English life is the self — discipline and courtesy of people of all classes. There is little noisy behavior and practically no loud disputing in the street. People do not rush excitedly for seats in buses or trains, but take their seats in queues at bus stop in a quite and orderly manner.

Englishmen are naturally polite and are never tired in saying "Thank you", "I am sorry", "Beg your pardon". If you follow anyone who is entering a building or a room, he will hold a door open for you. Many foreigners have commented on a remarkable politeness of the English people.

English people don't like displaying their emotions even in dangerous and tragic situations, and ordinary people seem to remain good — tempered and cheerful under difficulties.

A handshake is the most common form of greeting among the English, whether for formal occasions, visits, or introductions. Handshakes generally are firm but not aggressive. When people are already acquainted, they often use verbal greetings instead. Among friends, women are kissed (by men and women) lightly on both cheeks. Most people call friends and young people by first name but use titles (Mr. Mrs. Doctor. etc) in formal situations or to show respect.

The Englishman doesn't like any boasting or showing off in manners, dress of speech. Sometimes he conceals his knowledge: a linguist, for example, may not mention his understanding of a foreigner's language.

The Englishman prefers his own house to an apartment in a block of flats, because he doesn't wish his doing to be overlooked by his neighbors. "An Englishman's house is his castle". Many Englishmen help their wives at home in many ways. They clean the windows on Saturday afternoon, they often wash up the dishes after supper in evening. Sunday is a very quiet day in London. All the shops are closed, and so are the theatres and most of cinemas. Londoners like to get out of town on Sundays. The sea is not far — only 50 or 60 miles away and people like to go down to the sea in summer or somewhere to the country for skiing in winter.

VOCABULARY

self	ichki intizom
courtesy	hushmuomalik
loud disputing	baland ovozda bahslashmoq
to rush for seats	joy egallashga intilmoq
to take one's seats in queues	navbatma-navbat joy olishmoq
to remain good tempered and cheerful	tetik kayfiyatda bo'lmoq
boasting	maqtanish
to conceal	yashirmoq

block of feats	ko'p qavatli uy
neighbor	qo'shni

QUESTIONS:

1. Speak on the politeness of the English.
2. How do the English spend their Sundays?

The symbols of Great Britain

The flag of the United Kingdom, known as the Union Jack, is made up of three crosses. The upright Red Cross is the cross of St George, the patron saint of England. The white diagonal cross (with the arms going into the corners) is the cross of St Andrew, the patron saint of Scotland. The red diagonal cross is the cross of St Patrick, the patron saint of Ireland. St David is the patron saint of Wales. Wales has its own flag called the Welsh dragon.

The Union Jack originated as a Royal flag, although it is now also flown by many people and organizations elsewhere in the United Kingdom by long established custom. The Royal Standard is the flag flown when the Queen is in residence in one of the Royal Palaces, on the Queen's car on official journeys and on aircraft (when on the ground) and represents the Sovereign and the United Kingdom.The Queen's personal flag, adopted in 1960, is personal to her and can be flown by no one other than the Queen. Members of the Royal Family have their own personal variants on the Royal Standard.The humid and mild climate of Great Britain is good for plants and flowers. Some of them have become symbols in the UK. Probably you know that the poppy is the symbol of peace. The red rose is the national emblem of England, the thistle is the national emblem of Scotland and Edinburgh International Festival. The daffodil is the emblem of Wales, the shamrock is the emblem of Ireland. It is clear, why the people of England, Wales, Northern Ireland have chosen the beautiful flowers as their symbols. But why did the Scottish people choose this thorny plant as the national emblem

of their country? The answer is interesting, and it can be found in the history of Scotland. The people of that country chose the thistle as their national emblem because it saved their land from foreigtv invaders many years ago. People say that during a surprise night attack by the invaders the Scottish soldiers were awakened by the shouts of the invaders as their bare feet touched the thorns of the thistles in the field they were crossing. This, of course, was a good reason to choose the thistle as a national emblem. "God Save the Queen/King" is the British National Anthem. The words and music probably date to the 16th Century. The tune has also been used for patriotic songs in the USA and Germany.

VOCABULARY

anthem	madhiya
saint *adj*	avliyo
dragon *n*	ajdarho
custom *n*	urf- odat
residence *n*	turar joy
humid *adj*	nam
mild *adj*	yumshoq
poppy *n*	qizg'aldoq
thistle *n*	chaqirtikonak
daffodil *n*	nargis
shamrock *n*	uch yaproq
thorny *adj*	tikonli
save *v*	qutqarmoq
invader *n*	bosqinchi
fare *adj*	yalang'och
tune	kuy

QUESTIONS:

1. Speak on the flag of England
2. Tell the symbols of parts of Great Britain.
3. What is the anthem of Great Britain?

NAVRUZ

On the **21st** of March in cities, towns and villages people of Uzbekistan celebrate Navruz — the eastern New Year, a holiday of the awakening of nature, promoting friendship and fraternity cultural and historical traditions and serving the noble goals or good will and mercy.

On the 21st of March the clay is equal to night everywhere on this huge planet.

Our ancestors considered this day the beginning of the astronomical year. Uzbek scientists and poets of the past wrote that Navruz was celebrated long, long ago. During the Arab invasion of Central Asia, Navruz was prohibited, but alter the downfall of the Arab Khalifate in the 9th and 10th centuries if was revived again.

Navruz is also a holiday of mercy and absolution. On this day people forgive one another their old offences and visit lonely and disabled, people trying to do whatever they can for those who need their care.

Woman cook a wide variety of delicious foods such as pilav, shashlik, naryn, khasyp and manty. But the king of all these holiday dishes is Sumalak, a high calorie stew of germinated wheat.

While the women are cooking Sumalak, the men of the neighborhood are often cooking halim another traditional dish.

It is made by boiling milk, veal, sheep, wheal and flour in a cauldron. It is also boiled for 24 hours. When it is hot, it's very tasty.

Navruz is also a holiday of youth, beauty and creativity. The streets, squares and parks of Tashkent are beautifully decorated

and full of music, songs and laughter. Dozens of professional ensembles demonstrate their skills.

VOCABULARY

awakening	uyg'onish
promote	ko'maklashmoq
fraternity	qardoshlik
prohibite	man etmoq
forgive	kechirmoq
offence	hafagarchilik

QUESTIONS:

1. When do we celebrate Navruz?
2. What is the meaning of Navruz?
3. When did the celebration of Navruz begin?
4. Is it a holiday of the awakening of nature?
5. What national food do they cook?

National University of Uzbekistan

Tashkent State University was granted the status of National University of Uzbekistan. Upon the formation of this University, a number of research and cultural establishments, the Academy of Sciences, and other higher educational establishments were organized. The values of a great number of educational, culture and research establishments, functioning not only in our Republic, but also in Central Asia, are connected with Universities National Program on Personnel training was adopted. This event turned out to be a historical occasion in the sphere of education, and the envisaged tasks came to pass. Proceeding from the tasks, outlined in the program, the staff of the University spends a great deal of time training highly qualified specialists for the prosperity of our country. The National University of Uzbekistan is considered to be top among higher educational establishments in the social sciences in the Republic. Highly qualified personnel are trained at 15 faculties, including 31courses at the bachelor level and

101 specialists at the master level. There are 120 department and 2 research institutes, with approximately 1000 professors and teachers in operation at the University. University libraries contain over 3 million books in stock and access to the internet. 2 academic lyceums also function under the University. The teaching staff of the University has developed sample curricula and teaching programs on different subjects in compliance with state educational standards. These curricula are used to train candidates of bachelor's and master's degrees in all of the fields of specialization offered at the University. Each academic year, the University publishes about 30 textbooks and nearly 100 manuals, thus rendering assistance to regional Universities by providing reference materials.

According to a resolution of the Panel Board of the Ministry for Higher and Secondary Specialized Education of the Republic of Uzbekistan, the University was given the right to train specialists on the basis of independent curricula and teaching processes. Starting with the 2002–3 academic year, a curriculum introduced into the teaching process envisages more independent work among students, reduction of lecture hours and extension of practical classes and laboratory work. This will be accomplished by increasing the hours for course paper writing, by conducting seminars and by holding communicative classes.

National independence made it possible to train specialists in the priority directions of education to meet the needs of the country. The post-graduate students and candidates for doctoral degrees are studying in the leading universities of Europe, Japan, and the U.S.A. The professors and teachers of the University upgrade their skills in these countries as well.

Equal cooperation links were established with educational institutions throughout the world. Students have studied abroad with grants offered by such international organizations as "Eurasia", "Tempus", "Sumitomo", "Info - Copernicus", and "Fulbright," Conrad Adenauer foundation, and DAAD.

Certainly, there is much more to be done. The University has great potential. The highly qualified professors and scientists are prepared to train quality specialists, promoting the level of science in Uzbekistan to meet world standards.

In May, 2013 Uzbekistan National University celebrates its 95 anniversary.

QUESTIONS:

1 When was National University of Uzbekistan founded?
2 How many faculties are there at the University?
3 What kind of degrees does uviversity award?
4 How long do students study for a degree?
5 What else can you tell us about National University of Uzbekistan ?

VOCABULARY

research	ilmiy izlanish
establishment	tashkilot
educational	ta'lim
value	qiymat
turn out	tuyulmoq
occasion	imkoniyat
consider	ko'rib chiqmoq
curricula	o'qitish kursi
reference	eslatma

The Government of Uzbekistan

Under the leadership of President Islam Karimov, Uzbekistan has entered a renaissance of its spiritual and intellectual values, an era of radical transformation in the economic, political and social spheres. Uzbekistan has begun building a democratic, lawful and secular society with an open – market economy and strong system of social protection. The main aims of his policy are: keeping a stable situation in the country, strengthening the international and

interethnic co-operation in Uzbekistan and gradual transition to new democratic system of rule. Taking into consideration the concrete situation, and the mentality and traditions of the Uzbek people, the Republic of Uzbekistan has elaborated five basic principles of reform, directing the country's internal policy.

First, economics should have priority over politics. **Second**, all reforms should be initiated by the state. **Third**, all spheres of life should be ruled by law. **Fourth**, social policies should be very strong. **Fifth**, transition towards a market-oriented economy should proceed in an evolutionary, rather than revolutionary way, with as little harm as possible to people's living standards. As a popular saying goes, **"Never destroy the old house unless you have built a new one"**.

In the sphere of international relations Uzbekistan adheres to a policy of peace, equal beneficial co-operation between countries and mutual understanding among state leaders. The foreign policy is based on the principles of sovereign equality of states, not using force or threat of force, inviolability of borders, peaceful settlement of disputes and non - interference in the internal affairs of other states.

QUESTIONS:

- 1. Explain the meaning of the first sentence.
- 2.What is a secular society?
- 3. What is a democratic society?
- 4. What are the three main aims of Karimov's policies?
- 5. What are Uzbekistan's five basic principles for reform?
- 6. What is Uzbekistan's foreign policy?
- 7. How does Uzbekistan believe countries should handle disagreements?

8. What role does peace play in Uzbekistan's foreign policy?

Discussion Questions

· How are the economic, political and social spheres changing in Uzbekistan today?

· Why does Karimov want an open-market economy?

· What is a strong system of social protection and why is it important?

· Explain why each of Karimov's three main aims are important to Uzbekistan today.

· What is reform?

· Should economics hase priority over politics? Why?

· The fifth principle of Uzbekistan's reform is that transition of the economy should proceed in an evolutionary, not a revolutionary, way. What is the difference between evolutionary and revolutionary change?

· The economy of Uzbekistan is said to be "in transition". What does that mean?

· Peace plays a very important role in international relations. When is peace impossible? Why? How can these situations be avoided?

Universities of Great Britain

There are more than 90 universities in the UK. The leading Universities are Cambridge, Oxford and London English universities differ from each other in traditions, general organization, internal government, etc. British Universities are comparatively small, the approximate number is about seven or eight thousand students most universities have under 3000 students. London, Cambridge and Oxford Universities are international, because people from many parts of the world come to study at one of these Universities. A number of well-known scientists and writers, among them Newton, Darvin, Byron were educated in Cambridge.

The academic year in Britain's Universities, polytechnics, colleges of Education is divided into three terms which usually run

from the beginning of October to the middle of December, from the middle of January to the end of March, and from the middle of April to the end of June or the beginning of July.

Good A-level results in at least two subjects are necessary to get a place at a University. However, good exam passes alone are not enough. Universities choose their students after interviews. For all British citizens a place at a university brings with it a grant from their local education authority.

Courses at Universities last 3 years, language courses 4 years (including a year spent abroad). Medicine and dentistry courses are longer (5-7 years). After three years of study a university graduate will leave with the Degree of Bachelor of arts, science, Engineering, etc. Later he may continue to take a Master's Degree and then a Doctor's Degree. Research is an important feature of university work.

Students don't usually have a job during term time because the lessons, called lectures, seminars, tutorials (small groups) are full time. However, many students now have to work in the evenings.

The work and games, the traditions and customs, the jokes and debates — all are parts of student's life there.

It should be mentioned that not many children from the working class families are able to receive the higher education as the fees are very high. Besides that special fees are taken for books, for laboratory works, exams and so on.

There is an interesting form of studies which is called the Open University. It is intended for people who study in their own free time and who "attend" lectures by watching television and listening to the radio. They keep in touch by phone and letter with their tutors and attend summer schools. The Open University students have no formal qualifications and would be unable to enter ordinary universities.

Oxford and Cambridge are the oldest and most prestigious

universities in Great Britain. They are often called collectively Oxbridge. Both Universities are independent. Only education elite go to Oxford or Cambridge. Most of their students are former public schools leavers. In the past student's life was very strict.

They were not allowed to play games, to sing, to hunt, to fish or even to dance. They wore special dark clothes and special square academic caps called mortarboards. Student's life is no longer controlled by such strict rules, but on special occasions, they still wear the dark robes and mortarboards.

Sports

People all over the world are fond of sports and games. Sport makes people healthy, keeps them fit. We know that there is a sound mind in a sound body. Sport makes a person's character. It's good for moral development as well. It's a way to meet other people, even people from other countries. There are no social differences in sport. Everybody is equal. Sport teaches us how to lose as well as to win.

Many people do sports on their personal initiative. They go in for skiing, skating, tennis, swimming, volleyball, football, body-building, etc. All the necessary facilities are provided for them: stadiums, sports grounds, swimming pools, skating rinks, football fields. Sport is paid much attention to in our educational establishments.

There are different sporting societies, clubs and complexes in our republic. Everybody chooses a kind of sports he or she is interested in. Every week thousands of people do sports and millions watch sports programmes on TV, read sport news in newspapers and listen to sport reports on the radio.

As for me, I like sports too, though in theory at present. When I was a child I went in for sports. I liked swimming, so I went to the swimming pool every day. You know how it

always happens when you grow up. The habits gradually change and at present I hardly do sports seriously. Though from time to time I do my morning exercises.

But I am sure if you want to keep fit you must go in for sports because sport makes people strong, healthy and optimistic.

VOCABULARY

competition *n.*	musobaqa
creative a.	yaratuvchanlik
development *n.*	rivojlanish
equal *a.*	teng
habit *n.*	odat
healthy a.	sog'lom
provide *v.*	ta'minlamoq
reason *n.*	sabab
to be fond of	yoqtirmoq

QUESTIONS:

1. What is sport?
2. Why do people go in for sports?
3. What facilities are provided for sportsmen?
4. Are there different sporting societies, clubs and complexes in your country (city)? What are they?
5. Do you like sport?
6. Do you go in for sports?
7. Do you agree that people must go in for sports?

TRAVELLING

Modern life is impossible without travelling. Thousands of people travel every day either on business or for pleasure. They can travel by air, by rail, by sea or by road.

Of course, travelling by air is the fastest and the most convenient way, but it is the most expensive too. Travelling by train is slower than by plane, but it has its advantages. You can see much more interesting places of the country you are travelling through. Modern trains have very comfortable seats. There are also sleeping cars and dining cars which make even the longest journey enjoyable. Speed, comfort and safety are the main advantages of trains and planes. That is why many people prefer them to all other means.

Travelling by sea is very popular. Large ships and small river boats can visit foreign countries and different places of interest within their own country.

As for me, I prefer travelling by car. I think it's very convenient. You needn't reserve tour tickets. You needn't carry heavy suitcases. You can stop wherever you wish, and spend at any place as much time as you like.

Every year my friend and I go somewhere to the South for holidays. The Black Sea is one of the most wonderful places which attracts holiday-makers all over the world. There are many rest-homes, sanatoriums and tourist camps there. But it is also possible to rent a room or a furnished house for a couple of weeks there. Sometimes, we can place ourselves in a tent on the sea shore enjoying fresh air and the sun all day long.

As a rule, I make new friends there. In the day-time we play volleyball, tennis, swim in the warm water of the sea and sunbathe. In the evening I like to sit on the beach watching the sea and enjoying the sunset. I'm fond of mountaineering. So I do a lot of climbing together with my friends. Time passes quickly and soon we have to make our way back. We return home sunburnt and full of impressions.

QUESTIONS:

1. Why is modern life impossible without travelling?

2. What is the fastest and the most convenient way of travelling?

3. Why is travelling by sea very popular?

4. Why is travelling by car very convenient?

5. Where do you travel every year?

6. Where do you make new friends?

VOCABULARY

by rail	temir yo'l bo'lab
advantage	afzallik
enjoyable	xursandchilik
safety	xavfsizlik
to reserve	band qilmoq
to rent	ijaraga olmoq
climb	o'rmalab chiqmoq

The great communicators

We can communicate with other people in many different ways. We can talk and write, and we can send messages with our hands and faces. There is also the phone (including the mobile!), the fax, and e-mail. Television, film, painting, and photography can also communicate ideas. Animals have ways of exchanging information, too. Bees dance and tell other bees where to find food. Elephants make sounds that humans can't hear. Whales sing songs. Monkeys use their faces to show anger and love. But this is nothing compared to what people can do. We have language - about 6000 languages, in fact. We can write poetry, tell jokes, make promises, explain, persuade, tell the truth, or tell lies. And we have a sense of past and future, not just present. Communication technologies were very important in the development of all the great ancient societies:

• Around 2900 BC, paper and hieroglyphics transformed Egyptian life.

• The ancient Greeks loved the spoken word. They were very good at public speaking, drama, and philosophy.

• The Romans developed a unique system of government that depended on the Roman alphabet.

• In the 14th century, the printing press helped develop new ways of thinking across Europe.

Radio, film, and television have had a huge influence on society in the last hundred years. And now we have the Internet, which is infinite. But what is this doing to us?

We can give and get a lot of information very quickly. But there is so much information that it is difficult to know what is important and what isn't. Modern media is changing our world every minute of every day.

QUESTIONS:

1. Which animals are mentioned? What can they do?
2. What is special about human communication? What can *we* do?
3. Which four forms of media are mentioned in the last paragraph?
4. What is good and bad about information technology today?

What do you think?

• What can animals do that people can't?

• How do *you* like to communicate?

• What is happening in information technology now?

IRELAND

Ireland is an island in the west side of Europe. The capital of Ireland is Dublin. There are about 5 million people in the Republic of Ireland. It is a small country but a lot of people know about it. In many countries there are Irish priests and nuns.

People left Ireland to find work in those countries and they stayed there. All over the world there are people with Irish blood.

The country is in two parts. The larger part, the Republic of Ireland, is in the south. The smaller part of Ireland, Norehern Ireland, is a part of the United Kingdom and its big city is Belfast. Like a lot of other countries, Ireland had sad and difficult times, but it had good times too. The Irish are kind and polite people, they welcome strangers. The Irish love to talk. Ireland is a beautiful country with fine lakes, tall mountains and attractive beaches. It has two great rivers. It is a very green country. It is green partly because it rains too much.

Ireland is a country of good butter, good beer and good horses. People come from all over the world to buy Irish horses, from Europe, from America, from Arab countries and from the Far East. Ireland also has its manufacturing industry.

QUESTIONS:

- Where is Ireland situated?
- What is the population of this country?
- Why did people leave Ireland?
- What parts does it consist of?
- Ireland has its own manufacturing industry, hasn't it?

VOCABULARY:

island	orol
priest	rohib
manufacturing industry	ishlab chiqarish

DUBLIN

Dublin is a fine city, with beautiful grey stone houses. It is situated on the east coast of Ireland. If you go to Dublin you must visit its parks. They have beautiful gardens with deer, and there are markets there on Sundays.

Dublin has always been a city of music. A lot of rock and pop groups come to Ireland, because the Irish like music very much. The Irish people like an old song about a Dublin girl, Mollie Malone. She sold shellfish in the streets of Dublin, her father and mother did the same thing before her. When she was still young she became ill and died, but her ghost lived after her. The writer of the song doesn't use the word «love», but he calls her «sweet Mollie Malone», so probably he loved her.

Because Dublin is near the sea and you can sometimes feel the wind on your face in the middle of the city. But if you want to be warm you can drink coffee in one of the many cafes. Dublin has lots of bridges. Many people know about O'Connell Bridge. It's unusual because it is almost square (47 metres wide and 49 metres across). People know about the Dublin Post Office too. In 1916 there was fighting there between Irishmen and British soldiers.

QUESTIONS:

1. Where is Dublin situated?
2. Has Dublin always been a city of music?
3. What is the famous Irish song?
4. Tell something about O'Connell Bridge.
5. What other sights are there in Dublin?

VOCABULARY

shellfish	molyuska
ghost	ruh
probably	ehtimol
feel	his qilmoq
wind	shamol
bridge	ko'prik

Question Number 1. What is the smallest unit of life?

A. cell
B. atom
C. virus
D. a & b
E. a & c

Question Number 2. Which of the following statements about living things is false?

A. All living things use energy to function.
B. All living things are composed of cells.
C. All living things have a nervous system.
D. All living things are capable of reproduction.
E. None of the above. All statements are true.

Question Number 3. A group of cells that work together to perform a function is called a what?

A. cell system
B. organ system
C. organ
D. organism
E. tissue

Question Number 4. During mitosis, the cell duplicates its _____, the strands of DNA found in its nucleus.

A. centromeres
B. chromosomes
C. chloroplasts
D. centrosomes
E. nucleotides

Question Number 5. Which of the following terms is NOT a category for biological classification?

A. Kingdom
B. Order
C. Class
D. Phylum
E. Genus
F. Composition

Question Number 6. Plants create their own food by absorbing and processing sunlight. The ability to produce your own food source is a metabolic process known as what?

A. heterotrophy
B. autotrophy
C. homotrophy
D. ditrophy
E. self-metabolization

Question Number 7. Fungi absorb the nutrients from dead organisms. In the animal kingdom, fungi are known as what?

A. producers
B. absorbers
C. consumers
D. decomposers
E. scavengers

Question Number 8. Which of the following cell organelles does NOT participate in cellular division?

A. ribosomes
B. chromosomes
C. mitotic spindle
D. cytoplasm
E. nucleus

Question Number 9. An animal that consumes only meat or other animals, is called a what?

A. omnivore
B. herbavore
C. carnivore
D. consumavore

Question Number 10. Which of the following is an example of a symbiotic relationship?

A. Wolves working together to hunt in a pack.
B. Plants growing in the same rolling meadow.
C. Humans and their pets living in the same home.
D. Weeds clinging to the roots of trees in your backyard.

Question Number 11. The study of the biology and systems of the Plant kingdom is known as what?

A. Herbology
B. Herbobiology
C. Botany
D. Chlorobiology

Question Number 12. In the animal kingdom, meosis results in the production of what kinds of cells?

A. spores
B. skin cells
C. sperm cells
D. egg cells
E. c & d
F. a, c & d

Question Number 13. Which of the following is NOT a phase of mitosis?

A. Interphase
B. Prophase
C. Metaphase
D. Anaphase
E. Cytophase
F. Telophase

Question Number 14. Which of the following statements is NOT true about the Plant Kingdom?

A. All plants are capable of photosynthesis.
B. All plants "breathe" CO2.
C. All plants are capable of bearing flowers.
D. All plants are incapable of sexual reproduction.
E. a, c & d
F. c & d

Question Number 15. Genetics is the study of what?

A. The purposes and functions of DNA.
B. The properties and functions of sexual and asexual reproduction.
C. The study of inherited traits.
D. The study of genes and their functions.
E. a, c, & d
F. All of the above.

Question Number 16. Which of the following is NOT an example of a naturally-occuring sugar?

A. sucrose
B. mitose
C. glucose
D. galactose
E. fructose

Question Number 17. Which of the following statements is TRUE about parasites and their relationships with their hosts?

A. The parasite and the host enjoy a mutual relationship, where both organisms benefit.

B. The parasite enjoys the benefits of a relationship in which the host is harmed or killed.

C. The host enjoys the benefits of a relationship in which the parasite is harmed or killed.

D. Neither the parasite nor host is really harmed in their symbiotic relationship.

Question Number 18. Which of the following is a proper example of natural selection?

A. Human beings continue to get taller because of thousands of years of proper nutrition.

B. A community of lady bugs begin having offspring with darker shells, in order to hide from their predators.

C. Albino rodents die off quickly in a community, being more vulnerable to certain pancreatic diseases.

D. Seagulls begin to eat so many fish, that only those with a dark blue scale color survive.

Question Number 19. What is the main difference between the prokaryot and the eukaryot?

A. The eukaryot has a nucleus, and the prokaryot does not.

B. The prokaryot has a nucleus, and the eukaryot does not.

C. The eukaryot is always larger than the prokaryot.

D. The eukaryot is the only type of cell than is capable of photosynthesis.

E. a, c & d

F. None of the above.

Question Number 20. Which of the following scientific classifications of the domestic dog is correct? In other words, which of the following is the proper way to name the domestic dog?

A. canis lupus Familiaris
B. Canis Lupus familiaris
C. Canis Lupus familiaris
D. Canis lupus familiaris
E. Familiaris canis lupus
F. Familiaris Canis Lupus

Question Number 21. Which of the following is/are characteristics of living things?

all of these
responsive
homeostasis
organized

Question Number 22. You drink a glass of lemonade but your body does not change its overall pH? This is an example of?

homeostasis
responsive
organized
all of these

Question Number 23. The sum total of meeting the energy needs of an organism is called?

metabolism
reproduction
homeostasis
none of these

Question Number 24. A typical animal does not have which of the following?

the ability to ingest
grows
maintain homeostasis
they do have all of these
eukaryotic cells

Question Number 25. A sunflower following the sun across the sky is an example of which characteristic of life?

reproduction
homeostasis
metabolism
responding

Question Number 26. The smallest unit of life?

atom
cell
molecule
organelle

Question Number 27. Which kingdom(s) has/have eukaryotes in it (them)?

Fungi
Animalia
Plantae
Protista
All of these

Question Number 28. The scientific method includes all but which of the following?

observation
experimentation
a testable theory
an hypothesis
conclusion

Question Number 29. Francesco Redi performed an experiment to test for spontaneous generation. One jar was covered the other was not. The covered jar was the?

independent variable
dependant variable
standard for comparison
hypothesis

Question Number 30. The reason you experiment is to test the?

independent variable
dependant variable
standard for comparison
hypothesis

Question Number 31. *Alexander Fleming, stated that the* mold on the bacterial plate must somehow be inhibiting the growth of the bacteria. This is an example of a(n)

conclusion
hypothesis
experimental control
independent variable

Question Number 32. In the text book, the quote about "one rivet too many" was comparing this statement to?

water pollution
atmospheric gases
organism diversity
none of these

Question Number 33. In the text book quote, the "rivets" belonged to a?

boat
plane
car
tank

Question Number 34. The smallest unit of matter with the characteristics of that element is called a(n)?

cell
molecule
organelle
atom
none of these

Question Number 35. The center of an atom is called a _____ and has both _____ and _____ in it.

nucleus, electrons, and neutrons
electron configuration, shells and orbital
nucleus, electrons and protons
nucleus, protons and neutrons

Question Number 36. The part of an atom used to combine with other atoms to make molecules is called the?

nucleus
electron
neutron
proton

Question Number 37. The three types of bonds we studied were?

hydrogen, covalent, and pH
Ionic, covalent and Nuclear
Ionic, nuclear and hydrogen
None of these is the correct three types

Question Number 38. The bond that causes water molecules to stay stuck together is called?

nuclear
hydrogen
covalent
pH

Question Number 39. The bond where electrons are shared is called?

nuclear
hydrogen
covalent
pH

Question Number 40. The pH scale measures what type of ions?

OH-
H+
HOH
none of these

Question Number 41. Just recently a news article showed two baby clouded leopards. These cubs are very rare because

Males of this species will kill them
females of the species often roll over on them and kill them
both
neither

Question Number 42. Most Zoos have as a mission to help with the breeding of some endangered species

True
False

Question Number 43. The National Zoo has an animal preserve which is located somewhere in

Virginia
Maryland
West Virginia
Vermont

Question Number 44. What is the monomer for proteins?

glucose
glycerol
sucrose
amino acids

Question Number 45. What is the polymer for sugar?

protein(s)
lipid(s)
peptide(s)
polysaccharide(s)

Question Number 46. What is the polymer of 3 fatty acids and a glycerol molecule?

proteins
lipids
peptides
polysaccharides

Question Number 47. Which of the following is a monosaccharide?

sucrose
glycogen
glucose
starch

Question Number 48. Which is a plant chemical for storing sugar?

sucrose
glycogen
glucose
starch

Question Number 49. Which is an animal chemical for storing sugars?

sucrose
glycogen
glucose
starch

Question Number 50. Which of the following is a use for fats?

membranes
steroids
hormones
waxes
all of these

Question Number 51. Glucose is the primary source of energy for most living things?

True
False

Question Number 52. Which of the following is a disaccharide?

sucrose
glucose
glycogen
starch

Question Number 53. A protein that is shaped like a glob with a second protein mixed in with is, is which of the following?

primary
secondary
tertiary
quaternary

Question Number 54. Fungi is a kingdom found in which of the following Domains?

Eukarya
Bacteria
Archaea

Question Number 55. The News release on the California coastal waters demonstrated that

The waters off the coast have gotten warmer
The waters have gotten cooler
that the populations of water organisms have changed
both a and c
both b and c

Question Number 56. A typical animal can be which of the following?

mobile
heterotrophic
multi-cellular
all of these

Question Number 57. If an experiment is performed to see what % of salt is best to grow oyster in. and each of five tanks holds the same number of oysters, solution, food and sand, but a differing amount of salt, which

is the dependant variable?
the salt solutions
the growing oysters
the tanks, food and water solutions
none of these

Question Number 58. Of the above, which is the independent variable?

the salt solutions
the growing oysters
the tanks, food and water solutions
none of these

Question Number 59. In the following sets of organization levels which is in the correct order?

cell, system, organ, organism
atom, molecule, cell, organelles
molecule, organelles, cell, tissue, organ
atom, cell, organ, tissue, organism
none of these

Question Number 60. The part of an atom that holds the electron is that it's?

center
nucleus
orbital
bond

Question Number 61. When atoms combine they can lose, gain or share electrons?

true
false

Question Number 62. If a substance is acidic it has an excess of which of these?

H+
OH-
HOH
pH

Question Number 63. Which of the following denotes an acid?

a pH above 7
a pH below 7
a pH of 7
none of these

Question Number 64. If a glucose molecule is added to another glucose molecule and water is produced to make it, this reaction is called?

condensation
dehydration synthesis
either
neither

Question Number 65. When you add water and break down a polysaccharide, it is called?

Condensation
dehydration synthesis
either
neither

Question Number 66. If an element has more than one type of an atom. But each of the types is still identified as helium; however, they all have a different atomic weight, these are examples of?

radiation
catenation
octaves
isotopes

Question Number 67. In our new release on the changing temperatures off the California coast, the data is supported by

an increase in warm water organisms
a decrease in cold water organisms
both
neither

Question Number 68. Water helps to maintain a fairly level temperature in environments near lakes and rivers do to it's?

specific heat
heat of vaporization
both
neither

Question Number 69. In a water solution, substances that will readily dissolve in it need to be?

polar
non-polar

Question Number 70. Another country last year had a very severe earthquake with very damaging results to some of its nuclear power plants. This country was

Turkey
Chili
Japan
England

IRREGULAR VERBS

1. Be	Was/Were	Been
2. Beat	Beat	Beaten
3. Become	Became	Become
4. Begin	Began	Begun
5. Blow	Blew	Blown
6. Break	Broke	Broken
7. Breed	Bred	Bred
8. Bring	Brought	Brought
9. Build	Built	Built
10.Burn	Burnt/Burned	Burnt/Burned
11. Buy	Bought	Bought
12. Catch	Caught	Caught
13. Choose	Chose	Chosen
14. Come	Came	Come
15. Cost	Cost	Cost
16. Cut	Cut	Cut
17. Deal	Dealt	Dealt
18. Dig	Dug	Dug
19. Do	Did	Done
20. Draw	Drew	Drawn
21. Dream	Dreamt/Dreamed	Dreamt/Dreamed
22. Drink	Drank	Drunk

23. Drive	Drove	Driven
24. Eat	Ate	Eaten
25. Fall	Fell	Fallen
26. Feed	Fed	Fed
27. Feel	Felt	Felt
28. Fight	Fought	Fought
29. Find	Found	Found
30. Fly	Flew	Flown
31. Forget	Forgot	Forgotten
32. Forgive	Forgave	Forgiven
33. Freeze	Froze	Frozen
34. Get	Got	Got/Gotten
35. Give	Gave	Given
36. Go	Went	Gone/Been
37. Grow	Grew	Grown
38. Have	Had	Had
39. Hear	Heard	Heard
40. Hold	Held	Held
41. Keep	Kept	Kept
42. Know	Knew	Known
43. Lay	Laid	Laid
44. Lead	Led	Led
45. Learn	Learnt/Learned	Learnt/Learned
46. Leave	Left	Left

47. Let	Let	Let
48. Lie	Lay	Lain
49. Lose	Lost	Lost
50. Make	Made	Made
51. Mean	Meant	Meant
52. Meet	Met	Met
53. Pay	Paid	Paid
54. Put	Put	Put
55. Read	Read	Read
56. Run	Ran	Run
57. Say	Said	Said
58. See	Saw	Seen
59. Sell	Sold	Sold
60. Send	Sent	Sent
61. Set	Set	Set
62. Shake	Shook	Shaken
63. Shine	Shone	Shone
64. Shoot	Shot	Shot
65. Show	Showed	Shown
66. Shut	Shut	Shut
67. Sing	Sang	Sung
68. Sit	Sat	Sat
69. Sleep	Slept	Slept
70. Smell	Smelt/Smelled	Smelt/Smelled

71. Sow	Sowed	Sown
72. Speak	Spoke	Spoken
73. Stand	Stood	Stood
74. Steal	Stole	Stolen
75. Strike	Struck	Struck/Stricken
76. Sweep	Swept/Sweeped	Swept/Sweeped
77. Swim	Swam	Swum
78. Take	Took	Taken
79. Teach	Taught	Taught
80. Tear	Tore	Torn
81. Tell	Told	Told
82. Think	Thought	Thought
83. Throw	Threw	Thrown
84.Understand	Understood	Understood
85. Wake	Woke	Woken
86. Wear	Wore	Worn

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Ushbu o'quv qo'llanma biologiya-tuproqshunoslik fakulteti bakalavriat yo'nalishi o'rta bosqich talabalarining amaliy dars mashg'ulotlari hamda mustaqil ishlari uchun mo'ljallangan. O'quv qo'llanma asosan mutaxassislik va mamlakatshunoslik bo'yicha matnlar, grammatik mashqlar, testlar va leksik materiallarni o'z ichiga olgan.

O'quv qo'llanma ingliz tili fanidan nofilologik oliy o'quv yurtlari namunaviy dasturiga muvofiq tuzilgan. Unda dolzarb va mutaxassislik bo'yicha turli mavzular yoritilgan.

This manual is for ptactical and independent work for the students in the direction of bachelor on intermediate level of the biology faculty. The manual consists of texts on speciality and country study, grammar exersices, tests and lexical materials. The manual is composed according to the standard model for the unphilological departments. The manual contains actual and different themes on speciality.

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